Greenstone Mine 2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report

(To satisfy Federal EIS Decision Statement Conditions 3.15, 3.16, 3.17, 3.2, 5.4, and 5.5.1)

December 31, 2024

Prepared for:
Greenstone Mine

Prepared by:
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Project/File:
160901121

Document Number:
HP-MG003-EV-136-0076_0

Stantec

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Acronyms / Abbreviations

2024 Monitoring Period	October 1, 2023 through September 30, 2024
ALS	ALS Canada Ltd.
BACI	before-after-control-impact
BV	Bureau Veritas
CALA	Canadian Association for Laboratory Accreditation
COC	chain of custody
DFO	Fisheries and Oceans Canada
DO	dissolved oxygen
EA	Environmental Assessment
ECA	Environmental Compliance Approval
EIS	Environmental Impact Statement
ESC	erosion and sediment control
ESCP	Erosion and Sediment Control Plan
ETP	effluent treatment plant
GFC	Goldfield Creek
GFDP	Goldfield Diversion Pond
GGM	Greenstone Gold Mines GP Inc.
IAAC	Impact Assessment Agency of Canada
ICP-MS	inductively coupled plasma mass spectrometry
ISW	industrial sewage works
MECP	Ontario Ministry of Environment, Conservation and Parks
MDL	method detection limits
MDMER	Metal and Diamond Mining Effluent Regulations
MHT	MacLeod high tailings
O.Reg.	Ontario Regulation
PDA	Project Development Area
PHCs	Petroleum Hydrocarbons
Plan	Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan
PTTW	Permit to Take Water
QA/QC	quality assurance / quality control

RPD	relative percent difference
STP	sewage treatment plant
SWAT	Southwest Arm Tributary
SWP	southwest pond
TMF	Tailings Management Facility
WRSA	waste rock storage area
YOY	young-of-the-year

1 Introduction

Greenstone Gold Mines GP Inc. (GGM) is in recently commissioned the Greenstone Mine (the Mine), with commercial production announced November 6, 2024. The Mine is located at 7921 Highway 11, Geraldton, Ontario, within the municipality of Greenstone, near the intersection of Highway 11 and Highway 584. Greenstone Mine (formerly Hardrock Project) was subject to a federal environmental assessment (EA) (Stantec 2017) under the *Canadian Environmental Assessment Act, 2012*. The federal Decision Statement for the Greenstone Mine's Environmental Impact Statement (EIS) was issued on December 13, 2018. The Decision Statement was amended on February 10, 2021, to account for detailed design of the Mine, and a second amendment is currently being processed by Impact Assessment Agency of Canada (IAAC) with a draft Decision Statement issued June 1, 2024 for consultation to incorporate a temporary bypass channel. The federal Decision Statement contained 11 conditions. A Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan (the Plan) (GGM 2021a) was prepared to address conditions 3.14, 3.15, 3.16, 3.17, 3.2, 5.4, and 5.5.1 related to monitoring potential effects of the Mine on fish and fish habitat. This 2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report describes activities undertaken during the period of October 1, 2023, through September 30, 2024 (i.e., the 2024 monitoring period) to satisfy the requirements of the Plan.

Construction activities started on March 1, 2021, and continued through 2022 and 2023. Most mine infrastructure was constructed in 2023. The following milestones occurred during the monitoring period (October 1, 2023 to September 30, 2024).

- Drilling, blasting, and excavation of the open pit has been ongoing in Q4 2023 and 2024, with blasting typically occurring a few times each week.
- Commissioning of the TMF in late December 2023 with the relocation of historical MacLeod tailings to the TMF. Placement of fresh tailings within the TMF commenced in April 2024.
- Ongoing development of WRSA C and commissioning of WRSA A.
- The first gold from Greenstone Mine was poured May 22, 2024.
- Official mine opening occurred on August 29, 2024
- The third quarter of 2024 saw an important project-based milestone of achieving a 30-day running average of 60% nameplate throughput, signaling the end of hot commissioning and performance testing and the start of mill ramp up.
- Construction of the new Hydro One Geraldton Operation Centre has been completed and is in the process of being commissioned and transferred to Hydro One.
- Construction of the new Hydro One Transformer Station began in 2024 and is not yet complete.
- Decommissioning of the Greenstone Mine Training Centre and the MacLeod Townsite are ongoing.

- The temporary bypass channel was completed in Q1, 2024, to divert flow around portions of the Goldfield Creek (GFC) realignment that require redesign and reconstruction.
- Engagement with both regulators and Indigenous communities on the GFC diversion redesign commenced in 2024 and will continue into 2025.

1.1 Purpose

The purpose of this Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report is to describe monitoring activities for the 2024 monitoring period, which is defined as October 1, 2023, through September 30, 2024. The monitoring activities were undertaken to assess the accuracy of the EIS as it pertains to conditions of the federal EIS Decision Statement related to fish and fish habitat, and to determine the effectiveness of related mitigation measures. The overall objectives related to each condition are provided in Table 1.1, which also references the applicable section of this 2023 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report.

Table 1.1 Conditions of Federal EIS Decision Statement Related to Fish and Fish Habitat

Federal Condition	Report Section	Condition from federal Decision Statement, December 13, 2018, and Amended February 10, 2021
3.14	2.1	*develop, prior to construction, and implement, during all phases of the Designated Project and in a manner consistent with the Fisheries Act and its regulations, measures to control erosion and sedimentation in the project development area. The Proponent shall submit these measures to the Agency before implementing them. Among other measures, the Proponent shall maintain stream bank stability using ditches and diversion berms.*
3.15	2.4	*determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects of blasting on fish and fish habitat*
3.16	2.2	*verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to adverse environmental effects on fish and fish habitat caused by changes in water quality in Kenogamisis Lake, Mosher Lake and the Southwest Arm Tributary*
3.17	2.3	*verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on fish and fish habitat of from changes in groundwater quality*
3.2	2.4	*develop, prior to the start of blasting activities in or near water, and implement, during blasting activities in or near water, mitigation measures to avoid or prevent adverse effect on fish and fish habitat from the use of explosives*
5.4	2.5 (water) 2.6 (fish)	*verify the accuracy of the environmental assessment as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes in concentrations of contaminants in water and fish**
5.5.1	2.7	*verify the accuracy of the environmental assessment and to determine the effectiveness of the mitigation measures as it pertains to the adverse environmental effects on the health of Indigenous Peoples of changes in concentrations of contaminants in fish tissue*

* Note that an objective of this Plan is to document potential changes to the concentration of parameters of potential concern in fish tissue. The assessment of risk to human health will be described under the reporting requirements of the Indigenous Peoples Health Risk Assessment Follow-Up Plan (GGM 2020a).

1.2 Goldfield Creek Realignment and Temporary Bypass

In 2022, GFC was realigned to facilitate the creation of a tailings management facility (TMF) for the Greenstone Mine. The realigned channel was a component of offsetting works to compensate for lost and altered fish habitat under the *Fisheries Act*. During spring freshet in 2023, portions of the new channel destabilized and eroded, resulting in the transport of sediment downstream. The sediment was observed as a turbidity plume that extended from the realigned channel downstream through five downstream ponds, SWP1 through SWP5, and into the Southwest Arm of Kenogamisis Lake. Sediment deposition from this event is documented in a report prepared by Stantec entitled *Greenstone Gold Mines Diversion Channel Corrective Measures Report: An Assessment of Sediment Deposition Downstream of Failed Offsetting Works in Goldfield Creek* (Stantec 2023).

Post freshet in 2023, turbidity in the GFC diversion channel and downstream areas essentially returned to baseline conditions, but the GFC diversion channel was unstable and considered prone to further erosion during high flow events. To avoid further erosion, especially during the 2024 spring freshet, GGM constructed a temporary bypass channel to divert flow around the section of Goldfield Creek diversion channel that required reconstruction. This temporary bypass channel was constructed in winter 2023/2024. Flow was diverted from GFC diversion channel to the temporary bypass channel in March 2024 and remained in operation through the balance of the 2024 monitoring period.

Redesign, reconstruction, and rehabilitation of the diversion channel and areas of sediment deposition is occurring in consultation with regulatory agencies and Indigenous partners. The condition of the GFC realignment and resulting temporary bypass channel required slight modifications to some monitoring stations and implementation of additional erosion and sediment control measures, which are documented throughout this report.

2 Follow-Up Monitoring

Sections 2.1 through 2.7 provide a description of follow-up monitoring activities undertaken in the 2024 monitoring period to satisfy conditions 3.14, 3.15, 3.16, 3.17, 3.2, 5.4, and 5.5.1 of the federal EIS Decision Statement.

2.1 Erosion and Sediment Control

As per the requirements of condition 3.14 of the federal EIS Decision Statement, GGM has developed and implemented measures to control erosion and sedimentation in the Project Development Area (PDA) (GGM 2020b). Work that occurred in and around water during the 2024 monitoring period was limited to the construction of the new temporary bypass channel.

The Erosion and Sediment Control Plan (ESCP) (GGM 2020b) was implemented to mitigate potential effects of erosion and sedimentation on fish and fish habitat. Erosion and sediment control (ESC) measures are presented in the ESCP and include the following main components:

- Completing work in and around fish habitat during the appropriate timing window (no in-water work April 1 to June 20) to avoid spawning times and times when eggs and juvenile fish may be more susceptible to potential effects of increased turbidity and sedimentation.
- Limiting the area of ground disturbance and vegetation clearing
- Reducing the duration of in-water work
- Use of silt fencing, straw bales, fiber mats, filter bags, silt curtains, turbidity data loggers and other ESC tools to reduce erosion and sedimentation
- Revegetation of disturbed areas.

Erosion and sediment controls were regularly inspected to verify the effectiveness of the mitigation measures (Appendix A). Management practices were implemented to protect the environment, and to determine whether new management strategies and/or mitigation measures were required. The following activities were undertaken as part of the regular erosion and sediment control monitoring:

- Work sites were inspected and monitored periodically for compliance with the ESCP (GGM 2020b).
- Earthworks were inspected to look for evidence of erosion and sedimentation and corrective measures were taken as necessary.
- Where required, work activities were stopped, and potential erosion and sediment control issues were addressed.
- Silt fence barriers were inspected routinely and following rainfall events.
- Silt fence was repaired or replaced if it was not functioning as intended.

- Stand-by material of prefabricated silt fence barrier was maintained on the construction site and was available for rapid deployment.
- Erosion control structures were reinforced when significant rainfall events were forecasted.

Additional ESC measures were implemented as part of adaptive management related to the GFC diversion channel (refer to Section 1.2) and included:

- Weekly ESC inspections of the GFC diversion channel during non-frozen ground conditions. The ESC inspections include visual inspection and collection of turbidity data.
- Installation of silt curtains downstream of the realigned GFC channel with guidance from Department of Fisheries and Oceans Canada (DFO).
- Installation of two ESC berms within the GFC diversion channel, one located upgradient of SWP1 and a second located upgradient of the Lahti's Road crossing.
- Construction of a temporary bypass channel which diverts flow from GFC diversion channel through the temporary bypass channel to the Southwest Arm Tributary (SWAT) until such time the GFC diversion channel is remediated.

2.2 Surface Water Quality

The following section describes the measures carried out to satisfy condition 3.16 of the federal EIS Decision Statement by presenting surface water quality monitoring, completed by GGM, to evaluate the identified mitigation measures to reduce adverse effects on fish and fish habitat. Section 2.2.1 presents the Plan as it relates to surface water quality. Surface water quality monitoring results for Kenogamisis Lake, Mosher Lake, and the SWAT (Condition 3.16) for the 2024 Monitoring Period are presented in Section 2.2.2. Results of surface water quality adaptive management are presented in Section 2.2.3.

There are two components of surface water quality monitoring presented herein:

1. Surface water quality monitoring
2. Dissolved oxygen and water temperature profiling.

2.2.1 Methods

2.2.1.1 Surface Water Quality Monitoring Methods

The surface water monitoring locations, sampling frequency, sampling methods, analytical parameters, and data analyses are presented in the following sections.

2.2.1.1.1 Data Collection

Surface water quality in lakes and streams may potentially be affected by the full-scale Effluent Treatment Plant (ETP) discharging to the Southwest Arm of Kenogamisis Lake or by groundwater seepage from the waste rock storage areas (WRSAs), TMF, and historical tailings. Additionally, surface water quality may potentially be affected by release of sediment from GFC diversion and planned flooding associated with grade control structures.

Surface water quality sampling locations are presented in Figure 2.1. Surface water monitoring locations are reviewed throughout the adaptive management process presented in the Plan (GGM 2021a). Monitoring locations may be added or removed from the monitoring program in accordance with their utility in monitoring potential effects of the Mine.

Table 2.1 presents the frequency of sampling and rationale for each monitoring station for surface water quality. Surface water quality monitoring includes:

- Monthly water quality monitoring of the Southwest Arm of Kenogamisis Lake within the full scale ETP effluent mixing zone.
- Monthly water quality monitoring in Barton Bay, Central Basin, and Outflow Basin of Kenogamisis Lake, and downstream of Kenogamisis Lake at the locations indicated on Figure 2.1 to document changes in water quality.
- Monthly water quality monitoring in the GFC Tributary, GFC diversion channel, SWAT inflow to the Southwest Arm of Kenogamisis Lake, Magnet Creek, and Mosher Lake to document changes in water quality.

Twenty-six (26) surface water quality monitoring stations were sampled during the 2024 monitoring period. The surface water quality monitoring locations were monitored monthly, when it was safe to do so, to assess seasonal fluctuations in water quality. Data from monthly monitoring was used to monitor potential trends in surface water quality and to evaluate whether fluctuations in quality were due to natural variability or from a Mine-related effect. The surface water quality monitoring stations are shown in Figure 2.1 and are summarized in Table 2.1.

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Legend

- Local Assessment Area
- Regional Assessment Area
- Discharge Location
- Routine Water Quality Monitoring
- Temperature/ DO Profile
- Mercury and Methylmercury Monitoring

Site Plan Revised Post Final EA/EIS

- New Highway 11 Alignment
- Diversion Channel
- Temporary By-Pass Channel Limit of Grading
- Collection Ponds
- Tailings Management Facility
- Grade Control Structure
- Inundated Area ; Backwater effect
- Open Pit- Full Extent
- Waste Rock Storage Area

Existing Features

- Highway
- Major Road
- Local Road
- Existing SW Arm Tributary Channel
- Existing Portion of Goldfield Creek (to be overprinted)
- Watercourse
- Provincial Park
- Waterbody

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.

December 2024
160901057

Client/Project

Greenstone Gold Mines GP Inc. (GGM)
Greenstone Mine

Figure No.
2-1

Title

Surface Water
Quality Monitoring Locations

0 1,500 3,000 m
1:60,000

0 5 10 km
1:450,000

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Revised: 2024-12-11 By: bcowper

Table 2.1 Surface Water Quality Monitoring Locations, Frequency, and Rationale

Station	Frequency	Rationale
1A	Monthly	Background station, upstream of Southwest Arm of Kenogamisis Lake
2	Monthly	Monitor potential effects of historical Little Long Lac tailings seepage discharge
4	Monthly	Monitor for potential effects of historical MacLeod tailings seepage discharge and Geraldton sewage treatment plant (STP) discharge on Barton Bay East
8	Monthly	Monitor for potential effects downstream of the Kenogamisis Lake Central Basin near the outlet to the Outlet Basin
11	Monthly	Monitor for potential effects midway through the Outlet Basin
17	Monthly	Kenogamisis Dam. End of surface water quality Local Assessment Area
20	Monthly	Monitor for potential effects of the TMF on GFC, upstream of confluence of GFC and GFC Tributary and upstream of Kenogamisis Lake
20A	Monthly	Monitor for potential effects of the TMF on GFC, downstream of confluence of GFC and GFC Tributary and upstream of Kenogamisis Lake
21	Monthly	Monitor potential effects of TMF on Lake A-322.
22A	Monthly	Monitor for potential effects of the TMF on Goldfield Creek Tributary, upstream of confluence of GFC and GFC Tributary.
23	Monthly	Monitor potential effects of the TMF on the Southwest Arm of Kenogamisis Lake
24	Monthly	Monitor for potential effects of the TMF and/or WRSA D on the Southwest Arm of Kenogamisis Lake
25	Monthly	Monitor for potential effects of mining activities at the mouth of the SWAT
26	Monthly	Monitor for potential effects of WRSA C on Mosher Lake. Requirement of Condition 3.16 of federal EIS Decision Statement
28	Monthly	Background station. Magnet Creek, upstream of Barton Bay
38	Monthly	Downstream of Outlet Basin upstream of Long Lake
39	Monthly	Southwest Pond 3 (SWP3) of SWAT, downstream of Goldfield Creek Diversion
40	Monthly	Barton Bay East. Upstream of historical MacLeod tailings seepage discharge and Geraldton STP
46	Monthly	Monitor full scale ETP mixing zone; station location post discharge to be determined/confirmed by plume delineation study.
47	Monthly	Monitor for potential effects in the Central Basin
49	Monthly	Monitor for potential effects where Southwest Arm outlets to Central Basin
52	Monthly	Background station upstream of GFC Diversion
53	Monthly	Monitor water quality at the end of the mixing zone for the temporary ETP. Station was relocated to the end of the full scale ETP effluent mixing zone area as per condition 8(29) of ECA No. 0735-C9PMD6 and renamed 53A in August 2024.
54	Monthly	Monitor for potential effects at the outlet of the Goldfield Creek Diversion Pond. Station relocated from inlet to GFC diversion channel to inlet of temporary bypass channel and renamed 54b in April 2024.
55	Monthly	Monitor potential effects of the Project in the Southwest Arm Tributary (SWAT), including the Goldfield Creek realignment
56	Monthly	Monitor water quality of Hardrock Creek discharging into Barton Bay (East)

Surface water sampling was completed by grab sampling, using bottles provided by the laboratory that contained appropriate preservatives, where required. Samples for dissolved forms of metals were filtered using a 0.45 µm membrane filter. Water quality samples were taken just below the surface of the water (0.1 m deep). Water quality samples were collected by a trained technician using suitable sampling equipment. Samples were preserved (if applicable) and transported in appropriate containers to maintain the integrity of sample temperatures and hold times. Samples were submitted to a Canadian Association for Laboratory Accreditation (CALA) accredited laboratory under chain of custody (COC) documentation.

2.2.1.1.2 Laboratory Analysis

The accredited CALA laboratory used the authorized analytical methods set out in the industrial sewage works (ISW) environmental compliance approvals (ECAs), permits to take water (PTTWs), and regulations (i.e., Metal and Diamond Mining Effluent Regulations [MDMER]).

The surface water quality samples were analyzed for general chemistry, nutrients, and total and dissolved metals (including arsenic), total suspended solids (TSS), nitrate (as N), total kjeldahl nitrogen (as N), pH, total phosphorus, and sulphate. Unionized ammonia was calculated based on total ammonia, field pH, and field temperature measurements.

In situ temperature, pH, conductivity, turbidity, and dissolved oxygen (DO) were measured at the water surface during sample collection using a multi-parameter water quality meter. A sample log book was used to record *in situ* parameters and to record current weather (i.e., air temperature, raining, snowing) and flow conditions (i.e., low flows, high flows, ice cover conditions).

Quality assurance (QA) / quality control (QC) principles for sampling and laboratory analysis outlined in Metal Mining Technical Guidance for Environmental Effects Monitoring (EC 2012) were followed. Duplicate samples were collected from a subset of samples collected to quantify environmental variability and analytical consistency, with a minimum of one duplicate for every 10 parent samples. A minimum of one travel and one field blank were collected per sampling event to detect potential sources of contamination. Field instruments were calibrated regularly according to the manufacturer's specifications, and calibration logs were maintained.

Water quality data from the laboratory were uploaded into an electronic database and validated against the original laboratory certificate of analysis.

2.2.1.1.3 Data Analysis

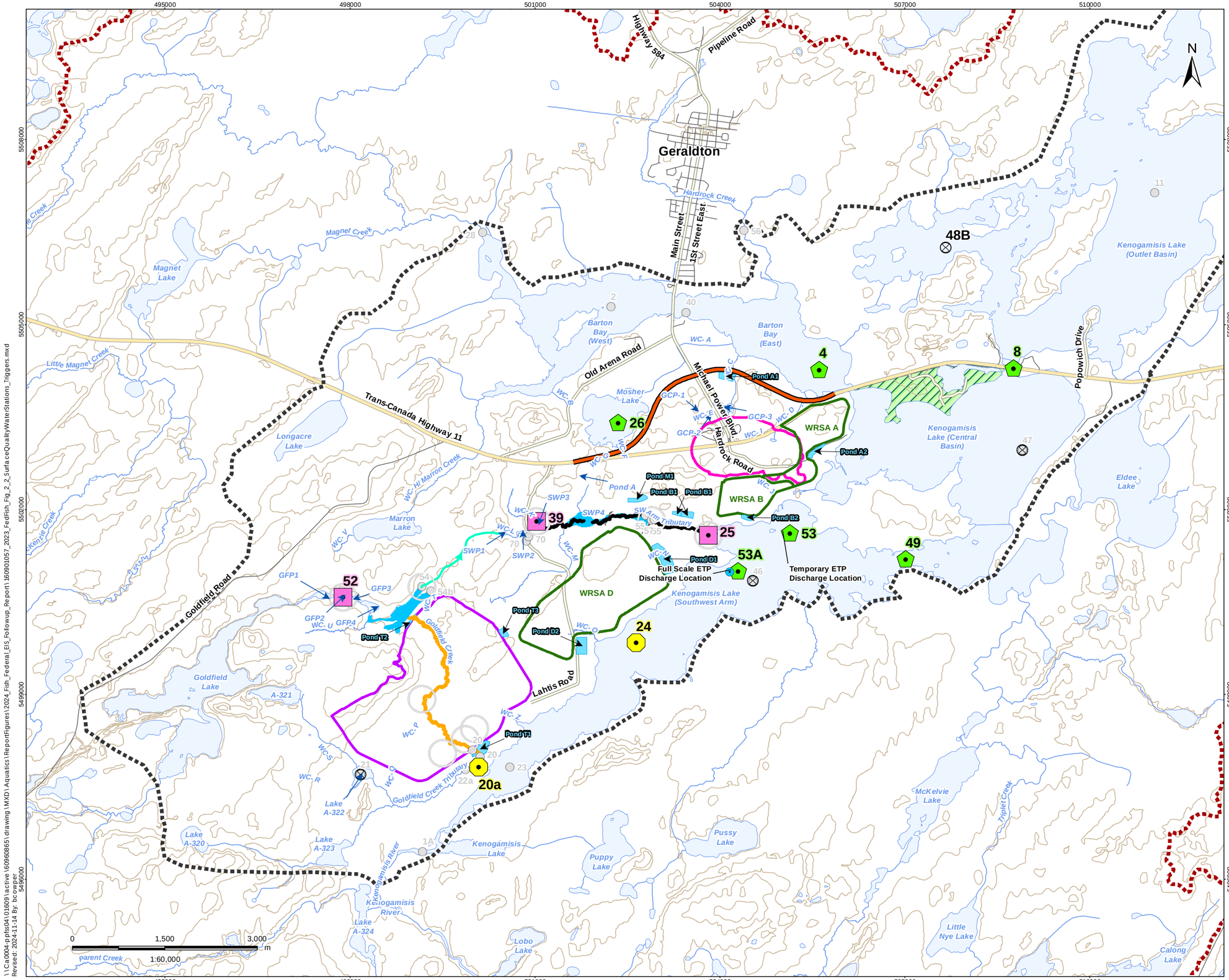
The data set for each parameter at each station was compiled into a spreadsheet to present the monitoring completed for the 2024 monitoring period. The data in this report are representative of the construction and commissioning phases of mine life.

For the 2024 monitoring period, the monthly data was compared to trigger thresholds for surface water quality defined in the Plan (GGM 2021a). The trigger monitoring stations, indicator parameters, and rationale are presented in Table 2.2. The locations of the trigger monitoring stations are presented in Figure 2.2.

Table 2.2 Surface Water Quality Trigger Threshold Monitoring Stations

Trigger Threshold Monitoring Station	Frequency of Measurement	Indicator Parameter	Rationale
4	Monthly	As, Co, Fe, P, Sb, U	Monitor for potential effects of the historical tailings and WRSAs seepage and Geraldton STP discharge on Barton Bay East.
8	Monthly	As, Co, Fe, P, Sb, U	Monitor for potential Project effects downstream of the Kenogamisis Lake Central Basin near the outlet to the Outlet Basin.
20A	Monthly	As, Co, Cu, Fe, P, Sb, U, CN free & total	Monitor for potential effects of the TMF on GFC, downstream of confluence of GFC and GFC Tributary and upstream of Kenogamisis Lake
24	Monthly	As, Co, Cu, Fe, P, Sb, U, CN free & total	Monitor for potential effects of the TMF and/or WRSA D on the Southwest Arm of Kenogamisis Lake
25	Monthly	As, Co, Fe, P, Sb, U, Hg, MeHg	Monitor for potential effects of mining activities on the water at the mouth of the SWAT
26	Monthly	As, Co, Fe, P, Sb, U	Monitor for potential effects of WRSA C on Mosher Lake
39	Monthly	As, Co, Fe, P, Sb, U, Hg, MeHg	Monitor for potential effects of mining activities on SWAT, downstream of GFC Diversion
49	Monthly	As, Co, Fe, P, Sb, U	Monitor for potential effects where Southwest Arm outlets to Central Basin
52	Monthly	As, Co, Fe, P, Sb, U, Hg, MeHg	Background station upstream GFC Diversion
53*	Monthly	As, Co, Fe, P, Sb, U	Monitor for potential effects beyond the temporary ETP mixing zone

Note:
Station 53 relocated to the end of the full scale ETP effluent mixing zone as per condition 8(29) of ECA No. 0735-C9PMD6 and renamed 53A in August 2024.



Notes

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November 2024
160901057

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Greenstone Mine

Figure No.
2-2

Title

Surface Water Quality Trigger Threshold Monitoring Locations

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Revised: 2024-11-14 By: bcowper

2.2.1.2 Dissolved Oxygen and Water Temperature Profile Monitoring Methods

2.2.1.2.1 Data Collection

The DO and water temperature profile monitoring locations are presented in Figure 2.1. Temperature and DO water column profile sampling was completed quarterly (October, February, June, and August) at eight surface water monitoring locations. Table 2.3 presents the location, frequency of profile sampling, and rationale for each temperature and DO water column profile sampling location.

Table 2.3 Dissolved Oxygen and Water Temperature Profile Monitoring Locations, Frequency, and Rationale

Station	Frequency	Rationale
21	Quarterly	Deepest point in Lake A-322
26	Quarterly	Deepest point in Mosher Lake
39	Quarterly	Deepest point in Southwest Pond 3 (SWP3) of SWAT
46	Quarterly	Southwest Arm near proposed effluent discharge location
47	Quarterly	Deepest point in Central Basin
48	Quarterly	Deepest point in Outlet Basin, Hardrock Bay
49	Quarterly	Deep location at narrows where Southwest Arm outlets to Central Basin
50	Quarterly	Gamsby Lake – Reference area, 25 km southwest of the Project, no known historical mine influences

DO and temperature were measured at 1 m intervals from the surface of the water column at the profile sampling locations. DO and temperature were measured using a handheld multi-parameter water quality meter with an extended cable for the probe, sufficient to reach the full depth of the water column. The meter was calibrated prior to use according to the manufacturer's specifications using the appropriate calibration standards. The probe was lowered with a graduated tape measure to confirm the depth of the probe. The probe was allowed to equilibrate prior to taking a reading.

2.2.1.2.2 Data Analysis

The data set for each parameter at each station was compiled into a spreadsheet to present the monitoring completed for the 2024 period. Each quarterly monitoring event was plotted on a graph comparing the depth of the water column to the water temperature and DO concentrations for a visual representation of observed conditions (Appendix B4). Average seasonal DO levels were also provided in graphs to present temporal DO variations during the 2024 monitoring period.

2.2.2 Results

A summary of the surface water sampling results for routine surface water quality monitoring and DO and temperature profiling from October 2023 through September 2024 is presented in the subsequent sections below.

2.2.2.1 Routine Surface Water Quality Monitoring

2.2.2.1.1 Data Collection

Surface water quality data was collected for the required parameters monthly at the 26 monitoring stations from October 2023 to September 2024 with some exceptions.

In November 2023, stations 8, 17, 38, 52, 54, 55, and 56 were the only stations sampled. The other stations were not sampled due to unsafe ice conditions and access issues. In December 2023, stations 8, 17, 20, 20A, 22A, 25, 38, 39, 40, 52, 54, 55, and 56 were the only stations sampled. The other stations were not sampled due to unsafe ice conditions or access issues.

Copies of the completed monthly surface water quality sampling field sheets for the period of October 2023 to September 2024 are provided as Appendix B1.

Monthly surface water quality sampling is expected to continue for the stations in Table 2.1 for the next monitoring period.

2.2.2.1.2 Data Analysis

A summary of surface water analytical results is provided in Appendix B2. The results are discussed further in Section 2.2.3.

In 2023, GGM secured an analytical contract with Bureau Veritas (BV) to undertake the laboratory analysis of water samples associated with the Mine. Laboratory analysis by BV commenced in the March 2023 sampling period, so samples collected in March 2023 and subsequent months were analyzed by BV. In June 2024, there was a transition from BV to ALS Canada Ltd. (ALS) during the 2024 monitoring period, so samples collected in July 2024 and subsequent months were analyzed by ALS. This transition was made to achieve shorter processing times for sample analyses.

2.2.2.2 Dissolved Oxygen and Water Temperature Profile

2.2.2.2.1 Data Collection

The quarterly DO and water temperature profile monitoring was completed, when safe to do so, at least once per quarter. The summary of monitoring completion is presented in Table 2.4.

Table 2.4 Dissolved Oxygen and Water Temperature Profile Monitoring Completion

Year	Sampling Season	In-Situ Water Quality Profile Station Number							
		21	26	39	46	47	48	49	50
2023	Fall	✓	✓	✓	✓	✓	✓	✓	✓
2024	Winter	✓	✓	✓	✓	✓	✓	✓	✓
	Spring	✓	✓	✓	✓	✓	✓	✓	✓
	Summer	✓	✓	✓	✓	✓	✓	✓	✓

Quarterly profile sampling was completed at eight surface water monitoring stations.

Quarterly DO and water temperature profile monitoring is expected to continue for the stations in Table 2.4 for the October 2023 through September 2024 monitoring period.

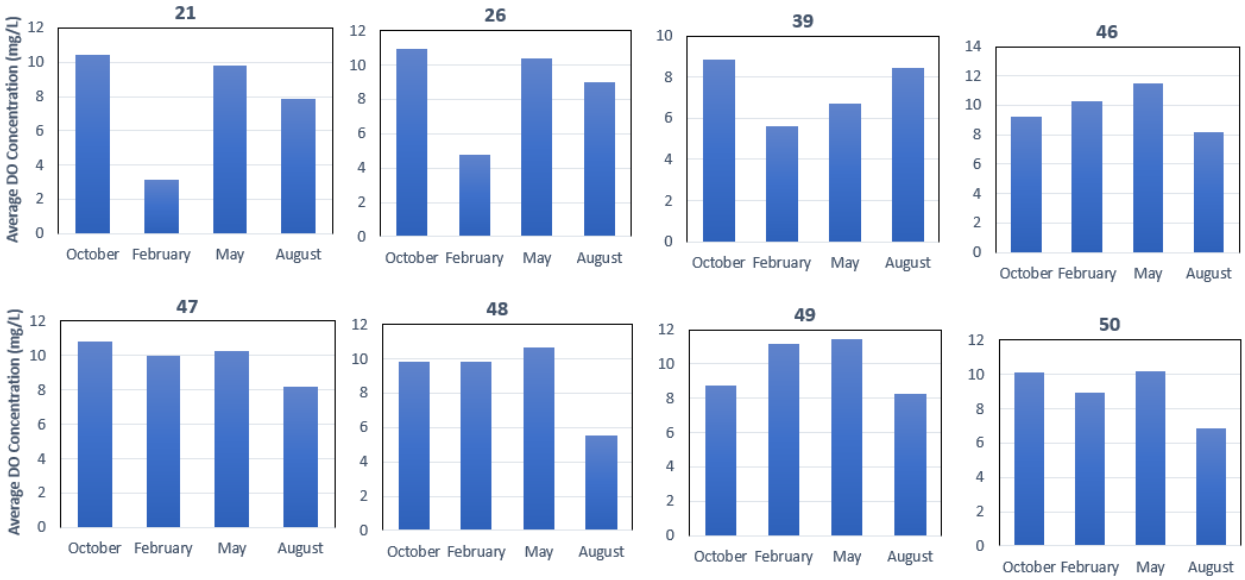
2.2.2.2.2 Data Analysis

In situ temperature and DO profile data from October 2023 through September 2024 are presented in Appendix B4. Temperature and DO profile graphs are presented in Appendix B4.

Fall (October 2023) average DO levels 1.0 m below the surface based on observations at the eight surface water monitoring locations was 10.0 mg/L. Winter (February 2024), spring (May 2024) and summer (August 2024) DO levels averaged at 8.7 mg/L, 10.6 mg/L, and 8.6 mg/L, respectively. This suggests that seasonal variations of DO levels were not significant. The lowest DO level 1.0 m below the surface was 2.89 mg/L in February 2024 at station 21, which is the deepest point in Lake A-322. Other than this observed DO concentration, other DO levels across stations were intermediate to high (>6 mg/L).

Figure 2.3 presents DO concentrations averaged over the water column depth in the four sampling dates in the 2024 monitoring period (October, February, May, and August). Each panel in Figure 2.3 presents data at a different monitoring station. The lowest DO concentration was 3.1 mg/L in February 2024 at station 21 (the deepest point in Lake A-322). Other DO levels ranged from 4.8 mg/L to 11.5 mg/L. This suggests that DO levels never decreased to hypoxic levels (<2 mg/L) at the eight monitoring stations.

Figure 2.3 DO Concentrations Averaged at Water Column Depth



2.2.3 Adaptive Management

2.2.3.1 Surface Water Quality

As described in the Plan (GGM 2021a), two trigger thresholds for surface water quality were defined, each with a varying level of sensitivity and associated level of response.

Surface water quality Trigger Threshold 1 is defined as three consecutive monthly parameter concentration exceedances above the seasonal 95th percentile baseline concentration AND five times the detection limit. For stations and indicator parameters specifically identified in the Plan where the 95th percentile is less than the predicted surface water quality concentrations from the EIS/EA, Trigger Threshold 1 is defined as 10% above the predicted surface water quality concentration from the EIS/EA for the surface water feature at a given monitoring station AND five times the detection limit.

Surface water quality Trigger Threshold 2 is defined as a confirmed exceedance of Trigger Threshold 1 and a statistically significant upward trend for a given indicator parameter, or for stations that have a statistically significant upward trend for baseline data, an increase in the magnitude of the trend compared to baseline. An associated response plan is defined for both surface water quality Trigger Threshold 1 and 2.

Surface water quality data collected in the 2024 monitoring period for the 10 stations and parameters identified in Table 2.2 were compared to the seasonal site-specific surface water quality trigger thresholds. The following presents a summary of the Trigger Threshold 1 and Trigger Threshold 2 exceedances documented during the 2024 monitoring period and the results of the associated response plan.

Station 4:

There were no recorded Trigger Threshold 1 or 2 exceedances during the period of October 2023 to September 2024.

Station 8:

There were no recorded Trigger Threshold 1 or 2 exceedances during the period of October 2023 to September 2024.

Station 20A:

There were no recorded Trigger Threshold 1 or 2 exceedances during the period of October 2023 to September 2024.

Station 24:

There were no recorded Trigger Threshold 1 or 2 exceedances during the period of October 2023 to September 2024.

Station 25:

Trigger Threshold 1 exceedance of phosphorus and arsenic occurred in October 2023. Resampling of both parameters were not completed in November 2023 due to unsafe ice conditions. Sampling for the parameters was conducted in December 2023 and was below the seasonal 95th percentile baseline concentration and five times the analytical detection limit. Therefore, Trigger Threshold 1 was not confirmed, and no further action was required.

Trigger Threshold 1 exceedance of methylmercury occurred in August 2024. Resampling of the parameter was completed in September 2024, which also exceeded the seasonal 95th percentile baseline concentration and five times the detection limit. Therefore, exceedance of Trigger Threshold 1 for methylmercury was confirmed in September 2024. Trigger Threshold 2 evaluation was completed and concluded that there was a statistically significant upward trend for methylmercury at station 25 and therefore Trigger Threshold 2 was exceeded. Methylmercury exceedances above the 95th percentile baseline concentration and five times the detection limit had been predicted in the EIS/EA Amendment. The predicted methylmercury concentrations were below the Canadian Water Quality Guidelines for the Protection of Aquatic Life (CWQG-FAL) guideline by the Canadian Council of Ministers of the Environment (CCME). An investigation report for the Trigger Threshold 2 exceedance is being prepared and will be released once complete.

Trigger Threshold 1 exceedance for uranium occurred in February 2024. Resampling of the parameter was completed in March 2024, which also exceeded the seasonal 95th percentile baseline concentration and five times the detection limit. Therefore, exceedance of Trigger Threshold 1 for uranium was confirmed in March 2024. Trigger Threshold 2 evaluation was completed and concluded that there was a statistically significant upward trend for uranium at station 25 and therefore, Trigger Threshold 2 was exceeded. Uranium at station 25 continued to exceed the 95th percentile baseline concentration and five

times the detection limit in April, May and June 2024. An investigation report regarding uranium at Station 25 was completed in May 2024 and is attached as Appendix B5. Station 25 was one of the two stations addressed in the investigation report. Station 39 was the other station, as explained later in the present report. The increased concentration of uranium concentrations at station 25 are consistent with predictions in the EIS/EA and is due to the diversion of flow from GFC and groundwater discharge to the GFC diversion channel, both of which have higher uranium concentration than the baseline uranium concentrations in the headwaters of the SWAT. As noted in the May 2024 Trigger Threshold 2 investigation report, the concentration of uranium in the SWAT is predicted to increase from an average baseline concentration of 0.065 µg/L to a predicted concentration at the end of operation of 1.064 µg/L which is less than the PWQO. Recommendations in the May 2024 Trigger Threshold 2 investigation report were to revise Trigger Threshold 1 to 1.17 µg/L, which is the predicted concentration of uranium in the SWAT (1.06 µg/L) plus 10% to account for the natural and new sources of uranium to the SWAT. GGM intends to submit the recommended revised Trigger Threshold 1 criteria for uranium at stations located in the SWAT/GFC diversion to IAAC and Ontario Ministry of Environment, Conservation, and Parks (MECP) for approval after consultation on the proposed change is complete. Until such time, uranium at station 39 will continue to be evaluated per the existing criteria in the Plan. The proposed Trigger Threshold 2 for uranium at station 25 is less than the PWQO of 5 µg/L.

Station 26:

There were no recorded Trigger Threshold 1 or 2 exceedances during the period of October 2023 to September 2024.

Station 39:

Trigger Threshold 1 exceedance of cobalt occurred in May 2024. Resampling of cobalt occurred in June 2024 and the concentrations did not exceed the seasonal 95th percentile baseline concentration and five times the detection limit. Therefore, Trigger Threshold 1 exceedance was not confirmed, resulting in no further action being required. Trigger Threshold 1 exceedance of cobalt occurred again in September 2024. Resampling of cobalt in October 2024 will determine whether the occurrence of Trigger Threshold 1 exceedance is confirmed.

As detailed in the 2023 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report (GGM 2023), Trigger Threshold 1 and 2 exceedances of uranium at Station 39 occurred in March 2023, which was during the 2023 monitoring period (October 1, 2022 through September 30, 2023). Uranium concentration at Station 39 stayed above the 95th percentile baseline concentration and five times the detection limit from October 2023 through September 2024 in the 2024 monitoring period. Since March 2023, two investigation reports were prepared. The first report was submitted in May 2023, and attached the 2023 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report (GGM 2023). Due to persistent exceedances of uranium at Station 39, the second report was prepared and submitted in May 2024, which is also included in the present report as Appendix B5. As pointed out previously, the May 2024 investigation report addressed uranium exceedances in both stations 25 and 39. The investigation aimed to determine if there was an additional source or cause for the increased uranium concentrations at the two stations including Station 39. It was concluded that the uranium concentration exceedances were related to the additional mass load from the diversion of GFC and groundwater discharge to the GFC

diversion channel. In the EIS/EA, the concentration of uranium was predicted to increase throughout the mine operations but predicted to remain below the PWQO. As detailed previously for station 25, recommendations in the May 2024 Trigger Threshold 2 investigation report were to revise Trigger Threshold 1 to 1.17 µg/L, which is the predicted concentration of uranium in the SWAT (1.06 µg/L) plus 10% to account for the natural and new sources of uranium to the SWAT. GGM intends to submit the recommended revised Trigger Threshold 1 criteria for uranium at stations located in the SWAT/GFC diversion to MECP for approval after consultation on the proposed change is complete. Until such time, uranium at station 39 will continue to be evaluated per the existing criteria in the Plan. The proposed Trigger Threshold 2 for uranium at station 39 is less than the PWQO of 5 µg/L.

Station 49:

There were no recorded Trigger Threshold 1 or 2 exceedances during the period of October 2023 to September 2024.

Station 52:

Trigger Threshold 1 exceedance of iron occurred in December 2023. Resampling of iron occurred in January 2024 and iron concentrations did not exceed the seasonal 95th percentile baseline concentration and five times the detection limit. Therefore, Trigger Threshold 1 exceedance was not confirmed, resulting in no further action being required.

Station 53:

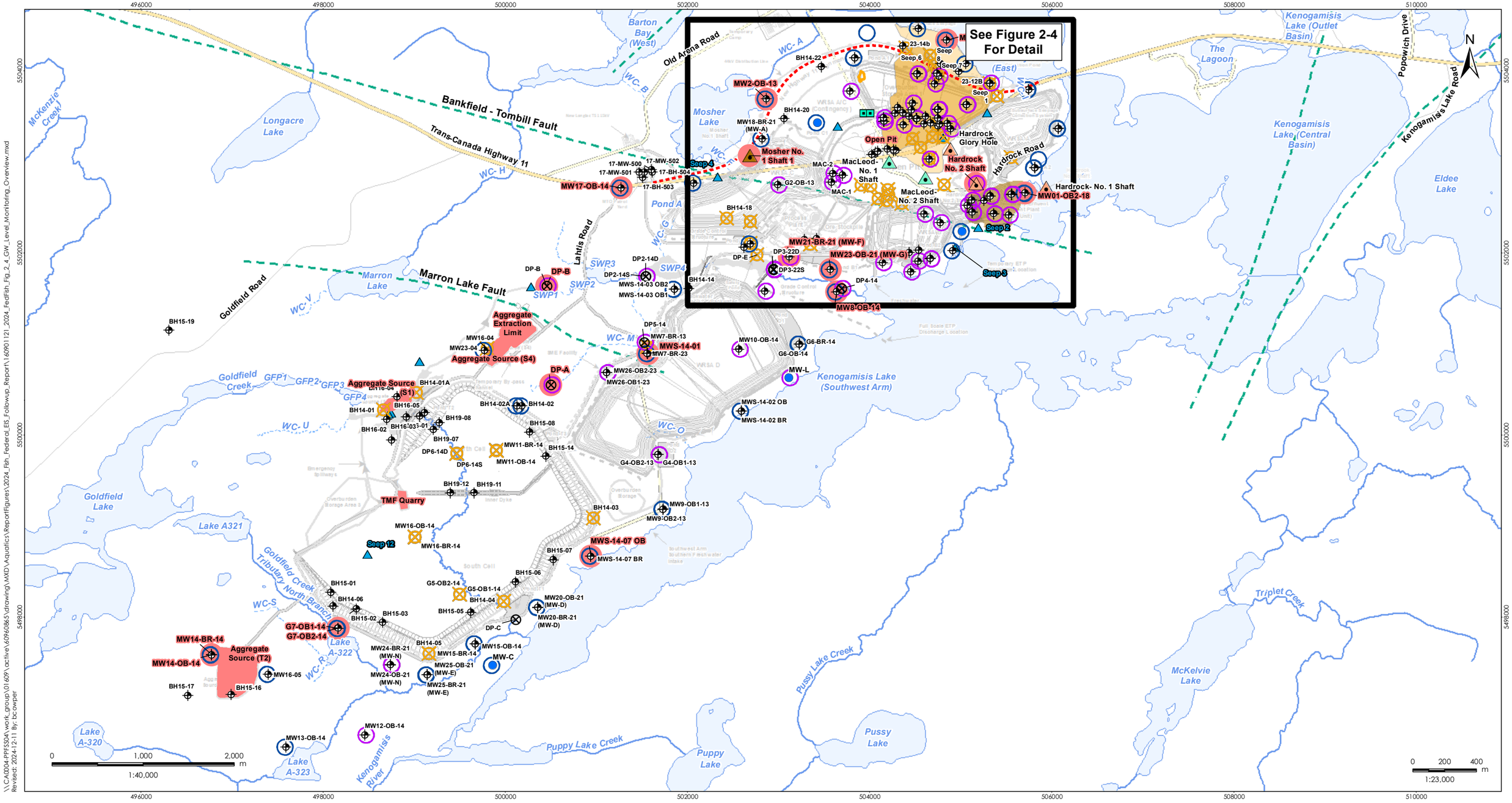
There were no recorded Trigger Threshold 1 or 2 exceedances during the period of October 2023 to September 2024.

2.3 Groundwater

The following section describes methods and results of groundwater monitoring during the 2024 monitoring period that was undertaken to address condition 3.17 of the federal EIS Decision Statement, which relates to mitigating and monitoring potential adverse effects on fish and fish habitat with respect to groundwater. There were three main groundwater monitoring components:

1) Pumped Volume Monitoring
2) Water Level Monitoring
3) Water Quality Monitoring

Methods and results for groundwater monitoring are described herein, along with recommendations for adaptive management. An overview of the groundwater quantity and quality monitoring locations is presented in Appendix C-1, Table C-1-1. The groundwater quantity monitoring locations are shown in Figure 2.4 and Figure 2.5 and the groundwater quality locations are shown on Figure 2.6.



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Revised: 2024-12-11 By: bcowper

December 2024
160901057

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Notes

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Legend

- Monitoring Well
- Groundwater Quantity Trigger Threshold Monitoring Locations
- Drive Point
- Proposed Monitoring Location
- Manual Groundwater Level Measurement
- Data Logger
- Monitoring Location Decommissioned or Overprinted by Mine Infrastructure
- Seep
- Former Gas Station
- Faults
- New Highway 11 Alignment
- Watercourse- Permanent
- Watercourse- Intermittent
- Former Macleod Landfill Site
- Wetland (Eco-Site Based)

Historic Tailings Areas

- Hardrock Tailings
- Hardrock Reactive Tailings Area
- MacLeod High Tailings
- MacLeod Low Tailings

Historical Tailings Areas Mine

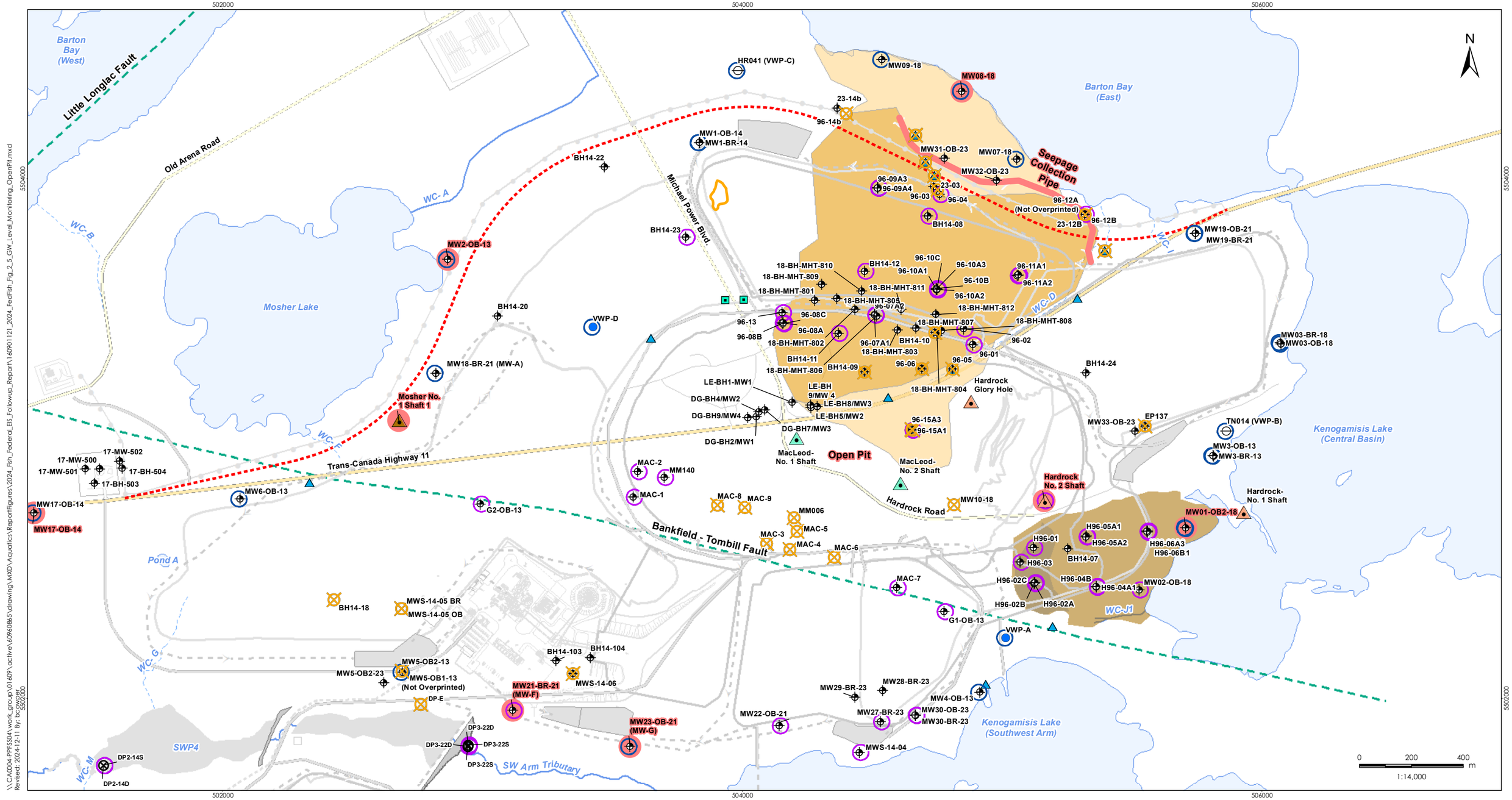
- Consolidated Mosher Long Lac Shaft
- Hard Rock Gold Mine Shaft
- Little Longlac Mine Shaft
- MacLeod-Cockshutt Mine Shaft

Client/Project

Greenstone Gold Mines GP Inc (GGM)
Greenstone Mine

Figure No.
2-4

Title
Groundwater Quantity Monitoring Locations (Overview)



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Legend

- Monitoring Well
- Vibrating Wire Piezometer
- Groundwater Quantity Trigger Threshold Monitoring Locations
- Drive Point
- Proposed Monitoring Location
- Manual Groundwater Level Measurement
- Data Logger
- Monitoring Location Overprinted by Mine Infrastructure
- Seep
- Former Gas Station
- Faults
- New Highway 11 Alignment
- Watercourse- Permanent
- Watercourse- Intermittent
- Former Macleod Landfill Site
- Wetland (Eco-Site Based)

Historic Tailings Areas

- Hardrock Tailings
- Hardrock Reactive Tailings Area
- MacLeod High Tailings
- MacLeod Low Tailings

Historical Tailings Areas Mine Shafts

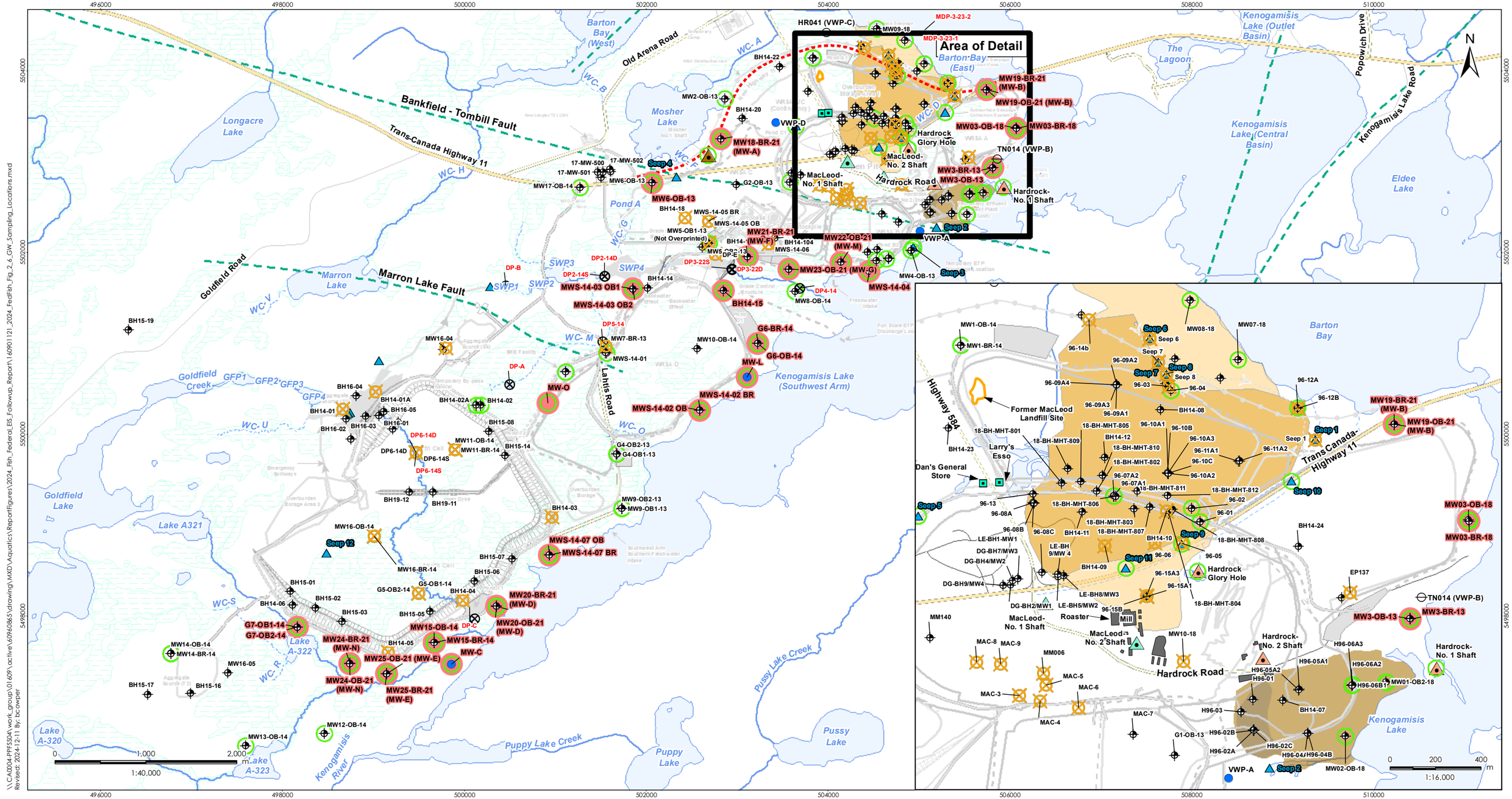
- Consolidated Mosher Long Lac Shaft
- Hard Rock Gold Mine Shaft
- Little Longlac Mine Shaft
- MacLeod-Cockshutt Mine Shaft

Client/Project

Greenstone Gold Mines GP Inc (GGM)
Greenstone Mine

Figure No.
2-5

Title
Groundwater Quantity Monitoring Locations (Open Pit Area)



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Revised: 2024-12-11 By: bcowper

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Legend

- Monitoring Well
- Vibrating Wire Piezometer
- Trigger Threshold Groundwater Quality Monitoring Location
- Drive Point
- Proposed Monitoring Location
- Groundwater Sampling Location
- Monitoring Location Overprinted by Mine Infrastructure
- Seep
- Former Gas Station
- Faults
- New Highway 11 Alignment
- Watercourse- Permanent
- Watercourse- Intermittent
- Former Macleod Landfill Site
- Wetland (Eco-Site Based)

Historic Tailings

- Hardrock Tailings
- Hardrock Reactive Tailings Area
- MacLeod High Tailings
- MacLeod Low Tailings

Historical Tailings Areas Mine

- Consolidated Mosher Long Lac Shaft
- Hard Rock Gold Mine Shaft
- Little Longlac Mine Shaft
- MacLeod-Cockshutt Mine Shaft

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Greenstone Gold Mines GP Inc (GGM)
Greenstone Mine

Figure No.

2-6

Title

Groundwater Quality Monitoring Locations

2.3.1 Methods

The following section presents the methods and a summary of the required data analysis, consistent with the Plan (GGM 2021a) and program recommendations provided in the 2021 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report (GGM 2021b), 2022 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report (GGM 2022), and 2023 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report (GGM 2023).

2.3.1.1 Borehole Drilling and Monitoring Well Installation

Between September 12, 2023 and December 4, 2023, 13 monitoring wells were installed as part of the Plan. The monitoring wells are presented in Figure 2.4, Figure 2.5, and Figure 2.6. A summary of the monitoring locations included in the drilling program are provided below:

- MW26-OB1-23 and MW26-OB2-23 were installed to monitor for potential effects of seepage from WRSA B and/or Ore Stockpile prior to discharge to Southwest Arm. These wells are referred to as Proposed Well MW-O in the Plan.
- The following wells were overprinted by mine infrastructure and replaced:

Overprinted Monitoring Well	Replacement Monitoring Well
96-03	23-03
96-12B	23-12B
96-14b	23-14B
MW5-OB2-13	MW5-OB2-23
MW7-BR-13	MW7-BR-23
BH14-01	BH23-01

- MW23-04 was installed as a replacement well for MW16-04. MW16-04 could not be accessed due to construction activities adjacent to the well location.
- MW27-BR-23 and MW28-BR-23 were installed to monitor for potential effects of WRSA B and the construction and demolition landfill. These wells are referred to as Proposed Wells MW-P and MW-Q in the Plan.
- MW31-OB-23 and MW32-OB-23 were installed to monitor groundwater levels surrounding the MacLeod High Tailings (MHT) seepage collection system. These wells were referred to as Proposed Wells MW-H and MW-I in the Plan.

Borehole drilling and monitoring well installation was completed by RPM Drilling Inc. using a Track Mount CME 55. Boreholes were advanced using 203 mm outside diameter hollow stem auger (HSA) drilling techniques until refusal was encountered. If refusal (due to very dense/hard overburden or bedrock) was encountered before the target depth then HQ diamond drilling techniques were used to advance the borehole until the target depth was reached.

Soil samples were collected at 0.6 m intervals to 3 m below ground surface (BGS), followed by 1.5 m intervals to borehole completion. A 450 mm long, 50 mm inside diameter (ID), split spoon sampler was used to collect soil samples while drilling with HSA. The HQ drilling system produced a 61.1 mm diameter core (96.0 mm diameter borehole), generally 1.5 m in length. The recovered soil cores were logged in the field by Stantec personnel using the American Society for Testing and Materials (ASTM) guideline for visual manual description and identification of soils (ASTM D2488 00). Bedrock core was logged in the field by Stantec for solid core recovery, rock quality designation (RQD), and occurrence of fractures and/or joints.

During drilling, the soil relative density/consistency was determined by standard penetration tests (SPT). The SPT utilized the split spoon sampler driven by a 63.5 kg safety hammer falling from a distance of 760 mm. The number of blows required to penetrate the sampler by 300 mm was defined as the SPT value or 'N'.

Monitoring wells were constructed using 50 mm ID Schedule 40 polyvinyl chloride (PVC) well casing. The wells were constructed with No. 10 slot (0.01-inch slot) PVC well screens generally 1.5 m in length (range of 1.52 m to 3.05 m). The annular space between the monitoring well and formation was backfilled with number 02 grade silica sand to approximately 0.3 m above the top of the well screen. The remainder of the annular space was filled with bentonite chips or bentonite grout to reduce the potential for a hydraulic connection between the ground surface and the monitoring well screen. Each well was completed with a lockable, above ground, protective steel casing. All monitoring wells constructed as part of this investigation were completed in accordance with O. Reg. 903.

Following completion, monitoring wells were developed by removing a minimum of ten well casing volumes of water or purging dry three times. Development was completed using a 16 mm outer diameter (13 mm ID) high density polyethylene (HDPE) tubing and Waterra® foot valve.

Borehole and monitoring well completion details are presented in Table C-2-1 of Appendix C-2. Borehole logs for the monitoring wells installed during the 2024 monitoring period are presented in Appendix C-2.

The statuses of the remaining proposed wells included in the Plan are as follows:

MW-J and MW-K:

> Table 2-8 of the Plan included MHT seepage collection drain monitoring locations 96-03, 96-04, 96-09A1, 96-09A2, 96-09A3, 96-09A4, 96-11A1, 96-11A2, 96-12A, 96-12B, 96-14B, MW07-18, MW08-18, MW09-18, MW-H, MW-I, MW-J, and/or MW-K. The phrasing "and/or" was included to show that the list of wells is an example of wells that may be used to determine the inward horizontal hydraulic gradient as required, not a list of wells that must be used. The inward hydraulic gradient towards the MHT seepage collection system was assessed in 2024 using wells 96-03, 96-04, 96-09A1, 96-09A2, 96-09A3, 96-09A4, 96-11A1, 96-11A2, 96-12A, 96-12B (replaced by 23-12B), 96-14B, MW07-18, MW08-18, MW09-18, MW31-OB-23 (MW-H), and MW31-OB-23 (MW-I). These 16 locations are sufficient to assess the groundwater quantity trigger threshold associated with the MHT seepage collection drain, thus MW-J and MW-K are no longer scheduled for installation.

MW-C (Overburden and Bedrock)

MW-C is a proposed groundwater quality trigger location intended to monitor of potential effects of seepage from the TMF prior to discharge to Southwest Arm. For two years in a row, GGM has attempted to install this monitoring well. The proposed location between the Goldfield Creek Tributary and the Southwest Arm of Kenogamisis Lake is not accessible by a drill rig. The area surrounding the proposed location was also assessed, but the area is low lying wetland making access an issue for drilling and for the long term sampling of a well. There are six nearby groundwater quality trigger locations (MW15-BR-14, MW15-OB-14, MW24-BR-21, MW24-OB-21, MW24-BR-21, and MW24-OB-21 which are also used to assess the potential effects of seepage from the TMF prior to discharge to Southwest Arm. GGM is currently weighing the value of MW-C as a groundwater quality trigger location vs. the practicability of the well installation.

MW-L (Overburden and Bedrock)

MW-L is a proposed groundwater quality trigger location intended to monitor for potential effects of seepage from WRSA D prior to discharge to Southwest Arm. WRSA D has not been constructed. The proposed location near the Southwest Arm is too wet in spring, summer, and fall, preventing access by GGM staff for the required monitoring events. As construction in the area progresses, and the area becomes more accessible, MW-L will be installed and added to the monitoring program prior to the placement of waste rock within WRSA D.

2.3.1.2 Pumped Volume Monitoring

2.3.1.2.1 Data Collection

The Plan includes measuring the water pumped from the open pit, historical shafts, MHT seepage collection system, and aggregate pits and quarry, when occurring. In addition to these operational features, the water pumped from excavations during the construction of some of the Mine features, including the TMF, GFC diversion, process plant, culverts, and water management ponds, when occurring, is measured and tracked.

The frequency of sampling for each of the groundwater monitoring locations presented in Table C-1-1 of Appendix C-1 is described as follows:

- Water quantity (flow rate and total daily volume) pumped from the historical shafts during dewatering of historical underground workings and open pit.
- Water quantity (flow rate and total daily volume) pumped from the MHT seepage collection system (east pumping chamber discharge).
- Water quantity (flow rate and total daily volume) pumped from the aggregate pits (S1 and T2) and TMF Quarry.

- The pumped volume from the historical workings, the open pit, and the aggregate pits, when occurring, are monitored using a flow meter or totalizer so that the pumped volume may be measured or calculated based on flow rate and duration of pumping on a daily basis.

2.3.1.2.2 Data Analysis

The pumped volumes from the open pit and historical underground workings, when pumping is occurring, are compared to the predicted dewatering rate to assess whether there is potential for drawdown greater than that predicted in the EIS/EA (Stantec 2017) which can potentially result in changes in baseflow in nearby surface water features.

Select locations where water is pumped were chosen as trigger threshold monitoring locations under the adaptive management plan for groundwater (GGM 2021a). Table 2.5 presents a summary of the groundwater pumped volume trigger threshold monitoring locations and associated rationale. The pumped volumes for trigger threshold monitoring locations are reviewed with respect to the trigger threshold quarterly.

2.3.1.3 Groundwater Water Level Monitoring

2.3.1.3.1 Data Collection

The Plan includes monitoring of groundwater levels within the vicinity of the open pit, TMF, WRSAs, aggregate pits, Kenogamisis Lake, SWAT, and Goldfield Creek to assess potential effects of the Project on groundwater quantity. Figure 2.4 and Figure 2.5 show the groundwater level monitoring locations. Well completion details are presented in Table C-2-1 in Appendix C-2.

Groundwater level monitoring was to be completed in 2024 at up to 127 existing monitoring wells (84 locations) as well as 14 proposed monitoring wells, drive-point piezometers, and/or vibrating wire piezometers (6 locations) for a total of 141 monitoring points (90 locations). Data loggers are installed in up to 60 existing monitoring points (43 locations) and will be installed in up to 10 proposed monitoring points at four locations. Proposed monitoring locations will be added to the monitoring program once installation has been completed. Table C-1-1 in Appendix C-1 presents the groundwater level monitoring program. The total number of locations monitored during the reporting period is described in Section 2.3.2.2.1.

Water levels at the monitoring wells and drive-point piezometers are monitored using a combination of manual and automated techniques. Manual water level measurements are collected using a battery-operated probe and calibrated tape, water depths were measured in meters below the top of casing (BTOC) and recorded.

Monitoring wells instrumented with a data logger record pressure and frequency. If the data logger is not vented, then the atmospheric pressure is recorded at the site so that the data logger readings may be corrected for atmospheric pressure to obtain the actual height of water above the data logger. The data loggers are set to record at a frequency that is sufficient to understand the variability in the groundwater level at the given monitoring well (minimum 1-hour intervals).

2.3.1.3.2 Data Analysis

The groundwater levels in monitoring wells are compared to baseline conditions and to those predicted in the EIS/EA (Stantec 2017) once related pumping activities commence. The purpose is to assess whether there is potential for a change in associated baseflow to nearby surface water features that is greater than that predicted in the EIS/EA (Stantec 2017) and to confirm the reversal of the horizontal hydraulic gradient between the historical MacLeod and Hardrock tailings and Kenogamisis Lake.

Select locations, where groundwater levels are monitored, were chosen as trigger threshold monitoring locations for groundwater level and/or horizontal hydraulic gradient under the adaptive management plan for groundwater (Stantec 2020). Table 2.5 presents a summary of the groundwater level and horizontal hydraulic gradient trigger threshold monitoring locations and associated rationale. The groundwater level and horizontal hydraulic gradient for trigger threshold monitoring locations are reviewed with respect to the trigger thresholds in spring, summer, and fall of a given year.

Table 2.5 Groundwater Trigger Threshold Monitoring Locations, Frequency, Parameters, and Rationale

Trigger Threshold Monitoring Location	Frequency of Measurement and Comparison to Trigger Threshold	Trigger Threshold Parameter	Rationale
Groundwater Quantity			
Historical shafts and Open Pit	Daily Compared to Trigger Threshold – Quarterly	Pumped Volume	Indirectly monitor potential effects of dewatering the open pit on groundwater levels.
Open Pit	Compared to Trigger Threshold – Quarterly	Pumped Volume	
Aggregate Pit S1	Daily Compared to Trigger Threshold - Quarterly	Pumped Volume	Indirectly monitor potential effects of dewatering the aggregate pits on groundwater levels.
Aggregate Pit T2	Daily Compared to Trigger Threshold - Quarterly	Pumped Volume	
BH23-01 (Formerly BH14-01 in the Plan) G7-OB1-14 G7-OB2-14 MW14-OB-14 MW14-BR-14 MWS-14-01 MWS-14-07 OB DP-A (Proposed Drive-Point Piezometer DP-A in the Plan (Central Wetland)	Manual - Spring, Summer, and Fall Data Logger – 1-hour Intervals Compared to Trigger Threshold – Spring, Summer, and Fall	Water Level	Monitor potential changes in groundwater levels associated with the TMF and/or dewatering of the aggregate pits to be protective of wetlands and baseflow to surface water features.

Trigger Threshold Monitoring Location	Frequency of Measurement and Comparison to Trigger Threshold	Trigger Threshold Parameter	Rationale
DP-B (Proposed Drive-Point Piezometer DP-B in the Plan (GFC Diversion)	Manual - Spring, Summer, and Fall Data Logger – 1-hour Intervals Compared to Trigger Threshold – Spring, Summer, and Fall	Water Level	Monitor potential changes in groundwater levels associated with the GFC diversion on a wetland located in the upper reaches of the SWAT.
MW2-OB-13 MW8-OB-14 MW17-OB-14 MW01-OB2-18 MW08-18	Manual - Spring, Summer, and Fall Data Logger – 1-hour Intervals Compared to Trigger Threshold – Spring, Summer, and Fall	Water Level	Monitor potential changes in groundwater levels associated with dewatering the open pit to be protective of wetlands and baseflow to surface water features.
MW21-BR-21 (Proposed Monitoring Well MW-F in the Plan) MW23-OB-21 (Proposed Monitoring Well MW-G in the Plan)	Manual - Spring, Summer, and Fall Data Logger – 1-hour Intervals Compared to Trigger Threshold – Monthly during Construction Dewatering of process plant	Horizontal Hydraulic Gradient toward the SWAT	Monitor potential changes in groundwater levels associated with temporary construction dewatering of the process plant area to be protective of wetlands and baseflow to surface water features. Confirm there is a horizontal hydraulic gradient toward the SWAT.
MHT Seepage Collection Drain	Manual - Spring, Summer, and Fall Data Logger – 1-hour Intervals Compared to Trigger Threshold – Spring, Summer, and Fall	Horizontal Hydraulic Gradient	Confirm that an inward horizontal hydraulic gradient is maintained toward the MHT seepage collection drain and/or toward the open pit. The horizontal hydraulic gradient will be interpreted based on water level measurements at nearby and surrounding monitoring locations ((via access holes in the drain, 23-03 (formerly 96-03 in the Plan), 96-04, 96-09A1, 96-09A2, 96-09A3, 96-09A4, 96-11A1, 96-11A2, 96-12A, 23-12B (formerly 96-12B in the Plan), 23-14B (formerly 96-14B in the Plan), MW07-18, MW08-18, MW09-18, MW31-OB-23 (Proposed Monitoring Well MW-H in the Plan , MW32-OB-23 (Proposed Monitoring Well MW-I in the Plan), MW-J, and/or MW-K)
Reversal in horizontal hydraulic gradient between the historical MacLeod and Hardrock tailings and Kenogamisis Lake.	Manual – Spring, Summer, and Fall Data Logger – 1-hour Intervals at select wells Compared to Trigger Threshold – Fall starting in year 5 of open pit development	Horizontal Hydraulic Gradient	Monitor timing of reversal in hydraulic gradient between historical tailings and Kenogamisis Lake to reduce mass loading from historical tailings to Kenogamisis Lake. The horizontal hydraulic gradient will be interpreted based on water level measurements at monitoring wells completed within

Trigger Threshold Monitoring Location	Frequency of Measurement and Comparison to Trigger Threshold	Trigger Threshold Parameter	Rationale
			and surrounding the historical MacLeod and Hardrock tailings that will be monitored as per the groundwater sampling program (Section 2.3.1.4.1, Figure 2.4 and Figure 2.5)
Groundwater Quality			
G7-OB1-14 G7-OB2-14	Spring, Summer, and Fall	CN- (free), SO4, and dissolved Sb, As, Co, Fe, and Ur	Monitor for potential effects of seepage from the TMF on Lake A-322
MW15-OB-14 MW15-BR-14 MW25-BR-21 and MW25-OB-21 (Proposed Monitoring Well MW-E in the Plan) MW24-BR-21 and MW24-OB-21 (Proposed Monitoring Well MW-N in the Plan)	Spring, Summer, and Fall	CN- (free), SO4, and dissolved Sb, As, Co, Fe, and Ur	Monitor for potential effects of seepage from the TMF prior to discharge to GFC Tributary
MWS-14-07 OB MWS-14-07BR MW20-BR-21 and MW20-OB-21 (Proposed Monitoring Well MW-D in the Plan) Proposed Monitoring Wells MW-C	Spring, Summer, and Fall	CN- (free), SO4, and dissolved Sb, As, Co, Fe, and Ur	Monitor for potential effects of seepage from the TMF prior to discharge to Southwest Arm
MWS-14-02 OB MWS-14-02-BR G6-BR-14 G6-OB-14 Proposed Monitoring Well MW-L	Spring, Summer, and Fall	SO_4, and dissolved Sb, As, Co, Fe, and Ur	Monitor for potential effects of seepage from WRSA D prior to discharge to Southwest Arm
BH14-15 MWS-14-03 OB1 MWS-14-03 OB2	Spring, Summer, and Fall	SO_4, and dissolved Sb, As, Co, Fe, and Ur	Monitor for potential effects of seepage from WRSA D prior to discharge to SWAT

Trigger Threshold Monitoring Location	Frequency of Measurement and Comparison to Trigger Threshold	Trigger Threshold Parameter	Rationale
MWS-14-04 MW22-OB-21 (Proposed Monitoring Well MW-M in the Plan) MW26-OB1-23 and MW26-OB2-23 (Proposed Monitoring Well MW-M in the Plan)	Spring, Summer, and Fall	SO_4, and dissolved Sb, As, Co, Fe, and Ur	Monitor for potential effects of seepage from WRSA B and/or Ore Stockpile prior to Discharge to Southwest Arm
MW6-OB-13 MW18-BR-21 (Proposed Monitoring Well MW-A in the Plan)	Spring, Summer, and Fall	SO_4, and dissolved Sb, As, Co, Fe, and Ur	Monitor for potential effect of seepage from WRSA C prior to discharge to Mosher Lake
MW3-OB-13 MW3-BR-13 MW03-OB-18 MW03-BR-18 MW19-BR-21 and MW19-OB-21 (Proposed Monitoring Well MW-B in the Plan)	Spring, Summer, and Fall	SO_4, and dissolved Sb, As, Co, Fe, and Ur	Monitor for potential effects of seepage from WRSA A prior to discharge to Central Basin and Barton Bay
MW21-BR-21 (Proposed Monitoring Well MW-F in the Plan) MW23-OB-21 (Proposed Monitoring Well MW-G in the Plan)	Spring, Summer, and Fall	SO_4, and dissolved Sb, As, Co, Fe, Ur, BTEX, and PHCs	Monitor for potential effects of the process plant and associated facilities (fuel storage) on groundwater quality as well as potential effects of seepage from upgradient WRSAs.

2.3.1.4 Groundwater Water Quality Monitoring

2.3.1.4.1 Data Collection

The Plan includes monitoring of groundwater quality upgradient, cross gradient, and downgradient of the TMF, WRSAs, and historical MacLeod and Hardrock tailings to monitor for changes in groundwater quality due to Project development. Figure 2.6 shows the groundwater quality monitoring locations. A summary of the groundwater quantity and quality monitoring locations is presented in Table C-1-1 of Appendix C-1.

Groundwater quality monitoring during the 2024 monitoring period was to be completed at up to 78 existing monitoring points (49 locations). Four monitoring wells (2 locations) are proposed for future installation. Proposed monitoring locations will be added to the monitoring program once installation has been completed.

Monitoring wells installed during the 2024 monitoring period (included in the 78 locations described above) for groundwater quality are sampled in spring, summer, and fall until 10 sampling events are completed, then sampling frequency will change to fall, unless the new monitoring well is associated with a trigger threshold monitoring location as per the Plan (Section 2.3.3) then frequency will remain as spring, summer, and fall.

Groundwater samples are collected in laboratory supplied bottles containing appropriate preservatives. Samples that require filtering (e.g., samples for metals analysis) are filtered in the field using a dedicated 0.45 µm filter.

Groundwater quality sampling for general chemistry and metals analysis is completed by purging the monitoring wells prior to sample collection. Where feasible, the monitoring wells are purged by removing a minimum of three well casing volumes of water, or until the well is purged dry three times. Monitoring wells are sampled using dedicated tubing and peristaltic pumps. Field parameters comprising temperature, pH, conductivity, oxidation-reduction potential (ORP), and DO are measured during purging using a multi-parameter water quality meter and flow through cell where feasible. The meter is calibrated prior to use according to the manufacturer's specifications using the appropriate calibration standards.

QA/QC samples are collected as a check on the field methodology, laboratory analytical methods, and on sample precision in accordance with Environment Canada (2012). A minimum of one field blank and trip blank are collected per sampling event in addition to one blind field duplicate for approximately 10% of groundwater samples per sampling event.

Groundwater quality samples are placed on ice and sent, under COC documentation, to an analytical laboratory that is accredited under CALA.

2.3.1.4.2 Data Analysis

Select locations were chosen as trigger threshold monitoring locations for groundwater quality under the adaptive management plan for groundwater (GGM 2021a). Table 2.5 presents a summary of the groundwater quality trigger threshold monitoring locations and associated rationale. The groundwater quality trigger threshold monitoring locations are reviewed with respect to the trigger thresholds in spring, summer, and fall of a given year.

2.3.1.4.3 Laboratory Analysis

Groundwater quality samples collected as part of the Plan are analyzed for general chemistry, nutrients, and metals as listed in Table 2.6. Four monitoring wells located downgradient of the fuel storage location (MW5-OB1-13, MW5-OB2-13, MW21-BR-21 (MW-F) and MW23-OB-21 (MW-G)) are also sampled for organic parameters listed in Table 2.6.

Dissolved metals analysis is considered appropriate for groundwater samples and is more representative of metals chemistry in the aquifer than total metals since the suspended solids are generally not transported through aquifer materials and water supply wells are typically designed and developed to a

state to reduce the potential for sediment in the pumped water. Therefore, the dissolved metals fraction is analyzed and compared to regulatory criteria and/or the trigger thresholds as per the Plan.

Table 2.6 Summary of Analytical Parameters for Groundwater Quality Samples

Parameter	
Alkalinity	Copper
Ammonia (as N)	Iron
Chloride	Lead
Electrical Conductivity	Magnesium
Cyanide (free and total)	Manganese
Fluorine	Mercury
Hardness	Molybdenum
Nitrite (as N)	Nickel
Nitrate (as N)	Potassium
pH	Selenium
Phosphorus	Silver
Sulfate	Sodium
Total Dissolved Solids (TDS)	Thallium
Total Suspended Solids	Tungsten
Turbidity	Uranium
Aluminum	Vanadium
Antimony	Zinc
Arsenic	Zirconium
Beryllium	Benzene *
Boron	Toluene *
Calcium	Ethylbenzene *
Cadmium	Xylenes *
Chromium (total)	Petroleum Hydrocarbons (PHCs) Fraction 1 (F1) to 4 (F4) *
Cobalt	

Note:

* Benzene, Toluene, Ethylbenzene, Xylenes, and PHCs sampled at monitoring wells located downgradient of fuel storage locations (MW5-OB1-13, MW5-OB2-13 and MW21-BR-21 (MW-F), and MW23-OB-21 (MW-G))

2.3.2 Results

The following sections present the results of the groundwater quantity and quality monitoring program including comparisons of data to groundwater trigger thresholds as required by the adaptive management plan. As required by the Plan, monitoring began March 1, 2021, corresponding with the start of construction of the Mine. The 2024 monitoring period is from October 1, 2023, until September 30, 2024. Therefore, groundwater monitoring results presented in this report include fall 2023 and spring and

summer 2024 monitoring events. The fall 2024 monitoring event did not begin until after the 2024 monitoring period.

2.3.2.1 Pumped Volume Monitoring

2.3.2.1.1 Data Collection

The following list provides a summary of the pumped volume monitoring locations for the 2024 monitoring period:

- Historical Shafts – MacLeod No.1 Shaft/Mosher No. 1 Shaft - pumping consistently
- Open Pit – No pumping occurred
- Aggregate Pit T2 - Aggregate extraction from the T2 till borrow area is ongoing with dewatering conducted between September 20 and September 29, 2024.
- MHT seepage collection system – Collection occurred consistently.

Pumping from the historical underground workings began on September 20, 2022. The original Plan indicated pumping of the historical underground workings would be via Hardrock No. 2 Shaft and Mosher No. 1 Shaft. More efficient pumping regimes were identified in the detailed design process and pumping of the historical underground workings was completed as follows:

- Via MacLeod No. 1 Shaft between September 20, 2022 and September 30, 2023
- Via Mosher No. 1 Shaft between October 1, 2023 and September 30, 2024

Quarterly averaged pumped volume data for the historical underground workings and aggregate pit T2 are presented in Figure C-3-1 in Appendix C-3.

2.3.2.1.2 Data Analysis

One of the five groundwater quantity trigger thresholds described in the Plan is related to pumping. Groundwater quantity Trigger Threshold 2, which compares measured pumped volumes from the open pit, historical shafts, and/or aggregate pits in relation to the predicted dewatering rates in the EIS/EA, is evaluated quarterly.

Quarterly average pumped volume data for the historical shafts are presented in Figure C-3-1 (Appendix C-3) along with the applicable pumped volume trigger threshold of 14,860 m^3/day. Pumping from Mosher No. 1 Shaft occurred consistently throughout the monitoring period. Quarterly average pumped volumes were below the trigger threshold of 14,860 m^3/day. Quarterly average pumped volume data dewatering of aggregate pit T2 is presented in Figure C-3-1 (Appendix C-3) along with the applicable pumped volume trigger threshold of 569 m^3/day. Pumping Quarterly average pumped volumes were below the trigger threshold of 569 m^3/day. There were no exceedances of groundwater quantity Trigger Threshold 2 for the reporting period.

2.3.2.2 Groundwater Water Level Monitoring

2.3.2.2.1 Data Collection

For this reporting period, groundwater level monitoring was completed in fall 2023 and spring and summer 2024 at most required locations. The fall 2024 monitoring event did not begin until after the 2024 monitoring period. Where data loggers were installed, downloading occurred during each water level monitoring event.

Groundwater level monitoring and data logger downloading was completed during each seasonal monitoring event according to Table C-1-1 in Appendix C with following exceptions:

Fall 2023 (October 4, 2023 to November 24 2023):

- Between the summer 2023 and the fall 2023 groundwater monitoring events DP6-14D and DP6-14S were overprinted by mine infrastructure. These locations are included in the monitoring program for spring, summer, and fall manual groundwater level measurements and logger data downloads (DP6-14D only), until such time the wells are overprinted by mine construction and/or infrastructure. DP6-14D and DP6-14S are located in the original Goldfield Creek within the footprint of the TMF. These monitoring locations have been removed from the monitoring program in accordance with the Plan.

Spring 2024 (April 27, 2024 to June 27, 2024):

- Data loggers in DP-B and MW1-OB-14 failed and were sent to the manufacturer to attempt data recovery. Data loggers were replaced on May 28, 2024 and May 30, 2024, respectively.
- Between the fall 2023 and the spring 2024 groundwater monitoring events the following monitoring locations were overprinted by mine infrastructure:
    - 96-06, 96-15A3, BH14-05, BH14-09, EP137, MW16-BR-14, and MW16-OB-14 – In accordance with the Plan, these locations are included in the monitoring program for spring, summer, and fall manual groundwater level measurements until such time the wells are overprinted by mine construction and/or infrastructure. These wells have been removed from the monitoring program.
    - G5-OB1-14, G5-OB2-14, MW11-BR-14, and MW11-OB-14 – In accordance with the Plan, these locations are included in the monitoring program for spring, summer, and fall manual groundwater level measurements, until such time the wells are overprinted by mine construction and/or infrastructure. These wells have been removed from the monitoring program.
- During the spring monitoring event, it was noted that MWS-14-06 was damaged. No manual groundwater level could be taken. A replacement of MWS-14-06 is scheduled to be installed in the next drill program.
- The data logger in MW14-OB-14 malfunctioned and was sent to the manufacturer to attempt data recovery. A replacement data logger was installed during the summer monitoring event.

Summer 2024 (July 5, 2024 to September 20, 2024):

- 96-05 was overprinted by mine infrastructure. In accordance with the Plan, this location is included in the monitoring program for spring, summer, and fall manual groundwater level measurements until such time the wells are overprinted by mine construction and/or infrastructure. This well has been removed from the monitoring program.
- BH14-10 was overprinted by mine infrastructure. In accordance with the Plan, this location is included in the monitoring program for spring, summer, and fall manual groundwater level measurements until such time the wells are overprinted by mine construction and/or infrastructure. This well has been removed from the monitoring program.
- The suspension cable for the data logger in MW19-OB-21 broke. Retrieval of the logger from the bottom of the well occurred in fall 2024. The data logger malfunctioned. No data logger data is available from June 3, 2024 to the end of the monitoring period.

The status of the six remaining proposed monitoring wells was discussed in Section 2.3.1.1. The two proposed vibrating wire piezometers are located in areas currently under active construction. Installation timing will be reviewed following each upcoming monitoring event.

2.3.2.2.2 Data Analysis

Manual groundwater level measurements collected during the reporting period are presented in Appendix C-3, Table C-3-1. Groundwater level data collected via data loggers are presented in hydrographs in Appendix C-3.

Of the five trigger thresholds for groundwater quantity described in the Plan, one trigger threshold is related to groundwater level and three trigger thresholds are related to horizontal hydraulic gradients. The thresholds are related to dewatering of mine features (open pit, aggregate pits, historical underground workings) and/or infrastructure such as the MHT seepage collection system and GFC diversion. A review of the applicable groundwater trigger thresholds for the reporting period is presented as follows.

Groundwater quantity Trigger Threshold 1 monitors impacts related to groundwater level declines below the predicted minimum groundwater level elevations at select groundwater trigger threshold locations as presented in Table 2-5. There are two areas where Trigger Threshold 1 was applicable during this monitoring period as follows.

- Potential changes in groundwater levels on a wetland located in the upper reaches of the SWAT are monitored at DP-B. A groundwater trigger threshold for DP-B was developed incorporating the lowest groundwater elevation recorded during baseline data collection less the predicted drawdown of 0.5 m. Both manual groundwater levels and datalogger data were used. The groundwater trigger threshold for DP-B of 332.61 m AMSL is presented in Figures C-3-2 in Appendix C along with historical monitoring data. DP-B groundwater elevations were above the trigger threshold throughout the monitoring period.

- Dewatering of the open pit area began on September 19, 2022. Monitoring locations MW2-OB-13, MW8-OB-14, MW17-OB-14, MW01-OB2-18, and MW08-18 are Trigger Threshold 1 monitoring locations to monitor for potential changes in groundwater levels associated with dewatering the open pit and historical underground workings. Figure C-3-2 presents groundwater elevation data collected during the monitoring period compared to groundwater quantity trigger thresholds for MW2-OB-13, MW8-OB-14, MW17-OB-14, MW01-OB2-18, and MW08-18. Groundwater elevations at the open pit dewatering trigger threshold locations were above their respective groundwater trigger threshold during this reporting period. No exceedances of groundwater quantity Trigger Threshold 1 occurred in this monitoring period.

Groundwater quantity Trigger Threshold 3 requires the maintenance of an inward horizontal hydraulic gradient toward the SWAT from monitoring wells MW21-BR-21 (MW-F) and MW23-OB-21 (MW-G) during construction dewatering associated with the process plant. Construction dewatering for the process plant ceased by August 10, 2022. Therefore, groundwater quantity Trigger Threshold 3 is not applicable during the 2024 monitoring period. As groundwater dewatering associated with excavations in the process plant area has ceased, groundwater quantity Trigger Threshold 3 is not required in subsequent reports unless construction dewatering of the process plant recommences.

Groundwater quantity Trigger Threshold 4 requires an inward horizontal hydraulic gradient to be maintained toward the MHT seepage collection drain. The trigger threshold is to be evaluated in spring, summer, and fall at monitoring wells presented in Table 2.5. Construction of the MHT seepage collection system commenced on April 6, 2022, with operation of the drain commencing in May 2022. Groundwater monitoring location 96-12B (manual groundwater level and logger data) was to be used in trigger threshold review but was overprinted by mine infrastructure in spring 2022. Instead, manual and data logger data was collected from 96-12A. Details of monitoring well 96-12A are presented in Table C-2 (Appendix C). In fall 2023, the drilling program replaced overprinted monitoring well 96-12B with 23-12B and installed MW31-OB-23 and MW32-OB-23. MW31-OB-23 and MW32-OB-23 were installed to monitor groundwater levels surrounding the MHT seepage collection system. These wells were referred to as Proposed Wells MW-H and MW-I in the Plan.

Figure C-3-3 in Appendix C presents available groundwater level monitoring data for the monitoring locations associated with the MHT seepage collection system along with the approximate elevation of the MHT seepage collection drain (typically 1.5 m BGS, or 330.5 m AMSL). The groundwater levels at the MHT seepage collection system monitoring locations were above the elevation of the MHT drain for the 96 and 23 series monitoring wells as well as MW31-OB-23 and MW32-OB-23 which indicates that a horizontal hydraulic gradient towards the MHT seepage collection drain was maintained at these locations. MW07-18, MW08-18, and MW09-18 are located downgradient (north) of the MHT drain, adjacent to Kenogamisis Lake. As these wells are downgradient of the drain, the ground surface elevations at the location of MW07-18, MW08-18, and MW09-18 (330.10, 330.20, and 330.20 m AMSL, respectively) are slightly lower than the elevation of the drain itself. The groundwater levels in MW07-18, MW08-18, MW09-18, MW31-OB-233, and MW32-OB-23 are used to interpret regional groundwater flow direction, which is from the MHT towards Kenogamisis Lake as presented on Figure C-4-1 in Appendix C-1. In addition to direct water level measurements, an inward hydraulic gradient to the MHT seepage collection system can be inferred as the system is being actively pumped. A cross section through the

MHT seepage collection system which illustrates this is presented on Figures C-4-2 in Appendix C-1. Therefore, there were no exceedances of the groundwater quantity Trigger Threshold 4 criteria during this reporting period.

Groundwater Trigger Threshold 5 monitors the reversal and timing of reversal of the horizontal hydraulic gradient between the historical tailings and Kenogamisis Lake as a result of open pit dewatering. Trigger threshold monitoring is scheduled to start in year 5 of dewatering. Since open pit dewatering and/or dewatering of the historical underground workings commenced in late 2022, Trigger Threshold 5 will be reviewed in 2026.

During the 2024 monitoring period, there were no exceedances of the groundwater level and horizontal hydraulic gradient trigger thresholds for groundwater quantity as defined in the Plan.

2.3.2.3 Groundwater Water Quality Monitoring

2.3.2.3.1 Data Collection

Groundwater quality monitoring is to be completed in the spring, summer, and fall at select locations. The 2024 monitoring period covers water quality sampling results from fall 2023 and spring and summer 2024. Groundwater quality monitoring was completed during each seasonal monitoring event according to Table C-1-1 in Appendix C with the following exceptions:

Spring 2024 (April 27, 2024 to June 27, 2024):

- Between the fall 2023 and the spring 2024 groundwater monitoring events the following monitoring locations were overprinted by mine infrastructure. The following details are noted:
  - G5-OB1-14, G5-OB2-14, MW11-BR-14, and MW11-OB-14 – In accordance with Plan, these locations are included in the monitoring program for fall groundwater quality samples, until such time the wells are overprinted by mine construction and/or infrastructure. These wells have been removed from the monitoring program.
  - Seep 11 – This location is included in the monitoring program for fall groundwater quality sampling and is located within the footprint of Open Pit along the southern boundary of the Historical MacLeod Tailings. Relocation of the historical MacLeod tailings to the TMF commenced in Q1 2024 and Seep 11 has been removed with the historical tailings and therefore can no longer be sampled. Seep 11 is considered removed from the monitoring program.
- During the spring monitoring event, it was noted that MWS-14-06 was damaged. No groundwater quality sample could be taken. Replacement of MWS-14-06 is scheduled to be replaced in the next drill program.
- The groundwater quality sample for BH14-02A was inadvertently missed during the spring monitoring event. The sample was collected during the summer groundwater event.

Summer 2024 (July 5, 2024 to September 20, 2024):

- BH14-10 was overprinted by mine infrastructure. In accordance with the Plan, this location is included in the monitoring program for fall groundwater quality sample, until such time the well is overprinted by mine construction and/or infrastructure. This well has been removed from the monitoring program.

The status of the four remaining proposed monitoring wells (at locations MW-C and MW-L) was discussed in Section 2.3.1.1.

Prior to January 2022, the baseline surface water quality samples were analyzed by ALS. In January 2022, GGM contracted Testmark Laboratories to complete the water analyses for the Mine. Given the number of elevated concentrations of parameters observed since January 2022 compared to baseline concentrations, GGM undertook an investigation into the results of the laboratory analyses. In October 2022, the investigation involved collecting triplicate samples for analyses by Testmark Laboratories, ALS, and Bureau Veritas (BV). Preliminary analytical results showed a difference in concentrations between laboratories, particularly in iron which was consistently elevated in the results from Testmark Laboratories versus ALS and BV. The reported results of the other parameters appeared similar across the three labs. As a result of this investigation, GGM secured an analytical contract with BV to undertake the laboratory analysis of water samples associated with the Mine. The transition in laboratories commenced in the March 2023 sampling period, such that samples collected in the month of March and subsequent months were analyzed by BV. Therefore, water analytical data analyzed between January 2021 and January 2023 should be viewed with this in mind. Following the spring 2024 monitoring event there was a transition in the analytical laboratories from BV to ALS, such that samples collected for the summer monitoring event and subsequent events were analyzed by ALS. This transition was done to have shorter processing times for sample analyses

2.3.2.3.2 Data Analysis

Table C-5-1 (Appendix C-5) presents the groundwater quality results for the 2024 monitoring period. Laboratory Certificates of Analysis for fall 2023 and spring and summer 2024 sampling events are provided in Appendix C-5.

Trend analyses of the groundwater quality data was completed using the Mann-Kendall test (Mann 1945; Kendall 1970). The Mann-Kendall test has been found to be a simple and effective way to measure whether an indicator parameter is rising or falling. For this application, the Mann Kendall test was applied for the baseline data set (preconstruction) and the full dataset (baseline plus construction data) for a given monitoring location. Using the method cited by Walker and Harrison (2013), the Mann-Kendall test statistic (S) and the coefficient of variation was calculated and applied using the 90% confidence level chart. Groundwater quality trigger thresholds were chosen to alert to changing groundwater quality downgradient of the TMF, WRSAs, ore stockpile, and process plant prior to discharge to surface water features. Parameters of potential concern defined in the Plan for these features included a combination of antimony, arsenic, cobalt, uranium, cyanide, sulphate, arsenic and iron.

Trigger Threshold 1 is defined as a statistically significant upward trend for a given indicator parameter or, for stations that have a statistically significant upward trend in the baseline data, an increase in the magnitude of the trend compared to baseline. Non-detect results were assigned a value of half of the detection limit when assessing Trigger Threshold 1. Results from laboratory analyses where an increased detection limit was required due to dilution were removed from the data set.

Process Plant

Groundwater quality sampling was conducted at MW21-BR-21 and MW23-OB-21 and is intended to monitor for potential effects of the process plant and associated facilities (fuel storage) on groundwater quality in accordance with the Plan. Storage of fuel in the process plant area commenced on January 20, 2023.

Table 2.7 presents the Mann-Kendall analysis results for fall 2023, spring 2024 and summer 2024 monitoring events. Mann-Kendall tests on the BTEX and PHC data sets for MW21-BR-21 and MW23-OB-21 are not reliable due to the high number of non-detects in the laboratory results. Of the 96 BTEX analyses completed for samples from MW21-BR-21 and MW23-OB-21, 93% have had results below the detection limits. Of the 80 PHC analyses completed for samples from MW21-BR-21 and MW23-OB-21, 97% have had results below the detection limits. Given the high percentage of non-detect results, no trends could be determined. No groundwater quality trigger thresholds were exceeded in this reporting period.

Table 2.7 Process Plant Groundwater Quality Trigger Threshold Summary

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
MW21-BR-21	BTEX	-	-	-	-	No
	PHC (F1-F4)	-	-	-	-	No
MW23-OB-21	BTEX	-	-	-	-	No
	PHC (F1-F4)	-	-	-	-	No

Notes:

N/A Trigger Threshold not applicable for monitoring period

\- No statistically significant trend

↑ Statistically significant upward trend

↓ Statistically significant downward trend

WRSA A

Storage of Type B soils and/or waste rock in WRSA A commenced in December 2023 and January 2024, respectively. Type B soil is defined in the Soil Management Plan (GGM 2020d) as having concentrations of metals in soil exceeding the Table 8.1 Site Condition Standards (O.Reg. 153) with the concentration of metals in leachate less than the Table 8.1 Site Conditions Standards (O.Reg. 153) and Aquatic Protection Values (APV) (O.Reg. 153). Groundwater quality trigger threshold evaluation was completed for spring and summer 2024. Groundwater quality trigger monitoring locations MW03-OB-18, MW03-BR-18, MW3-OB013, MW3-BR-13, MW19-OB-21, and MW19-BR-21 associated with WRSA A.

Table 2.8 presents the Mann-Kendall analysis results for spring and summer 2024 monitoring events. No groundwater quality trigger thresholds were exceeded in spring and summer 2024 for WRSA A.

Table 2.8 WRSA A Groundwater Quality Trigger Threshold Summary

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
MW03-BR-18	Antimony	-	N/A	-	-	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	-	-	No
	Iron	↑	N/A	↑	↑	No
	Sulfate	↓	N/A	↓	↓	No
	Uranium	↓	N/A	↓	↓	No
MW03-OB-18	Antimony	-	N/A	-	-	No
	Arsenic	-	N/A	-	-	No
	Cobalt	↓	N/A	↓	↓	No
	Iron	-	N/A	-	-	No
	Sulfate	↓	N/A	↓	↓	No
	Uranium	↓	N/A	↓	↓	No
MW19-BR-21	Antimony	-	N/A	-	-	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	-	-	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	-	No
	Uranium	-	N/A	-	-	No

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
MW19-OB-21	Antimony	-	N/A	-	-	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	-	-	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	-	No
	Uranium	-	N/A	-	-	No
MW3-BR-13	Antimony	↓	N/A	↓	↓	No
	Arsenic	↑	N/A	↑	↑	No
	Cobalt	↑	N/A	↑	↑	No
	Iron	↑	N/A	↑	↑	No
	Sulfate	-	N/A	-	-	No
	Uranium	-	N/A	-	-	No
MW3-OB-13	Antimony	↓	N/A	↓	↓	No
	Arsenic	-	N/A	-	-	No
	Cobalt	↑	N/A	↑	↑	No
	Iron	-	N/A	-	-	No
	Sulfate	↑	N/A	↑	↑	No
	Uranium	↓	N/A	↓	↓	No

Notes:

N/A Trigger Threshold not applicable for monitoring period

- No statistically significant trend

↑ Statistically significant upward trend

↓ Statistically significant downward trend

WRSA B / Ore Stockpile

Storage of ore within the ore stockpile commenced in September 2023. Groundwater quality trigger threshold evaluation was completed for spring and summer 2024. Groundwater quality trigger monitoring locations MW22-OB-21 and MWS-14-04 associated with WRSA B were evaluated as defined in the Plan. Table 2.9 presents a summary of the groundwater quality Trigger Threshold 1 review for monitoring wells associated with WRSA B.

Table 2.9 WRSA B/Ore Stockpile Groundwater Quality Trigger Threshold 1 Summary

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
MW22-OB-21	Antimony	↓	N/A	↓	↓	No
	Arsenic	-	N/A	-	↑	Yes – summer 2024
	Cobalt	-	N/A	↓	↓	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	↓	No
	Uranium	-	N/A	↓	↓	No
MWS-14-04	Antimony	↓	N/A	↓	↓	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	-	-	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	-	No
	Uranium	-	N/A	-	-	No

Notes:

N/A Trigger Threshold not applicable for monitoring period

- No statistically significant trend

↑ Statistically significant upward trend

↓ Statistically significant downward trend

Groundwater quality Trigger Threshold 1 was exceeded for arsenic in MW22-OB-21 for the summer evaluation as no statistically significant trend was calculated for the baseline data but a statistically significant upward trend was calculated for the full data set. The Trigger Threshold 1 action plan was implemented, which is a quality review of the data, a physical inspection of the monitoring well and associated area, and a review of available data to evaluate if the trigger threshold exceedance may be related to the Mine activities or not.

The laboratory results for MW22-OB-21 were reviewed. There were no issues noted by the laboratory for the analysis of arsenic in MW22-OB-21. The recovery in the matrix spikes for dissolved arsenic were noted to be satisfactory and no exceedances of holding times were reported. The laboratory results for arsenic at MW22-OB-21 for the July 25, 2024, sample was satisfactory. A confirmation sample was collected during the fall 2024 monitoring event to validate the July 2024 sample. No sampling results were available at the time of the Trigger Threshold 1 evaluation for the summer 2024 monitoring event.

A physical inspection of monitoring well MW22-OB-21 was made. There were no anomalies in the visual observation of the well construction. The above ground portion of the monitoring well riser, casing, and cap appeared intact based on visual observation.

In the absence of the results of the Trigger Threshold 1 confirmation sample, the arsenic concentration data was reviewed and a Trigger Threshold 2 evaluation was completed. The concentration of arsenic at MW22-OB-21 for the baseline period ranges from 0.6 µg/L to 2.9 µg/L with an average of 1.5 µg/L for 8 data points. Three monitoring events have occurred since placement of material in WRSA B. The concentration of arsenic over the three sampling events ranged from 2.4 µg/L to 3.8 µg/L with an average of 2.9 µg/L. The three samples collected after the baseline monitoring period were analyzed by Bureau Veritas and ALS whereas the baseline samples were analyzed by Testmark, ALS, and BV. As the change in trend in data is minor, and changes in laboratories occur over the dataset, it is unclear if the variation in the concentration of arsenic is due to different laboratory methods, a general variation possibly due to laboratory variability, seasonal or meteorological events, or project related.

Trigger Threshold 2 for arsenic at MW22-OB-21 is defined as an exceedance of Trigger Threshold 1 and an exceedance of the predicted source concentration for WRSA B. Table 2.10 presents the Trigger Threshold 2 concentration for arsenic. The concentration of arsenic in MW22-OB-21 does not exceed Trigger Threshold 2. Review of the trigger threshold 1 confirmation sample is recommended, once available.

Table 2.10 WRSA B Groundwater Quality Trigger Threshold 2 Summary

WRSA B				
Monitoring Location	**Trigger Threshold Parameter**	**Trigger Threshold 2 Concentration[1]**	**Measured Concentration (Date Sampled)**	**Potential Groundwater Quality Trigger Threshold 2 Exceedance**
MW22-OB-21	Arsenic	130 µg/L	2.5 µg/L (July 25, 2024)	No

Note:
[1] Trigger threshold 2 is the predicted concentration of groundwater recharge from WRSA B as presented in the EIS/EA

WRSA C

Material storage in WRSA C commenced December 2022. Material stored in WRSA C includes Type B soil and waste rock. Type B soil is defined in the Soil Management Plan (GGM 2020d) as having concentrations of metals in soil exceeding the Table 8.1 Site Condition Standards (O.Reg. 153) with the concentration of metals in leachate less than the Table 8.1 Site Conditions Standards (O.Reg. 153) and APV (O.Reg. 153). Groundwater quality trigger threshold evaluation was completed in the fall 2023 and spring and summer 2024. Groundwater quality trigger monitoring locations MW6-OB-13, MW18-BR-21, MW21-BR-21, and MW23-OB-21 associated with WRSA C were evaluated as defined in the Plan. Table 2.11 presents a summary of the groundwater quality Trigger Threshold 1 review for monitoring wells associated with WRSA C.

Table 2.11 WRSA C Groundwater Quality Trigger Threshold 1 Summary

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
MW6-OB-13	Antimony	-	(1)	-	-	No
	Arsenic	↑	(1)	↑	↑	No
	Cobalt	↓	(1)	↓	↓	No
	Iron	↑	(1)	↑	↑	No
	Sulfate	↓	(1)	↓	↓	No
	Uranium	-	(1)	↑	↑	Yes – Spring and Summer 2024
MW18-BR-21	Antimony	-	↓	-	-	No
	Arsenic	-	↓	-	-	No
	Cobalt	-	↓	-	-	No
	Iron	-	↓	-	-	No
	Sulfate	-	↓	-	-	No
	Uranium	-	↓	-	-	No
MW21-BR-21	Antimony	-	(1)	-	-	No
	Arsenic	-	(1)	-	-	No
	Cobalt	↑	(1)	-	-	No
	Iron	-	(1)	-	↑	Yes – Summer 2024
	Sulfate	-	(1)	↑	↑	Yes – Spring and Summer 2024
	Uranium	-	(1)	-	↑	Yes – Summer 2024

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
MW23-OB-21	Antimony	-	(1)	-	-	No
	Arsenic	-	(1)	-	-	No
	Cobalt	-	(1)	-	-	No
	Iron	-	(1)	-	-	No
	Sulfate	-	(1)	-	-	No
	Uranium	-	(1)	-	-	No

Notes:

(1) Trigger Threshold not evaluated as WRSA-C not explicitly listed in connection with these wells in Table 2-7 of Plan. Added to reporting for spring 2024 as these wells are associated with “upgradient WRSAs” which includes WRSA C. Mann-Kendall Analysis for spring 2024 includes the data from fall 2023.

- No statistically significant trend

↑ Statistically significant upward trend

↓ Statistically significant downward trend

Groundwater quality Trigger Threshold 1 evaluations were completed for uranium in MW6-OB-13 and sulfate in MW21-BR-21 following the spring 2024 monitoring event; and for uranium in MW6-OB-13 and for iron, sulfate, and uranium in MW21-BR-21 following the summer 2024 monitoring event. The results of each groundwater quality Trigger Threshold 1 evaluation are presented below.

Spring 2024

Groundwater quality Trigger Threshold 1 was exceeded for uranium in MW6-OB-13 and sulfate in MW21-BR-21 in the spring 2024 (Table 2.11). Both parameters showed no statistically significant trend in the baseline concentration data but a statistically significant upward trend in the full data set. As a result, the Trigger Threshold 1 action plan was implemented which is a quality review of the data, a physical inspection of the monitoring well and associated area, and a review of available data to assess potential causes.

The laboratory results for MW6-OB-13 and MW21-BR-21 were reviewed. The laboratory report for MW6-OB-13 and MW21-BR-21 indicated the detection limit for a number of parameters had to be adjusted due to sample matrix effects as well as dilution resulting in a raised detection limit due to high dissolved solids / electrical conductivity but did not apply to sulphate or uranium. In addition, the recovery in the matrix spikes for potassium, sodium, and zirconium in the sample collected from MW6-OB-13 were greater than the upper data quality objective. The laboratory results for uranium at MW6-OB-13 and MW21-BR-21 were satisfactory. Resampling of MW6-OB-13 and MW21-BR-21 for uranium and sulphate, respectively was completed in summer 2024 which also counted as the summer 2024 samples. The resampling in summer 2024 confirmed the Trigger Threshold 1 exceedance for uranium at MW6-OB-13 and sulphate at MW21-BR-21.

A physical inspection of monitoring wells MW6-OB-13 and MW21-BR-21 was made at the time of sample collection. There were no anomalies in the visual observation of the well construction. The above ground portion of the monitoring well riser, casing, and cap appeared intact based on visual observation. There was no slumping of ground surface or ponding of water around the monitoring wells at the time of sample collection.

The concentration of uranium at MW6-OB-13 for the baseline period ranges from 0.203 µg/L to 1.06 µg/L with an average of 0.43 µg/L for 13 data points. Three monitoring events have occurred since placement of waste rock and/or soil in WRSA C. The concentration of uranium over the three sampling events ranged from 0.73 µg/L to 2.12 µg/L with an average of 1.29 µg/L. The three samples collected after the baseline monitoring period were analyzed by Bureau Veritas whereas the baseline samples were analyzed by Testmark and ALS. As the change in trend in data is minor, and the change in trend also occurs with a change in laboratories, it is unclear if the variation in the concentration of uranium is due to different laboratory methods, a general variation possibly due to seasonal or meteorological events, or project related.

The concentration of sulphate at MW21-BR-21 for the baseline period ranges from 3.4 mg/L to 16.8 mg/L with an average of 7.1 mg/L for 5 data points. Three monitoring events have occurred since placement of waste rock and/or soil in WRSA C. The concentration of sulphate over the three sampling events ranged from 22 mg/L to 50 mg/L with an average of 33 mg/L. The three samples collected after the baseline monitoring period were analyzed by Bureau Veritas whereas the baseline samples were analyzed by Testmark and ALS. As the change in trend in data is minor, and the change in trend also occurs with a change in laboratories, it is unclear if the variation in the concentration of sulphate is due to different laboratory methods, a general variation possibly due to seasonal or meteorological events, or project related.

As the Trigger Threshold 1 was confirmed and there was no clear cause of the Trigger Threshold 1 exceedance, a Trigger Threshold 2 evaluation was completed. Trigger Threshold 2 for MW6-OB-13 and MW21-BR-21 is defined as an exceedance of Trigger Threshold 1 and an exceedance of predicted source concentrations for the mine component located upgradient of the trigger threshold monitoring well location (i.e. TMF, WRSA, Ore Stockpile, etc.) as defined in the EIS/EA or exceeding the APV, whichever concentration is lower.

Table 2.12 presents the Trigger Threshold 2 Concentrations for uranium and sulfate at MW6-OB-13 and MW21-BR-21, respectively. The concentration of uranium at MW6-OB-13 in the July sampling event was 2.12 µg/L which is less than the uranium groundwater Trigger Threshold 2 of 18 µg/L. The concentration of sulphate at MW21-BR-21 in the July sampling event was 50 mg/L which is less than the sulphate groundwater trigger threshold of 253.3 mg/L. Therefore, there was no exceedance of Trigger Threshold 2 for uranium at MW6-OB-13 and sulphate at MW21-BR-21.

The adaptive management plan is working, having identified slight changes to trends in parameters allowing the parameters to be more closely monitored to evaluate potential causes to understand potential risk and need for mitigation prior to an environmental effect is realized. As there is no Trigger Threshold 2 exceedance and no clear rationale for the Trigger Threshold 1 exceedance, ongoing monitoring and evaluation of uranium at MW6-OB-13 and sulphate at MW21-BR-21 is recommended with evaluation continuing to occur in spring, summer, and fall.

Table 2.12 WRSA C Groundwater Quality Trigger Threshold 2 Summary

Monitoring Location	Trigger Threshold Parameter	Trigger Threshold 2 Concentration[1]	Concentration (Date Sampled)	Potential Groundwater Quality Trigger Threshold 2 Exceedance
MW6-OB-13	Uranium	18 µg/L	2.12 µg/L (June 24, 2024)	No
MW21-BR-21	Sulfate	253.3 mg/L	50 mg/L (June 3, 2024)	No

Note:
[1] Trigger Threshold 2 is the predicted concentration of groundwater recharge from WRSA C

Summer 2024

As discussed in Spring 2024 section above, the Trigger Threshold 1 exceedance for uranium at MW6-OB-13 and sulfate at MW21-BR-21 was confirmed as part of the summer 2024 monitoring event and a Trigger Threshold 2 evaluation was completed and therefore are not discussed further in this section. Groundwater quality Trigger Threshold 1 was exceeded for iron and uranium in MW21-BR-21 in the summer 2024 (Table 2.11). These three parameters showed no statistically significant trend in the baseline concentration data but a statistically significant upward trend in the full data set at the time of review. The Trigger Threshold 1 action plan was implemented, which is a quality review of the data, a physical inspection of the monitoring well and associated area, and a review of available data to assess potential causes.

The laboratory results for MW21-BR-21 were reviewed. No issues with the analysis of iron or uranium for MW21-BR-21 were noted in the laboratory report. The recovery in the matrix spikes were noted to be satisfactory and the recommended holding times were not exceeded. The laboratory results for iron and uranium at MW21-BR-21 for the July 24, 2024 sample were satisfactory. Resampling for iron and uranium at MW21-BR-21 is underway and will be used to confirm the QA/QC evaluation for Trigger Threshold 1.

A physical inspection of monitoring well MW21-BR-21 was completed. There were no anomalies in the visual observation of the well construction. The above ground portion of the monitoring well risers, casings, and caps appeared intact based on visual observation. There were no discrepancies around the monitoring wells noted at the time of sample collection.

The groundwater quality data was reviewed with respect to the Trigger Threshold 1 exceedances. The baseline concentration range and average of the parameters were compared to the post baseline data as follows:

- MW21-BR-21
  - The baseline concentrations of iron range from 31 µg/L to 5,800 µg/L with an average of 1,904 µg/L for 5 data points. Post baseline concentrations of iron range from 868 µg/L to 14,300 µg/L with an average of 10,542 µg/L for four samples. Three of the four samples collected after the baseline monitoring period were analyzed by BV whereas the fourth post baseline sample was analyzed by ALS. The baseline samples were analyzed by Testmark and ALS. The concentration of iron is highly variable for baseline and post baseline, often changing an order of magnitude (at times two orders of magnitude) from one sample event to the next.
  - The baseline concentrations of uranium range from 0.44 µg/L to 1.50 µg/L with an average of 0.82 µg/L for 5 data points. Post baseline concentrations of uranium range from 1.08 µg/L to 2.24 µg/L with an average of 1.60 µg/L for four samples. Three of the four samples collected after the baseline monitoring period were analyzed by BV whereas the fourth post baseline sample was analyzed by ALS. The baseline samples were analyzed by Testmark and ALS. The July 2024 uranium concentration of 2.24 µg/L provided by ALS was 61% higher than the average of the three post baseline samples provided by BV. Additional data would clarify the effect of changing laboratories on the overall trend of uranium at MW21-BR-21.

The variation in the concentration of uranium at MW21-BR-21 is minor. As changes in laboratories occur over the dataset, it is unclear if the variation in the concentration of uranium is due to different laboratory methods, variability of the data set, seasonal or meteorological events, or project related. The trend for iron concentrations at MW21-BR-21 appears to be consistently increasing and therefore further evaluation as to potential source of the trend in iron concentrations will be considered. Resampling is underway for iron and uranium at MW21-BR-21 and will be used to confirm the Trigger Threshold 1 exceedance and if a Trigger Threshold 2 evaluation is required and will be reported once the data is available. In the meantime, monitoring is to continue as per the Plan.

TMF

Type C soils have been placed in the TMF beginning on December 31, 2023, with historical tailings being relocated to the TMF commencing in January 2024, and fresh tailings placed in the TMF commencing in April 2024. Type C soil is defined in the Soil Management Plan (GGM 2020d) as having concentrations of metals in soil and leachate exceeding the Table 8.1 Site Condition Standards (O.Reg. 153) with the concentration of metals in leachate exceeding APV (O.Reg. 153). Groundwater quality trigger threshold evaluation is completed in the spring, summer, and fall. Groundwater quality trigger monitoring locations DP-C, G7-OB1-14, G7-OB2-14, MW15-BR-14, MW15-OB-14, MW20-BR-21, MW20-OB-21, MW24-BR-21, MW24-OB-21, MW25-BR-21, MW25-OB-21, MWS-14-07-OB, and MWS-14-07BR associated with the TMF were evaluated as defined in the Plan.

Table 2.13 presents a summary of the groundwater quality Trigger Threshold 1 evaluation for monitoring wells associated with the TMF.

Table 2.13 TMF Groundwater Quality Trigger Threshold 1 Summary

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
DP-C	Antimony	↓	N/A	↓	↓	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	-	↑	Yes – Summer 2024
	Cyanide	-	N/A	-	-	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	-	No
	Uranium	-	N/A	-	-	No
G7-OB1-14	Antimony	↓	N/A	↓	↓	No
	Arsenic	↓	N/A	↓	↓	No
	Cobalt	↓	N/A	↓	↓	No
	Cyanide	-	N/A	-	-	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	-	No
	Uranium	↓	N/A	↓	↓	No
G7-OB2-14	Antimony	↓	N/A	↓	↓	No
	Arsenic	-	N/A	-	-	No
	Cobalt	↓	N/A	↓	↓	No
	Cyanide	-	N/A	-	-	No
	Iron	↓	N/A	↓	↓	No
	Sulfate	-	N/A	-	-	No
	Uranium	-	N/A	-	-	No

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
MW15-BR-14	Antimony	↓	N/A	↓	↓	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	-	-	No
	Cyanide	-	N/A	-	↓	No
	Iron	↑	N/A	↑	↑	No
	Sulfate	-	N/A	-	-	No
	Uranium	↓	N/A	↓	↓	No
MW15-OB-14	Antimony	↓	N/A	↓	↓	No
	Arsenic	↑	N/A	↑	↑	No
	Cobalt	-	N/A	-	-	No
	Cyanide	↓	N/A	↓	↓	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	-	No
	Uranium	↓	N/A	↓	↓	No
MW20-BR-21	Antimony	-	N/A	-	-	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	-	-	No
	Cyanide	-	N/A	-	-	No
	Iron	-	N/A	-	-	No
	Sulfate	↓	N/A	↓	↓	No
	Uranium	-	N/A	-	-	No

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
MW-20-OB-21	Antimony	-	N/A	-	-	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	-	-	No
	Cyanide	-	N/A	-	-	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	-	No
	Uranium	-	N/A	-	↓	No
MW24-BR-21	Antimony	-	N/A	-	↓	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	-	-	No
	Cyanide	-	N/A	-	-	No
	Iron	-	N/A	-	↓	No
	Sulfate	-	N/A	-	-	No
	Uranium	-	N/A	-	-	No
MW-24-OB-21	Antimony	-	N/A	-	-	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	↓	-	No
	Cyanide	-	N/A	-	-	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	↓	No
	Uranium	-	N/A	↓	-	No

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
MW25-BR-21	Antimony	-	N/A	-	-	No
	Arsenic	↓	N/A	↓	↓	No
	Cobalt	↓	N/A	↓	↓	No
	Cyanide	-	N/A	-	-	No
	Iron	↑	N/A	↑	↑	No
	Sulfate	↓	N/A	↓	↓	No
	Uranium	-	N/A	-	-	No
MW25-OB-21	Antimony	-	N/A	-	-	No
	Arsenic	-	N/A	-	-	No
	Cobalt	-	N/A	-	-	No
	Cyanide	-	N/A	-	-	No
	Iron	↑	N/A	↑	↑	No
	Sulfate	-	N/A	↓	↓	No
	Uranium	-	N/A	-	↓	No
MWS-14-07 OB	Antimony	-	N/A	-	-	No
	Arsenic	-	N/A	-	-	No
	Cobalt	↓	N/A	↓	↓	No
	Cyanide	↓	N/A	↓	↓	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	-	No
	Uranium	↓	N/A	↓	-	No

Monitoring Location	Indicator Parameter	Mann-Kendall Analysis Result: Baseline Data	Mann-Kendall Analysis Result: Fall 2023	Mann-Kendall Analysis Result: Spring 2024	Mann-Kendall Analysis Result: Summer 2024	Groundwater Quality Trigger Threshold 1 Exceedance
MWS-14-07 BR	Antimony	↓	N/A	↓	↓	No
	Arsenic	-	N/A	-	-	No
	Cobalt	↓	N/A	↓	↓	No
	Cyanide	↓	N/A	↓	↓	No
	Iron	-	N/A	-	-	No
	Sulfate	-	N/A	-	-	No
	Uranium	↑	N/A	↑	↑	No

Notes:

N/A Trigger threshold not applicable for monitoring period

- No statistically significant trend

↑ Statistically significant upward trend

↓ Statistically significant downward trend

There were no groundwater quality Trigger Threshold 1 exceedances in the spring evaluation for the TMF.

Groundwater quality Trigger Threshold 1 was exceeded for cobalt in DP-C in the summer evaluation period as no statistically significant trend was calculated for the baseline data but a statistically significant upward trend was calculated for the full data set. The Trigger Threshold 1 action plan was implemented, which is a quality review of the data, a physical inspection of the monitoring well and associated area, and a review of available data to evaluate if the trigger threshold exceedance may be related to Mine activities or not.

The laboratory results for DP-C were reviewed. The laboratory report for DPC indicated the detection limit for two parameters had to be raised due to sample matrix effects but did not apply to cobalt. There were no outliers noted in the method blank, laboratory control sample, matrix spike, or surrogate recovery for cobalt at DP-C were satisfactory.

A physical inspection of drive-point piezometer DP-C was made. There were no anomalies in the visual observation of the well construction. The above ground portion of the drive-point piezometer riser, and cap appeared intact based on visual observation.

The concentration of cobalt at DP-C for the baseline period ranges from 0.3 µg/L to 1.5 µg/L with an average of 0.59 µg/L for 8 data points. Two monitoring events have occurred since the placement of tailings and/or soil in the TMF. The concentration of cobalt for the June 2024 sampling event was 0.68 µg/L and 3.41 µg/L for the August 2024 sampling event. The concentration of cobalt in the August 2024 sample is more than double the previous maximum concentration of cobalt for DP-C and, with no additional data available, appears to be an anomaly as the previous sample from June had a concentration of cobalt of 0.68 µg/L. The August 2024 sample corresponded with the switch in laboratories from BV to ALS. The confirmation sampling for DP-C was completed September 26, 2024, with laboratory results providing a concentration for cobalt of 0.34 µg/L, approximately one order of magnitude lower than the concentration in August 2024 of 3.41 µg/L. Considering the confirmation sample concentration, there is no trend for cobalt concentrations at DP-C and Trigger Threshold 1 is not exceeded. Therefore, as per the Trigger Threshold 1 action plan, monitoring is to continue as defined in the Plan. The next evaluation of groundwater quality trigger thresholds will occur following the completion of the fall water quality sampling event once the data is available.

2.3.3 Adaptive Management

The groundwater quantity and quality trigger locations were evaluated as per the adaptive management plan of the Plan. The following sections present recommendations and/or updates to the Plan and associated groundwater monitoring and trigger monitoring locations, frequency, thresholds, and/or rationale. Recommended changes to the water quantity and water quality monitoring programs are detailed below and will be incorporated into monitoring activities and reporting for 2025.

Pumped Volume Monitoring

No changes to the pumped volume monitoring program are recommended during this monitoring period.

Groundwater Level Monitoring

The following changes to the groundwater level monitoring program are recommended:

- Table 2-8 of the Plan included MHT seepage collection drain monitoring locations 96-03, 96-04, 96-09A1, 96-09A2, 96-09A3, 96-09A4, 96-11A1, 96-11A2, 96-12A, 96-12B, 96-14B, MW07-18, MW08-18, MW09-18, MW-H, MW-I, MW-J, and/or MW-K. The phrasing “and/or” was included to show that the list of wells is an example of wells that may be used to determine the inward horizontal hydraulic gradient as required, not a list of wells that must be used. The inward hydraulic gradient towards the MHT seepage collection system was assessed in 2024 using wells 96-03, 96-04, 96-09A1, 96-09A2, 96-09A3, 96-09A4, 96-11A1, 96-11A2, 96-12A, 96-12B (replaced by 23-12B), 96-14B, MW07-18, MW08-18, MW09-18, MW31-OB-23 (MW-H), and MW31-OB-23 (MW-I). These 16 locations are sufficient to assess the groundwater quantity trigger threshold associated with the MHT seepage collection drain, thus MW-J and MW-K are no longer scheduled for installation and will be removed from the monitoring program.
- The need to replace 96-12B and/or 96-14B with respect to groundwater quantity Trigger Threshold 4 should be part of the evaluation. Up to four new monitoring wells (MW-H, MW-I, MW-J, and MW-K) will be installed once construction of the north berm and Highway 11 realignment is complete due to issues with access and risk of new monitoring wells being damaged during construction.
- Installation of replacement monitoring well for MWS-14-06 with monitoring to be continued according to the Plan.
- Removal of DP6-14D, DP6-14S, 96-05, 96-06, 96-15A3, BH14-05, BH14-09, BH14-10, EP137, MW16-BR-14, MW16-OB-14, G5-OB1-14, G5-OB2-14, MW11-BR-14, and MW11-OB-14 from monitoring program. As indicated in the Plan, these monitoring wells were overprinted by mine infrastructure and monitoring is no longer required.

Groundwater Quality Monitoring

The following changes to the groundwater quality monitoring program are recommended:

- Installation of a replacement monitoring well for MWS-14-06 with monitoring to be continued according to the Plan.
- Removal of G5-OB1-14, G5-OB2-14, MW11-BR-14, MW11-OB-14, and Seep 11 from the monitoring program. As indicated by the Plan, these monitoring wells were overprinted by mine infrastructure and monitoring is no longer required.

The existing groundwater quantity and quality monitoring program with the above recommendations will be continued for the October 1, 2024 through September 30, 2025 monitoring period.

2.4 Use of Explosives in or Near-Water

This section describes the monitoring results and measures implemented to mitigate potential adverse effects on fish and fish habitat from the use of explosives near water in the 2024 monitoring period to satisfy conditions 3.2 and 3.15 of the federal EIS Decision Statement. The Plan (GGM 2021a) identifies an overpressure threshold of 50 kPa in water and a vibration threshold (PPV) of 13 mm/sec (in substrate). Both thresholds are applicable only to water that provides fish habitat. The overpressure threshold is applicable at any time of year and the vibration threshold is applicable only from April 1 to June 20, during the spring spawning season.

Kenogamisis Lake was identified as the closest waterbody to the Mine blasting. Blasting in the 2024 monitoring period primarily took place within the open pit to support operations. However, construction blasting was taking place in and around the open pit, as well as in two small areas: one to the east of the open pit to support construction of water management Pond A2 and one to the southwest of the open pit to support construction of the temporary bypass channel. Blasting was conducted as close as 350 m from the pit and 100 m from the Hardrock Townsite (East of the open pit) to the Kenogamisis Lake high water mark. Figure 2.7 shows blast locations for the current monitoring period, along with the monitoring locations presented in the Plan.

2.4.1 Methods

Two fish habitat monitoring locations, FH01 and FH02, were monitored in Kenogamisis Lake in accordance with the Plan. The monitor at location FH02 was installed at the start of the Project, during the early stages of mine construction. The monitor at location FH01 was installed on June 23, 2024, and data is available from June 23 to September 30, 2024. The monitors experienced periods of downtime as follows: FH02 was not operational from April 15, 6:45 to 15:15; from July 4, 13:40 to July 16, 11:09; and from July 16, 22:07 to July 18, 16:38. FH01 was non-functional from June 26, 15:00 to July 18, 14:40, and again from July 20, 6:25 to July 23, 16:23. During these downtime periods, blasts occurred and the minimum setback distance was calculated for both vibration and overpressure levels to mitigate potential effects on fish.

2.4.2 Results

Two vibration exceedances were noted at FH02 on May 16 and May 18, 203, during the April 1 to June 20 spawning period. Table 2.14 provides details of those blast events and monitoring results. There were no overpressure threshold exceedances in the 2024 monitoring period. Appendix D includes a comprehensive listing of blasting events within this reporting period, along with details each blast and the monitored vibration and pressure levels.

Total charge and maximum charge per hole were within typical range for blast activities at the mine on May 16 and May 18, 2024. Subsequent conversations with mine engineers noted that some product was lost to an underground void (i.e., underground drift) on May 16, resulting in less confinement of the drill holes. This anomaly may have affected vibrations as measured at FH02 on these dates. Subsequent to these vibration exceedances, hole separation during detonation was check and found to be within acceptable standards.

503000 504000 505000 506000

5504000 5503000 5502000

WC- A
WC- C
WC- D
WC- B
Barton Bay (East)
Mosher Lake
Kenogamisis Lake (Central Basin)
Kenogamisis Lake (Southwest Arm)
FH01
FH02

N

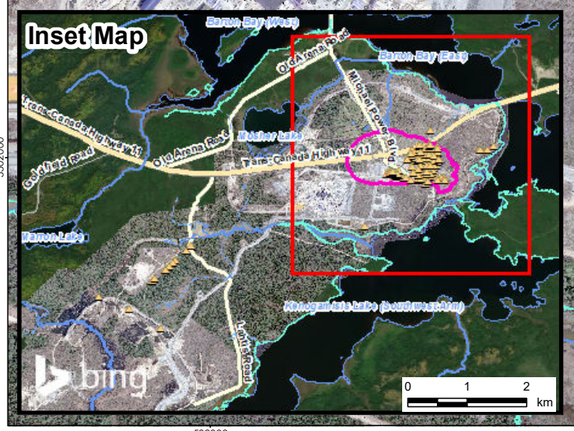
0 100 200 m
1:12,500

Stantec

Legend

- Fish Blasting Monitoring Location
- Blast Locations
- Kenogamisis Lake High Water Mark (329.85 masl)
- Kenogamisis Lake Conservative High Water Mark (330 masl)
- Open Pit- Full Extent
- Contour Line (10m intervals)
- Highway
- Major Road
- Local Road
- New Highway 11 Alignment
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody





Notes

1. Coordinate System: NAD 1983 UTM Zone 16N

2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.

3. Orthographic Imagery Source: © 2024 Microsoft Corporation © 2024 Maxar ©CNES (2024) Distribution Airbus DS
© 2024 Microsoft Corporation Earthstar Geographics SIO

4. Satellite imagery source: Pleaides NEO imagery, May 26, 2023.

December 2024
160901121

Client/Project

Greentsone Gold Mines GP Inc (GGM)
Greenstone Mine Project

Figure No.

2-7.1

Title

Blast Locations, Fish Habitats and Monitoring Location FH01 & FH02

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Revised: 2024-12-11 By: bcowper

Table 2.14 Summary of Blast Events Exceeding Established Thresholds During Spawning Period

Mining Blast ID	Date	Blast Details		UTM Coordinates (NAD 83 Zone 16N)			Measured Pressure in Water (kPa) [2]	Measured PPV (mm/s) [3]
		Total Emulsion (kg)	Charge Size/ Delay (kg)	Northing	Easting	Elevation (MASL)		
P1-10300-016A	16-May-24 [1]	87,195	415	504,947.44	5,502,711.07	305	0.34	15.06
P1-10300-016B [4]	18-May-24 [1]	72,812	387	504,840.46	5,502,584.55		0.42	14.09
P1-10300-016C [4]		9,185	296					

Notes:

[1] Within spawning period (April 1 to June 20).

[2] Pressure in water is measured with hydrophone.

[3] Measured PPV vector sum in mm/s.

[4] Simultaneous blasts potentially caused exceedance.

Following are observations on the data measured in the 2024 monitoring period:

- Throughout the 2024 monitoring period, a total of 169 blasts were conducted. Two vibration exceedances and no overpressure exceedances were identified during this reporting period.
- During the current reporting period, vibration levels remained below the threshold of 13 mm/sec, except for the exceedances noted above. The recorded overpressure for blast events was below the 50 kPa recommended limit in the water.
- There were periods during which monitors FH01 and FH02 were not operational, resulting in no recorded vibration levels in the substrate or pressure levels in the water. Vibration and pressure levels were assessed through calculations, as per the DFO guidelines (Wright and Hopky 1998), that considered the charge size and distance between the blast and closest waterbody for those downtime periods.
- The maximum charge size per delay identified for the period of missing data was 668 kg for a pit blast located 980 m from the closest waterbody. The shortest distance from the waterbody to the nearest blast location in the pit was 540 m, which is well above the minimum required setback distance for a charge size of 668 kg to meet the vibration limit of 13 mm/s and the recommended pressure limit of 50 Kpa for fish habitat. The minimum setback distance for vibration and pressure compliance were calculated to be 390 m and 200 m respectively.
- Similarly, the maximum charge size per delay identified for the water management pond construction was 44 kg and the shortest distance from the waterbody to the nearest blast location was 110 m, which is above the minimum required setback distances calculated for vibration and pressure compliance for water management pond construction (100 m and 51 m, respectively).
- Based on the calculations, vibration and pressure levels on fish habitat are expected to be within the limits during blasting for construction and operations of the mine, and the development of water management ponds for the periods of monitor downtime when the data was not recorded.

2.4.3 Adaptive Management

No overpressure exceedances were identified for the 2024 monitoring period. However, vibration from blasting exceeded 13mm/sec two times in this monitoring period at locations that could affect fish habitat, including fish eggs and larvae. Monitoring during subsequent blasting events indicated that adjusted blast locations and blast charges did not result in additional vibration exceedances during the spawning period. GGM will continue to monitor blasting activities and implement the adaptive management plan to mitigate potential effects on fish and fish habitat. GGM continues to receive event summary reports from the hydrophone monitoring platform that summarizes overpressure and vibration results immediately after blasts, to allow real-time investigation, follow-up and corrective action implementation as appropriate.

2.5 Concentration of Mercury and Methylmercury in Water

The realignment of GFC occurred to facilitate the siting of the TMF and to offset predicted effects on fish and fish habitat. GFC was diverted into the existing SWAT, which increased flow in the SWAT and resulted in an increase in the permanently inundated area by approximately 15 ha. The management and monitoring measures identified in this section deal specifically with potential effects related to changes in mercury concentrations and methylmercury generation in the GFC diversion and inundated areas associated with SWP 4 and SWP 5 upstream of the grade control structures. The surface water monitoring locations, sampling frequency, and sampling methods as they pertain to mercury and methylmercury are presented in the following sections.

2.5.1 Methods

The following text provides a description of the data collection, laboratory, and data analysis methods used to assess changes in the concentration of methylmercury in surface water.

2.5.1.1 Data Collection

Surface water quality at stations 25, 39, and 52 presented in Figure 2.1, were monitored monthly and assessed for potential changes to mercury and methylmercury as a result of the GFC diversion and associated inundated areas.

Table 2.15 presents the frequency of sampling and rationale for each monitoring station for surface water quality. Three surface water monitoring locations were monitored monthly for mercury and methylmercury, when it was safe to do so, to assess seasonal fluctuations in water quality. Monthly monitoring data were used to conduct trend analysis of mercury and methylmercury to differentiate whether observed fluctuations are due to natural/seasonal sample variation, or if they may indicate a mine-related effect. The surface water quality monitoring stations are shown in Figure 2.1.

Table 2.15 Receiving Environment Surface Water Quality Monitoring Locations, Frequency, and Rationale

Station	Frequency	Rationale
25	Monthly	Monitor potential effects of the Project, including the GFC diversion, on mercury and methylmercury concentrations in surface water at the downstream end of the GFC diversion
39	Monthly	Monitor potential effects of the Project, including the GFC diversion, on mercury and methylmercury concentrations in surface water in SWP3 and the middle section of the channel diversion
52	Monthly	Document background mercury and methylmercury concentrations in surface water upstream of the GFC diversion

Surface water grab samples were collected using laboratory-provided bottles containing the appropriate preservatives. Water quality samples were taken just below the surface of the water (0.1 m deep). Water quality samples were collected by a trained technician using suitable sampling equipment. Samples were preserved (if applicable) and transported in appropriate containers to maintain the integrity of sample temperatures and hold times. Samples were submitted to a CALA accredited laboratory under COC documentation.

2.5.1.2 Laboratory Analysis

The accredited CALA laboratory used the authorized analytical methods set out in the ISW ECAs, PTTWs, and applicable regulations (i.e., MDMER).

The method detection limits (MDLs) used by the CALA laboratory for mercury and methylmercury have been revised since the beginning of the baseline monitoring program. MDLs for mercury and methylmercury are currently 0.0001 µg/L and 0.00005 µg/L, respectively. The current MDLs can detect the concentrations of mercury and methylmercury in surface water and have been used to develop baseline 95th percentile concentrations for surface water quality stations 25, 39, and 52.

The QA/QC principles for sampling and laboratory analysis outlined in Environment Canada (2012) were followed. Duplicate samples were collected from a subset of samples collected to quantify environmental variability and analytical consistency, with a minimum of one duplicate sample in approximately 10 surface water samples per sample set. A minimum of one travel and one field blank were collected per sampling event to detect potential sources of contamination.

Mercury and methylmercury data were entered into an electronic database and was cross-checked against the original laboratory certificate of analysis and validated.

2.5.1.3 Data Analysis

The data set for mercury and methylmercury at the applicable stations was compiled into a spreadsheet to present the monitoring completed for the 2024 monitoring period. For the 2024 monitoring period, monthly data for applicable stations were compared to trigger thresholds for surface water quality as defined in the Plan (GGM 2021a). Sampling at station 39 for mercury and methylmercury could not be conducted in November 2023 due to unsafe ice conditions and access issues.

The trigger monitoring stations, indicator parameters, and rationale are presented in Table 2.16. The locations of the trigger threshold monitoring stations are presented in Figure 2.2.

Table 2.16: Mercury and Methylmercury Trigger Threshold Monitoring Stations

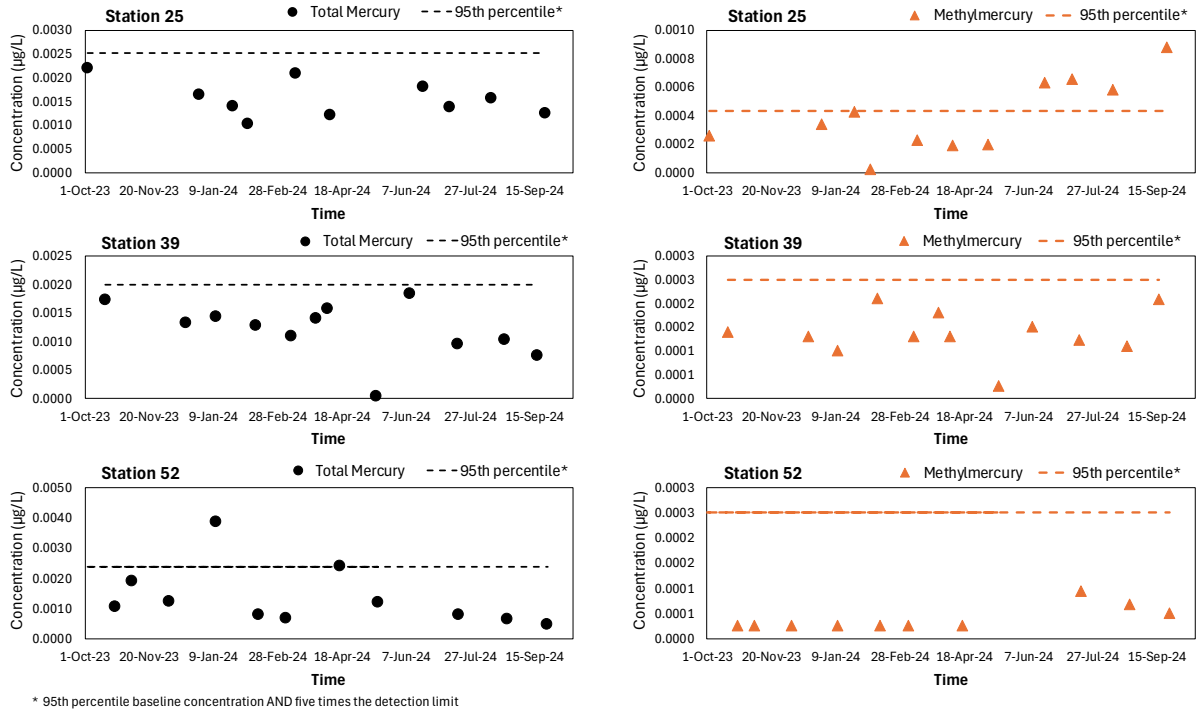
Trigger Monitoring Station	Frequency of Measurement	Indicator Parameter	Rationale
25	Monthly	Hg, MeHg	Monitor for potential effects of mining activities on the water at the mouth of the SWAT
39	Monthly	Hg, MeHg	Monitor for potential effects of mining activities on SWAT, downstream of GFC Diversion
52	Monthly	Hg, MeHg	Background station upstream GFC Diversion

2.5.2 Results

Mercury and methylmercury are included in the surface water quality monitoring results presented in Section 2.2.2.1. Generally, the concentration of mercury and methylmercury remained less than the seasonal 95th percentile concentration with no overall trend in the data except at station 25 for methyl mercury, as described in Section 2.2.3. At station 25, the concentration of methyl mercury was greater than the seasonal 95th percentile concentration for June, July, August, and September resulting in an exceedance of Trigger Threshold 1 and implementation of the Trigger Threshold 1 action plan. As a result, a Trigger Threshold 2 exceedance for methyl mercury at station 25 was identified in September 2024. The Trigger Threshold 2 action plan is being implemented and an investigation into the exceedance is being completed. The outcome of the investigation will be reported once complete. Concentrations of methyl mercury were predicted to increase within the SWAT due to inundation of 15 ha of land related to the construction of grade control structures within the SWAT. The investigation will evaluate whether the concentrations of methyl mercury at station 25 are consistent with that predicted in the EIS/EA.

During the 2024 monitoring period, methylmercury concentrations at stations 25, 39, and 52 were below the Canadian Water Quality Guidelines for the Protection of Aquatic Life (CWQG-FAL).

Figure 2.8 Mercury and Methylmercury Concentrations at Stations 25, 39 and 52



* 95th percentile baseline concentration AND five times the detection limit

2.5.3 Adaptive Management

Mercury and methylmercury are included in the surface water quality monitoring adaptive management plan, as indicated in Section 2.2.3.1. As such, Section 2.2.3.1 should be referred to for changes to the adaptive management to support condition 5.4 of the federal EIS Decision Statement. There were no Trigger Threshold 1 and 2 exceedances for mercury at stations 25, 39, and 52 during the 2024 monitoring period. Methylmercury did not exceed Trigger Thresholds 1 and 2 at stations 39 and 52 in the 2024 monitoring period. In the same period, Trigger Thresholds 1 and 2 were exceeded for methylmercury at station 25, which is being addressed in an investigation report that is underway. Therefore, there is no adaptive management recommended at this time.

2.6 Fish Tissue Monitoring – SWAT

The management and monitoring measures described in this section deal specifically with condition 5.4 of the federal EIS Decision Statement and potential effects related to changes in total mercury concentrations and methylmercury generation in the Goldfield Creek diversion and associated inundated areas. Condition 5.5.1 of the federal EIS Decision Statement, which also relates to fish tissue, is addressed in Section 2.7 of this report.

The purpose of the fish tissue sampling was to monitor potential changes in the concentration of total mercury and methylmercury in fish tissue and, if changes were observed, to determine whether there is an adverse effect on fish health or an increased risk to human and wildlife consumers of fish. The fish tissue methylmercury residue guideline of 0.033 mg/kg ww was established for the protection of wildlife that consume aquatic organisms (CCME 2000). An effect on fish tissue from mercury occurs when mean total mercury exceeds 0.5 mg/kg ww from an exposure area and is statistically different from, and higher than, the concentration of total mercury in fish tissue that is taken from a reference area (MDMER, Schedule 5, s. 1, 2023). The monitoring program documented potential changes to the concentration of mercury and methylmercury in fish tissue. The assessment of risk to human health is described under the reporting requirements of the Indigenous Peoples Health Risk Assessment Follow-Up Plan (GGM 2020a).

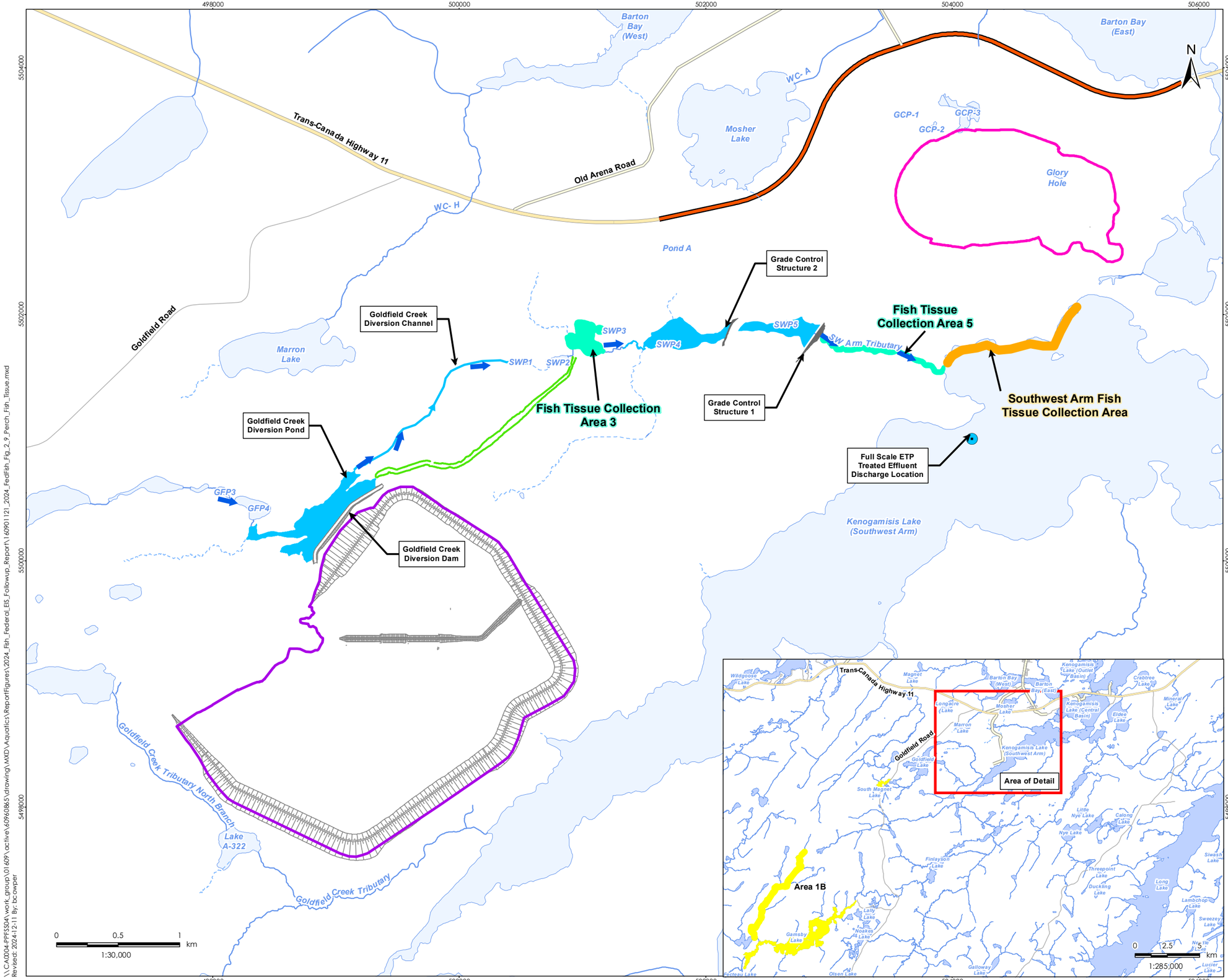
The realignment of Goldfield Creek was completed to facilitate siting of the TMF and to offset predicted effects on fish and fish habitat. During 2021 and 2022, the new channel and diversion pond was constructed, and flow was diverted from the old Goldfield Creek channel into the newly constructed Goldfield Diversion Pond (GFDP) in November 2022. The GFDP filled slowly in late 2022 and early 2023, with flow entering the new channel from the GFDP outlet in mid-January 2023. At that time, water flowed into the new Goldfield Creek diversion channel and then through what was previously referred to as the SWAT. The construction of grade control berm structures across the SWAT and increased flow into the SWAT has resulted in the permanent inundation of approximately 15 ha of wetland habitat that was only occasionally inundated under baseline conditions. Often, newly inundated habitat and associated decomposition of the flooded vegetation can lead to temporary increases in the amount of mercury and methylmercury in aquatic habitats (CCME 2000), which was previously predicted to occur following the inundation in the Study Area (Stantec 2018a/b, Hutchinson Environmental Services Ltd. 2018, MOECC 2018).

The need for this study was driven primarily by the realignment of Goldfield Creek, and the associated inundation of adjacent wetlands as described in the EIS (Stantec 2017; Stantec 2018a). Flow from Goldfield Creek was diverted into the new Goldfield Creek realignment and so a before/after comparison of fish tissue concentrations can be completed. However, in spring 2023, the Goldfield Creek diversion channel failed, resulting in bed and bank erosion and sediment transport and deposition downstream.

As discussed in Section 1.2, a temporary bypass channel was constructed in winter 2023/2024. This temporary bypass channel conveyed water from the GFDP, around the isolated Goldfield Creek Diversion Channel, and into Southwest Pond 3. This resulted in a new flow path upstream of this fish tissue Study Area. Potential influences of this activity on this current study are accounted for by sampling water, sediment and biota upstream and downstream of the temporary bypass channel.

2.6.1 Methods

A before-after control-impact (BACI) study design was initiated to examine potential changes in mercury and methylmercury concentrations in fish tissue along the Goldfield Creek realignment. Approved methods for the BACI study are presented in the Plan (GGM 2021a). Required data collection was completed during the 2024 monitoring period, which involved boat electrofishing between June 5, 2024, and June 10, 2024, to collect age 1 Yellow Perch from various sampling areas (Figure 2.9). South Magnet Lake is the reference area for Area 3, while Area 1B in Gamsby Lake is the reference area for Area 5. The collection methods used in the 2024 monitoring period were consistent with previous baseline data collection methods to allow for meaningful data comparison (Stantec 2020). A summary of sampling effort for sampling areas and years used in subsequent analyses is provided in Table 2.17. Data collected in 2021 and prior are pre-inundation (baseline), and data collected in 2023 and afterwards are post-inundation (test data).



Stantec

Legend

- Fish Tissue Collection Area
- Southwest Arm Fish Tissue Collection Area
- Fish Tissue Reference Area
- Flow Direction
- Diffuser Location
- Tailings Management Facility
- Open Pit- Full Extent
- Diversion Channel
- Temporary By-Pass Channel Limit of Grading
- Highway
- Major Road
- Local Road
- New Highway 11 Alignment
- Watercourse- Permanent
- Watercourse- Intermittent
- Waterbody

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.

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Client/Project

Greenstone Gold Mines GP Inc (GGM)
Greenstone Mine

Figure No.

2-7

Title

Yellow Perch Collection Areas (2018, 2019, 2021, 2023 and 2024)

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Revised: 2024-12-11 By: bcowper

Table 2.17 Boat Electrofishing Effort of Sampling Areas from 2018 to 2024

Sampling Area	Year	Effort (Electrofishing seconds)	Voltage (V)	Frequency (Hz)	Current (Amperes)	Power (W)
Southwest Arm/Area 5	2018	5083	300	120	6	1800
	2021	4127	200	120	8	1600
	2023	4887	250	120	6	1500
	2024	3983	250	120	8	2000
Gamsby Lake/Area 1B	2018	14193	300	120	6	1800
	2019	6521	300	120	8	2400
	2021	3521	500	120	8	4000
	2023	6120	250	120	6	1500
	2024	2736	250	120	6	1500
Area 3	2019	6341	300	120	9	2700
	2021	4332	100	120	8	800
	2023 *	6692	250	120	8	2000
	2024	4023	250	120	8	2000
South Magnet Lake	2023	6538	250	120	6	1500
	2024	1294	250	120	6	1500

Note:
* no age 1 Yellow Perch were caught in Area 3 in 2023.

Total length, fork length, and weight were measured and recorded from fish collected for tissue analysis. Composite samples were created by combining multiple whole Yellow Perch into a single sample to achieve a minimum sample mass of 10 g wet weight (n= 3 to 13 individuals). Some of the composite samples contained a higher sample mass (i.e. more individuals) to facilitate duplicate analysis. Muscle tissue composite samples were sent to a CALA laboratory for the analysis of metals (including mercury and methylmercury) in addition to supporting parameters (percent lipid and percent moisture). The laboratory followed the MOECC (2014) “Protocol for the Collection of Fish Samples for Contaminant Analyses” and Environment Canada (2012) “Metal Mining Technical Guidance for Environmental Effects Monitoring” during tissue preparation. Where method requirements differed, the more rigorous method was used. The detection limits were between 0.001 and 0.005 mg/kg wet weight for total mercury and 0.0004 mg/kg wet weight for methylmercury. Duplicate analysis was performed by the laboratory on approximately 10% of the composite samples. Relative percent difference (RPD) between duplicates for total mercury and methylmercury tissue samples were calculated following Environment Canada (2012) protocols.

To determine age of the individuals, some individuals of similar sizes as the individuals used in composite samples were retained and sent to Jon Tost, North Shore Environmental Services in Thunder Bay.

To determine whether mean total mercury and methylmercury concentrations of age 1 Yellow Perch tissue differed between sampling areas and years, following the Goldfield Creek realignment and inundation of adjacent wetlands, one-way ANOVAs with post-hoc Tukey tests (or nonparametric equivalents if assumptions of normality and homogeneity of variance were not met) and two-tailed independent t-tests (for comparisons between two sampling areas or years) were used at $p \leq 0.05$. Specifically, to fulfill the control-impact component of the BACI study, the mean total mercury and methylmercury concentrations were compared within years, between the sampling areas for 2024 (Area 5, Area 1B, Area 3, and South Magnet Lake), 2023 (Area 5, Area 1B, and South Magnet Lake), 2021 (Area 5, Area 1B, and Area 3), 2019 (Gamsby Lake and Area 3), and 2018 (Gamsby Lake and Southwest Arm). Additionally, to fulfill the before-after component of the BACI study, fish tissue mean total mercury and methylmercury concentrations from each sampling area were compared among years to evaluate whether the concentrations changed over time. Table 2.18 and Table 2.19 outline each of the comparisons and statistical analyses performed for the before-after and control-impact components, respectively. Observed significant effects (statistical differences of $p < 0.05$) were then evaluated to assess the magnitude of the effect. Effects with a critical effect size (CES) >25% were deemed biologically significant (EC 2012).

In 2018, age-1 Yellow Perch could not be captured in Area 5, so fishing efforts were expanded into the Southwest Arm of Kenogamisis Lake. Although not from the same sampling area, the Southwest Arm results are presented here with the Area 5 data for context. Insufficient numbers of age 1 Yellow Perch were collected from Area 3 in 2023 despite an extensive sampling effort (6,692 boat electrofishing seconds) and was, therefore, unable to be used in before-after and control-impact comparisons.

Table 2.18 Statistical Analyses for Comparisons of Total Mercury and Methylmercury Concentrations Across Years for Each Sampling Area from 2018 to 2023

Sampling Area	Years	Statistical Analysis	
		Total Mercury	**Methylmercury**
Area 5/Southwest Arm (Exposure)	2018 [2] 2021 2023 2024	One-way ANOVA Post-hoc Tukey's HSD	One-way ANOVA Post-hoc Tukey's HSD
Gamsby Lake/Area 1B	2018 2019 2021 2023 2024	One-way ANOVA Post-hoc Tukey's HSD	One-way ANOVA Post-hoc Tukey's HSD
Area 3	2019 2021 2024	[1]Kruskal-Wallis test [1]Post-hoc Dunn's test	[1]Kruskal-Wallis test [1]Post-hoc Dunn's test

Sampling Area	Years	Statistical Analysis	
		Total Mercury	**Methylmercury**
South Magnet Lake	2023 2024	Two-tailed independent t-test	Two-tailed independent t-test

Notes:

[1] Nonparametric tests were performed for methylmercury comparisons as data did not meet assumptions of normality or homogeneity of variance for one-way ANOVA.

[2] Age 1 Yellow Perch Could not be collected from Area 5 in 2018, so sampling effort was extended into the Southwest Arm of Kenogamisis Lake

Table 2.19 Statistical Analyses for Comparisons of Total Mercury and Methylmercury Concentrations Between Reference and Exposure Sampling Areas from 2018 to 2023

Year	Sampling Areas	Statistical Analysis	
		Total Mercury	**Methylmercury**
2018	Gamsby Lake (Reference) [2]Southwest Arm (Exposure)	Two-tailed independent t-test	Two-tailed independent t-test
2019	Gamsby Lake (Reference) Area 3 (Exposure)	Two-tailed independent t-test	Two-tailed independent t-test
2021	Area 1B (Reference) Area 3 (Exposure) Area 5 (Exposure)	One-way ANOVA Post-hoc Tukey's HSD	One-way ANOVA Post-hoc Tukey's HSD
2023	Area 1B (Reference) South Magnet Lake (Reference) Area 5 (Exposure)	One-way ANOVA Post-hoc Tukey's HSD	One-way ANOVA Post-hoc Tukey's HSD
2024	Area 1B (Reference) South Magnet Lake (Reference) Area 3 (Exposure) Area 5 (Exposure)	[1]Kruskal-Wallis test [1]Post-hoc Dunn's test	[1]Kruskal-Wallis test [1]Post-hoc Dunn's test

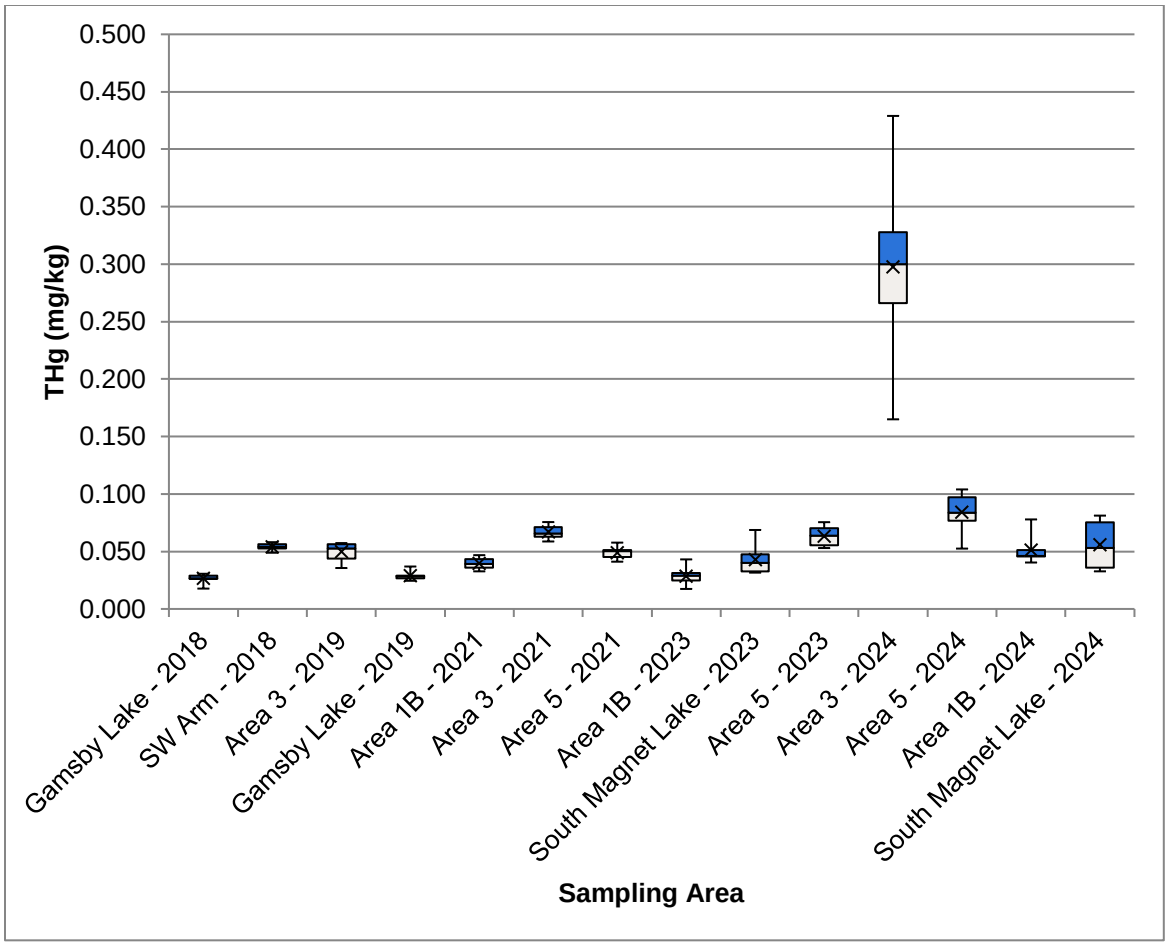
Notes:
[1] Nonparametric tests were performed for comparisons as data did not meet assumptions of normality or homogeneity of variance for one-way ANOVA.
[2] Age 1 Yellow Perch Could not be collected from Area 5 in 2018, so sampling effort was extended into the Southwest Arm of Kenogamisis Lake

2.6.2 Results

Fish tissue sampling was required (GGM 2021a) and completed during the 2024 monitoring period. The fish tissue sampling laboratory results are presented in Appendix E. Morphometric (total and fork length, total weight, and composite tissue sample ID of individuals) and catch summary (species diversity, catch per unit effort, number of species captured) data are also provided in Appendix E.

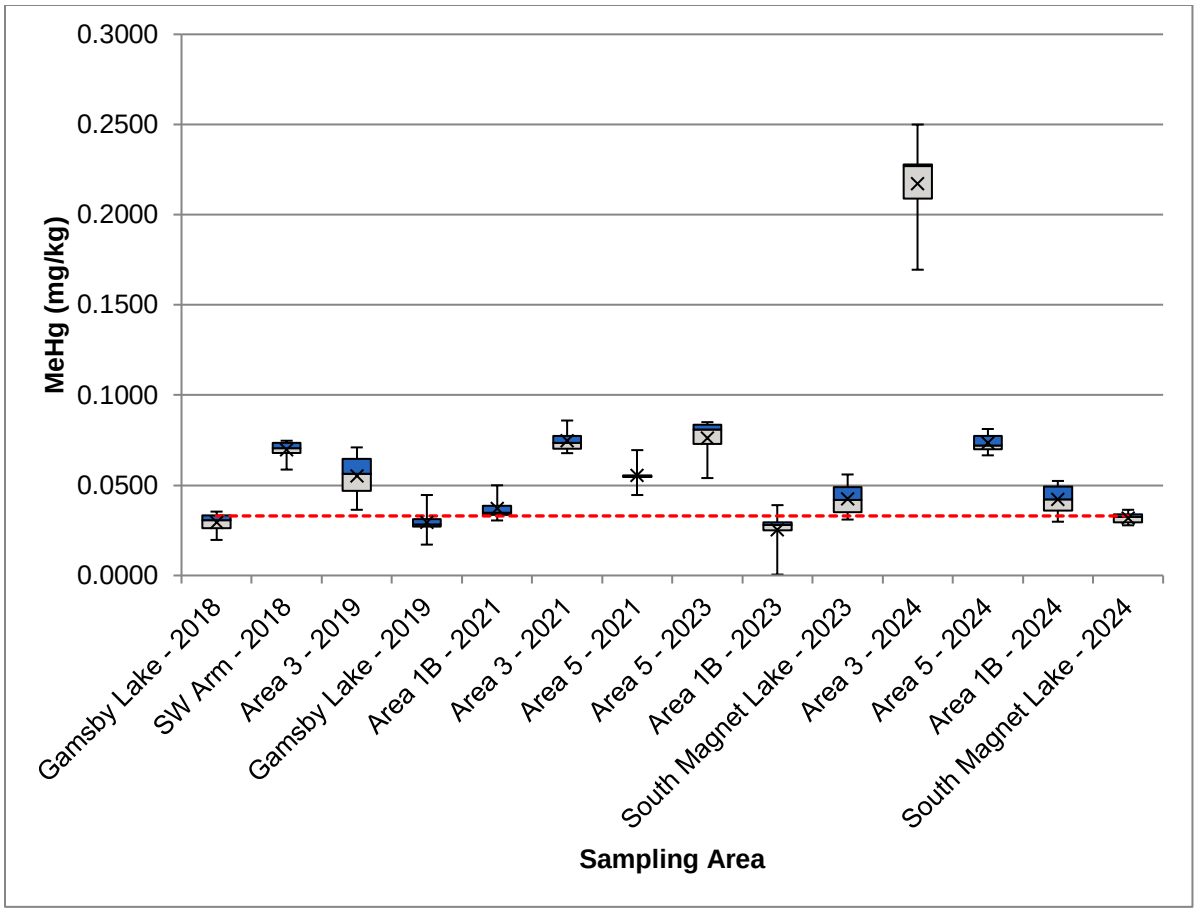
Total mercury and methylmercury concentrations in age 1 Yellow Perch tissue were variable spatially and temporally (Figure 2.10, Figure 2.11). Among all sampling years and sampling areas, mean total mercury concentrations of age 1 Yellow Perch tissue ranged from 0.026 to 0.297 mg/kg ww, while mean methylmercury concentrations ranged from 0.025 to 0.217 mg/kg ww. The highest total mercury and methylmercury concentrations were observed in Area 3 (2021 and 2024) and Area 5 (2023 and 2024), whereas the lowest total mercury and methylmercury concentrations of fish tissue were observed in Gamsby Lake (2018 and 2019) and Area 1B (2023). Between 2018 and 2024, the mean methylmercury concentration in age 1 Yellow Perch tissue exceeded the 0.033 mg/kg tissue residue guideline (CCME 2000) in 10 of 14 sampling events. Mean methylmercury concentrations of fish tissue from only Gamsby Lake (2018 and 2019), Area 1B (2023), and South Magnet Lake (2024) fell below the tissue residue guideline. Total mercury concentrations of fish tissue did not exceed the 0.5 mg/kg ww threshold needed to establish an effect on fish tissue (MDMER, Schedule 5, s. 1, 2023). Summary statistics for total mercury (number of composites, mean, median, maximum, minimum, standard deviation, standard error) are provided in Table 2.20. Summary statistics for methylmercury are provided in Table 2.21.

Figure 2.10 Boxplot of Total Mercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from all Sampling Areas Between 2018 and 2024



Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'.

Figure 2.11 Boxplot of Methylmercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from all Sampling Areas Between 2018 and 2024



Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'. The fish tissue methylmercury residue guideline of 0.033 mg/kg ww for the protection of wildlife that consume aquatic organisms (Environment Canada 2000) is denoted with the red dashed line.

Table 2.20 Summary Statistics for Total Mercury Concentration (mg/kg ww) in Age 1 Yellow Perch Tissue Composites from Sampling Areas Between 2018 and 2024

Sampling Area	Year	Number of Composites	Mean	Median	Maximum	Minimum	Standard Deviation	Standard Error
Gamsby Lake	2018	8	0.02645	0.02670	0.03060	0.01770	0.00403	0.00142
SW Arm	2018	8	0.05413	0.05405	0.05810	0.04890	0.00308	0.00109
Area 3	2019	10	0.05001	0.05240	0.05730	0.03560	0.00785	0.00248
Gamsby Lake	2019	10	0.02898	0.02830	0.03690	0.02450	0.00393	0.00124
Area 1B	2021	7	0.03956	0.03900	0.04680	0.03270	0.00513	0.00194
Area 3	2021	7	0.06679	0.06560	0.07560	0.05870	0.00638	0.00241
Area 5	2021	7	0.04880	0.05010	0.05770	0.04110	0.00558	0.00211
Area 1B	2023	7	0.02871	0.02900	0.04310	0.01740	0.00809	0.00306
South Magnet Lake	2023	7	0.04296	0.03990	0.06870	0.03160	0.01356	0.00513
Area 5	2023	7	0.06330	0.06360	0.07550	0.05300	0.00885	0.00334
Area 1B	2024	7	0.05124	0.04610	0.07790	0.04040	0.01248	0.00472
South Magnet Lake	2024	7	0.05571	0.05320	0.08120	0.03270	0.02143	0.00810
Area 5	2024	7	0.08397	0.08360	0.10400	0.05250	0.01751	0.00662
Area 3	2024	7	0.29743	0.30000	0.42900	0.16500	0.08051	0.03043

Table 2.21 Summary Statistics for Methylmercury Concentration (mg/kg ww) in Age 1 Yellow Perch Tissue Composites from Sampling Areas Between 2018 and 2024

Sampling Area	Year	Number of Composites	Mean	Median	Maximum	Minimum	Standard Deviation	Standard Error
Gamsby Lake	2018	8	0.02933	0.03065	0.03540	0.01970	0.00556	0.00197
SW Arm	2018	8	0.06963	0.07055	0.07470	0.05870	0.00530	0.00187
Area 3	2019	10	0.05508	0.05650	0.07100	0.03640	0.01222	0.00386
Gamsby Lake	2019	10	0.02936	0.02835	0.04460	0.01710	0.00690	0.00218
Area 1B	2021	7	0.03707	0.03470	0.05000	0.03050	0.00664	0.00251
Area 3	2021	7	0.07461	0.07340	0.08590	0.06780	0.00653	0.00247
Area 5	2021	7	0.05560	0.05500	0.06950	0.04460	0.00727	0.00275
Area 1B	2023	7	0.02521	0.02800	0.03900	[2]0.00050	0.01192	0.00450
South Magnet Lake	2023	7	0.04243	0.04200	0.05600	0.03100	0.00941	0.00356
Area 5	2023	7	0.07614	0.08100	0.08500	0.05400	0.01102	0.00417
Area 1B	2024	7	0.04216	0.04220	0.05240	0.02980	0.00856	0.00324

Sampling Area	Year	Number of Composites	Mean	Median	Maximum	Minimum	Standard Deviation	Standard Error
South Magnet Lake	2024	7	0.03190	0.03250	0.03640	0.02780	0.00307	0.00116
Area 5	2024	7	0.07351	0.07200	0.08120	0.06660	0.00539	0.00204
Area 3	2024	7	0.21721	0.22700	0.25000	0.16950	0.02522	0.00953

Notes:

[1] Values greater than the methylmercury tissue residue guideline (0.033 mg/kg ww) for the protection of wildlife consumers of aquatic biota are shaded.

[2] One non-detection of a composite sample from Area 1B in 2023. The value used was the detection limit divided by two.

Changes in Total Mercury and Methylmercury Over Time

Increases of mean total mercury concentrations in age 1 Yellow Perch tissue were observed in exposure sites (Area 5 and Area 3) across sampling years (Table 2.22). The mean total mercury concentration from Area 5 was significantly higher in 2024 than in 2021, 2023, and the Southwest Arm in 2018 ($p < 0.05$) (Figure 2.12). The mean total mercury concentration of age 1 Yellow Perch tissue from Area 3 was significantly higher in 2021 than 2019 ($p < 0.05$) (both pre-construction years) and significantly higher in 2024 than 2019 ($p < 0.05$) (Figure 2.13). Mean total mercury in age 1 Yellow Perch tissue from Area 1B was significantly higher in 2024 than in previous years in Gamsby Lake (2018 and 2019) and Area 1B (2021 and 2023) ($p < 0.05$) (Figure 2.14). Mean total mercury in age 1 Yellow Perch tissue from South Magnet Lake did not significantly differ between 2023 and 2024 ($p > 0.05$) (Figure 2.15).

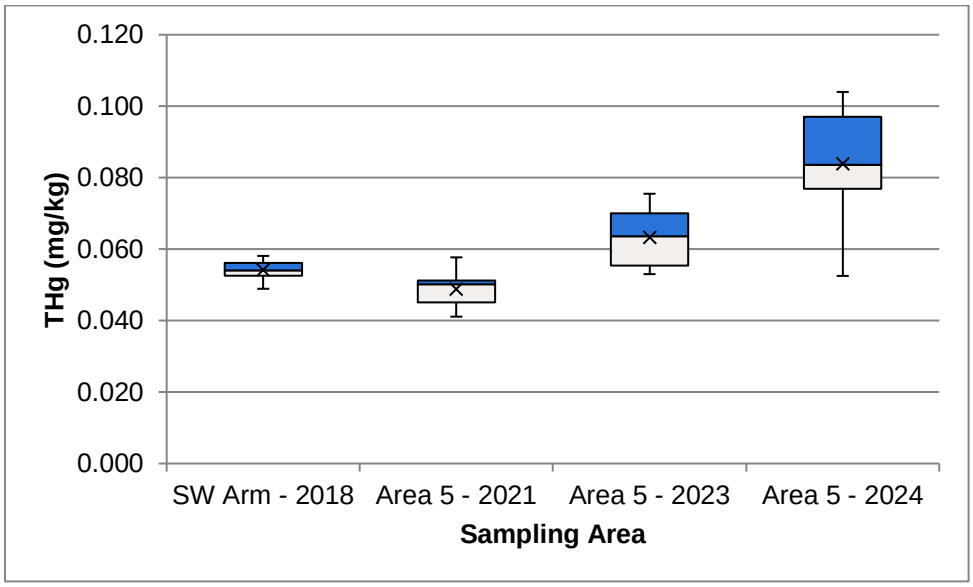
Table 2.22 Summary of Before-After Statistical Comparisons of Total Mercury Concentrations (mg/kg ww) of Age 1 Yellow Perch Tissue Composites from Reference and Exposure Areas

Sampling Area	[1]Pairwise Comparison		Statistical Analysis	P-value	[3]Magnitude (%)	[2]>CES	Statistical Power
Area 5/Southwest Arm (Exposure)	2018	2021	One-way ANOVA, Tukey's HSD	7.42E-01	-9.8	No	0.612
	2018	2023		3.20E-01	17.0	No	0.741
	2018	2024		3.52E-05	55.1	Yes	0.994
	2021	2023		5.83E-02	29.7	Yes	0.956
	2021	2024		4.76E-06	72.1	Yes	0.999
	2023	2024		4.10E-03	32.7	Yes	0.796
Area 3 (Exposure)	2019	2021	Kruskal-Wallis Test, Dunn Test	4.39E-02	33.5	Yes	0.998
	2019	2024		2.55E-05	494.7	Yes	1.000
	2021	2024		1.91E-01	345.3	Yes	1.000

Sampling Area	[1]Pairwise Comparison		Statistical Analysis	P-value	[3]Magnitude (%)	[2]>CES	Statistical Power
Area 1B/Gamsby Lake (Reference)	2018	2019	One-way ANOVA, Tukey's HSD	9.44E-01	9.6	No	0.267
	2018	2021		9.65E-03	49.6	Yes	1.000
	2018	2023		9.72E-01	8.6	No	0.099
	2018	2024		1.03E-06	93.7	Yes	0.999
	2019	2021		3.74E-02	36.5	Yes	0.996
	2019	2023		1.00E+00	-0.9	No	0.030
	2019	2024		3.17E-06	76.8	Yes	0.995
	2021	2023		5.50E-02	-27.4	Yes	0.850
	2021	2024		3.28E-02	29.5	Yes	0.629
	2023	2024		1.11E-05	78.5	Yes	0.980
South Magnet Lake (Reference)	2023	2024	Two-tailed independent t-test	2.52E-01	28.2	Yes	0.264

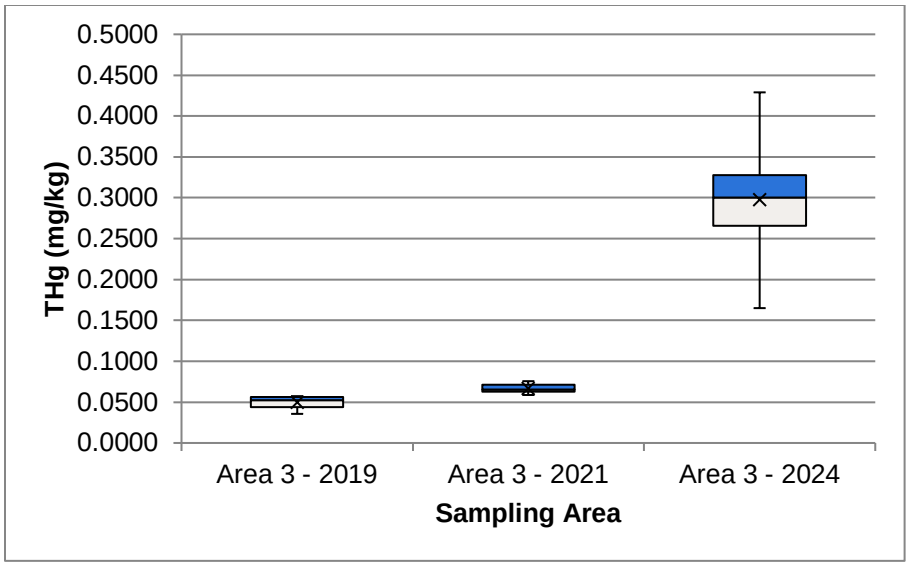
Notes:
[1]The sampling area with the significantly higher ($p \leq 0.05$) total mercury concentration is shaded.
[2]Greater than CES of ± 25% of the reference mean.
[3]Magnitude calculated as [(more recent mean – less recent mean)/less recent mean] × 100

Figure 2.12 Boxplot of Total Mercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from Southwest Arm in 2018 and Area 5 in 2021, 2023, and 2024



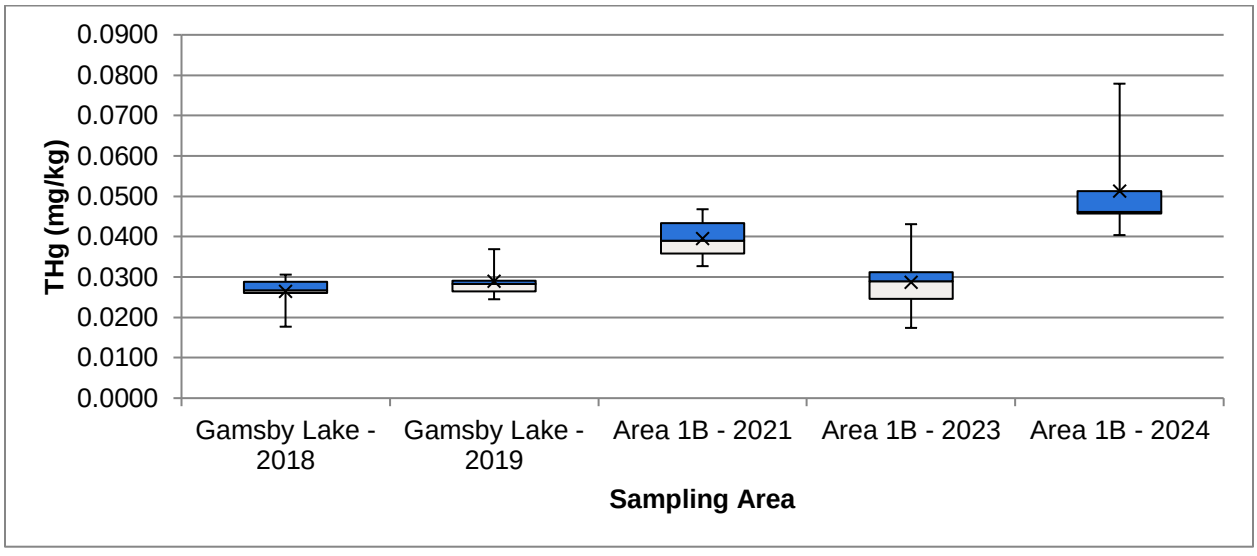
Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'.

Figure 2.13 Boxplot of Total Mercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from Area 3 in 2019, 2021, and 2024



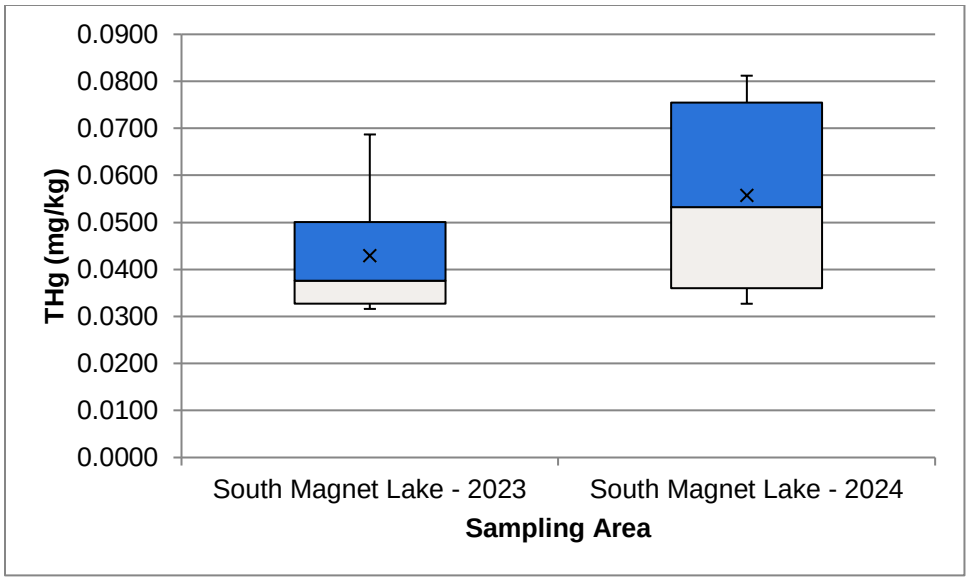
Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'.

Figure 2.14 Boxplot of Total Mercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from Gamsby Lake (2018 and 2019) and Area 1B (2021, 2023, and 2024)



Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'.

Figure 2.15 Boxplot of Total Mercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from South Magnet Lake in 2023 and 2024



Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'.

Mean methylmercury concentrations in age 1 Yellow Perch tissue from Area 5 were significantly higher in both 2023 and 2024 than in 2021 ($p < 0.05$) (Table 2.23, Figure 2.15). Mean methylmercury concentrations in age 1 Yellow Perch tissue from Area 3 were significantly higher in 2024 than in 2021 and 2019 ($p < 0.05$) (Figure 2.17). Mean methylmercury concentrations in age 1 Yellow Perch tissue from Area 1B, were significantly higher in 2024 than Gamsby Lake in 2018 and 2019 ($p < 0.05$) (Figure 2.18). Mean methylmercury concentrations in age 1 Yellow Perch tissue from South Magnet Lake did not significantly differ between 2023 and 2024 ($p > 0.05$) (Figure 2.19).

Table 2.23 Summary of Before-After Statistical Comparisons of Methylmercury Concentrations (mg/kg ww) of Age 1 Yellow Perch Tissue Composites from Reference and Exposure Areas

Sampling Area	[1]Pairwise Comparison		Statistical Analysis	P-value	[3]Magnitude (%)	[2]>CES	Statistical Power
Area 5/Southwest Arm (Exposure)	2018	2021	One-way ANOVA, Tukey's HSD	7.04E-03	-20.1	No	0.988
	2018	2023		3.59E-01	9.4	No	0.296
	2018	2024		7.53E-01	5.6	No	0.288
	2021	2023		1.58E-04	36.9	Yes	0.984
	2021	2024		8.40E-04	32.2	Yes	0.999
	2023	2024		9.13E-01	-3.5	No	0.082
Area 3 (Exposure)	2019	2021	Kruskal-Wallis Test, Dunn Test	5.57E-02	35.5	Yes	0.989
	2019	2024		4.94E-14	294.4	Yes	1
	2021	2024		4.95E-13	191.1	Yes	1
Area 1B/Gamsby Lake (Reference)	2018	2019	One-way ANOVA, Tukey's HSD	1.00E+00	0.1	No	0.026
	2018	2021		3.57E-01	26.4	Yes	0.68
	2018	2023		8.59E-01	-14.0	No	0.131
	2018	2024		3.10E-02	43.8	Yes	0.924
	2019	2021		3.14E-01	26.3	Yes	0.640
	2019	2023		8.32E-01	-14.1	No	0.129
	2019	2024		2.17E-02	43.6	Yes	0.907
	2021	2023		6.59E-02	-32.0	Yes	0.633
	2021	2024		7.61E-01	13.7	No	0.237
	2023	2024		3.31E-03	67.2	Yes	0.863
South Magnet Lake (Reference)	2023	2024	Two-tailed independent t-test	2.51E-02	-24.8	No	0.804

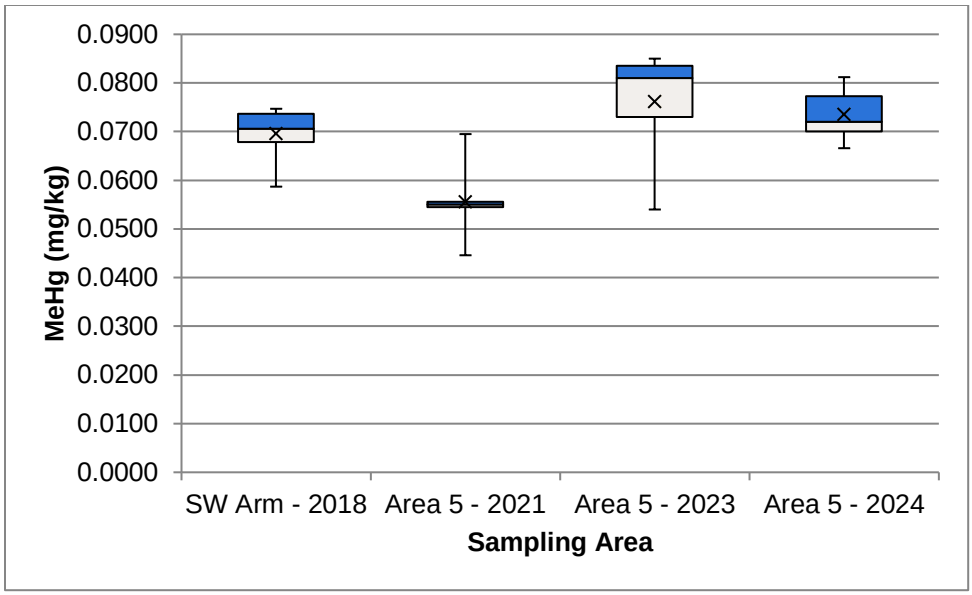
Notes:

[1]The sampling area with the significantly higher ($p \leq 0.05$) total mercury concentration is shaded.

[2]Greater than CES of ± 25% of the reference mean.

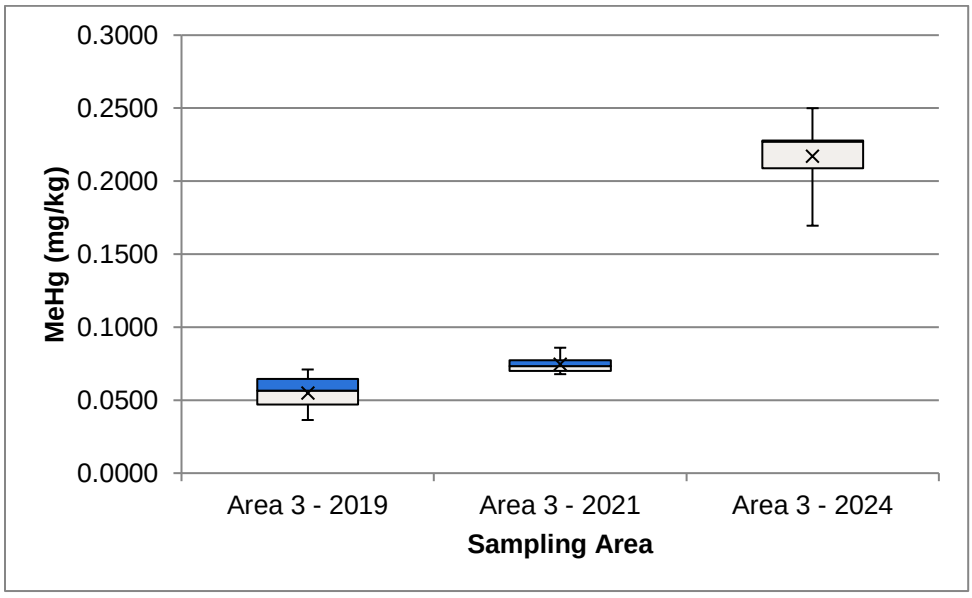
[3]Magnitude calculated as [(more recent mean – less recent mean)/ less recent mean] × 100

Figure 2.16 Boxplot of Methylmercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from Southwest Arm in 2018 and Area 5 in 2021, 2023, and 2024



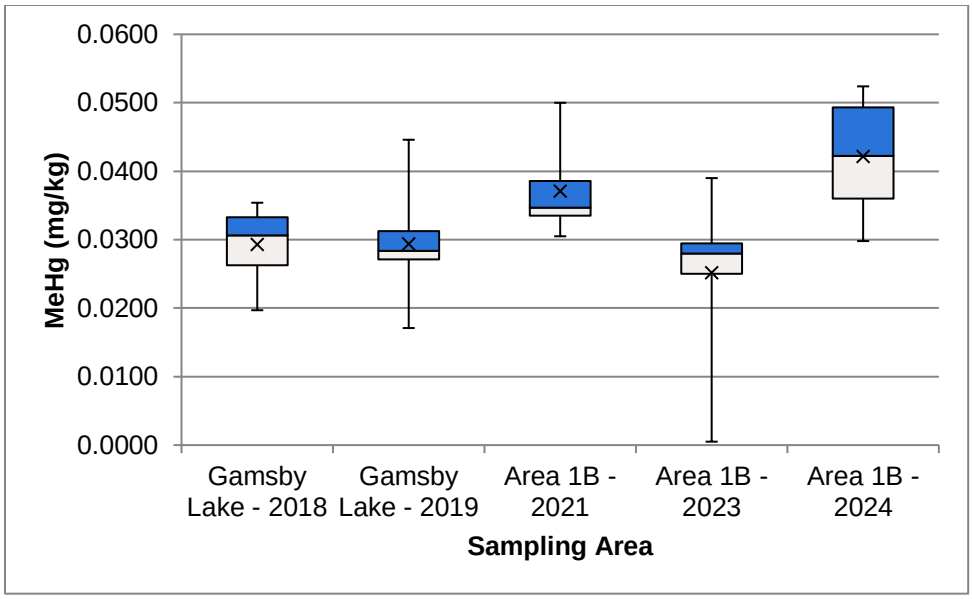
Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'.

Figure 2.17 Boxplot of Methylmercury Concentration (mg/kg ww) of age 1 Yellow Perch Tissue from Area 3 in 2019, 2021, and 2024



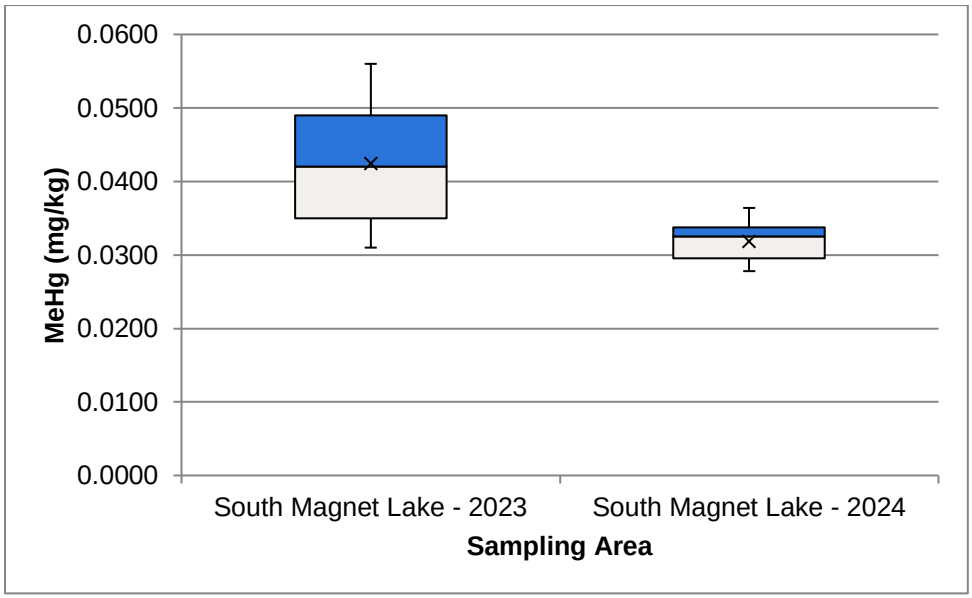
Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'.

Figure 2.18 Boxplot of Methylmercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from Gamsby Lake (2018 and 2019) and Area 1B (2021, 2023, and 2024)



Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'.

Figure 2.19 Boxplot of Methylmercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from South Magnet Lake in 2023 and 2024



Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'.

Differences in Total Mercury and Methylmercury Between Reference and Exposure Sites

Mean total mercury concentrations in age 1 Yellow Perch tissue were significantly higher in exposure areas relative to reference areas before the inundation of SWP 4 and 5 associated with the Goldfield Creek realignment ($p < 0.05$) (Table 2.24). After the inundation, mean total mercury concentrations of age 1 Yellow Perch tissue from Area 5 in 2023 were significantly higher than the reference areas (Area 1B and South Magnet Lake) ($p < 0.05$). In 2024, mean total mercury concentrations of age 1 Yellow Perch tissue from Area 3 were significantly higher than the reference areas (Area 1B and South Magnet Lake) ($p < 0.05$), while mean total mercury concentrations of age 1 Yellow Perch tissue from Area 5 did not significantly differ from the reference areas ($p > 0.05$) (Figure 2.20).

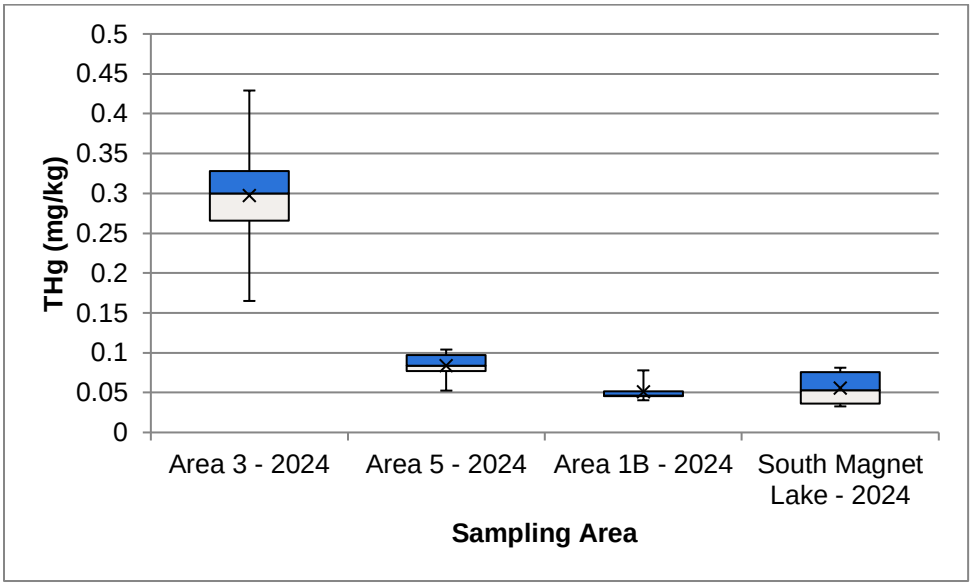
Table 2.24: Summary of Control-Impact Statistical Comparisons of Total Mercury Concentrations (mg/kg ww) of Age 1 Yellow Perch Tissue Composites from Reference and Exposure Areas

Year	[1]Pairwise Comparison		Statistical Analysis	P-Value	[3] Magnitude (%)	[2]> CES	Statistical Power
2018	Gamsby Lake (Reference)	Southwest Arm (Exposure)	Two-tailed independent t-test	3.46E-10	104.7	Yes	1.00
2019	Gamsby Lake (Reference)	Area 3 (Exposure)	Two-tailed independent t-test	5.27E-07	72.6	Yes	1.00
2021	Area 1B (Reference)	Area 3 (Exposure)	One-way ANOVA Tukey's HSD	1.50E-07	68.8	Yes	1.00
	Area 1B (Reference)	Area 5 (Exposure)		1.91E-02	23.4	No	0.897
	Area 3 (Exposure)	Area 5 (Exposure)		4.11E-05	36.9	Yes	1.00
2023	Area 1B (Reference)	Area 5 (Exposure)	One-way ANOVA Tukey's HSD	2.18E-05	70.0	Yes	1.00
	Area 1B (Reference)	South Magnet Lake (Reference)		5.02E-02	49.6	Yes	0.660
	Area 5 (Exposure)	South Magnet Lake (Reference)		5.04E-03	13.6	No	0.914
2024	Area 1B (Reference)	Area 3 (Exposure)	Kruskal-Wallis Test Dunn Test	6.62E-04	480.4	Yes	1.00
	Area 1B (Reference)	Area 5 (Exposure)		3.07E-01	63.9	Yes	0.981
	Area 3 (Exposure)	Area 5 (Exposure)		3.31E-01	254.2	Yes	1.00

Year	[1]Pairwise Comparison		Statistical Analysis	P-Value	[3] Magnitude (%)	[2]> CES	Statistical Power
	Area 1B (Reference)	South Magnet Lake (Reference)		1.00E+00	8.7	No	0.069
	Area 3 (Exposure)	South Magnet Lake (Reference)		9.82E-04	433.8	Yes	1.00
	Area 5 (Exposure)	South Magnet Lake (Reference)		3.84E-01	50.7	Yes	0.771

Notes:
[1] Sampling areas with significantly higher ($p \leq 0.05$) total mercury concentration are shaded.
[2]Greater than CES of ± 25% of the reference mean.
[3]Magnitude calculated as [(Exposure mean – Reference mean)/Reference mean] × 100

Figure 2.20 Boxplot of Total Mercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from Sampling Areas in 2024



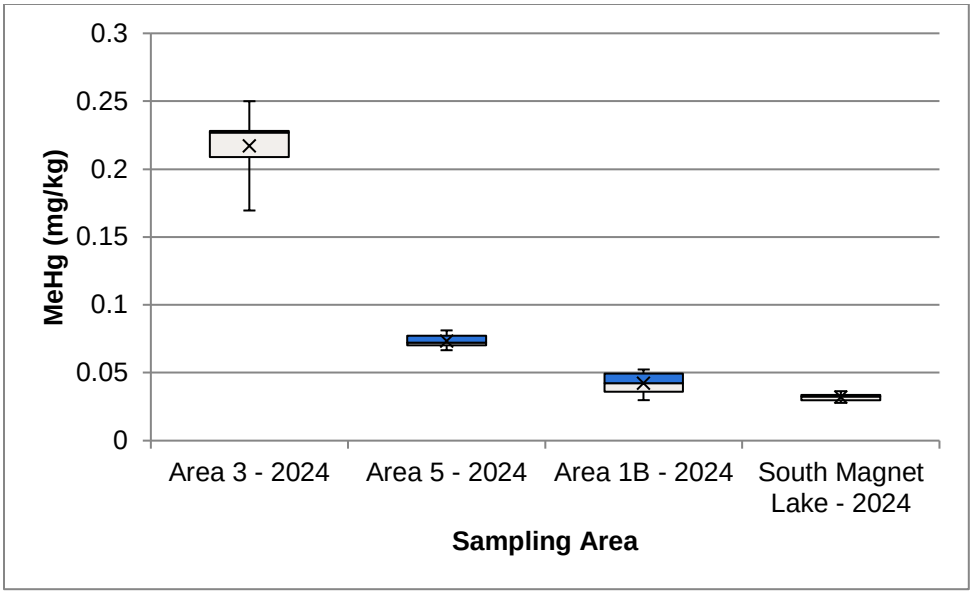
Mean methylmercury concentrations of age 1 Yellow Perch tissue were significantly higher in exposure areas relative to reference areas before the inundation of SWP 4 and 5 associated with the Goldfield Creek realignment ($p < 0.05$) (Table 2.25). After the inundation, mean methylmercury concentrations of age 1 Yellow Perch tissue from Area 5 in 2023 were significantly higher than the reference areas (Area 1B and South Magnet Lake) ($p < 0.05$). In 2024, mean methylmercury concentrations of age 1 Yellow Perch tissue from Area 3 were significantly higher than the reference areas (Area 1B and South Magnet Lake) ($p < 0.05$), while mean methylmercury concentrations of age 1 Yellow Perch tissue from Area 5 were only significantly higher than those from South Magnet Lake ($p < 0.05$) (Figure 2.21).

Table 2.25 Summary of Control-Impact Statistical Comparisons of Methylmercury Concentrations (mg/kg ww) of Age 1 Yellow Perch Tissue Composites from Reference and Exposure Areas

Year	[1]Pairwise Comparison		Statistical Analysis	P-Value	[3]Magnitude (%)	[2]> CES	Statistical Power
2018	Gamsby Lake (Reference)	Southwest Arm (Exposure)	Two-tailed independent t-test	5.85E-10	137.4	Yes	1.00
2019	Gamsby Lake (Reference)	Area 3 (Exposure)	Two-tailed independent t-test	1.71E-05	87.60	Yes	1.00
2021	Area 1B (Reference)	Area 3 (Exposure)	One-way ANOVA Tukey's HSD	1.66E-08	101.3	Yes	1.00
	Area 1B (Reference)	Area 5 (Exposure)		2.20E-04	49.99	Yes	0.999
	Area 3 (Exposure)	Area 5 (Exposure)		1.65E-04	-25.48	Yes	0.999
2023	Area 1B (Reference)	Area 5 (Exposure)	One-way ANOVA Tukey's HSD	1.80E-07	202.0	Yes	1.00
	Area 1B (Reference)	South Magnet (Reference)		2.12E-02	-40.58	Yes	0.851
	Area 5 (Exposure)	South Magnet (Reference)		4.79E-05	79.45	Yes	1.00
2024	Area 1B (Reference)	Area 3 (Exposure)	Kruskal-Wallis Test Dunn Test	4.62E-03	415.2	Yes	1.00
	Area 1B (Reference)	Area 5 (Exposure)		4.59E-01	74.4	Yes	1.00
	Area 3 (Exposure)	Area 5 (Exposure)		6.68E-01	195.5	Yes	1.00
	Area 1B (Reference)	South Magnet (Reference)		1.00E+00	-24.3	No	0.847
	Area 3 (Exposure)	South Magnet (Reference)		2.55E-05	580.9	Yes	1.00
	Area 5 (Exposure)	South Magnet (Reference)		1.59E-02	130.4	Yes	1.00

Notes:
[1]The sampling area with the significantly higher ($p \leq 0.05$) total mercury concentration is shaded.
[2]Greater than CES of ± 25% of the reference mean.
[3]Magnitude calculated as [(Exposure mean – Reference mean)/Reference mean] × 100

Figure 2.21 Boxplot of Methylmercury Concentration (mg/kg ww) of Age 1 Yellow Perch Tissue from Sampling Areas in 2024



Whiskers represent the minimum and maximum values while the box consists of first, median, and third quartile values. The mean value is also displayed with an 'X'.

Quality Assurance/Quality Control

The RPD between 2024 duplicate composite samples of age 1 Yellow Perch tissue was 25.8% and 8.08% for total mercury and methylmercury concentrations, respectively (Table 2.26). The RPD for methylmercury was below the RPD guideline of 20%, while the RPD for total mercury was above the guideline (Environment Canada 2012). Fish tissue samples may not have been adequately homogenized in the laboratory for the total mercury analysis, which would account for observed differences in concentrations between duplicate samples. Results pertaining to total mercury concentrations should therefore be interpreted with increased caution. For future analyses, laboratory homogenization methods and QA/QC protocol will be reviewed and improved to reduce RPD between duplicate samples.

Table 2.26 Summary of Composite Samples and Duplicates used to Calculate Relative Percent Difference

Analyte	Sample ID	Sample (mg/kg ww)	Duplicate (mg/kg ww)	Relative Percent Difference	Mean Relative Percent Difference
Total Mercury	A3-YLPR-05	0.3000	0.2510	17.79	25.81
	A5-YLPR-03	0.0785	0.1210	42.61	
	A5-YLPR-04	0.0525	0.0439	17.84	
	A5-YLPR-05	0.0752	0.1200	45.90	
	GMLK-YLPR-06	0.0404	0.0418	3.41	
	GMLK-YLPR-07	0.0455	0.0442	2.90	

Analyte	Sample ID	Sample (mg/kg ww)	Duplicate (mg/kg ww)	Relative Percent Difference	Mean Relative Percent Difference
	SMLK-YLPR-07	0.0743	0.0458	47.46	
	SMLK-YLPR-07	0.0743	0.0428	53.80	
	SMLK-YLPR-08	0.0327	0.0325	0.61	
Methylmercury	A3-YLPR-01	0.2280	0.2120	7.27	8.08
	A3-YLPR-01	0.2280	0.2140	6.33	
	A3-YLPR-05	0.2280	0.1970	14.59	
	A3-YLPR-05	0.2280	0.1970	14.59	
	[1]A3-YLPR-06	0.1695	0.1680	0.89	
	[1]A3-YLPR-06	0.1695	0.1710	0.88	
	A5-YLPR-03	0.0812	0.0874	7.35	
	A5-YLPR-04	0.0692	0.0657	5.19	
	A5-YLPR-04	0.0692	0.0668	3.53	
	A5-YLPR-04	0.0692	0.0640	7.81	
	A5-YLPR-05	0.0666	0.0847	23.93	
	[1]A5-YLPR-08	0.0797	0.0790	0.82	
	[1]A5-YLPR-08	0.0797	0.0803	0.81	
	GMLK-YLPR-05	0.0524	0.0522	0.38	
	GMLK-YLPR-05	0.0524	0.0515	1.73	
	SMLK-YLPR-07	0.0298	0.0433	36.94	
	SMLK-YLPR-08	0.0330	0.0316	4.33	

Notes:

[1] For methylmercury, A3-YLPR-06 and A5-YLPR-08 did not have a “parent” sample analyzed by the lab. Instead, only duplicates from the parent samples were analyzed. Duplicate values of a sample were therefore averaged.

2.6.3 Conclusions

Age 1 Yellow Perch tissue from exposure areas had higher concentrations of total mercury and methylmercury relative to reference areas prior to and after the inundation of new wetland habitat. After the Goldfield Creek realignment, total mercury and methylmercury concentrations in exposure area fish tissue from 2023 and 2024 were typically higher than those from reference area fish, which was consistent with patterns observed years prior to the inundation. A notable increase (relative to previous years and other sampling years) in total mercury and methylmercury concentrations of age 1 Yellow Perch tissue from Area 3 was observed. Observed increases in mercury and methylmercury concentrations in fish tissue from inundated areas (SWP4 and SWP5) were anticipated (Stantec 2017). It is also expected that these increases will be temporary (peaking in years 1 and 2 post flow diversion) and eventually return to concentrations more similar to those observed in baseline fish tissue studies. Results from the reference areas also demonstrate natural temporal variability of total mercury and methylmercury concentrations in fish tissues. Mercury in young-of-the-year Yellow Perch has been previously found to

vary across years and waterbodies with water-level fluctuations strongly influencing mercury concentrations in tissue (Sorensen et al. 2005). Monitoring should continue as planned in 2025, to further establish temporal patterns in both the reference and exposure sampling areas.

2.6.4 Adaptive Management

Changes to the Plan related to monitoring fish tissue are not recommended at this time. GGM will continue to implement the fish tissue monitoring program as planned with sampling for age-1 Yellow Perch tissue for the October 1, 2024 to September 30, 2025 monitoring period. After the first three years of post-construction monitoring (2023, 2024, and 2025), the need for continued fish tissue monitoring as outlined in the Plan will be reassessed. Additional fish tissue monitoring may be required if triggered by the findings of the surface water adaptive management plan, and if:

- Ongoing fish tissue monitoring plans do not adequately monitor changes where the surface water quality Trigger Threshold 2 is exceeded.
- A biologically significant change (statistically significant difference, i.e., increase in fish tissue mercury or methylmercury concentration with a CES ≥ 25%) has the potential to adversely affect fish health or the usability of fish by human or wildlife consumers (i.e., exceeds guidelines), and
- The biologically significant change is likely caused by Mine activities.

Additional fish tissue studies may also be required to determine the magnitude and extent of changes, and if fish tissue monitoring activities demonstrate an effect on fish tissue in two consecutive fish tissue studies that are conducted as part of routine monitoring. The scope of additional fish tissue monitoring, if required, will be based on the area where water quality exceedances may occur and will include reference area sampling. If contaminant levels in fish tissue are below Canadian Council of Ministers of the Environment (2000) guideline levels and/or MECP (Nilima et al. 2017) guidelines and water quality levels are no longer in exceedance of regulatory requirements, then no further monitoring would be required.

Confirmed effects on fish tissue may trigger the need for one or more of the following responses:

- Investigation of cause (i.e., determining the cause of the observed effect)
- Additional mitigation (i.e., improve treatment, revise operational procedures)
- Remedial actions

Response actions will be dictated by the nature of the observed effect, if any, and developed in consultation with relevant governing agencies.

2.7 Fish Tissue Monitoring - Kenogamisis Lake

The management and monitoring measures described in this section deal specifically with condition 5.5.1 of the federal EIS Decision Statement which identifies the requirement to:

> *"monitor, at least every two years, during the first six years of operation, mercury, methylmercury and arsenic concentrations in Walleye (Sander vitreus) tissue according to the methodology determined pursuant to condition 5.5. The Proponent shall determine, in consultation with Indigenous groups and relevant authorities and based on the results of the monitoring, if additional monitoring is required after the first six years of operation and at what frequency this additional monitoring shall occur".*

Mercury, methylmercury and arsenic concentrations in Walleye were measured in 2023 and reported on in the previous Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report (GGM 2023).

2.7.1 Adaptive Management

Changes to the adaptive management plan related to monitoring fish tissue are not recommended at this time. GGM will continue to implement the fish tissue monitoring program as planned with sampling for Walleye tissue in 2025 and 2027. After the first 6 years of post-construction monitoring (2023, 2025, 2027), the need for continued fish tissue monitoring as outlined in the Plan will be reassessed. Additional fish tissue monitoring may be required if triggered by the findings of the surface water adaptive management plan, and if:

- Ongoing fish tissue monitoring plans do not adequately monitor changes where the surface water quality Trigger Threshold 2 is exceeded.
- A biologically significant change (statistically significant difference, i.e., increase in fish tissue THg or MeHg concentration with a CES ≥ 25%) has the potential to adversely affect fish health or the usability of fish by human or wildlife consumers (i.e., exceeds guidelines), and
- The biologically significant change is likely caused by Mine activities.

Additional fish tissue studies may also be required to determine the magnitude and extent of changes to tissue mercury and methylmercury, and if fish tissue monitoring activities demonstrate an effect on fish tissue in two consecutive fish tissue studies that are conducted as part of routine monitoring. The scope of additional fish tissue monitoring, if required, will be based on the area where water quality mercury exceedances may occur and will include reference area sampling. If contaminant levels in fish tissue are below Canadian Council of Ministers of the Environment (2000) guideline levels and/or MECP (Nilima et al. 2017) guidelines and water quality levels are no longer in exceedance of regulatory requirements, then no further monitoring would be required.

Confirmed effects on fish tissue may trigger the need for one or more of the following responses:

- Investigation of cause (i.e., determining the cause of the observed effect)
- Additional mitigation (i.e., improve treatment, revise operational procedures)
- Remedial actions

Response actions will be dictated by the nature of the observed effect, if any, and developed in consultation with relevant governing agencies.

3 Closing

This 2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report was prepared to address the monitoring requirements of the Fish and Fish Habitat Follow-Up Monitoring Plan (the Plan) (GGM 2021a); which was designed to address conditions 3.14, 3.15, 3.16, 3.17, 3.2, 5.4, and 5.5.1of the federal EIS Decision Statement, which are related to monitoring potential effects of the Mine on fish and fish habitat. This report presents the results of related monitoring activities undertaken during the period of October 1, 2023, through September 30, 2024 (i.e., the 2024 monitoring period) to satisfy the requirements of the Plan.

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Appendices

Appendix A Erosion Sediment Control Inspection Reports

Due to the size of the files, the PDFs have been uploaded to a SharePoint Site. Please click link below and request access if needed.

Appendix A ESC Inspection Reports

Appendix B Surface Water Data

Appendix B.1 Monthly Surface Water Data

SW - Monthly - Field

Date: 01 2024

EQUINOXGOLD
GREENSTONE MINE
AN EQUINOX GOLD / ORION JOINT VENTURE

Field Visit Details										
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	Oxidation Reduction Potential (millivolts (mV))	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2024-01-29 08:00							J.C	W.M	
Trip Blank	2024-01-29 08:00							J.C	W.M	
11	2024-01-30 10:46	11.57	216.7	114	7.46	3.7	0.43	J.C	W.M	
17	2024-01-16 13:26	10.02	189.2	84.3	7.11	2.1	1.22	J.C	W.M	
1A	2024-01-15 12:10	12.95	209.1	36.1	7.51	0.0	1.17	T.P	J.C	
2	2024-01-29 10:39	8.93	268.4	140.2	6.92	1.6	1.27	J.C	W.M	
20	2024-01-24 12:30	3.94	722	-75.7	6.62	1.7	2.09	J.C	W.M	
20A	2024-01-24 12:10	6.68	288	121.6	6.96	0.3	0.50	J.C	W.M	
21	2024-01-11 10:33	5.59	267.4	200.6	7.06	4.4	0.61	J.C	W.M	
22A	2024-01-24 11:48	6.31	299	95.5	6.98	0.4	0.51	J.C	W.M	
23	2024-01-24 13:11	13.00	214.6	35.4	7.5	0.1	0.50	J.C	W.M	
24	2024-01-24 15:00	13.33	220	91.5	7.5	0.4	0.50	J.C	W.M	
25	2024-01-24 14:32	3.12	336.6	92.6	7.04	0.0	0.50	J.C	W.M	
26[D]	2024-01-11 13:16	10.13	419.5	162.8	7.26	1.2	1.11	J.C	W.M	
28[D]	2024-01-29 10:11	10.22	286.1	105.2	7.24	2.3	0.82	J.C	W.M	
38	2024-01-16 11:28	1.07	191.4	35.9	7.56	1.4	1.44	J.C	W.M	
39	2024-01-11 12:36	10.78	257.7	171.4	7.25	0.9	2.35	J.C	W.M	
4	2024-01-29 12:30	10.87	282.8	77.7	6.85	0.6	0.85	J.C	W.M	
40	2024-01-29 11:25	8.61	265.5	149.5	6.79	0.9	1.18	J.C	W.M	
46	2024-01-15 01:57	12.37	221.5	95	7.51	2.6	1.04	J.C	T.P	
47	2024-01-30 11:18	10.33	215.3	131.9	7.13	1.0	0.74	J.C	W.M	
49	2024-01-15 03:12	13.54	237.3	100.9	7.73	0.9	0.99	T.P	J.C	
52	2024-01-11 14:41	11.74	161.1	170.1	7.15	0.7	0.49	R.D	T.P	
53	2024-01-24 13:59	13.81	239.4	75	7.56	1.2	0.50	J.C	W.M	
54	2024-01-13 11:39	10.17	222.8	80.9	7.22	0.8	23.93	R.D	R.V	
55	2024-01-25 14:30	1.07	333.4	-51.2	6.91	0.2	1.31	R.D	M.F	
8	2024-01-25 15:38	12.71	237.3	179.4	7.35	2.3	0.53	B.M	T.P	

Legend

[D] Duplicate
Not Required

Notes

SW - Monthly - Field

Date: 02 2024

EQUINOX GOLD
GREENSTONE MINE
AN EQUINOX GOLD / ORION JOINT VENTURE

Field Visit Details										
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	Oxidation Reduction Potential (millivolts (mV))	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2024-02-13 08:00							R.D	R.V	
Trip Blank	2024-02-08 08:00							J.C	W.M	
11[D]	2024-02-08 12:08	12.85	174.6	136.4	7.15	1.1	0.31	J.C	W.M	
17[D]	2024-02-08 13:22	9.43	164.9	166.8	7.10	2.8	1.98	B.M	R.D	
1A	2024-02-05 10:38	12.66	174.7	160.2	7.14	0.1	0.66	J.C	W.M	
2	2024-02-08 10:39	8.60	223.4	112.7	6.81	1.6	1.03	J.C	W.M	
20	2024-02-07 14:25	2.36	501	-61.9	6.88	3.7	1.91	J.C	W.M	
20A	2024-02-11 13:11	10.20	152.2	129.6	6.99	0.1	0.91	R.D	R.V	
21	2024-02-11 11:37	5.52	240.6	171.5	6.91	2.9	0.55	R.D	R.V	
22A	2024-02-11 12:42	9.16	220.3	133.4	6.84	0.3	3.40	R.D	R.V	
23	2024-02-12 12:23	12.74	186.9	128.7	7.31	1.0	0.79	J.C	W.M	
24	2024-02-12 13:03	11.95	201.2	130.8	7.29	1.1	0.82	J.C	W.M	
25	2024-02-05 13:25	5.65	253.6	139.4	6.83	0.7	0.43	J.C	W.M	
26	2024-02-13 15:04	8.13	378	157.3	7.1	1.9	0.49	J.C	W.M	
28	2024-02-08 10:10	11.00	228.9	124	7.13	2.1	1.07	J.C	W.M	
38	2024-02-08 15:00	11.03	169.5	173.3	7.24	0.8	2.29	B.M	R.D	
39[D]	2024-02-11 14:33	10.13	227.3	156.1	7.16	0.3	6.47	R.D	R.V	
4	2024-02-08 13:58	9.78	235	87.4	6.67	2.2	0.47	J.C	W.M	
40	2024-02-08 14:30	7.78	219.4	1,132	6.69	2.3	1.13	J.C	W.M	
46	2024-02-05 12:03	12.37	181.8	167.6	7.01	1.3	0.54	J.C	W.M	
47	2024-02-12 10:14	10.04	191.5	144.2	7.3	2.3	0.48	J.C	W.M	
49	2024-02-05 12:34	13.16	189.3	141.2	7.06	0.7	0.48	J.C	W.M	
52	2024-02-13 13:06	10.88	177.1	127	7.57	0.9	0.27	J.C	W.M	
53	2024-02-05 13:06	13.09	187.1	136.8	7.07	0.9	0.52	J.C	W.M	
54	2024-02-11 10:33	9.11	196.1	141.1	7.26	0.9	0.65	R.D	R.V	
55	2024-02-12 11:17	4.73	296.5	64.9	6.81	0.1	1.25	J.C	W.M	
8	2024-02-08 16:43	11.67	192.8	169.6	7.31	2.4	1.16	B.M	R.D	

Legend

[D] Duplicate

Not Required

Notes

SW - Monthly - Field

Date: 03 2024

EQUINOX GOLD
GREENSTONE MINE
AN EQUINOX GOLD / ORION JOINT VENTURE

Field Visit Details									
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2024-03-07 08:00						R.D	N/A	
Trip Blank	2024-03-28 08:00						B.M	B.F	
11[D]	2024-03-07 12:03	13.66	221.2	7.58	1.2	0.82	W.M	T.P	
17[D]	2024-03-20 11:00	9.44	215.4	7.50	2.9	1.24	J.C	W.M	
1A	2024-03-11 10:53	12.84	203.1	7.81	0.3	0.50	J.C	W.M	
2	2024-03-07 11:07	8.53	281.8	7.24	1.2	1.26	W.M	T.P	
20	2024-03-19 13:48	8.12	442	6.99	0.6	13.00	W.M	T.P	
20A	2024-03-19 12:07	9.08	215.2	7.11	1.0	0.28	W.M	T.P	
21	2024-03-19 12:55	5.51	223.4	6.98	3.4	0.32	W.M	T.P	
22A	2024-03-19 11:40	9.10	224.3	7.44	2.4	0.24	W.M	T.P	
23	2024-03-13 13:49	12.34	196.3	7.66	2.2	0.43	J.C	W.M	
24	2024-03-13 14:20	12.46	196.2	7.61	2.4	0.46	J.C	W.M	
25	2024-03-13 11:16	7.41	307.9	7.22	0.8	1.09	J.C	W.M	
26	2024-03-20 12:22	6.47	405.2	7.44	3.1	0.66	J.C	W.M	
28	2024-03-07 10:21	10.33	300.8	7.6	3.7	1.00	W.M	T.P	
38	2024-03-18 14:09	11.10	233.7	7.19	0.6	1.18	B.M	T.P	
39[D]	2024-03-10 11:08	4.20	317.3	7.22	1.6	0.82	R.D	B.F	
4	2024-03-07 12:44	10.64	297.6	7.31	1.6	1.24	W.M	T.P	
40	2024-03-07 13:40	8.75	274.1	7.11	2.1	1.22	W.M	T.P	
46	2024-03-11 12:36	12.65	208.9	7.62	1.5	0.67	J.C	W.M	
47	2024-03-13 10:16	11.95	205.2	7.47	2.9	0.03	J.C	W.M	
49	2024-03-11 13:05	13.07	216.9	7.58	1.4	0.49	J.C	W.M	
52	2024-03-06 13:50	218.48	161.8	7.41	1.0	2.67	R.D	B.F	
53	2024-03-13 10:52	12.76	210.9	7.52	1.0	0.39	J.C	W.M	
54	2024-03-07 10:30	9.80	200.6	7.16	0.9	0.36	R.D	B.F	
55	2024-03-10 09:39	3.24	299.6	6.97	0.1	0.52	R.D	B.F	
8	2024-03-08 09:14	10.43	207.1	7.31	4.9	0.85	R.D	B.F	

Legend

[D] Duplicate
Not Required

Notes

SW - Monthly - Field

Date: 04 2024

EQUINOXGOLD
GREENSTONE MINE
AN EQUINOX GOLD / ORION JOINT VENTURE

Field Visit Details									
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2024-04-11 08:00						J.C	W.M	
Trip Blank	2024-04-09 08:00						R.D	T.P	
11	2024-04-11 10:14	12.53	178.7	7.49	3.2	0.12	J.C	W.M	
17	2024-04-11 14:50	9.68	181.9	7.12	5.2	0.69	J.C	W.M	
1A	2024-04-08 10:55	12.85	177.3	7.70	1.3	0.58	J.C	W.M	
2	2024-04-10 15:05	6.47	222.3	6.83	3.2	1.55	J.C	W.M	
20	2024-04-09 11:42	5.97	337.1	6.60	1.4	8.39	J.C	W.M	
20A	2024-04-09 12:08	10.23	90.9	7.02	1.1	0.68	J.C	W.M	
21	2024-04-09 14:07	7.12	211.1	7.17	3.2	1.04	R.D	T.P	
22A	2024-04-09 11:10	10.15	154.2	7.04	0.7	0.47	J.C	W.M	
23	2024-04-08 14:30	12.46	176.5	7.61	1.7	0.37	J.C	W.M	
24	2024-04-09 10:34	12.80	173.5	7.57	1.8	0.35	J.C	W.M	
25	2024-04-09 13:03	8.62	258.3	7.02	0.5	1.38	J.C	W.M	
26	2024-04-11 11:24	7.57	310.7	7.00	3.9	0.73	J.C	W.M	
28	2024-04-10 14:20	12.17	197.1	7.07	0.1	0.83	J.C	W.M	
38	2024-04-11 13:45	11.58	169.7	7.27	2.8	1.57	J.C	W.M	
39	2024-04-07 12:29	10.89	233.1	7.49	1.5	2.65	R.D	R.V	
4	2024-04-10 13:08	10.52	216.1	6.87	2.6	0.59	J.C	W.M	
40	2024-04-10 12:07	6.99	235	6.75	2.6	0.55	J.C	W.M	
46	2024-04-08 13:40	13.42	140.6	7.41	1.1	0.32	J.C	W.M	
47	2024-04-10 10:45	11.00	151.8	7.27	2.2	0.20	J.C	W.M	
49	2024-04-08 13:05	12.56	180.7	7.47	3.1	0.21	J.C	W.M	
52	2024-04-17 11:00	10.28	131.1	7.33	4.3	0.65	W.M	T.P	
53	2024-04-09 13:32	13.38	157.8	7.45	1.6	0.45	J.C	W.M	
54b*	2024-04-08 14:09	9.02	183.1	6.95	1.7	1.11	R.D	R.V	
55	2024-04-07 14:40	8.06	275.8	7.25	0.7	2.44	R.D	R.V	
8	2024-04-01 13:42	11.75	198	7.62	3.1	0.50	B.M	B.F	

Legend

[D] Duplicate
Not Required

Notes

* Station 54 relocated to inlet of Temporary Bypass Channel and renamed 54b.

SW - Monthly - Field

Date: 05 2024

EQUINOXGOLD GREENSTONE MINE

Field Visit Details									
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2024-05-14 11:10						J.C	W.M	
Trip Blank	2024-05-14 08:00						J.C	W.M	
11	2024-05-14 13:02	10.51	159.1	7.68	11.1	0.46	J.C	W.M	
17	2024-05-12 08:38	10.13	190.6	7.62	11.4	4.31	B.M	B.F	
1A	2024-05-06 11:55	11.12	117.1	7.27	8.3	0.49	J.C	T.P	
2	2024-05-13 10:49	9.67	116.6	7.27	12.4	1.48	J.C	W.M	
20	2024-05-07 11:52	8.17	235	7.11	12.4	1.59	W.M	T.P	
20A	2024-05-07 12:14	7.96	151.4	6.95	12.1	0.50	W.M	T.P	
21	2024-05-15 12:16	9.80	132.5	7.69	13.5	0.00	J.C	W.M	
22A	2024-05-07 10:58	7.40	150.2	7.07	10.5	0.48	T.P	W.M	
23	2024-05-07 12:48	10.77	118.9	7.48	10.4	0.65	T.P	W.M	
24	2024-05-07 13:21	11.38	120.8	7.54	10.5	0.81	W.M	T.P	
25	2024-05-07 14:04	8.56	204.5	7.24	13.8	1.48	T.P	W.M	
26	2024-05-15 10:28	10.47	290.6	8.03	13.2	0.35	J.C	W.M	
28	2024-05-13 10:14	9.36	110.9	7.02	10.6	0.10	J.C	W.M	
38[D]	2024-05-12 09:46	10.24	170.8	7.40	11.2	1.77	B.M	B.F	
39[D]	2024-05-15 14:32	9.95	187.6	7.95	14.1	0.74	J.C	W.M	
4	2024-05-13 12:53	9.88	146.1	7.46	12.3	3.43	J.C	W.M	
40	2024-05-13 13:46	9.73	123.1	7.35	12.6	2.16	J.C	W.M	
46	2024-05-06 10:44	11.52	129.3	7.30	7.3	0.58	J.C	T.P	
47	2024-05-14 12:25	10.32	145	7.67	11.6	0.49	J.C	W.M	
49	2024-05-06 10:02	11.30	137.5	7.39	7.8	0.78	J.C	T.P	
52	2024-05-16 12:41	9.69	157.3	7.71	13.2	0.40	R.D	T.P	
53	2024-05-07 14:40	11.31	131.5	7.64	10.1	0.72	W.M	T.P	
54b	2024-05-16 10:55	10.24	161	7.76	13.8	0.18	J.C	W.M	
55	2024-05-14 11:10	6.24	211.1	7.32	11.2	0.47	J.C	W.M	
8	2024-05-12 10:53	10.61	178.1	7.52	11.2	0.90	B.M	B.F	

Legend

[D] Duplicate
Not Required

SW - Monthly - Field

Date: 06 2024

EQUINOXGOLD
GREENSTONE MINE

Field Visit Details									
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2024-06-19 11:40						A.L	J.C	
Trip Blank	2024-06-19 08:00						A.L	J.C	
11*	2024-06-24 12:51	8.81	138.1	7.85	20.6	0.53	W.M	S.P	
17	2024-06-19 13:11	8.65	118.1	7.62	18.9	5.14	J.C	A.L	
1A	2024-06-10 11:44	9.36	151.2	7.76	14.9	0.03	J.C	S.P	
2	2024-06-18 15:27	8.69	120.7	7.67	18.5	1.68	J.C	W.M	
20	2024-06-20 12:46	9.75	225.5	7.36	18.4	0.83	B.M	S.P	
20A	2024-06-20 11:56	6.69	151.2	7.07	19.9	0.57	B.M	S.P	
21*	2024-06-21 10:45	8.37	133.8	7.72	19.9	0.48	L.V	S.P	
22A	2024-06-20 11:29	6.40	151.5	7.11	19.0	0.50	B.M	S.P	
23	2024-06-20 13:11	8.87	128.4	7.81	19.8	0.91	B.M	S.P	
24	2024-06-20 13:29	8.75	127.8	7.84	19.8	1.22	B.M	S.P	
25	2024-06-20 15:08	10.38	222.6	7.71	22.0	0.59	B.M	S.P	
26	2024-06-21 12:54	9.26	283.1	8.22	20.0	1.87	L.V	S.P	
28	2024-06-18 15:08	8.45	128.3	7.57	17.4	0.73	J.C	W.M	
38	2024-06-19 11:59	8.19	126.2	7.90	18.8	0.77	J.C	A.L	
39	2024-06-11 17:18	7.92	313.1	7.55	17.8	[A]	NB	KH	[A] YSI meter did not have a turbidity sensor.
4*	2024-06-18 13:41	8.67	146.8	7.84	17.6	3.13	J.C	W.M	
40	2024-06-18 14:46	8.76	134.0	7.69	18.3	2.41	J.C	W.M	
46	2024-06-10 10:36	9.14	158.9	7.95	15.4	0.82	J.C	S.P	
47	2024-06-24 13:23	8.85	134.1	8.00	20.9	0.72	W.M	S.P	
49	2024-06-10 09:56	9.05	155.8	7.97	15.4	0.62	J.C	S.P	
52	2024-06-24 10:20	7.08	144.2	7.65	22.1	0.13	S.P	W.M	
53	2024-06-20 13:52	8.93	139.2	7.90	19.8	1.29	B.M	S.P	
54b	2024-06-21 11:44	8.25	154.5	7.74	20.7	1.45	L.V	S.P	
55	2024-06-23 11:35	4.54	209.4	7.36	21.0	0.11	B.M	B.F	
8	2024-06-21 13:59	9.19	143.3	8.08	22.6	2.14	L.V	S.P	

Legend

* Duplicate
Not Required

SW - Monthly - Field

Date: 07 2024

EQUINOXGOLD GREENSTONE MINE

Field Visit Details									
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2024-07-17 13:53						J.C	S.P	
Trip Blank	2024-07-17 08:00						T.P	B.M	
11	2024-07-11 14:45	8.52	166.3	8.03	22.1	0.71	W.M	S.P	
17	2024-07-08 14:27	8.48	166	8.09	22.7	3.40	B.M	T.P	
1A	2024-07-02 11:51	8.73	132	7.91	18.3	1.07	J.C	A.L	
2 *	2024-07-17 12:28	7.89	151.5	7.84	21.7	1.57	W.M	L.V	
20	2024-07-11 11:26	10.41	260.4	7.39	20.5	0.70	W.M	S.P	
20A	2024-07-11 11:42	7.20	207.7	7.26	22.0	0.21	W.M	S.P	
21	2024-07-17 12:58	7.61	163.8	7.64	21.9	0.01	J.C	S.P	
22A	2024-07-11 11:00	6.52	205.9	7.13	21.0	0.40	W.M	S.P	
23	2024-07-11 12:03	8.18	168.7	8.01	22.6	0.57	W.M	S.P	
24	2024-07-11 12:29	8.35	170.6	8.06	21.9	0.70	W.M	S.P	
25 *	2024-07-11 12:45	4.55	289.7	7.25	22.1	0.55	W.M	S.P	
26	2024-07-17 15:36	8.68	316.6	8.17	22.1	1.11	J.C	S.P	
28	2024-07-17 12:08	7.50	174	7.45	20.4	0.45	W.M	L.V	
38	2024-07-08 12:55	7.58	160.5	7.89	19.8	0.49	T.P	B.M	
39	2024-07-17 14:50	8.57	224.4	7.95	21.7	0.00	J.C	S.P	
4	2024-07-17 13:26	7.94	171.8	7.95	21.6	2.45	W.M	L.V	
40	2024-07-17 12:40	7.65	395.6	7.77	21.5	1.13	W.M	L.V	
46	2024-07-02 10:22	8.94	140.1	8.04	17.5	1.78	J.C	A.L	
47	2024-07-11 13:56	8.59	167.6	8.11	22.5	0.61	W.M	S.P	
49	2024-07-02 10:00	8.96	136.8	8.11	17.9	1.49	J.C	A.L	
52	2024-07-18 10:31	8.17	162.7	7.82	20.3	0.47	J.C	L.V	
53	2024-07-11 13:33	8.52	183.1	8.13	22.3	0.55	W.M	S.P	
54b	2024-07-15 13:25	7.51	177.7	7.63	24.0	0.60	L.V	S.P	
55	2024-07-17 10:15	7.53	264.9	7.14	20.2	0.83	J.C	W.M	
8	2024-07-09 14:43	8.49	180.3	8.03	25.4	1.42	S.P	T.P	

Legend

* Duplicate
Not Required

SW - Monthly Sampling

Date: 08 2024

Field Visit Details									
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2024-08-22 11:04						R.D	N/A	
Trip Blank	2024-08-26 14:28						W.M	S.P	
11	2024-08-22 11:10	8.50	146.8	7.78	20.0	0.90	J.C	S.P	
17	2024-08-26 13:18	8.26	74.2	7.90	23.3	1.56	S.P	W.M	Phytoplankton and zooplankton also completed.
1A	2024-08-12 10:49	8.58	136	7.23	16.9	1.28	T.P	S.P	Phytoplankton and zooplankton also completed.
2	2024-08-16 10:36	8.46	154.8	7.97	22.5	0.92	B.M	S.P	
20	2024-08-08 02:38	3.56	378	7.06	17.2	3.45	W.M	A.L	
20A	2024-08-12 11:20	3.50	149.3	6.73	16.7	0.74	T.P	S.P	
21	2024-08-20 12:06	7.72	188.8	7.45	19.5	-1.20	S.P	W.M	
22A	2024-08-12 11:34	4.21	150.3	6.80	16.7	0.72	T.P	S.P	
23 *	2024-08-12 11:53	8.24	140.7	7.23	18.5	1.16	T.P	S.P	
24	2024-08-12 12:15	8.32	148.3	7.63	19.5	1.65	T.P	S.P	
25	2024-08-12 13:26	6.70	288.3	7.06	19.0	0.69	T.P	S.P	Phytoplankton and zooplankton also completed.
26 *	2024-08-25 14:30	8.88	288.4	8.28	22.0	0.66	R.D	M.T	Phytoplankton and zooplankton also completed.
28	2024-08-16 09:56	7.57	180.9	7.75	21.8	1.08	B.M	S.P	
38	2024-08-26 14:51	7.95	144.9	7.77	22.8	1.13	S.P	W.M	
39	2024-08-23 09:06	8.56	201.7	7.77	20.1	0.11	R.D	S.P	Phytoplankton and zooplankton also completed.
4	2024-08-22 09:35	8.62	187.3	7.60	19.5	1.79	J.C	S.P	Phytoplankton and zooplankton also completed.
40	2024-08-16 11:08	8.73	165.7	8.04	22.7	1.41	B.M	S.P	
46	2024-08-12 12:54	8.53	157.4	7.78	21.0	1.21	T.P	S.P	Phytoplankton and zooplankton also completed.
47	2024-08-22 12:03	8.60	147.2	7.82	22.3	0.77	J.C	S.P	
49	2024-08-12 14:18	8.56	168.8	7.92	21.3	1.19	T.P	S.P	
52	2024-08-25 09:59	8.43	153.4	7.98	21.6	0.33	R.D	M.T	Phytoplankton and zooplankton also completed.
53A	2024-08-12 12:33	8.61	154.3	7.79	19.1	1.69	T.P	S.P	Phytoplankton and zooplankton also completed.
54b	2024-08-21 12:32	7.73	198.4	7.66	21.8	0.48	W.M	R.D	
55 *	2024-08-08 10:45	3.62	265.5	7.01	17.9	1.54	W.M	A.L	
8	2024-08-22 11:38	8.54	150.6	7.82	21.6	0.52	S.P	J.C	Phytoplankton and zooplankton also completed.

Legend

* Duplicate	Notes: 08-Feb-24: Site 53 relocated closer to ETP effluent plume as per ECA requirements and renamed 53A. Zooplankton and phytoplankton sampling also completed at stations 6 and 50.
Not Required	

SW - Monthly Sampling

Date: 09 2024

Field Visit Details									
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2024-09-23 08:00						J.C	R.D	
Trip Blank	2024-09-15 08:00						B.M	B.F	
11	2024-09-15 15:29	8.96	162.4	7.80	18.3	1.21	B.M	B.F	
17	2024-09-19 13:40	8.35	161.3	7.86	21.0	2.08	J.C	W.M	
1A	2024-09-09 11:05	9.04	151.5	7.63	14.6	0.03	J.C	W.M	
2	2024-09-15 13:44	8.55	185.7	7.63	19.3	2.33	B.F	B.M	
20	2024-09-25 11:49	8.32	279.8	7.26	13.5	2.13	J.C	L.V	
20A	2024-09-23 02:46	6.30	215.4	7.33	16.8	0.42	J.C	R.D	
21	2024-09-18 13:45	8.42	181.9	7.90	22.4	0.95	J.C	W.M	
22A	2024-09-23 14:19	5.96	240.3	7.27	16.7	0.42	J.C	R.D	
23	2024-09-23 13:53	8.01	159.2	7.81	17.9	1.75	J.C	R.D	
24 *	2024-09-23 13:11	8.48	164.1	7.91	17.9	1.65	J.C	R.D	
25	2024-09-23 11:47	3.60	292.2	7.30	15.0	2.60	J.C	R.D	
26 *	2024-09-18 12:23	8.96	317.9	8.14	21.5	2.32	J.C	W.M	
28 *	2024-09-15 12:54	8.02	218.7	7.75	19.0	1.60	B.F	B.M	
38	2024-09-19 11:51	7.90	162.2	7.66	19.5	2.96	J.C	W.M	
39	2024-09-17 15:03	9.22	259.5	8.02	21.3	0.49	W.M	P.P	
4	2024-09-15 14:31	8.29	207.7	7.76	18.8	4.95	B.M	B.F	
40	2024-09-15 14:04	8.87	204.5	7.94	19.7	3.33	B.M	B.F	
46	2024-09-09 10:14	9.17	157.1	7.60	15.2	0.65	J.C	W.M	
47	2024-09-15 16:00	8.88	166.1	8.26	18.4	1.10	B.M	B.F	
49	2024-09-09 09:46	9.16	153	7.29	15.5	0.46	J.C	W.M	
52	2024-09-25 11:47	9.27	164.3	8.24	15.2	0.14	B.M	W.M	
53A	2024-09-23 12:43	8.47	176.4	7.91	17.8	1.26	J.C	R.D	
54b *	2024-09-17 13:21	8.33	189.6	7.87	23.4	1.84	W.M	P.P	
55	2024-09-17 09:58	4.86	280.7	7.21	19.3	1.35	W.M	P.P	
8	2024-09-18 11:34	8.67	164.4	7.88	19.8	1.85	W.M	J.C	

Legend

* Duplicate	Notes: 08-Feb-24: Site 53 relocated closer to ETP effluent plume as per ECA requirements and renamed 53A.
Not Required	

SW - Monthly - Field

Date: 10 2023

EQUINOXGOLD
GREENSTONE MINE
AN EQUINOX GOLD / ORION JOINT VENTURE

Field Visit Details										
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	Oxidation Reduction Potential (millivolts (mV))	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2023-10-10 08:00							M.F	T.P	
Trip Blank	2023-10-11 08:00							B.M	M.F	
11	2023-10-17 13:14	10.97	156.3	184.8	7.66	9.4	1.59	J.C	W.M	
17	2023-10-17 13:30	10.64	154.6	216.9	7.67	8.1	1.79	B.M	M.F	
1A	2023-10-03 10:32	8.68	166.1	167.2	7.83	17.3	0.63	J.C	M.F	
2	2023-10-17 10:24	10.86	178.3	164	7.57	8.1	2.58	J.C	W.M	
20	2023-10-23 14:29	10.64	225.8	79.3	7.52	7.2	8.16	R.D	T.P	
20A	2023-10-18 11:47	8.97	237.9	148.4	7.24	7.7	1.73	W.M	R.D	
21	2023-10-17 10:26	10.41	206.6	251.4	7.65	8.1	0.55	B.M	M.F	
22A[D]	2023-10-18 10:53	8.55	237.7	158.5	7.18	7.1	1.87	W.M	R.D	
23	2023-10-03 12:50	9.07	156.9	115.9	7.92	17.7	0.00	J.C	M.F	
24	2023-10-03 13:57	9.16	159.7	106.4	7.99	17.9	0.02	J.C	M.F	
25	2023-10-03 14:29	6.94	290.5	127.5	7.48	20.6	0.00	J.C	M.F	
26[D]	2023-10-18 10:42	11.11	330.9	161.3	7.94	8.6	1.49	M.F	T.P	
28	2023-10-17 09:54	10.83	236.3	173	7.45	6.8	1.57	J.C	W.M	
38	2023-10-17 12:12	10.03	172.6	215.8	7.78	9.6	2.58	B.M	M.F	
39	2023-10-17 16:02	8.93	307.6	129.7	7.78	10.1	2.70	M.F	B.M	
4	2023-10-17 12:03	11.20	210.8	166.5	7.67	8.3	3.43	J.C	W.M	
40[D]	2023-10-17 10:51	11.05	197.2	169.6	7.64	8.5	3.06	J.C	W.M	
46	2023-10-03 11:16	9.26	163.2	151.1	7.94	17.5	0.07	J.C	M.F	
47	2023-10-17 12:32	10.87	177	175	7.68	9.8	1.51	J.C	W.M	
49	2023-10-03 11:51	9.12	158.7	1,029	7.9	17.7	0.28	J.C	M.F	
52	2023-10-25 12:57	11.33	181.4	98.1	7.64	6.1	0.20	J.C	W.M	
53	2023-10-03 12:27	9.26	164.6	111.9	7.97	18.0	0.24	J.C	M.F	
54	2023-10-24 09:36	10.40	197	131.1	7.71	7.5	6.95	J.C	W.M	
55	2023-10-23 10:10	4.44	309.5	155.5	6.96	5.1	1.44	J.C	L.M	
8	2023-10-16 11:50	10.96	174.9	185.7	8.05	9.5	1.73	J.C	W.M	

Legend

[D] Duplicate

Not Required

Notes

SW - Monthly - Field

Date: 11 2023

EQUINOXGOLD
GREENSTONE MINE
AN EQUINOX GOLD / ORION JOINT VENTURE

Field Visit Details										
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	Oxidation Reduction Potential (millivolts (mV))	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	[a]							R.D	W.M	[a] Not completed due to lack of sites.
Trip Blank	2023-11-07 08:00							J.C	W.M	
11	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
17	2023-11-06 13:50	11.00	118.3	166.6	7.35	2.0	2.00	W.M	T.P	
1A	2023-11-06 17:54	[b]	[b]	[b]	[b]	[b]	[b]	T.P	W.M	[b] Unsafe ice conditions
2	2023-11-06 10:30	[b]	[b]	[b]	[b]	[b]	[b]	T.P	W.M	[b] Unsafe ice conditions
20	2023-11-06 16:08	[b]	[b]	[b]	[b]	[b]	[b]	R.D	J.C	[b] Unsafe ice conditions
20A	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	T.P	W.M	[b] Unsafe ice conditions
21	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
22A	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
23	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
24	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	T.P	W.M	[b] Unsafe ice conditions
25	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
26	2023-11-16 16:10	[b]	[b]	[b]	[b]	[b]	[b]	L.M	M.F	[b] Unsafe ice conditions
28	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
38[D]	2023-11-06 12:20	11.63	131.3	141.1	7.57	2.7	0.83	W.M	T.P	
39	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
4	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
40[D]	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
46	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
47	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
49	2023-11-06 10:00	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
52	2023-11-07 12:35	12.55	137.2	261.4	7.6	2.8	-0.26	J.C	W.M	
53	2023-11-06 18:06	[b]	[b]	[b]	[b]	[b]	[b]	W.M	T.P	[b] Unsafe ice conditions
54[D]	2023-11-07 14:09	11.60	173.9	233.7	7.51	2.4	0.66	J.C	W.M	
55	2023-11-07 15:07	5.38	254.2	192.7	7.04	1.3	-0.49	J.C	W.M	
8	2023-11-06 14:45	13.35	129	169.6	7.68	0.6	0.18	W.M	T.P	

Legend

[D] Duplicate
Not Required

Notes

SW - Monthly - Field

Date: 12 2023

EQUINOXGOLD
GREENSTONE MINE
AN EQUINOX GOLD / ORION JOINT VENTURE

Field Visit Details										
ID	Date	Dissolved Oxygen, Field (mg/l)	Conductivity, Field (us/cm)	Oxidation Reduction Potential (millivolts (mV))	pH, Field	Temperature, Field (deg C)	Turbidity, Field (NTU)	Technician 1	Technician 2	Comments
Field Blank	2023-12-29 08:00							B.M	R.D	
Trip Blank	2023-12-06 08:00							J.C	W.M	
11	2023-12-14 11:54	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
17	2023-12-28 15:21	11.18	180.7	63.2	7.47	2.3	1.17	B.M	R.D	
1A	2023-12-14 11:51	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
2	2023-12-14 11:52	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
20	2023-12-29 14:08	4.68	495.5	-22.5	6.50	2.3	3.52	B.M	R.D	
20A	2023-12-29 13:50	10.56	195	144.9	6.93	1.0	0.80	B.M	R.D	
21	2023-12-14 11:54	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
22A	2023-12-29 13:33	6.49	214.4	182.6	6.79	1.7	0.52	B.M	R.D	
23	2023-12-14 11:55	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
24	2023-12-14 11:55	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
25	2023-12-29 15:15	8.07	278.4	103.2	7.03	0.3	0.75	B.M	R.D	
26	2023-12-14 11:56	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
28	2023-12-14 11:56	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
38[D]	2023-12-28 16:14	11.41	155	91.9	7.57	1.3	1.61	B.M	R.D	
39	2023-12-19 14:50	11.22	202.2	215	7.40	2.9	2.30	J.C	T.P	
4	2023-12-14 11:53	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
40	2023-12-27 14:49	9.94	237.1	175.3	7.15	3.3	1.93	B.M	R.D	
46	2023-12-14 11:56	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
47	2023-12-14 11:57	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
49	2023-12-14 11:57	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
52	2023-12-06 13:19	12.12	21.6	133.1	7.70	1.2	0.24	J.C	W.M	
53	2023-12-14 11:59	a	a	a	a	a	a	M.F	J.C	[a] Unsafe ice conditions
54	2023-12-05 15:16	10.74	24.4	121.8	7.35	1.3	0.77	J.C	W.M	
55	2023-12-05 13:42	3.86	34	81.7	7.12	0.2	0.16	J.C	W.M	
8[D]	2023-12-27 15:20	12.92	210.3	197.5	7.32	2.0	0.62	B.M	R.D	

Legend

[D] Duplicate

Not Required

Notes

Appendix B.2 Surface Water Analytical Results

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		1A										
Sample Date		3-Oct-23	8-Jan-24	15-Jan-24	5-Feb-24	11-Mar-24	8-Apr-24	6-May-24	10-Jun-24	2-Jul-24	12-Aug-24	9-Sep-24
Sample ID		1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS
Laboratory Work Order		C3V1811	C410702	C418507	C437213	C475166	C4A5379	C4D8691	C4H7665	TY2407088	TY2408830	TY2410198
Laboratory Sample ID	Units	XFK847	YCE141	YDU501	YHV188	YPQ805	YVW958	ZCT795	ZKW386	TY2407088-003	TY2408830-001	TY2410198-001
Field Parameters												
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.83	7.37	7.51	7.14	7.81	7.70	7.27	7.76	7.91	7.23	7.63
Temperature, Field	deg C	17.3	0.4	0.0	0.1	0.3	1.3	8.3	14.9	18.3	16.9	14.6
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	3.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	110	100	100	110	110	100	71	79	90.7	88.9	105
Alkalinity, Carbonate (as CaCO3)	mg/L	1.3	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	110	100	110	110	110	110	71	79	90.7	88.9	105
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.0089	0.0141	0.0087
Ammonia, Un-ionized (As N)	mg/L	<0.0011	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.00077	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2	<2	<2	<2	<2	<2	<2	-	<2.0	<2.0	<2.0
Chemical Oxygen Demand	mg/L	22	31	31	25	24	24	28	-	30	54	28
Chloride	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.26	0.22	0.59
Chlorophyll a	µg/L	-	-	-	-	-	-	<2.1 VV	-	-	-	-
Color, True	TCU	20	28	28	25	24	20	48	49	35.5	83.8	38.2
Cyanide	mg/L	<0.00050 CYN	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00063 CYN	0.00072	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	0.0061 ICB	<0.002 ICB	<0.002 ICB	<0.002	<0.002 ICB	<0.002 ICB	0.0023 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	7.9	9.7	10	9.5	9.3	7.9	12	12	13.6	20.3	13.4
Electrical Conductivity, Lab	µS/cm	211	207	209	209	214	200	138	151	169	163	190
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	<0.020	0.020
Hardness (as CaCO3)	mg/L	110	110	120	110	120	120	80	86	91.7	90.1	106
Mineral Oil and Grease	mg/L	0.80	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	-	-
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0
Orthophosphate (as P)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.0010	0.0016	0.0019
pH, lab	S.U.	8.10	7.80	7.99	7.98	7.93	8.04	7.91	7.96	8.04	7.91	8.08
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.0030	0.0031	0.0028	0.0041	0.0031	0.0031	0.0058	0.0069	0.0100	0.0097	0.0064
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.008	<0.005	0.009
Sulfate	mg/L	3.0	3.3	2.9	1.8	2.7	2.3	3.6	3.0	1.75	0.74	0.69
Total Dissolved Solids	mg/L	120	130	155	145	275	110	90	150	115	104	121
Total Kjeldahl Nitrogen	mg/L	0.30	0.29	0.28	0.33	0.34	0.25	0.35	0.33	0.463	0.709	0.434
Total Organic Carbon	mg/L	8.4	9.8	10	10	9.7	8.0	12	13	12.9	20.4	13.0
Total Suspended Solids	mg/L	1	<1	<1	<1	2	<1	3	2	1.3	<1.0	<1.0
Turbidity, Lab	NTU	0.7	0.8	0.7	0.8	0.7	0.6	0.7	1.0	1.38	1.04	1.38
Metals, Dissolved												
Aluminum	µg/L	2.9	4.1	3.2	2.7	2.1	1.8	13.6	9.3	5.1	24.6	5.2
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	1	0.8	0.7	0.7	0.6	0.6	0.9	1.2	1.07	2.1	1.44
Barium	µg/L	14.5	12.2	12	11.7	12.1	11.1	8.8	10.2	10.5	13.4	12.3
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05
Boron	µg/L	5	4	4	4	5	4	3	4	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
Calcium	mg/L	33.6	34.7	35.7	32.1	37.3	35.4	23.8	26.1	27.3	26.4	31.8
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	<0.1
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1
Copper	µg/L	0.3	1.8	1.2	4.8	3.3	0.6	0.9	0.4	0.36	0.61	0.38
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	26	48	44	42	33	30	43	50	34	85	72
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	1.1	1	0.9	1	1	0.9	0.7	0.7	<1	1	1
Magnesium	mg/L	6.32	6.62	6.77	6.27	7.34	6.67	4.92	5.09	5.72	5.88	6.37
Manganese	µg/L	3.8	5.3	4.4	4.4	3.6	7.2	5	5	3.82	7.08	6.08
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.15	0.12	0.12	0.11	0.12	0.11	0.08	0.08	0.084	0.095	0.11
Nickel	µg/L	0.2	0.3	0.2	0.6	0.5	0.3	0.3	0.3	<0.5	0.52	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50
Potassium	mg/L	0.90	0.77	0.79	0.77	0.88	0.81	0.58	0.52	0.567	0.487	0.692
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	2.16	1.7	1.78	1.8	1.82	1.53	1.21	1.31	1.54	1.49	1.72
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.076	0.084	0.07
Silicon	µg/L	2,580	3,220	3,150	3,030	3,150	2,590	1,800	1,680	1,800	2,520	2,800
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	0.72	0.85	0.87	0.81	0.97	0.92	0.63	0.65	0.684	0.635	0.742
Strontium	µg/L	31	26.9	27.7	27.5	28.7	25.2	18.2	20.8	23.4	24.9	27.2
Sulfur	µg/L	-	-	-	-	-	-	-	-	<500	<500	<500
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	0.46	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.34	0.24	0.24	0.24	0.27	0.25	0.16	0.16	0.202	0.181	0.247
Vanadium	µg/L	0.24	0.13	0.12	0.11	0.12	0.11	0.18	0.21	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	0.7	1.1	0.8	1.6	1.5	4.1	1.3	0.7	<1	<1	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3

Sample Location		1A										
Sample Date		3-Oct-23	8-Jan-24	15-Jan-24	5-Feb-24	11-Mar-24	8-Apr-24	6-May-24	10-Jun-24	2-Jul-24	12-Aug-24	9-Sep-24
Sample ID		1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS
Laboratory Work Order		C3V1811	C410702	C418507	C437213	C475166	C4A5379	C4D8691	C4H7665	TY2407088	TY2408830	TY2410198
Laboratory Sample ID	Units	XFK847	YCE141	YDU501	YHV188	YPQ805	YVW958	ZCT795	ZKW386	TY2407088-003	TY2408830-001	TY2410198-001
Metals, Total												
Aluminum	µg/L	8.3	6.5	5.1	4.7	6.8	6.2	24.5	15.7	15	32.5	10
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	1.1	0.7	0.7	0.7	0.7	0.6	0.9	2	1.21	2.24	1.45
Barium	µg/L	14.2	12.1	11.7	12	11.9	11.5	9.2	10.3	11	13.9	12.7
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05
Boron	µg/L	5	4	4	4	4	4	3	4	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	36.5	33.8	32.9	33.9	35.7	33.4	24.1	25.8	27.5	27.2	31.2
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.012	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	<0.1
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1
Copper	µg/L	0.4	0.3	0.4	0.4	0.5	0.5	0.5	0.5	<0.5	0.69	<0.5
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	74	82	84	78	71	66	84	86	79	126	109
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	0.08	<0.05	0.47	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	1	0.9	0.9	1	0.9	0.8	0.6	0.7	1	<1	<1
Magnesium	mg/L	6.60	6.14	6.57	6.70	7.03	6.35	4.87	5.22	5.89	6.24	6.30
Manganese	µg/L	14.9	6.5	5.9	7.1	7.3	10.7	12.5	16.3	21.4	16.9	14.3
Mercury	µg/L	0.00114	0.00092	0.00148	0.00078	0.00080	0.00104	0.00277	0.00244	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	0.0012	0.00363	0.00089
Molybdenum	µg/L	0.15	0.11	0.11	0.11	0.12	0.11	0.08	0.09	0.109	0.11	0.11
Nickel	µg/L	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	<0.5	0.53	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50
Potassium	mg/L	0.89	0.69	0.74	0.77	0.82	0.76	0.58	0.52	0.579	0.487	0.656
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	2.14	1.68	1.79	1.81	1.79	1.62	1.28	1.32	1.59	1.58	1.85
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	0.06	0.05	<0.05	0.06	0.06	<0.05	0.05	0.06	0.113	0.115	0.075
Silicon	µg/L	2,760	3,020	3,020	3,080	2,920	2,580	1,830	1,720	1,790	2,600	2,940
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	0.76	0.77	0.81	0.86	0.88	0.79	0.61	0.65	0.702	0.613	0.726
Strontium	µg/L	30.3	26.1	27.7	28.4	29.1	26.8	18.3	21.2	23.5	24.9	28.7
Sulfur	µg/L	-	-	-	-	-	-	-	-	<500	650	<500
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	0.8	0.5	0.49	0.92	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.34	0.24	0.24	0.25	0.27	0.24	0.16	0.16	0.226	0.192	0.262
Vanadium	µg/L	0.28	0.15	0.15	0.15	0.15	0.14	0.22	0.24	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	<0.5	0.6	0.5	0.8	2	4.2	0.8	3.1	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location							2				
Sample Date		**17-Oct-23**	**29-Jan-24**	**8-Feb-24**	**7-Mar-24**	**10-Apr-24**	**13-May-24**	**18-Jun-24**	**17-Jul-24**	**16-Aug-24**	**15-Sep-24**
Sample ID		**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**ALS**	**ALS**	**ALS**	**ALS**
Laboratory Work Order		**C3W7540**	**C430242**	**C444003**	**C471795**	**C4A8649**	**C4E5436**	**TY2406394**	**TY2407793**	**TY2409015**	**TY2410348**
Laboratory Sample ID	**Units**	**XIV833**	**YGI605**	**YJF727**	**YOY285**	**YWN540**	**ZED910**	**TY2406394-005**	**TY2407793-002**	**TY2409015-002**	**TY2410348-003**
Field Parameters											
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.57	6.92	6.81	7.24	6.83	7.27	7.67	7.84	7.97	7.63
Temperature, Field	deg C	8.1	1.6	1.6	1.2	3.2	12.4	18.5	21.7	22.5	19.3
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	7.2	<5.0	<5.0	<2.0	<2.0	<2.0	3.1
Alkalinity, Bicarbonate (as CaCO3)	mg/L	78	110	100	120	38	54	65.6	74.5	81.3	88.1
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	79	110	100	120	38	54	65.6	74.5	81.3	88.1
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	0.051	0.083	<0.050	0.076	<0.050	0.0167	0.0087	0.0090	0.0142
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	5.7	14	11	12	3.6	6.8	13.4	10.8	11.3	12.2
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	44	57	51	53	10	75	81.8	67.0	54.8	47.7
Cyanide	mg/L	0.00052	0.00090	0.00058	0.00064	0.00054	<0.00050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	13	16	13	15	3.0	14	21.2	19.2	20.1	18.3
Electrical Conductivity, Lab	µS/cm	182	274	244	289	84	136	158	178	195	204
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.024	<0.020	<0.020
Hardness (as CaCO3)	mg/L	94	130	110	130	26	64	67.3	81.8	85.3	95.7
Ion Balance	%	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	<0.10	0.14	0.13	0.13	0.10	<0.10	<0.020	<0.020	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	0.14	0.13	0.13	0.10	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.90	7.81	7.66	7.52	7.25	7.74	7.94	8.10	7.99	7.92
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.012	0.0044	0.012	0.0057	0.0020	0.0086	0.0133	0.0189	0.0142	0.0192
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	4.7	4.8	4.6	4.9	1.6	3.4	5.52	2.06	2.48	2.60
Total Dissolved Solids	mg/L	115	180	155	190	60	140	125	120	143	151
Total Kjeldahl Nitrogen	mg/L	0.38	0.49	0.50	0.41	0.24	0.46	0.658	0.611	-	0.618
Total Organic Carbon	mg/L	13	16	13	15	3.1	15	19.1	20.0	19.3	17.7
Total Suspended Solids	mg/L	2	<1	<1	1	2	3	1.7	4.0	1.3	1.3
Turbidity, Lab	NTU	1.3	1.4	1.2	0.7	0.9	1.9	2.31	3.74	1.70	3.00
Metals, Dissolved											
Aluminum	µg/L	4	7.8	6.3	6	2.3	9.7	33.6	5.2	13.5	4.6
Antimony	µg/L	0.7	0.2	0.2	0.2	<0.1	0.1	0.2	0.35	0.41	0.53
Arsenic	µg/L	32	10.1	9.3	8.2	2.1	9.5	19.6	38.7	60.6	57.8
Barium	µg/L	7.1	8.7	8	9.6	2.4	4.5	6.14	6.81	6.92	7.23
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	5	4	4	4	1	2	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	29.2	41.1	33.5	41.4	8.06	19.0	20.0	24.5	25.1	28.6
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.78	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.12
Cobalt	µg/L	<0.05	0.05	0.05	<0.05	0.05	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	1.5	1	1	0.9	5.8	0.6	1.91	1.68	1.47	1.55
Iron	µg/L	108	185	156	159	32	95	172	82	83	79
Lead	µg/L	0.07	<0.05	0.1	<0.05	0.66	<0.05	0.193	0.056	<0.05	<0.05
Lithium	µg/L	0.6	0.8	0.7	0.8	<0.5	<0.5	<1	<1	<1	<1
Magnesium	mg/L	5.15	7.62	6.27	7.54	1.49	3.90	4.22	5.01	5.50	5.89
Manganese	µg/L	3.4	38.5	35.5	30.3	9.3	4.9	3.84	2.85	1.03	3.7
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.08	0.08	0.07	0.07	<0.05	0.07	0.131	0.092	0.102	0.083
Nickel	µg/L	0.5	0.4	0.4	0.4	0.6	0.3	1.02	0.63	0.63	0.61
Phosphorus	µg/L	<5	<5	8	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.45	0.37	0.35	0.42	0.15	0.25	0.201	0.233	0.269	0.299
Rubidium	µg/L	1.01	0.82	0.8	0.99	0.27	0.57	0.57	0.66	0.83	0.84
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.084	0.079	0.092	0.104
Silicon	µg/L	2,440	3,960	3,300	4,000	899	1,290	1,170	1,420	2,220	2,970
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	5.12	8.42	6.84	6.90	2.03	4.97	5.18	6.60	6.44	7.38
Strontium	µg/L	36.4	42.8	38.9	48.3	10.4	22.3	26.9	34	37.1	41.3
Sulfur	µg/L	-	-	-	-	-	-	680	870	990	1,100
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.12	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.19	0.28
Uranium	µg/L	0.03	0.04	0.04	0.05	<0.01	0.02	0.023	0.028	0.026	0.034
Vanadium	µg/L	0.18	0.11	0.1	0.11	<0.05	0.12	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	1	2.1	3.9	1.6	3.6	1	2.9	1.9	5.5 DTMF	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location							2				
Sample Date		17-Oct-23	29-Jan-24	8-Feb-24	7-Mar-24	10-Apr-24	13-May-24	18-Jun-24	17-Jul-24	16-Aug-24	15-Sep-24
Sample ID		2	2	2	2	2	2	2	2	2	2
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C430242	C444003	C471795	C4A8649	C4E5436	TY2406394	TY2407793	TY2409015	TY2410348
Laboratory Sample ID	Units	XIV833	YGI605	YJF727	YOY285	YWN540	ZED910	TY2406394-005	TY2407793-002	TY2409015-002	TY2410348-003
Metals, Total											
Aluminum	µg/L	18.3	10.5	14.7	7.8	16.6	27.5	34	63.5	9.8	28.9
Antimony	µg/L	0.7	0.2	0.2	0.2	<0.1	0.1	0.24	0.42	0.44	0.54
Arsenic	µg/L	37.7	12.4	11	9.8	2.6	11.8	22.6	42.2	64.5	65
Barium	µg/L	7.4	9.2	9.4	9.7	3.1	5	6.75	7.39	7.51	7.85
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	5	3	3	4	1	3	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	<0.005	0.006	<0.005	<0.005
Calcium	mg/L	28.1	42.2	33.2	42.7	9.76	19.9	20.9	25.0	28.4	29.9
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.012	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.23
Cobalt	µg/L	0.07	<0.05	0.06	<0.05	<0.05	0.11	<0.1	0.11	<0.1	<0.1
Copper	µg/L	1.7	0.8	1	0.8	0.4	0.8	1.35	2.09	1.79	1.81
Iron	µg/L	249	262	234	215	58	195	246	260	147	216
Lead	µg/L	0.19	0.07	0.21	0.09	0.21	0.15	0.196	0.237	0.073	0.154
Lithium	µg/L	0.7	0.8	0.7	0.8	<0.5	<0.5	<1	<1	<1	1
Magnesium	mg/L	5.18	7.68	6.37	7.87	1.85	3.92	4.67	5.24	5.87	6.32
Manganese	µg/L	13.3	40.8	36.6	32	11.7	9.7	11.8	17.1	11.2	21.1
Mercury	µg/L	0.00227	0.00141	0.00248	0.00131	0.00130	0.00518	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	0.00348	0.00437	0.00098	0.00168
Molybdenum	µg/L	0.07	0.08	0.07	0.07	<0.05	0.07	0.088	0.088	0.094	0.11
Nickel	µg/L	0.6	0.4	0.4	0.4	0.2	0.4	0.58	0.76	0.66	0.71
Phosphorus	µg/L	8	<5	16	<5	<5	6	<50	<50	<50	<50
Potassium	mg/L	0.45	0.38	0.37	0.43	0.15	0.26	0.221	0.252	0.276	0.327
Rubidium	µg/L	1.02	0.88	0.81	0.98	0.31	0.6	0.65	0.75	0.9	0.95
Selenium	µg/L	0.06	0.06	0.06	0.05	<0.05	<0.05	0.064	0.085	0.113	0.107
Silicon	µg/L	2,350	3,990	3,320	4,160	938	1,350	1,340	1,550	2,200	3,070
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	5.06	8.55	6.89	7.20	2.15	4.92	5.67	6.88	7.73	7.47
Strontium	µg/L	36	44.8	38.6	48.5	12.4	22	29.7	35.2	40.5	44.4
Sulfur	µg/L	-	-	-	-	-	-	770	900	890	1,200
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	0.7	<0.5	1	<0.5	<0.5	0.9	0.93	1.3	<0.3	0.58
Tungsten	µg/L	0.3	<0.1	<0.1	<0.1	<0.1	0.2	0.5	1.07	0.22	0.32
Uranium	µg/L	0.04	0.04	0.04	0.05	0.01	0.02	0.023	0.028	0.029	0.036
Vanadium	µg/L	0.24	0.14	0.15	0.13	0.07	0.17	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	1.6	1.8	5	3.1	3.1	1.1	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		4										
Sample Date		**17-Oct-23**	**29-Jan-24**	**8-Feb-24**	**7-Mar-24**	**10-Apr-24**	**13-May-24**	**18-Jun-24**	**17-Jul-24**	**22-Aug-24**	**22-Aug-24**	**15-Sep-24**
Sample ID		**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**ALS**	**ALS**	**ALS**	**ALS**	**ALS**
Laboratory Work Order		**C3W7540**	**C430242**	**C444003**	**C471795**	**C4A8649**	**C4E5436**	**TY2406394**	**TY2407793**	**TY2409357**	**TY2409357**	**TY2410348**
Laboratory Sample ID	**Units**	**XIV836**	**YGI608**	**YJF730**	**YOY287**	**YWN538**	**ZED912**	**TY2406394-001**	**TY2407793-005**	**TY2409357-001**	**TY2409357-002**	**TY2410348-005**
Field Parameters												
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.67	6.85	6.67	7.31	6.87	7.46	7.84	7.95	7.60	-	7.76
Temperature, Field	deg C	8.3	0.6	2.2	1.6	2.6	12.3	17.6	21.6	19.5	-	18.8
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Acidity as CaCO3	mg/L	<5.0	5.4	<5.0	5.4	<5.0	<5.0	<2.0	<2.0	2.9	-	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	82	110	29	110	41	58	71.0	77.3	87.4	-	90.5
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	-	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	-	<2.0
Alkalinity, Total (as CaCO3)	mg/L	82	110	29	110	41	58	71.0	77.3	87.4	-	90.5
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	0.20	<0.050	0.087	<0.050	0.0163	0.0105	0.0085	-	0.0134
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	8.2	15	3.9	17	5.5	12	13.2	13.6	15.3	-	15.0
Chlorophyll a	µg/L	-	-	-	-	-	10 VV	-	-	-	4.96	-
Color, True	TCU	38	48	8	49	11	59	69.3	59.7	46.1	-	42.6
Cyanide	mg/L	<0.00050	0.00091	<0.00050	0.00074	<0.00050	<0.00050	<0.0050	<0.0050	<0.0050	-	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	-	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	13	16	2.9	16	3.6	13	22.4	17.5	17.4	-	17.6
Electrical Conductivity, Lab	µS/cm	217	287	78	302	99	171	195	194	226	-	228
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.024	0.026	-	<0.020
Hardness (as CaCO3)	mg/L	100	130	7.8	130	32	73	75.1	87.7	106	-	101
Nitrate (as N)	mg/L	<0.10	0.13	0.25	0.11	<0.10	<0.10	<0.020	<0.020	<0.020	-	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	0.13	0.25	0.11	<0.10	<0.10	-	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	<0.010	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.96	7.90	7.38	7.62	7.31	7.78	7.97	7.92	7.94	-	7.95
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	1.33	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	<2.0	<2.0	<2.0	-	<2.0
Phosphorus, Total	mg/L	0.022	0.0093	0.0013	0.021	0.0025	0.018	0.0217	0.0300	0.0229	-	0.0374
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	11	8.0	2.1	8.9	2.9	6.4	5.94	5.62	8.10	-	7.66
Total Dissolved Solids	mg/L	115	220	60	220	40	160	143	133	146	-	147
Total Kjeldahl Nitrogen	mg/L	0.48	0.53	0.27	0.48	0.25	0.43	0.624	0.692	0.627	-	0.629
Total Organic Carbon	mg/L	13	15	3.0	16	3.5	13	17.0	18.3	16.4	-	16.9
Total Suspended Solids	mg/L	4	<1	5	3	5	7	4.7	5.9	1.4	-	6.8
Turbidity, Lab	NTU	1.5	0.7	2.5	1.3	2.2	2.8	4.38	4.21	1.28	-	7.16
Volume Sampled	L	-	-	-	-	-	-	-	-	-	0.250	-
Metals, Dissolved												
Aluminum	µg/L	4.3	3.5	5	3.6	4.1	6.9	7.9	3.5	2.5	-	5.4
Antimony	µg/L	0.9	0.7	<0.1	0.6	0.1	0.2	0.36	0.36	0.44	-	0.59
Arsenic	µg/L	66.1	22.1	1.6	18.5	3.5	17.6	35	64.5	126	-	114
Barium	µg/L	7.3	9.3	2.2	9.3	2.9	4.5	6.4	6.85	7.86	-	8.08
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	-	<0.05
Boron	µg/L	8	6	<1	7	2	3	<10	<10	<10	-	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	-	<0.005
Calcium	mg/L	31.0	38.9	2.55	40.8	9.93	21.8	22.2	25.8	31.1	-	29.7
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.011	0.012	-	0.012
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.97	<0.5	-	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	0.12
Cobalt	µg/L	0.06	0.09	0.06	0.06	0.1	0.05	<0.1	<0.1	<0.1	-	<0.1
Copper	µg/L	3.5	2.1	6.2	1.9	3.1	1.4	2.71	3.01	2.97	-	3.24
Iron	µg/L	66	104	13	88	22	83	115	56	43	-	77
Lead	µg/L	0.06	<0.05	0.06	<0.05	0.06	<0.05	0.101	<0.05	<0.05	-	0.066
Lithium	µg/L	0.8	0.9	<0.5	0.9	<0.5	<0.5	<1	<1	<1	-	<1
Magnesium	mg/L	6.00	7.49	0.353	7.79	1.84	4.47	4.78	5.66	6.87	-	6.63
Manganese	µg/L	1.1	30.5	5.3	11.1	10.2	3.5	5.42	3.26	0.77	-	3.4
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	-	<0.005
Molybdenum	µg/L	0.11	0.1	0.06	0.11	<0.05	0.07	0.096	0.094	0.107	-	0.106
Nickel	µg/L	1.1	0.7	0.6	0.7	0.7	0.5	0.88	1.28	0.96	-	1.08
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<50	<50	<50	-	<50
Potassium	mg/L	0.79	0.60	0.10	0.67	0.19	0.44	0.433	0.426	0.538	-	0.578
Rubidium	µg/L	1.51	1.18	0.17	1.26	0.33	0.77	0.94	1.1	1.35	-	1.29
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.081	0.06	0.141	-	0.103
Silicon	µg/L	2,090	3,350	255	3,640	864	1,250	1,250	1,330	2,130	-	3,020
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	7.42	9.65	1.79	10.4	2.95	8.42	7.68	8.33	10.0	-	9.34
Strontium	µg/L	47.3	51.9	11.8	56.9	14.4	30.1	36	40.4	48.8	-	51.4
Sulfur	µg/L	-	-	-	-	-	-	2,150	2,060	2,890	-	3,040
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	-	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	-	<0.3
Tungsten	µg/L	0.2	0.2	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.37	-	0.2
Uranium	µg/L	0.05	0.05	<0.01	0.05	0.02	0.03	0.039	0.04	0.045	-	0.058
Vanadium	µg/L	0.23	0.11	<0.05	0.11	<0.05	0.12	<0.5	<0.5	<0.5	-	<0.5
Zinc	µg/L	0.8	1.5	3.6	2.1	4.2	0.6	1.6	1.9	<1	-	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	-	<0.3

Sample Location		4										
Sample Date		17-Oct-23	29-Jan-24	8-Feb-24	7-Mar-24	10-Apr-24	13-May-24	18-Jun-24	17-Jul-24	22-Aug-24	22-Aug-24	15-Sep-24
Sample ID		4	4	4	4	4	4	4	4	4	4	4
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C430242	C444003	C471795	C4A8649	C4E5436	TY2406394	TY2407793	TY2409357	TY2409357	TY2410348
Laboratory Sample ID	Units	XIV836	YGI608	YJF730	YOY287	YWN538	ZED912	TY2406394-001	TY2407793-005	TY2409357-001	TY2409357-002	TY2410348-005
Metals, Total												
Aluminum	µg/L	37.5	5.3	55.6	11	45.8	61.5	111	112	27	-	162
Antimony	µg/L	0.9	0.7	0.2	0.7	0.1	0.2	0.41	0.43	0.47	-	0.61
Arsenic	µg/L	74.6	24.9	4.4	20.3	4.1	25.6	42.8	71.2	132	-	130
Barium	µg/L	8.1	10.6	5.8	11.8	3.7	5.8	7.11	7.8	8.03	-	9.42
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	-	<0.05
Boron	µg/L	8	7	1	7	2	3	<10	<10	<10	-	<10
Cadmium	µg/L	<0.005	<0.005	0.007	<0.005	0.005	<0.005	<0.005	0.007	<0.005	-	0.0089
Calcium	mg/L	31.1	41.9	7.60	41.4	10.6	22.0	23.9	27.5	31.2	-	30.8
Cesium	µg/L	<0.02	<0.02	0.02	<0.02	<0.02	0.02	0.025	0.029	0.016	-	0.04
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.58	0.64	<0.5	-	0.79
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	0.79
Cobalt	µg/L	0.13	0.09	0.09	0.07	0.06	0.16	0.19	0.21	<0.1	-	0.24
Copper	µg/L	4.1	2	0.6	2.1	0.6	2	3.68	3.81	3.42	-	4.86
Iron	µg/L	247	145	111	127	94	344	446	404	141	-	567
Lead	µg/L	0.23	0.05	0.16	0.13	0.19	0.24	0.285	0.214	0.079	-	0.346
Lithium	µg/L	0.7	0.9	<0.5	0.9	<0.5	0.5	<1	<1	<1	-	1.1
Magnesium	mg/L	6.20	7.93	1.25	7.94	1.97	4.41	5.31	5.79	6.86	-	7.03
Manganese	µg/L	10.5	33.4	14.1	19.7	8.6	13.9	14.4	20.8	13.2	-	34.2
Mercury	µg/L	0.00147	0.00104	0.00460	0.00108	0.00105	0.00340	<0.005	<0.005	<0.005	-	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	0.0028	0.00175	0.00091	-	0.00192
Molybdenum	µg/L	0.11	0.1	0.06	0.11	<0.05	0.08	0.115	0.106	0.125	-	0.121
Nickel	µg/L	1.3	0.7	0.3	0.8	0.3	0.7	1.23	1.32	1.03	-	1.65
Phosphorus	µg/L	10	7	<5	11	<5	14	<50	<50	<50	-	<50
Potassium	mg/L	0.81	0.65	0.14	0.69	0.19	0.46	0.501	0.461	0.569	-	0.638
Rubidium	µg/L	1.6	1.28	0.34	1.34	0.37	0.86	1.04	1.25	1.39	-	1.57
Selenium	µg/L	0.07	0.07	0.05	0.07	<0.05	<0.05	0.078	0.11	0.092	-	0.095
Silicon	µg/L	2,170	3,510	548	3,760	943	1,360	1,580	1,540	2,310	-	3,380
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	7.33	10.3	2.53	10.6	2.99	8.15	8.24	8.48	9.91	-	9.95
Strontium	µg/L	47.6	53	22.3	56.7	15.1	29.7	41.4	43.6	50.2	-	52.6
Sulfur	µg/L	-	-	-	-	-	-	2,460	2,100	2,960	-	2,980
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	-	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Titanium	µg/L	1.9	<0.5	1.1	0.6	1	3.4	3.49	3.88	0.89	-	4.9
Tungsten	µg/L	0.2	0.2	<0.1	0.1	<0.1	0.1	0.66	<0.8 DLB	0.18	-	0.35
Uranium	µg/L	0.05	0.06	0.02	0.06	0.02	0.03	0.044	0.047	0.051	-	0.061
Vanadium	µg/L	0.35	0.14	0.14	0.14	0.13	0.32	0.68	0.69	<0.5	-	1.03
Zinc	µg/L	1.8	1.7	3.3	4.5	3.6	1.7	<3	3.2	<3	-	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	-	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location								8					
Sample Date		16-Oct-23	6-Nov-23	27-Dec-23	25-Jan-24	8-Feb-24	7-Mar-24	1-Apr-24	12-May-24	9-Jul-24	22-Aug-24	22-Aug-24	18-Sep-24
Sample ID		8	8	8	8	8	8	8	8	8	8	8	8
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W4155	C3Z0071	C3BT968	C427035	C443866	C471795	C497435	C4E3554	TY2407408	TY2409357	TY2409357	TY2410613
Laboratory Sample ID	Units	XID772	XNR727	XZR416	YFP509	YJE956	YOY290	YUH221	ZDT539	TY2407408-001	TY2409357-005	TY2409357-006	TY2410613-001
Field Parameters													
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	8.05	7.68	7.32	7.35	7.31	7.31	7.62	7.52	8.03	7.82	-	7.88
Temperature, Field	deg C	9.5	0.6	2.0	2.3	2.4	4.9	3.1	11.2	25.4	21.6	-	19.8
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry													
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	2.3	-	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	81	80	87	100	100	100	110	73	79.3	85.0	-	88.5
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	-	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	-	<2.0
Alkalinity, Total (as CaCO3)	mg/L	81	80	88	100	110	100	110	73	79.3	85.0	-	88.5
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.067	<0.050	0.0076	0.0079	-	0.0183
Ammonia, Un-ionized (As N)	mg/L	<0.00098	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	2.9	4.6	3.5	4.3	3.2	2.5	2.6	5.5	3.95	3.75	-	3.50
Chlorophyll a	µg/L	-	-	-	-	-	-	-	14 VV	-	-	3.68	-
Color, True	TCU	30	27	24	25	25	26	26	36	39.9	38.0	-	37.8
Cyanide	mg/L	0.00058	0.00057	<0.00050	0.00067	0.00056	<0.00050	<0.00050	<0.00050	<0.0050	<0.0050	-	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	-	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	10	10	11	11	10	11	11	9.5	15.6	15.2	-	14.6
Electrical Conductivity, Lab	µS/cm	180	181	220	241	236	230	233	179	176	182	-	183
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.023	-	<0.020
Hardness (as CaCO3)	mg/L	91	88	100	100	100	110	120	82	86.2	95.4	-	87.9
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	<0.020	-	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	<0.010	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.77	7.86	7.90	8.05	7.83	7.74	7.86	7.92	8.07	7.97	-	7.96
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	1.12	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	-	<2.0	<2.0	-	<2.0
Phosphorus, Total	mg/L	0.22	0.0091	0.0042	0.0037	0.0034	0.0029	0.0031	0.0089	0.0141	0.0142	-	0.0186
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	7.2	6.9	11	12	9.4	8.5	8.2	10	6.31	6.68	-	6.06
Total Dissolved Solids	mg/L	120	75	165	165	145	165	170	110	114	117	-	124
Total Kjeldahl Nitrogen	mg/L	0.39	0.36	0.32	0.37	0.28	0.33	0.39	0.35	0.553	0.522	-	-
Total Organic Carbon	mg/L	11	11	11	11	11	11	11	10	13.4	14.7	-	14.5
Total Suspended Solids	mg/L	3	2	<1	<1	<1	<1	<1	5	<1.0	1.5	-	2.5
Turbidity, Lab	NTU	1.0	0.9	0.3	0.4	0.4	0.2	0.3	1.2	1.29	0.95	-	1.65
Volume Sampled	L	-	-	-	-	-	-	-	-	-	-	0.250	-
Speciated Metals													
Methyl Mercury	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Metals, Dissolved													
Aluminum	µg/L	2.2	1.2	1.6	2.1	2.5	1.4	1.2	4	3.2	4.3	-	3
Antimony	µg/L	0.2	0.2	0.2	0.1	0.1	<0.1	0.1	0.1	0.12	0.14	-	0.17
Arsenic	µg/L	17.8	15.2	11.4	8.8	7	5	3.9	4.7	9.5	20	-	22.7
Barium	µg/L	9.9	8.8	10.0	11.1	11	13	13.2	8	9.54	10.2	-	11.1
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	-	<0.05
Boron	µg/L	6	5	8	7	6	7	7	5	<10	<10	-	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.005	<0.005	-	<0.005
Calcium	mg/L	27.1	26.3	29.6	30.2	30.9	33.9	36.4	24.4	24.6	27.4	-	25.6
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.014	<0.01	-	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-	0.11
Cobalt	µg/L	<0.05	<0.05	<0.05	0.06	0.06	0.07	<0.05	<0.05	<0.1	<0.1	-	<0.1
Copper	µg/L	1.9	1.2	3.1	7.9	8.5	1.8	1.9	1.2	1.44	0.97	-	1.25
Iron	µg/L	26	19	19	20	26	21	20	34	23	24	-	28
Lead	µg/L	<0.05	<0.05	<0.05	0.06	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05
Lithium	µg/L	0.8	0.8	0.9	1	1	1	1.1	0.7	<1	<1	-	<1
Magnesium	mg/L	5.63	5.30	6.49	6.54	6.53	6.97	7.92	5.22	6.01	6.55	-	5.83
Manganese	µg/L	3.8	1.5	3.7	6.4	2.6	7.7	2.9	3.2	2.1	0.94	-	1.71
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	-	<0.005
Molybdenum	µg/L	0.1	0.10	0.11	0.11	0.12	0.15	0.13	0.09	0.108	0.111	-	0.119
Nickel	µg/L	0.5	0.4	0.4	0.9	1	0.4	0.5	0.4	<0.5	0.55	-	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50
Potassium	mg/L	0.70	0.65	0.76	0.91	0.89	0.90	0.99	0.61	0.668	0.627	-	0.606
Rubidium	µg/L	1.66	1.49	1.77	2	1.91	1.99	2.11	1.27	1.59	1.54	-	1.72
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.059	0.068	-	0.097
Silicon	µg/L	2,280	2,220	2,600	2,950	2,960	3,030	3,340	1,700	1,520	2,200	-	2,700
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	3.81	9.38	5.24	5.73	4.35	3.89	3.81	5.43	4.44	4.48	-	3.53
Strontium	µg/L	27.2	27.5	32.8	33	33.3	35	36.3	28.5	40.6 DTC	31.3	-	32.1
Sulfur	µg/L	-	-	-	-	-	-	-	-	3,420	2,440	-	2,580
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	-	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Uranium	µg/L	0.13	0.12	0.17	0.19	0.21	0.23	0.28	0.12	0.144	0.124	-	0.131
Vanadium	µg/L	0.3	0.25	0.20	0.19	0.15	0.15	0.14	0.12	<0.5	<0.5	-	<0.5
Zinc	µg/L	2.1	0.6	2.2	2.5	2.8	1.9	1	1.8	<1	<1	-	1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	-	<0.3

Sample Location													
Sample Date		16-Oct-23	6-Nov-23	27-Dec-23	25-Jan-24	8-Feb-24	7-Mar-24	1-Apr-24	12-May-24	9-Jul-24	22-Aug-24	22-Aug-24	18-Sep-24
Sample ID		8	8	8	8	8	8	8	8	8	8	8	8
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W4155	C3Z0071	C3BT968	C427035	C443866	C471795	C497435	C4E3554	TY2407408	TY2409357	TY2409357	TY2410613
Laboratory Sample ID	Units	XID772	XNR727	XZR416	YFP509	YJE956	YOY290	YUH221	ZDT539	TY2407408-001	TY2409357-005	TY2409357-006	TY2410613-001
Metals, Total													
Aluminum	µg/L	11	14.0	2.1	2.1	3.8	6.3	1.9	18.4	22.6	15.5	-	22.7
Antimony	µg/L	0.2	0.2	0.1	0.1	0.1	<0.1	<0.1	<0.5	0.14	0.16	-	0.17
Arsenic	µg/L	19	15.9	11.6	9.4	7.3	5.4	4.3	5.5	10.1	21.1	-	23.9
Barium	µg/L	9.9	9.1	10.5	11.8	11.9	13.1	12.8	8	10	11	-	12
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.05	<0.05	-	<0.05
Boron	µg/L	5	5	6	6	6	6	6	<5	<10	<10	-	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.025	0.0108	0.007	-	<0.005
Calcium	mg/L	25.6	25.9	30.2	32.4	34.7	34.5	35.7	22.8	24.2	28.8	-	28.4
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.01	<0.01	-	0.012
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	-	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-	0.18
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	<0.1	<0.1	-	<0.1
Copper	µg/L	1.4	1.2	1.1	1	0.9	0.8	0.6	0.9	1.17	1.27	-	1.45
Iron	µg/L	71	70.0	22	26	43	39	31	95	81	71	-	92
Lead	µg/L	0.06	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	0.067	<0.05	-	0.072
Lithium	µg/L	0.8	0.8	1.0	1	1	1	1	<2.5	<1	<1	-	<1
Magnesium	mg/L	5.43	5.24	6.61	7.32	7.31	7.08	7.87	5.16	5.80	6.80	-	6.29
Manganese	µg/L	11	12.4	3.7	4.3	7.2	5.5	4.3	13	15.2	14.8	-	17.9
Mercury	µg/L	0.00111	0.00149	0.00070	0.00427	0.00069	0.00070	0.00071	0.00177	<0.005	<0.005	-	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	0.00128	0.00101	-	0.00097
Molybdenum	µg/L	0.11	0.10	0.11	0.12	0.13	0.11	0.13	<0.25	0.119	0.123	-	0.118
Nickel	µg/L	0.4	0.4	0.4	0.3	0.3	0.3	0.3	<0.5	0.96	<0.5	-	0.56
Phosphorus	µg/L	12	5	<5	<5	<5	<5	<5	<25	<50	<50	-	<50
Potassium	mg/L	0.68	0.64	0.79	0.90	0.91	0.89	0.93	0.6	0.635	0.656	-	0.646
Rubidium	µg/L	1.7	1.55	1.84	1.96	1.98	1.99	2.03	1.2	1.48	1.71	-	1.76
Selenium	µg/L	0.06	0.06	0.07	0.07	0.06	0.06	0.07	<0.25	<0.05	0.067	-	0.092
Silicon	µg/L	2,250	2,300	2,610	2,860	3,060	3,100	3,220	1,650	1,620	2,400	-	2,780
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	-	<0.01
Sodium	mg/L	3.71	4.30	5.11	5.91	4.50	3.64	3.73	5.37	4.07	4.43	-	3.97
Strontium	µg/L	26.1	26.5	32.0	35.1	34.9	33.9	34.9	28.3	28.5	33.4	-	35.2
Sulfur	µg/L	-	-	-	-	-	-	-	-	2,490	2,780	-	2,560
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.2	<0.2	-	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025	<0.01	<0.01	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	-	<0.1
Titanium	µg/L	0.5	0.5	<0.5	0.5	<0.5	<0.5	<0.5	<2.5	0.78	0.41	-	0.75
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	-	<0.1
Uranium	µg/L	0.12	0.12	0.16	0.19	0.22	0.22	0.24	0.11	0.133	0.135	-	0.148
Vanadium	µg/L	0.36	0.30	0.21	0.23	0.19	0.17	0.16	<0.25	<0.5	<0.5	-	0.54
Zinc	µg/L	0.7	0.8	<0.5	0.7	0.5	0.9	0.6	<2.5	<3	<3	-	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.2	<0.2	-	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location							11				
Sample Date		**17-Oct-23**	**30-Jan-24**	**8-Feb-24**	**7-Mar-24**	**11-Apr-24**	**14-May-24**	**24-Jun-24**	**11-Jul-24**	**22-Aug-24**	**15-Sep-24**
Sample ID		**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**ALS**	**ALS**	**ALS**	**ALS**
Laboratory Work Order		**C3W7540**	**C431931**	**C444003**	**C471795**	**C4A9816**	**C4E7177**	**TY2406682**	**TY2407498**	**TY2409357**	**TY2410348**
Laboratory Sample ID	**Units**	**XIV838**	**YGR693**	**YJF728**	**YOY286**	**YWU139**	**ZEM949**	**TY2406682-001**	**TY2407498-010**	**TY2409357-004**	**TY2410348-007**
Field Parameters											
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.66	7.46	7.15	7.58	7.49	7.68	7.85	8.03	7.78	7.80
Temperature, Field	deg C	9.4	3.7	1.1	1.2	3.2	11.1	20.6	22.1	20.0	18.3
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	2.3	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	74	93	60	100	62	74	76.7	77.2	82.4	83.9
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	75	94	60	100	62	75	76.7	77.2	82.4	83.9
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	0.058	0.11	<0.050	0.061	<0.050	0.0068	0.0078	0.0070	0.0116
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.00048	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	1.8	3.7	2.5	3.5	1.6	4.5	4.22	4.42	3.73	4.04
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	31	29	18	29	13	29	34.2	33.8	30.1	28.7
Cyanide	mg/L	<0.00050	0.00058	<0.00050	0.00053	<0.00050	0.00068	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	11	12	7.0	12	4.7	9.1	12.6	15.2	13.9	14.3
Electrical Conductivity, Lab	µS/cm	160	216	146	228	121	185	169	168	178	180
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.024	0.024	<0.020
Hardness (as CaCO3)	mg/L	85	110	68	110	50	88	78.8	85.0	94.3	90.0
Nitrate (as N)	mg/L	<0.10	<0.10	0.15	<0.10	<0.10	<0.10	<0.020	<0.030 DLB	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	0.15	<0.10	<0.10	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.96	7.97	7.71	7.84	7.51	7.90	7.99	8.01	7.95	7.95
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.010	0.0054	0.0086	0.0068	0.0034	0.0072	0.0125	0.0155	0.0150	0.0124
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-
Silica (as SiO2)	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	4.9	9.0	6.3	9.2	4.9	9.4	5.88	6.06	6.36	6.00
Total Dissolved Solids	mg/L	115	180	90	155	65	105	112	113	115	127
Total Kjeldahl Nitrogen	mg/L	0.42	0.45	0.37	0.35	0.26	0.28	0.474	0.472	0.526	0.513
Total Organic Carbon	mg/L	11	12	7.7	12	4.9	9.5	14.2	13.4	12.8	13.3
Total Suspended Solids	mg/L	2	<1	1	1	2	2	1.5	1.3	1.3	2.1
Turbidity, Lab	NTU	0.8	0.6	0.7	0.3	0.6	1.3	1.32	1.32	0.83	2.22
Metals, Dissolved											
Aluminum	µg/L	1.6	0.7	1.7	0.7	1.9	2.2	2.6	2.4	2.5	2.4
Antimony	µg/L	0.2	0.2	0.1	0.2	<0.1	0.1	0.1	0.13	0.14	0.16
Arsenic	µg/L	14.2	14.1	8.9	10.8	3.3	4.8	6.98	8.72	16.9	19.2
Barium	µg/L	8.8	10.5	8	11.8	5.4	8	8.11	9.27	9.88	9.58
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	5	6	4	6	3	4	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	25.5	32.0	20.2	32.9	15.0	26.1	22.8	24.6	27.4	26.0
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.11
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	1	1.4	1	1.2	2	0.7	0.84	1.03	0.97	1.95 DTMF
Iron	µg/L	26	15	11	14	9	24	23	16	13	18
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	0.14	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	0.6	0.9	0.6	1	<0.5	0.7	<1	<1	<1	1.1
Magnesium	mg/L	5.07	6.73	4.29	6.85	3.12	5.58	5.32	5.72	6.29	6.09
Manganese	µg/L	1.1	1	2.1	0.4	2.2	0.8	0.58	1.08	1.11	1.11
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.1	0.12	0.08	0.13	0.06	0.09	0.092	0.103	0.097	0.096
Nickel	µg/L	0.3	0.5	0.4	0.4	0.3	0.3	<0.5	<0.5	<0.5	<0.5
Phosphorus	µg/L	<5	<5	5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.65	0.81	0.58	0.89	0.43	0.62	0.588	0.612	0.630	0.622
Rubidium	µg/L	1.58	1.77	1.28	1.95	0.84	1.32	1.29	1.47	1.7	1.49
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.057	0.082	0.072	0.089
Silicon	µg/L	2,440	2,720	1,750	2,800	1,310	2,000	1,310	1,430	2,020	2,590
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	2.93	4.78	3.30	4.51	1.98	5.23	3.86	3.94	4.36	4.19
Strontium	µg/L	24.5	31.7	22.3	34.8	14.6	29.6	26.4	28	30.6	31.9
Sulfur	µg/L	-	-	-	-	-	-	1,990	2,110	2,210	2,470
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.1	0.15	0.11	0.19	0.09	0.12	0.118	0.123	0.121	0.134
Vanadium	µg/L	0.3	0.23	0.16	0.19	0.09	0.12	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	0.7	1.1	4.9	2.5	3.7	<0.5	<1	<1	<1	2.1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location							11				
Sample Date		17-Oct-23	30-Jan-24	8-Feb-24	7-Mar-24	11-Apr-24	14-May-24	24-Jun-24	11-Jul-24	22-Aug-24	15-Sep-24
Sample ID		11	11	11	11	11	11	11	11	11	11
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C431931	C444003	C471795	C4A9816	C4E7177	TY2406682	TY2407498	TY2409357	TY2410348
Laboratory Sample ID	Units	XIV838	YGR693	YJF728	YOY286	YWU139	ZEM949	TY2406682-001	TY2407498-010	TY2409357-004	TY2410348-007
Metals, Total											
Aluminum	µg/L	9.4	1.8	9.8	2.2	16.4	10	15.3	15.8	23.7	26.4
Antimony	µg/L	0.1	0.2	0.2	0.2	0.1	0.1	0.14	0.16	0.16	0.16
Arsenic	µg/L	15.6	14.3	9	11.6	3.7	6.2	7.71	9.3	18.2	20
Barium	µg/L	9.2	11.3	9	12.2	6.1	8.8	9.21	10.4	10.7	10.5
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	4	6	4	6	3	4	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	0.008	0.006	0.006	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	25.4	31.7	18.6	33.0	16.2	26.8	24.4	24.4	27.3	27.1
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.18
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	1.1	1.5	1.1	1.3	0.9	0.9	1.08	1.16	1.24	1.21
Iron	µg/L	83	27	31	27	26	77	63	58	74	83
Lead	µg/L	0.06	<0.05	0.18	0.16	0.45	0.05	<0.05	0.056	0.056	0.08
Lithium	µg/L	0.7	0.9	0.6	1	<0.5	0.7	<1	<1	<1	<1
Magnesium	mg/L	5.13	6.80	4.03	6.98	3.47	5.63	5.55	5.67	6.63	6.49
Manganese	µg/L	19.9	3.6	4.1	3.5	3.1	11.1	11	18.9	19.5	23.3
Mercury	µg/L	0.00085	0.00084	0.00368	0.00068	0.00092	0.00119	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	0.00094	0.00088	0.00082	0.00075
Molybdenum	µg/L	0.08	0.12	0.09	0.13	0.07	0.08	0.105	0.117	0.112	0.112
Nickel	µg/L	0.4	0.5	0.3	0.5	0.3	0.4	<0.5	<0.5	<0.5	<0.5
Phosphorus	µg/L	5	<5	8	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.66	0.85	0.55	0.91	0.47	0.66	0.637	0.597	0.659	0.640
Rubidium	µg/L	1.64	1.9	1.25	1.98	0.96	1.33	1.49	1.5	1.82	1.66
Selenium	µg/L	0.06	0.07	0.07	0.07	0.06	<0.05	0.06	0.089	0.073	0.106
Silicon	µg/L	2,390	2,820	1,620	2,830	1,410	2,100	1,410	1,460	2,200	2,500
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	3.00	4.86	3.07	4.51	2.16	5.15	4.23	3.98	4.38	4.23
Strontium	µg/L	24.7	33	21.3	34.8	15.9	29.2	28.5	28.7	31.2	33.2
Sulfur	µg/L	-	-	-	-	-	-	2,370	2,200	2,400	2,450
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	0.6	<0.5	1.7	<0.5	0.5	0.5	0.55	0.5	0.68	0.99
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.09	0.15	0.1	0.16	0.09	0.12	0.123	0.132	0.134	0.142
Vanadium	µg/L	0.35	0.24	0.18	0.22	0.14	0.16	<0.5	<0.5	<0.5	0.6
Zinc	µg/L	0.9	2.2	6.7	5.7	4.3	0.9	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location								17					
Sample Date		17-Oct-23	6-Nov-23	28-Dec-23	16-Jan-24	8-Feb-24	20-Mar-24	11-Apr-24	12-May-24	19-Jun-24	26-Aug-24	26-Aug-24	19-Sep-24
Sample ID		17	17	17	17	17	17	17	17	17	17	17	17
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C3Z0071	C400950	C418561	C443866	C488039	C4A9816	C4E3554	TY2406457	TY2409539	TY2409539	TY2410622
Laboratory Sample ID	Units	XIV844	XNR726	YAB401	YDU818	YJE954	YSI549	YWU142	ZDT540	TY2406457-004	TY2409539-001	TY2409539-005	TY2410622-002
Field Parameters													
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.67	7.35	7.47	7.11	7.10	7.50	7.12	7.62	7.62	7.90	-	7.86
Temperature, Field	deg C	8.8	2.0	2.3	2.1	2.8	2.9	5.2	11.4	18.9	23.3	-	21.0
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry													
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.4	5.0	<5.0	<2.0	<2.0	-	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	72	74	80	83	87	90	97	79	73.7	80.9	-	82.0
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	-	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	-	<2.0
Alkalinity, Total (as CaCO3)	mg/L	72	74	81	84	87	90	98	80	73.7	80.9	-	82.0
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.0050	0.0091	-	0.0199
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.00043	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	2.2	4.1	3.1	3.0	3.7	4.5	4.0	5.4	6.38	5.45	-	4.84
Chlorophyll a	µg/L	-	-	-	-	-	-	-	5.1 VV	-	-	2.66	-
Color, True	TCU	35	33	32	32	30	26	26	35	40.7	33.1	-	30.7
Cyanide	mg/L	<0.00050	0.00068	<0.00050	<0.00050	0.00050	<0.00050	<0.00050	<0.00050	<0.0050	<0.0050	-	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	-	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	11	11	12	11	11	11	10	10	14.4	16.8	-	13.8
Electrical Conductivity, Lab	µS/cm	155	160	179	188	198	211	205	191	166	176	-	182
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	<0.020	-	<0.020
Hardness (as CaCO3)	mg/L	81	77	88	96	96	98	98	92	78.9	89.0	-	83.5
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	<0.020	-	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.89	7.77	7.78	7.77	7.70	7.65	7.61	7.98	7.93	7.97	-	7.93
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	1.40	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	-	<2.0	<2.0	-	<2.0
Phosphorus, Total	mg/L	0.0071	0.014	0.0051	0.0050	0.0048	0.0035	0.0054	0.0069	0.996	0.0139	-	0.0152
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	3.9	4.5	5.5	6.2	7.1	8.9	7.8	11	5.93	6.43	-	4.62
Total Dissolved Solids	mg/L	95	115	130	145	120	135	115	135	118	120	-	129
Total Kjeldahl Nitrogen	mg/L	0.39	0.38	0.37	0.34	0.27	0.40	0.37	0.36	0.632	0.505	-	0.529
Total Organic Carbon	mg/L	11	12	12	12	12	11	10	11	14.7	14.0	-	13.9
Total Suspended Solids	mg/L	2	5	<1	<1	<1	<1	2	3	13.5	2.4	-	<1.0
Turbidity, Lab	NTU	1.1	1.5	0.8	0.7	1.3	0.8	0.7	1.1	5.74	1.48	-	1.56
Volume Sampled	L	-	-	-	-	-	-	-	-	-	-	0.250	-
Metals, Dissolved													
Aluminum	µg/L	3.7	2.6	1.9	2.8	1.8	5.7	2.2	3.8	5	4.4	-	5
Antimony	µg/L	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.11	0.14	-	0.14
Arsenic	µg/L	8.9	6.8	10.1	10.1	10.6	7.5	6.2	4.6	6.85	15.1	-	13.4
Barium	µg/L	8.2	8.2	8.7	9.3	9.9	10.2	9.7	8.2	8.57	9.91	-	10.5
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	-	<0.05
Boron	µg/L	4	4	5	5	6	6	5	4	<10	<10	-	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	-	<0.005
Calcium	mg/L	24.6	23.2	26.1	28.1	28.3	28.8	29.2	27.2	23.1	26.2	-	24.3
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	-	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-	0.13
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	-	<0.1
Copper	µg/L	0.7	0.9	1.0	1.4	1.4	5.3	2.7	0.9	0.93	1.04	-	0.85
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	48	37	30.0	36	34	27	28	29	45	29	-	32
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	0.06	<0.05	<0.05	0.23	0.08	<0.05	<0.05	<0.05	-	<0.05
Lithium	µg/L	0.6	0.7	0.8	0.8	0.8	1	0.8	0.7	<1	<1	-	<1
Magnesium	mg/L	4.70	4.62	5.50	6.13	6.02	6.22	6.08	5.82	5.16	5.72	-	5.54
Manganese	µg/L	3.2	5.4	8.5	7.8	4.7	3.5	9.1	2.7	5.52	3.43	-	3.62
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	-	<0.005
Molybdenum	µg/L	0.08	0.08	0.09	0.1	0.1	0.1	0.1	0.09	0.076	0.147	-	0.115
Nickel	µg/L	0.3	0.3	0.4	0.4	0.4	0.8	1.1	0.3	0.74	<0.5	-	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50
Potassium	mg/L	0.60	0.57	0.65	0.74	0.74	0.79	0.79	0.62	0.572	0.650	-	0.606
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.45	1.30	1.46	1.58	1.62	1.6	1.53	1.37	1.35	1.59	-	1.63
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.054	0.08	-	0.079
Silicon	µg/L	2,630	2,410	2,430	2,820	2,680	2,870	2,760	2,090	1,270	2,120	-	2,580
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	3.12	2.99	3.42	3.95	4.14	4.86	4.21	5.26	5.08	4.50	-	4.07
Strontium	µg/L	23.6	23.7	26.3	28.2	29.1	29.8	29.1	29.4	26.8	28	-	28.7
Sulfur	µg/L	-	-	-	-	-	-	-	-	2,150	2,080	-	2,320
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	-	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Uranium	µg/L	0.1	0.09	0.11	0.12	0.12	0.14	0.14	0.13	0.109	0.115	-	0.134
Vanadium	µg/L	0.22	0.18	0.21	0.22	0.19	0.18	0.16	0.12	<0.5	<0.5	-	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	0.6	0.9	<0.5	0.8	0.6	4	1.6	1.1	<1	11.1	-	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	-	<0.3

Sample Location													
							17						
Sample Date		17-Oct-23	6-Nov-23	28-Dec-23	16-Jan-24	8-Feb-24	20-Mar-24	11-Apr-24	12-May-24	19-Jun-24	26-Aug-24	26-Aug-24	19-Sep-24
Sample ID		17	17	17	17	17	17	17	17	17	17	17	17
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C3Z0071	C400950	C418561	C443866	C488039	C4A9816	C4E3554	TY2406457	TY2409539	TY2409539	TY2410622
Laboratory Sample ID	Units	XIV844	XNR726	YAB401	YDU818	YJE954	YSI549	YWU142	ZDT540	TY2406457-004	TY2409539-001	TY2409539-005	TY2410622-002
Metals, Total													
Aluminum	µg/L	13.1	46.1	5.8	6.8	7	7.3	9.3	122	2,820	62	-	66.2
Antimony	µg/L	0.1	0.1	0.1	0.2	0.2	0.2	0.1	<0.5	0.22	0.17	-	0.17
Arsenic	µg/L	10.2	9.7	10.9	10.9	11.8	8.8	7.3	5.9	16.2	17.2	-	14.5
Barium	µg/L	8.7	9.9	9.6	9.3	10	10.7	10.5	11	30.7	11.4	-	11.8
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	0.101	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1 DLM	<0.05	-	<0.05
Boron	µg/L	4	4	4	4	6	5	5	<5	<20 DLM	<10	-	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025	0.0693	<0.005	-	<0.005
Calcium	mg/L	24.3	24.0	26.0	26.3	27.5	29.8	30.8	25.6	49.9	27.2	-	27.0
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	0.27	0.012	-	0.016
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	9	<0.5	-	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-	0.29
Cobalt	µg/L	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	2.54	<0.1	-	<0.1
Copper	µg/L	0.8	1.1	1.1	1.2	1.3	1.3	1.3	4.1	11.1	1.65	-	1.21
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	129	263	71	76	74	59	53	268	4,600	181	-	155
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	0.06	0.18	<0.05	<0.05	<0.05	<0.05	0.06	1.29	3.88	0.168	-	0.141
Lithium	µg/L	0.6	0.7	0.8	0.7	0.8	0.9	0.8	<2.5	4.4	<1	-	<1
Magnesium	mg/L	4.69	4.77	5.47	5.73	5.86	6.31	6.55	5.72	13.9	6.02	-	5.93
Manganese	µg/L	21.2	36.3	12.1	12	11.8	10.7	11.3	26	181	28.8	-	23.9
Mercury	µg/L	0.00082	0.00198	0.00096	0.00079	0.00105	0.00118	0.00110	0.00169	<0.005	<0.005	-	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	0.00273	0.00188	-	0.00068
Molybdenum	µg/L	0.08	0.07	0.09	0.1	0.11	0.09	0.1	<0.25	0.129	0.128	-	0.1
Nickel	µg/L	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	7.11	0.64	-	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	6	11	<5	<5	<5	<5	<5	<25	457	<50	-	<50
Potassium	mg/L	0.61	0.58	0.66	0.68	0.74	0.74	0.79	0.7	1.08	0.759	-	0.647
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.44	1.39	1.51	1.55	1.6	1.65	1.61	1.6	5.18	1.9	-	1.7
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	0.06	0.06	0.07	0.07	0.07	0.07	0.06	<0.25	0.152	0.095	-	0.093
Silicon	µg/L	2,600	2,520	2,520	2,620	2,620	2,860	2,850	2,100	6,030	2,420	-	2,800
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02 DLM	<0.01	-	<0.01
Sodium	mg/L	3.11	3.00	3.43	3.62	4.07	4.55	4.48	5.22	6.14	4.47	-	4.70
Strontium	µg/L	23.4	24.5	26.1	27.4	28.9	31.2	30.9	30.6	48.6	30.5	-	33.6
Sulfur	µg/L	-	-	-	-	-	-	-	-	2,620	2,300	-	2,030
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.4 DLM	<0.2	-	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025	0.047	<0.01	-	0.021
Thorium	µg/L	-	-	-	-	-	-	-	-	0.35	<0.1	-	0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.2 DLM	<0.1	-	<0.1
Titanium	µg/L	0.8	2.5	0.6	<0.5	<0.5	0.5	0.9	4	146	2.4	-	2.31
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.2 DLM	<0.1	-	<0.1
Uranium	µg/L	0.1	0.10	0.10	0.11	0.12	0.14	0.15	0.16	0.39	0.137	-	0.148
Vanadium	µg/L	0.31	0.37	0.24	0.25	0.24	0.23	0.2	0.49	7.63	0.74	-	0.61
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	0.7	1.5	<0.5	0.7	1.1	0.6	1.4	4.4	18.1	8.2	-	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	0.61	<0.2	-	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		20										
Sample Date		23-Oct-23	29-Dec-23	24-Jan-24	7-Feb-24	19-Mar-24	9-Apr-24	7-May-24	20-Jun-24	11-Jul-24	8-Aug-24	25-Sep-24
Sample ID		20	20	20	20	20	20	20	20	20	20	20
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3X4958	C401369	C425851	C441760	C488131	C4A7017	C4D8729	TY2406519	TY2407498	TY2408786	TY2410916
Laboratory Sample ID	Units	XKL320	YAD621	YFI919	YIT369	YSJ072	YWE921	ZCU000	TY2406519-003	TY2407498-002	TY2408786-003	TY2410916-002
Field Parameters												
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.52	6.5	6.62	6.88	6.99	6.60	7.11	7.36	7.39	7.06	7.26
Temperature, Field	deg C	7.2	2.3	1.9	3.7	0.6	1.4	12.4	18.4	20.5	17.2	13.5
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Acceptable Percent Difference	none	-	-	-	-	-	-	-	-	-	-	-
Acidity as CaCO3	mg/L	<5.0	16	13	9.2	21	5.2	<5.0	2.2	<2.0	5.7	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	160	150	250	190	140	91	130	155	148	179	218
Alkalinity, Carbonate (as CaCO3)	mg/L	1.1	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	160	150	250	200	140	92	130	155	148	179	218
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	0.14	0.41	0.56	0.21	0.38	<0.050	0.0134	0.0163	0.0230	0.0109
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	0.0005	<0.0004	<0.0004	<0.0004	-	-	-	-
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2	<2	<2	<2	5	4	<2	<2.0	<2.0	<2.0	<2.0
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand	mg/L	33	23	33	40	21	14	36	49	51	44	58
Chloride	mg/L	<1.0	2.8	6.7	8.7	3.7	2.2	2.0	0.22	0.16	2.76	1.42
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	24	32	23	36	10	12	36	49.5	48.4	33.2	38.1
Cyanide	mg/L	<0.00050	<0.00050	0.00065	<0.00050	<0.00050	<0.00050	0.00079 CYN	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0026 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	13	8.6	10	7.7	4.7	4.8	11	21.7	20.4	17.0	19.9
Electrical Conductivity, Lab	µS/cm	319	329	622	467	323	205	277	268	259	370	325
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.036	0.026	0.042
Hardness (as CaCO3)	mg/L	170	160	300	230	140	84	150	146	153	192	166
Ion Balance	%	-	-	-	-	-	-	-	-	-	-	-
Mineral Oil and Grease	mg/L	<0.50	<0.50	<0.50	0.60	<0.50	<0.50	<0.50	-	-	-	-
Nitrate (as N)	mg/L	<0.10	0.59	<0.10	0.10	0.11	0.16	<0.10	<0.020	<0.030 DLB	0.041	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	0.60	<0.10	0.10	0.11	0.17	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	0.011	<0.010	<0.010	<0.010	0.011	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0
Orthophosphate (as P)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.0016	<0.0010	0.0053	<0.0010
pH, lab	S.U.	7.88	7.66	7.72	7.56	7.53	7.55	7.87	8.22	8.13	7.88	7.79
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.011	0.0034	0.013	0.0070	0.059	0.016	0.020	0.0225	0.0201	0.0568	0.0187
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	5.6	15	67	31	15	12	9.4	3.14	2.40	34.1	7.20
Total Dissolved Solids	mg/L	180	120	370	270	205	115	175	170	168	248	230
Total Kjeldahl Nitrogen	mg/L	0.47	0.65	0.94	0.84	0.57	0.63	0.54	0.871	0.836	0.831	0.819
Total Organic Carbon	mg/L	13	9.3	11	9.0	6.5	5.7	13	19.6	20.4	17.0	19.8
Total Suspended Solids	mg/L	4	3	3	8	12	10	3	1.1	<1.0	3.1	1.2
Turbidity, Lab	NTU	0.7	2.8	3.6	7.0	13	14	1.3	1.20	2.71	1.32	1.00
Metals, Dissolved												
Aluminum	µg/L	2.1	8.9	7	54.9	4.2	6.9	5.3	4	3.2	2.1	1.8
Antimony	µg/L	0.4	1.6	1.1	0.6	1.6	1.5	0.7	0.34	0.24	1.42	0.36
Arsenic	µg/L	6.2	9.0	14.6	28.1	5.1	5.3	8.1	7.72	8.93	10.6	11
Barium	µg/L	16	17.7	34.8	30.1	16.3	8.9	13.3	11.7	14.5	20.6	15.9
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	5	4	5	4	3	2	5	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	49.9	48.9	92.2	69.2	44.2	26.6	47.4	43.6	45.4	57.1	47.5
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	0.03	0.09	0.2	0.21	0.12	0.09	0.02	0.03	0.018	0.142	0.038
Chromium	µg/L	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	µg/L	0.06	1.17	2.49	3.41	2.32	0.99	0.13	0.11	0.12	0.55	0.23
Copper	µg/L	1.8	1.2	3.1	1.3	0.7	0.7	0.5	1.53 DTC	0.64	0.37	<0.2
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	38	258	940	2,710	52	63	141	103	121	96	136
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	0.05	0.10	<0.05	0.29	0.05	0.16	0.05	0.08	<0.05	<0.05	<0.05
Lithium	µg/L	0.9	0.7	0.8	0.6	<0.5	<0.5	0.7	<1	<1	1.1	1.1
Magnesium	mg/L	10.1	9.02	18.1	13.3	7.06	4.33	8.81	9.02	9.54	11.9	11.5
Manganese	µg/L	12.2	434	975	1,160	789	327	57.7	33.1	78.2	83.7	52.5
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.25	0.79	0.71	0.5	0.62	0.55	0.42	0.254	0.223	0.886	0.326
Nickel	µg/L	1	3.3	6	4.4	3.4	1.8	0.9	1.32	0.97	1.98	1
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	5	24	<5	<5	7	<50	<50	<50	<50
Potassium	mg/L	1.96	2.35	4.31	2.99	2.05	1.58	1.97	0.495	0.423	2.17	1.48
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	3.19	3.10	4.75	3.3	2.39	2.16	2.67	1.27	1.19	3.86	3.07
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	0.104	0.096	0.201	0.107
Silicon	µg/L	844	2,630	4,250	3,640	1,720	937	820	1,020	663	2,050	1,930
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	1.94	2.31	6.05	4.35	3.10	1.43	1.66	1.34	1.16	2.98	2.53
Strontium	µg/L	59.3	69.6	140	107	66.5	38.8	55.7	55.2	55.9	105	86.2
Sulfur	µg/L	-	-	-	-	-	-	-	1,350	1,120	12,700	2,790
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	0.006	0.007	0.008	0.006	0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	0.25	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	0.5	0.6	3.4	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.39	1.14	1.26	1	0.8	0.54	0.58	0.301	0.182	0.948	0.315
Vanadium	µg/L	0.1	0.16	0.31	0.58	0.07	0.13	0.17	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	14.9	22.3	7.4	49.5	34.1	8.8	3	3	1.6	14.8 DTMF	1.4
Zirconium	µg/L	<0.1	0.3	0.6	0.8	0.2	0.1	0.1	<0.3	<0.3	<0.3	<0.3

Sample Location		20										
Sample Date		23-Oct-23	29-Dec-23	24-Jan-24	7-Feb-24	19-Mar-24	9-Apr-24	7-May-24	20-Jun-24	11-Jul-24	8-Aug-24	25-Sep-24
Sample ID		20	20	20	20	20	20	20	20	20	20	20
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3X4958	C401369	C425851	C441760	C488131	C4A7017	C4D8729	TY2406519	TY2407498	TY2408786	TY2410916
Laboratory Sample ID	Units	XKL320	YAD621	YFI919	YIT369	YSJ072	YWE921	ZCU000	TY2406519-003	TY2407498-002	TY2408786-003	TY2410916-002
Metals, Total												
Aluminum	µg/L	10.2	110	14.3	11.2	166	279	18	11	6.4	17.8	7.6
Antimony	µg/L	0.4	1.7	1.2	0.6	1.4	1.6	0.7	0.37	0.28	1.55	0.33
Arsenic	µg/L	7	11.7	18.6	17.5	10.2	9.2	9.1	9.35	9.91	13.3	12
Barium	µg/L	14.9	18.3	36.9	24.7	21.1	12.4	13.5	13.4	15.5	22.5	16.6
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	4	4	5	7	3	3	4	<10	<10	<10	<10
Cadmium	µg/L	<0.005	0.008	0.027	<0.005	0.011	0.013	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	50.4	48.5	96.3	61.1	47.9	28.6	44.1	44.2	45.8	57.2	51.5
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	0.03	0.11	0.21	0.16	0.16	0.14	0.02	0.038	0.018	0.159	0.036
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	0.6	1	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cobalt	µg/L	0.07	1.36	2.72	2.59	3.08	2.05	0.15	0.14	0.14	0.61	0.26
Copper	µg/L	0.6	1.5	1.9	5	1.4	1.8	0.5	0.6	<0.5	0.58	<0.5
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	94	544	1,190	1,760	548	658	268	222	270	305	282
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	0.13	0.33	0.12	0.09	0.62	1.65	0.1	0.066	<0.05	0.077	<0.05
Lithium	µg/L	0.9	0.8	1	0.5	0.6	0.6	0.7	<1	<1	1	<1
Magnesium	mg/L	9.99	9.23	19.1	11.0	7.98	5.07	8.47	9.41	9.60	12.7	12.3
Manganese	µg/L	15.8	430	1,020	954	855	396	67.9	47.8	104	147	61.6
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.24	0.79	0.72	0.45	0.61	0.55	0.41	0.312	0.228	1	0.275
Nickel	µg/L	1	3.7	6.1	3.9	4.4	3.4	1	1.41	1.09	2.09	1.1
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	9	5	15	13	26	12	17	<50	<50	<50	<50
Potassium	mg/L	1.93	2.43	4.59	2.60	2.14	1.81	1.84	0.510	0.407	2.19	1.40
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	3.23	3.26	5	2.75	2.79	2.41	2.62	1.29	1.22	4.08	3.22
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	0.07	0.17	0.22	0.11	0.11	0.09	0.07	0.116	0.075	0.206	0.128
Silicon	µg/L	813	2,790	4,350	3,290	2,080	1,390	847	1,070	660	2,210	1,920
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	1.89	2.37	6.18	4.66	3.28	1.61	1.60	1.31	1.15	2.95	2.64
Strontium	µg/L	57.7	70.2	149	92	71.6	43.8	55.3	57.2	57.7	113	77.5
Sulfur	µg/L	-	-	-	-	-	-	-	1,410	1,210	13,900	2,710
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	0.007	0.023	<0.005	0.008	0.007	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	<0.1
Titanium	µg/L	0.6	2.6	0.9	0.6	3	5.2	0.8	0.32	<0.3	0.4	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.37	1.14	1.28	0.84	0.75	0.64	0.56	0.334	0.194	0.993	0.322
Vanadium	µg/L	0.12	0.40	0.4	0.34	0.47	0.73	0.26	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	15.1	28.2	18.1	10.7	46.8	12.5	3.3	<3	<3	4.4	<3
Zirconium	µg/L	<0.1	0.4	0.6	0.6	0.3	0.5	0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		20A										
Sample Date		18-Oct-23	29-Dec-23	24-Jan-24	11-Feb-24	19-Mar-24	9-Apr-24	7-May-24	20-Jun-24	11-Jul-24	12-Aug-24	23-Sep-24
Sample ID		20A	20A	20A	20A	20A	20A	20A	20A	20A	20A	20A
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W8747	C401369	C425851	C443566	C488131	C4A7017	C4D8729	TY2406519	TY2407498	TY2408830	TY2410843
Laboratory Sample ID	Units	XJD010	YAD620	YFI920	YJD537	YSJ070	YWE922	ZCU001	TY2406519-001	TY2407498-003	TY2408830-002	TY2410843-006
Field Parameters												
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.24	6.93	6.96	6.99	7.11	7.02	6.95	7.07	7.26	6.73	7.33
Temperature, Field	deg C	7.7	1.0	0.3	0.1	1.0	1.1	12.1	19.9	22.0	16.7	16.8
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Acceptable Percent Difference	none	-	-	-	-	-	-	-	-	-	-	-
Acidity as CaCO3	mg/L	5.8	11	<5.0	<5.0	8.6	<5.0	<5.0	3.3	3.0	5.5	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	130	120	140	64	100	33	90	97.3	114	96.3	155
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	130	120	140	64	100	33	90	97.3	114	96.3	155
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	0.058	0.097	<0.050	0.079	<0.050	0.0058	0.0091	0.0187	0.0087
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2	2	<2	<2	5	4	<2	<2.0	<2.0	<2.0	<2.0
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand	mg/L	30	39	30	20	22	13	38	43	45	53	44
Chloride	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.22	0.30	0.24	0.82
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	32	53	35	23	30	13	57	67.8	58.5	94.0	44.9
Cyanide	mg/L	<0.00050	<0.00050	0.00085	<0.00050	0.00053	<0.00050	<0.00050 CYN	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0023 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	11	13	12	5.6	9.1	4.3	13	17.4	18.3	22.3	16.2
Electrical Conductivity, Lab	µS/cm	243	230	284	128	205	61	182	188	206	178	248
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.038	<0.020	0.036
Hardness (as CaCO3)	mg/L	140	120	150	57	98	27	100	101	117	95.5	146
Ion Balance	%	-	-	-	-	-	-	-	-	-	-	-
Mineral Oil and Grease	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	-	-
Nitrate (as N)	mg/L	<0.10	0.18	0.10	0.13	<0.10	0.13	<0.10	<0.020	<0.030 DLB	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	0.18	0.10	0.13	<0.10	0.13	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0
Orthophosphate (as P)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0010	<0.0010	0.0014	0.0013
pH, lab	S.U.	7.80	7.67	7.93	7.42	7.60	7.24	7.80	8.06	7.78	7.51	8.08
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.039	0.0021	0.0057	0.0022	0.0037	0.0028	0.0087	0.0092	0.0115	0.0102	0.0092
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	2.4	4.0	3.5	1.5	2.0	<1.0	3.8	0.99	0.86	0.80	3.65
Total Dissolved Solids	mg/L	165	130	160	50	135	55	110	130	147	127	172
Total Kjeldahl Nitrogen	mg/L	0.41	0.55	0.47	0.29	0.29	0.22	0.40	0.549	0.549	0.664	0.615
Total Organic Carbon	mg/L	11	14	12	6.6	9.6	4.6	13	16.6	17.4	20.0	15.8
Total Suspended Solids	mg/L	1	3	<1	1	1	2	1	<1.0	1.2	<1.0	1.3
Turbidity, Lab	NTU	0.6	0.6	0.5	0.6	0.8	1.1	0.5	0.54	1.22	0.48	1.18
Speciated Metals												
Methyl Mercury	µg/L	-	-	0.00011 MS	0.00021	0.000096	0.0001	0.00011	0.000270	0.000238	0.000185	0.000222
Metals, Dissolved												
Aluminum	µg/L	2.7	5.9	2.9	2.9	3.7	3.8	8.1	6.4	4.2	9.5	4.8
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	3	2.4	2.2	1.4	2.2	1.3	2.5	4.37	5.34	4.2	5.21
Barium	µg/L	12.4	11.6	15.8	6.6	10.9	4.1	10.7	11.5	13	10.7	14.2
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	4	4	4	3	4	2	3	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	42.2	36.3	44.3	17.2	30.0	8.59	31.7	30.6	34.8	28.6	43.6
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	0.016
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	0.17
Cobalt	µg/L	0.06	<0.05	<0.05	0.05	0.11	0.07	0.09	0.1	<0.1	<0.1	0.16
Copper	µg/L	0.9	1.3	2.4	0.2	0.3	0.6	0.5	0.78 DTC	1.4 DTC	0.28	3.08 DTMF
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	59	112	74	99	122	47	74	100	84	156	93
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	0.05	<0.05	0.51	<0.05	<0.05	<0.05	<0.05	0.174 DTMF
Lithium	µg/L	0.8	0.8	0.9	<0.5	0.6	<0.5	0.6	<1	<1	<1	<1
Magnesium	mg/L	7.54	7.18	8.50	3.31	5.67	1.41	6.04	6.08	7.38	5.86	9.04
Manganese	µg/L	14	36.8	21.1	51.9	119	50.2	17.2	22.8	26.4	10.7	26.3
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.15	0.10	0.12	0.07	0.09	<0.05	0.1	0.106	0.113	0.079	0.1
Nickel	µg/L	0.3	0.2	0.3	0.1	0.2	0.1	0.2	<0.5	0.53	<0.5	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	1.00	0.64	1.01	0.60	0.80	0.33	0.63	0.423	0.382	0.316	0.940
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	2.08	1.28	1.92	0.97	1.45	0.55	1.24	0.98	0.98	0.76	1.86
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.079	0.071	0.087	0.066
Silicon	µg/L	3,250	3,180	3,690	1,520	2,390	654	2,330	1,970	2,290	2,800	3,490
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	1.28	1.08	1.05	0.46	0.92	0.25	0.84	0.845	0.954	0.826	1.72
Strontium	µg/L	35.2	31.1	36.1	14.4	26	8.9	25.2	27.4	32.6	28.2	45.1
Sulfur	µg/L	-	-	-	-	-	-	-	500	<500	<500	1,910
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.09	0.06	0.13	0.04	0.08	0.01	0.06	0.036	0.06	0.022	0.097
Vanadium	µg/L	0.12	0.11	0.12	0.06	0.08	<0.05	0.16	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	1.7	1.9	2	1.2	1.1	2.3	0.7	3.4	1.9	1.1	3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location		20A										
Sample Date		18-Oct-23	29-Dec-23	24-Jan-24	11-Feb-24	19-Mar-24	9-Apr-24	7-May-24	20-Jun-24	11-Jul-24	12-Aug-24	23-Sep-24
Sample ID		20A	20A	20A	20A	20A	20A	20A	20A	20A	20A	20A
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W8747	C401369	C425851	C443566	C488131	C4A7017	C4D8729	TY2406519	TY2407498	TY2408830	TY2410843
Laboratory Sample ID	Units	XJD010	YAD620	YFI920	YJD537	YSJ070	YWE922	ZCU001	TY2406519-001	TY2407498-003	TY2408830-002	TY2410843-006
Metals, Total												
Aluminum	µg/L	6.1	8.5	5.4	10.8	9.5	32.8	10.5	8.7	15.3	10.4	8.6
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	3.2	2.7	2.4	1.5	2.3	1.4	2.7	4.31	5.51	4.4	5.22
Barium	µg/L	12.5	12.1	16.5	7.4	11	4.9	10.5	11.4	13.8	10.7	15.3
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	3	3	4	2	4	2	3	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	42.6	36.9	47.6	19.0	30.1	9.51	30.1	30.3	37.1	29.8	39.2
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	0.18
Cobalt	µg/L	0.07	0.08	<0.05	0.06	0.11	0.09	0.1	0.11	0.15	<0.1	0.17
Copper	µg/L	0.2	0.4	0.5	0.2	0.3	0.4	0.3	<0.5	<0.5	<0.5	<0.5
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	109	147	109	126	157	99	95	150	189	174	220
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	0.07	<0.05	0.1	<0.05	1.17	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	0.8	0.8	0.9	<0.5	0.6	<0.5	0.6	<1	<1	<1	<1
Magnesium	mg/L	7.54	7.28	8.54	3.63	5.68	1.59	5.95	6.29	7.37	6.24	8.66
Manganese	µg/L	16	55.8	23.2	50.6	115	54.2	20.1	28.4	45.8	13.2	33.9
Mercury	µg/L	<0.01	<0.01	0.00129	0.00219	0.00127	0.00124	<0.01	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	0.00218	0.00127	0.00258	0.00074
Molybdenum	µg/L	0.1	0.09	0.14	0.07	0.09	<0.05	0.1	0.128	0.112	0.074	0.085
Nickel	µg/L	0.2	0.2	0.3	0.1	0.2	0.2	0.2	<0.5	<0.5	<0.5	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	5	<50	<50	<50	<50
Potassium	mg/L	1.00	0.74	0.99	0.62	0.80	0.37	0.62	0.457	0.368	0.328	0.759
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	2.09	1.38	1.91	0.98	1.48	0.61	1.22	0.98	1	0.87	1.79
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.05	0.06	0.06	<0.05	<0.05	<0.05	0.06	0.088	0.064	0.06	0.069
Silicon	µg/L	3,280	3,190	4,030	1,690	2,460	800	2,200	2,040	2,360	2,940	3,580
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	1.27	1.13	1.10	0.50	0.93	0.29	0.82	0.831	0.921	0.836	1.46
Strontium	µg/L	35.4	32.0	37.3	15.4	25.7	9.8	25.7	28	33.7	28.6	41.3
Sulfur	µg/L	-	-	-	-	-	-	-	510	520	<500	1,620
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	0.18
Titanium	µg/L	<0.5	0.6	0.6	<0.5	<0.5	0.7	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.09	0.06	0.13	0.05	0.07	0.02	0.06	0.039	0.056	0.022	0.1
Vanadium	µg/L	0.14	0.13	0.14	0.09	0.11	0.1	0.18	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	0.6	1.9	2.4	1.3	1.1	2.9	0.7	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		21								
Sample Date		17-Oct-23	11-Jan-24	11-Feb-24	19-Mar-24	15-May-24	21-Jun-24	17-Jul-24	20-Aug-24	18-Sep-24
Sample ID		21	21	21	21	21	21	21	21	21
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C413312	C443566	C488131	C4E8855	TY2406540	TY2407793	TY2409238	TY2410613
Laboratory Sample ID	Units	XIV841	YCT682	YJD535	YSJ071	ZEV920	TY2406540-001	TY2407793-009	TY2409238-001	TY2410613-003
Field Parameters										
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.67	7.06	6.91	6.98	7.69	7.72	7.64	7.45	7.90
Temperature, Field	deg C	8.1	4.4	2.9	3.4	13.5	19.9	21.9	19.5	22.4
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-
General Chemistry										
Acidity as CaCO3	mg/L	<5.0	7.0	<5.0	<5.0	<5.0	2.1	<2.0	3.4	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	110	120	80	81	80	89.3	97.5	106	110
Alkalinity, Carbonate (as CaCO3)	mg/L	1.5	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	110	120	81	81	81	89.3	97.5	106	110
Ammonia	mg/L	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	0.065	0.19	0.10	<0.050	0.0340	0.0072	0.0130	0.0129
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.00059	-	-	-	-
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2	<2	<2	2	<2	<2.0	<2.0	<2.0	<2.0
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand	mg/L	33	36	18	17	38	41	46	51	46
Chloride	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	0.19	0.31	0.23	0.24
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-
Color, True	TCU	30	43	28	23	60	61.8	56.7	74.2	63.7
Cyanide	mg/L	<0.00050	0.00056	<0.00050	0.00061	<0.00050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	12	13	8.3	6.7	13	18.6	17.6	23.0	20.1
Electrical Conductivity, Lab	µS/cm	206	237	162	157	153	165	178	192	197
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.035	0.028	0.030
Hardness (as CaCO3)	mg/L	120	130	75	59	85	84.1	101	110	109
Ion Balance	%	-	-	-	-	-	-	-	-	-
Mineral Oil and Grease	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	-	-
Nitrate (as N)	mg/L	<0.10	<0.10	0.10	<0.10	<0.10	<0.020	<0.020	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	0.10	<0.10	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0
Orthophosphate (as P)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.0045	<0.0010	0.0021	0.0036
pH, lab	S.U.	8.16	7.53	7.47	7.61	7.96	8.05	8.03	7.94	8.06
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphate	mg/L	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.0043	0.0033	0.0016	0.0037	0.0029	0.0086	0.0102	0.0076	0.0072
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	1.7	3.3	2.1	1.9	3.5	0.58	0.49	0.76	0.58
Total Dissolved Solids	mg/L	150	190	90	135	45	113	130	151	155
Total Kjeldahl Nitrogen	mg/L	0.50	0.43	0.40	0.29	0.33	0.538	0.503	0.617	-
Total Organic Carbon	mg/L	12	14	8.3	7.0	14	17.7	18.0	21.5	20.0
Total Suspended Solids	mg/L	<1	<1	<1	2	1	2.9	1.5	1.0	1.2
Turbidity, Lab	NTU	0.3	0.6	1.5	0.4	0.4	0.85	1.23	1.06	0.80
Metals, Dissolved										
Aluminum	µg/L	2.9	5.7	2.5	1.3	4.3	5.3	3.2	4.4	2.8
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	3	3	1.6	1	2.4	3.31	4.5	4.74	4.79
Barium	µg/L	9.1	7.6	5.8	4.2	4.6	6.57	7.16	7.71	8.84
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	4	2	2	1	2	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	37.4	38.7	22.8	18.0	25.2	24.3	30.0	32.6	32.1
Cerium	µg/L	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	0.12
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	0.1	0.2	0.2	<0.1	0.2	1.29 DTC	<0.2	0.2	<0.2
Europium	µg/L	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-
Iron	µg/L	55	97	130	75	47	62	50	71	62
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	0.09	<0.05	<0.05	0.059	<0.05	<0.05	<0.05
Lithium	µg/L	0.7	0.7	<0.5	<0.5	0.5	<1	<1	<1	<1
Magnesium	mg/L	6.68	7.26	4.44	3.38	5.21	5.68	6.31	6.92	7.07
Manganese	µg/L	4.3	43.8	50.1	29.4	2.6	5.78	1.48	8.92	4.7
Mercury	µg/L	<0.01	<0.01	<0.01	0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.05	0.06	<0.05	<0.05	<0.05	0.054	0.054	0.057	0.065
Nickel	µg/L	<0.1	0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.43	0.31	0.24	0.20	0.32	0.264	0.246	0.178	0.203
Rhodium	µg/L	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	0.91	0.71	0.51	0.41	0.63	0.54	0.53	0.44	0.54
Scandium	µg/L	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	0.054	0.062	0.055	0.079
Silicon	µg/L	3,230	3,690	2,210	1,700	1,850	2,210	2,840	3,220	3,910
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	1.12	1.16	0.77	0.67	0.83	0.916	0.964	0.999	0.969
Strontium	µg/L	33	34.1	22.5	17.5	20.6	25	28.2	30.3	33.4
Sulfur	µg/L	-	-	-	-	-	<500	<500	<500	<500
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	0.1	<0.1	<0.1	0.64 DTC	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.03	0.02	0.01	<0.01	0.01	<0.01	0.011	<0.01	0.014
Vanadium	µg/L	0.14	0.09	0.07	<0.05	0.08	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-
Zinc	µg/L	0.7	1.6	1.5	0.9	0.7	1.4	<1	3.3	9.6 DTMF
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location		21								
Sample Date		17-Oct-23	11-Jan-24	11-Feb-24	19-Mar-24	15-May-24	21-Jun-24	17-Jul-24	20-Aug-24	18-Sep-24
Sample ID		21	21	21	21	21	21	21	21	21
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C413312	C443566	C488131	C4E8855	TY2406540	TY2407793	TY2409238	TY2410613
Laboratory Sample ID	Units	XIV841	YCT682	YJD535	YSJ071	ZEV920	TY2406540-001	TY2407793-009	TY2409238-001	TY2410613-003
Metals, Total										
Aluminum	µg/L	4.2	4.4	4.8	4.2	7.1	6.2	6.4	6.9	9.4
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	3.1	2.8	1.8	1.7	2.6	3.42	4.74	5.06	4.96
Barium	µg/L	9.2	8.1	6.3	5.3	4.5	6.01	7.42	7.67	8.91
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	4	2	2	2	2	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	36.1	38.5	25.5	25.3	25.8	27.5	30.3	34.7	34.4
Cerium	µg/L	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	0.15
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	0.2	0.2	0.2	0.1	0.2	<0.5	<0.5	<0.5	<0.5
Europium	µg/L	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-
Iron	µg/L	77	116	153	176	62	77	94	101	108
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-
Lead	µg/L	0.08	<0.05	0.94	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	0.7	0.7	<0.5	0.6	0.5	<1	<1	<1	<1
Magnesium	mg/L	6.65	7.21	4.94	4.79	5.61	5.93	6.28	6.99	7.27
Manganese	µg/L	5	44.7	55.1	43.4	4.5	9.35	21.4	18.6	16.5
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	-
Molybdenum	µg/L	0.06	0.05	<0.05	<0.05	<0.05	0.057	0.06	0.05	<0.05
Nickel	µg/L	0.1	0.1	<0.1	<0.1	0.1	<0.5	<0.5	<0.5	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.43	0.34	0.28	0.25	0.34	0.259	0.249	0.186	0.208
Rhodium	µg/L	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	0.91	0.71	0.53	0.52	0.66	0.58	0.6	0.45	0.54
Scandium	µg/L	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.05	<0.05	<0.05	0.05	<0.05	0.073	0.068	0.066	0.077
Silicon	µg/L	3,190	3,570	2,510	2,460	1,850	2,320	2,820	3,220	4,120
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	1.11	1.16	0.84	0.87	0.85	0.933	0.979	0.997	1.05
Strontium	µg/L	33.3	34.9	24.2	23.7	20.6	25.8	30.8	32	36.6
Sulfur	µg/L	-	-	-	-	-	<500	<500	<500	<500
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	0.33
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8 DLB	<0.1	<0.1
Uranium	µg/L	0.02	0.02	0.01	0.01	0.01	<0.01	0.012	0.012	0.018
Vanadium	µg/L	0.14	0.08	0.09	0.07	0.09	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-
Zinc	µg/L	0.8	2.3	1.4	1	0.8	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		22A										
Sample Date		**18-Oct-23**	**29-Dec-23**	**24-Jan-24**	**11-Feb-24**	**19-Mar-24**	**9-Apr-24**	**7-May-24**	**20-Jun-24**	**11-Jul-24**	**12-Aug-24**	**23-Sep-24**
Sample ID		**22A**	**22A**	**22A**	**22A**	**22A**	**22A**	**22A**	**22A**	**22A**	**22A**	**22A**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**ALS**	**ALS**	**ALS**	**ALS**
Laboratory Work Order		**C3W8747**	**C401369**	**C425851**	**C443566**	**C488131**	**C4A7017**	**C4D8729**	**TY2406519**	**TY2407498**	**TY2408830**	**TY2410843**
Laboratory Sample ID	**Units**	**XJD009**	**YAD619**	**YFI921**	**YJD536**	**YSJ069**	**YWE920**	**ZCT999**	**TY2406519-002**	**TY2407498-001**	**TY2408830-003**	**TY2410843-005**
Field Parameters												
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.18	6.79	6.98	6.84	7.44	7.04	7.07	7.11	7.13	6.80	7.27
Temperature, Field	deg C	7.1	1.7	0.4	0.3	2.4	0.7	10.5	19.0	21.0	16.7	16.7
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Acidity as CaCO3	mg/L	8.4	5.0	<5.0	8.4	6.2	<5.0	<5.0	3.7	<2.0	5.0	2.7
Alkalinity, Bicarbonate (as CaCO3)	mg/L	130	110	140	120	120	76	90	96.6	114	97.1	160
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	130	120	140	120	120	77	91	96.6	114	97.1	160
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	0.058	<0.050	<0.050	<0.050	0.0153	0.0159	0.0167	0.0092
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2	<2	<2	<2	4	<2	<2	<2.0	<2.0	<2.0	<2.0
Chemical Oxygen Demand	mg/L	24	34	30	27	23	17	37	42	41	54	44
Chloride	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.23	0.24	0.30	1.16
Color, True	TCU	31	48	34	35	27	23	58	69.4	61.1	88.8	46.4
Cyanide	mg/L	<0.00050	<0.00050	0.00071	<0.00050	0.00093	<0.00050	<0.00050 CYN	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0023 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	11	13	11	9.6	8.9	6.0	14	18.3	17.7	22.3	15.6
Electrical Conductivity, Lab	µS/cm	242	225	283	231	231	145	178	184	205	181	276
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.039	0.021	0.040
Hardness (as CaCO3)	mg/L	130	120	150	120	110	66	100	96.6	121	97.1	154
Mineral Oil and Grease	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	-	-
Nitrate (as N)	mg/L	<0.10	0.16	0.11	0.11	<0.10	<0.10	<0.10	<0.020	<0.030 DLB	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	0.16	0.11	0.11	<0.10	<0.10	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0
Orthophosphate (as P)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0010	<0.0010	0.0014	<0.0010
pH, lab	S.U.	7.69	7.72	7.82	7.58	7.61	7.54	7.86	8.04	8.01	7.54	8.08
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.019	<0.0010	0.0072	0.0034	0.0050	0.0047	0.0063	0.0085	0.0090	0.0100	0.0082
Sulfate	mg/L	2.3	4.2	3.3	2.9	2.5	1.7	3.6	0.78	0.82	0.78	8.43
Total Dissolved Solids	mg/L	155	130	190	165	145	110	120	130	143	132	183
Total Kjeldahl Nitrogen	mg/L	0.38	0.45	0.47	0.27	0.31	0.34	0.36	0.562	0.524	0.671	0.469
Total Organic Carbon	mg/L	11	14	12	10	9.1	6.8	13	17.4	16.9	20.8	15.5
Total Suspended Solids	mg/L	2	<1	<1	1	1	2	1	<1.0	1.7	<1.0	1.3
Turbidity, Lab	NTU	0.9	0.5	0.5	0.6	0.7	0.8	0.5	0.71	1.69	0.68	1.09
Speciated Metals												
Methyl Mercury	µg/L	-	-	0.00012	0.00023	0.00015	0.000095	0.00011	0.000283	<0.000800	0.000165	0.000340
Metals, Dissolved												
Aluminum	µg/L	2.6	5.4	3.2	3.7	3.3	4.1	7.3	45.2 DTC	5.3	9	2.3
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	2.7	2.3	2.1	1.8	1.8	1.5	2.4	3.98	5.3	4.2	4.86
Barium	µg/L	13.9	11.1	15.4	13.1	11.9	6.7	10.5	11.2	13.7	10.6	16
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	4	3	4	4	3	2	4	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	41.4	36.9	45.8	37.2	33.6	20.3	31.1	28.8	36.1	29.1	46.1
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	0.017
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	0.11
Cobalt	µg/L	0.23	<0.05	0.06	<0.05	0.06	0.05	<0.05	0.1	0.19	<0.1	0.56
Copper	µg/L	0.2	0.6	2.7	0.3	0.8	0.7	0.3	1.12 DTC	1.64 DTC	0.28	<0.2
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	105	103	82	143	124	104	68	157	117	136	155
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	0.19 DTC	<0.05	<0.05	<0.05
Lithium	µg/L	0.9	0.8	0.9	0.7	0.7	<0.5	0.7	<1	<1	<1	<1
Magnesium	mg/L	7.31	6.94	8.40	7.26	6.34	3.64	6.02	5.99	7.42	5.94	9.42
Manganese	µg/L	111	24.2	23.9	37.4	82.4	46.7	12.9	22.5	45.6	9.2	70
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.11	0.10	0.13	0.1	0.1	<0.05	0.1	0.129	0.144	0.063	0.134
Nickel	µg/L	0.3	0.2	0.4	0.2	0.2	0.1	0.2	0.59	0.63	<0.5	0.59
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.89	0.56	0.92	0.83	0.76	0.41	0.61	0.417	0.432	0.322	0.943
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.75	1.18	1.81	1.55	1.44	0.75	1.2	1.03	1.06	0.8	2.31
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.086	0.081	0.09	0.071
Silicon	µg/L	3,240	3,140	3,790	3,230	2,750	1,690	2,320	1,920	2,480	2,810	3,790
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	1.19	1.06	1.06	0.97	0.97	0.66	0.84	0.883	0.925	0.832	1.70
Strontium	µg/L	35.5	30.8	34.6	30.8	29.2	17.8	25.1	26.8	33.4	28.5	46.2
Sulfur	µg/L	-	-	-	-	-	-	-	<500	<500	<500	3,160
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.12	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.08	0.06	0.13	0.08	0.09	0.03	0.05	0.039	0.056	0.022	0.113
Vanadium	µg/L	0.11	0.11	0.12	0.1	0.09	0.06	0.14	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	0.8	1.1	2.6	0.6	1.2	5.6	0.7	4.7	1.9	<1	1.8
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location		22A										
Sample Date		18-Oct-23	29-Dec-23	24-Jan-24	11-Feb-24	19-Mar-24	9-Apr-24	7-May-24	20-Jun-24	11-Jul-24	12-Aug-24	23-Sep-24
Sample ID		22A	22A	22A	22A	22A	22A	22A	22A	22A	22A	22A
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W8747	C401369	C425851	C443566	C488131	C4A7017	C4D8729	TY2406519	TY2407498	TY2408830	TY2410843
Laboratory Sample ID	Units	XJD009	YAD619	YFI921	YJD536	YSJ069	YWE920	ZCT999	TY2406519-002	TY2407498-001	TY2408830-003	TY2410843-005
Metals, Total												
Aluminum	µg/L	7.9	7.0	7.7	6.6	6.8	19	10.8	7.5	6.4	11.7	6.8
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	3	2.6	2.4	2	2	1.7	2.4	4.16	5.49	4.47	5.2
Barium	µg/L	12.7	11.5	17	14	12.7	7.6	10.5	11.3	13.8	10.8	17.7
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	4	3	4	4	4	2	3	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	0.038	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	42.0	37.4	47.7	38.8	37.3	22.5	30.1	29.1	37.2	29.0	44.5
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	0.019
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	0.19
Cobalt	µg/L	0.18	<0.05	0.07	<0.05	0.06	0.06	<0.05	0.11	0.24	<0.1	4.2
Copper	µg/L	0.2	0.3	0.6	0.3	0.3	0.8	0.3	<0.5	<0.5	<0.5	0.73
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	132	135	129	169	174	161	90	146	222	167	273
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	0.08	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	<0.05	0.056
Lithium	µg/L	0.9	0.8	0.9	0.7	0.8	<0.5	0.6	<1	<1	<1	1.2
Magnesium	mg/L	7.52	7.35	8.86	7.38	7.09	4.13	5.76	6.15	7.39	6.34	9.30
Manganese	µg/L	29.7	25.6	28.8	39.9	63.1	50.3	15.6	32.7	55.7	12.6	84.6
Mercury	µg/L	<0.01	<0.01	0.00117	0.00221	0.00103	0.00125	<0.01	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	0.0022	0.00235	0.00272	0.001
Molybdenum	µg/L	0.1	0.09	0.13	0.1	0.11	0.05	0.1	0.116	0.119	0.072	0.154
Nickel	µg/L	0.3	0.2	0.2	0.2	0.2	0.2	0.2	<0.5	<0.5	<0.5	1.85
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.90	0.59	1.01	0.88	0.76	0.48	0.60	0.437	0.416	0.334	0.930
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.81	1.24	1.98	1.53	1.42	0.84	1.16	0.99	1.04	0.85	2.33
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	0.067	0.054	0.084	0.079
Silicon	µg/L	3,370	3,290	4,090	3,440	3,010	1,940	2,270	1,950	2,510	2,890	3,700
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	1.19	1.11	1.16	0.99	1.02	0.75	0.80	0.802	0.935	0.831	1.72
Strontium	µg/L	36.4	31.9	38	31.4	31	19.6	25.3	27.8	34	27.5	44.3
Sulfur	µg/L	-	-	-	-	-	-	-	<500	<500	<500	3,200
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	0.5	0.7	<0.5	0.6	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.08	0.06	0.13	0.08	0.1	0.03	0.05	0.041	0.054	0.022	0.13
Vanadium	µg/L	0.12	0.13	0.16	0.13	0.12	0.1	0.16	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	1	0.6	10	0.5	1.2	7.6	0.8	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location							23				
Sample Date		**3-Oct-23**	**24-Jan-24**	**12-Feb-24**	**13-Mar-24**	**8-Apr-24**	**7-May-24**	**20-Jun-24**	**11-Jul-24**	**12-Aug-24**	**23-Sep-24**
Sample ID		**23**	**23**	**23**	**23**	**23**	**23**	**23**	**23**	**23**	**23**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**ALS**	**ALS**	**ALS**	**ALS**
Laboratory Work Order		**C3V1811**	**C425851**	**C444971**	**C478150**	**C4A5379**	**C4D8729**	**TY2406519**	**TY2407498**	**TY2408830**	**TY2410843**
Laboratory Sample ID	**Units**	**XFK851**	**YFI922**	**YJK753**	**YQG349**	**YVW961**	**ZCU002**	**TY2406519-004**	**TY2407498-004**	**TY2408830-004**	**TY2410843-004**
Field Parameters											
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.92	7.50	7.31	7.66	7.61	7.48	7.81	8.01	7.23	7.81
Temperature, Field	deg C	17.7	0.1	0.1	2.2	1.7	10.4	19.8	22.6	18.5	17.9
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	98	110	82	110	94	70	83.2	90.3	89.9	99.9
Alkalinity, Carbonate (as CaCO3)	mg/L	1.0	<1.0	<1.0	1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	99	110	82	110	94	71	83.2	90.3	89.9	99.9
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	0.11	<0.050	<0.050	<0.050	0.0099	0.0068	0.0104	0.0278
Ammonia, Un-ionized (As N)	mg/L	<0.0014	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2	<2	<2	7	<2	3	<2.0	<2.0	<2.0	<2.0
Chemical Oxygen Demand	mg/L	23	26	20	25	20	35	26	35	47	38
Chloride	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.62	0.35	0.27	0.82
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	21	26	17	21	16	46	39.1	30.6	74.4	38.8
Cyanide	mg/L	<0.00050	0.00060	<0.00050	<0.00050	<0.00050	<0.00050 CYN	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0026 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	8.8	10	6.9	9.1	6.5	11	16.0	13.4	17.8	14.1
Electrical Conductivity, Lab	µS/cm	198	214	164	211	175	142	159	171	169	187
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.030	<0.020	0.035
Hardness (as CaCO3)	mg/L	100	110	86	110	85	79	83.5	97.6	94.2	100
Mineral Oil and Grease	mg/L	0.60	<0.50	<0.50	<0.50	<0.50	<0.50	-	-	-	-
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	<0.030 DLB	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	<1.0	1.8	<1.0	<1.0
Orthophosphate (as P)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0010	<0.0010	0.0020	0.0017
pH, lab	S.U.	8.05	7.96	7.88	8.01	7.92	7.90	8.09	8.04	7.89	7.99
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.0051	0.0035	0.0022	0.0036	0.0055	0.0067	0.0104	0.0122	0.0104	0.0118
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	4.3	2.1	2.9	2.7	2.1	3.8	0.94	1.06	0.97	2.50
Total Dissolved Solids	mg/L	135	170	70	150	145	100	80	115	126	128
Total Kjeldahl Nitrogen	mg/L	0.30	0.40	0.31	0.29	0.30	0.32	0.470	0.440	0.612	0.459
Total Organic Carbon	mg/L	9.2	10	7.1	9.4	7.0	12	13.8	13.3	18.6	13.6
Total Suspended Solids	mg/L	2	<1	1	3	3	1	1.8	<1.0	<1.0	2.4
Turbidity, Lab	NTU	1.1	0.9	0.7	1.0	1.6	0.6	1.14	1.37	1.16	2.65
Metals, Dissolved											
Aluminum	µg/L	3.2	2.6	2.8	1.8	3.5	13.8	7.4	4.8	18.3	3.9
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	1.7	0.6	0.5	0.6	0.6	0.9	1.11	1.55	2.26	2.21
Barium	µg/L	12.5	11.4	9	11.1	8.4	9.8	10.1	11.4	12.8	11.8
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	5	4	3	4	3	3	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	30.6	32.5	26.2	33.3	25.9	23.7	24.7	29.0	27.7	29.8
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.15
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	0.3	2.4	1	0.4	4.5	0.5	3.22 DTC	0.92 DTC	0.52	0.31
Europium	µg/L	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	27	43	26	32	24	45	36	20	87	81
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	0.35	<0.05	0.139 DTC	<0.05	<0.05	<0.05
Lithium	µg/L	1	0.9	0.7	0.9	0.7	0.7	<1	<1	1	<1
Magnesium	mg/L	5.87	6.36	5.07	6.83	4.89	4.74	5.31	6.12	6.08	6.22
Manganese	µg/L	3	4.3	5.9	5.7	6.2	4.9	1.23	1.93	7.82	9.13
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.11	0.11	0.1	0.15	0.1	0.09	0.103	0.105	0.134	0.091
Nickel	µg/L	0.2	0.3	0.2	1.4	0.5	0.3	<0.5	<0.5	<0.5	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.79	0.73	0.63	0.77	0.62	0.57	0.524	0.577	0.465	0.678
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.97	1.78	1.47	1.69	1.2	1.37	1.39	1.55	1.41	1.79
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.05	0.058	0.106	0.067
Silicon	µg/L	2,690	2,950	2,310	2,740	2,050	1,820	1,620	1,940	2,550	3,030
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	1.72	0.87	0.69	0.89	0.74	0.60	0.722	0.762	0.600	1.40
Strontium	µg/L	28.7	27.3	21.2	27.8	20.6	19.7	22	25.8	26.2	29
Sulfur	µg/L	-	-	-	-	-	-	<500	<500	<500	990
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.51 DTC	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.24	0.24	0.19	0.26	0.2	0.17	0.178	0.206	0.171	0.185
Vanadium	µg/L	0.21	0.12	0.09	0.12	0.09	0.18	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	<0.5	2.3	1	1.3	4.3	<0.5	2.5	<1	12.6 DTMF	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location							23				
Sample Date		3-Oct-23	24-Jan-24	12-Feb-24	13-Mar-24	8-Apr-24	7-May-24	20-Jun-24	11-Jul-24	12-Aug-24	23-Sep-24
Sample ID		23	23	23	23	23	23	23	23	23	23
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3V1811	C425851	C444971	C478150	C4A5379	C4D8729	TY2406519	TY2407498	TY2408830	TY2410843
Laboratory Sample ID	Units	XFK851	YFI922	YJK753	YQG349	YVW961	ZCU002	TY2406519-004	TY2407498-004	TY2408830-004	TY2410843-004
Metals, Total											
Aluminum	µg/L	10.6	5.7	14.6	17.2	55.7	19.4	16.4	14.3	25.7	26.6
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	2	0.7	0.6	0.7	0.8	0.9	1.11	1.33	2.24	2.39
Barium	µg/L	12.2	12.3	9.7	11.8	10.1	9.7	10.6	12.2	13.4	12.8
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	5	4	3	4	3	3	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	32.4	34.5	25.5	35.4	27.7	23.4	24.8	29.3	28.1	27.4
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	0.011	0.011
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.77	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.25
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	0.4	0.4	0.4	0.5	0.6	0.5	0.51	<0.5	0.62	0.55
Europium	µg/L	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	98	86	68	82	102	72	92	83	128	189
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	0.11	0.06	3.51	<0.05	<0.05	<0.05	<0.05	0.075
Lithium	µg/L	1	1	0.7	0.9	0.7	0.7	<1	<1	<1	1.1
Magnesium	mg/L	6.24	6.75	5.05	7.15	5.25	4.70	5.38	6.08	5.87	6.35
Manganese	µg/L	18.1	6.4	8.3	9.5	9.9	11.6	17.2	24.7	17.3	26
Mercury	µg/L	0.00092	0.00075	0.00164	0.0022 AS	0.00106	0.00261	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	0.00163	0.00117	0.00283	0.00086
Molybdenum	µg/L	0.13	0.11	0.09	0.11	0.09	0.09	0.155	0.11	0.111	0.121
Nickel	µg/L	0.2	0.2	0.2	0.2	0.3	0.3	0.65	<0.5	0.5	0.67
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.80	0.77	0.61	0.79	0.66	0.56	0.559	0.569	0.521	0.674
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	2	1.84	1.43	1.72	1.3	1.36	1.41	1.58	1.54	1.92
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	0.07	0.06	0.06	0.07	0.06	0.05	0.089	0.062	0.094	0.062
Silicon	µg/L	2,800	3,160	2,240	2,980	2,180	1,860	1,680	1,990	2,620	3,090
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	1.68	0.91	0.69	0.94	0.78	0.60	0.671	0.740	0.661	1.47
Strontium	µg/L	28.6	29	20.9	28.4	23.2	19.7	23.4	25.3	26	27.4
Sulfur	µg/L	-	-	-	-	-	-	510	510	520	1,260
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	0.6	0.5	<0.5	0.7	1.9	0.5	0.42	0.36	0.67	1.06
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.25	0.24	0.19	0.27	0.21	0.17	0.186	0.224	0.198	0.204
Vanadium	µg/L	0.27	0.15	0.13	0.18	0.22	0.2	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	<0.5	3.5	2.5	2.6	5.6	0.6	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location							24				
Sample Date		**3-Oct-23**	**24-Jan-24**	**12-Feb-24**	**13-Mar-24**	**9-Apr-24**	**7-May-24**	**20-Jun-24**	**11-Jul-24**	**12-Aug-24**	**23-Sep-24**
Sample ID		**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	**24**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**ALS**	**ALS**	**ALS**	**ALS**
Laboratory Work Order		**C3V1811**	**C425851**	**C444971**	**C478150**	**C4A7017**	**C4D8729**	**TY2406519**	**TY2407498**	**TY2408830**	**TY2410843**
Laboratory Sample ID	**Units**	**XFK852**	**YFI923**	**YJK754**	**YQG350**	**YWE919**	**ZCU003**	**TY2406519-005**	**TY2407498-005**	**TY2408830-005**	**TY2410843-003**
Field Parameters											
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.99	7.50	7.29	7.61	7.57	7.54	7.84	8.06	7.63	7.91
Temperature, Field	deg C	17.9	0.4	1.1	2.4	1.8	10.5	19.8	21.9	19.5	17.9
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	94	110	96	110	64	69	81.5	86.0	93.3	97.1
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	95	110	97	110	65	69	81.5	86.0	93.3	97.1
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.0106	0.0063	0.0080	0.0276
Ammonia, Un-ionized (As N)	mg/L	<0.0016	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	0.38	0.82	0.41	11.3
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	22	28	22	21	10	43	41.0	34.1	36.2	44.1
Cyanide	mg/L	<0.00050	0.00074	<0.00050	<0.00050	<0.00050	0.00054 CYN	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0023 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	9.3	10	8.4	9.2	4.3	11	17.9 DTC	14.0	14.3	15.0
Electrical Conductivity, Lab	µS/cm	202	219	193	210	120	141	157	172	179	238
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.028	<0.020	<0.020
Hardness (as CaCO3)	mg/L	97	120	95	110	53	78	81.9	94.8	94.4	100
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	<0.020	<0.030 DLB	<0.020	0.148
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	<0.010	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.99	8.00	7.91	7.90	7.84	7.86	8.08	8.03	8.05	7.91
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.0054	0.0033	0.0028	0.0030	0.0022	0.0065	0.0100	0.0105	0.0116	0.0125
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	8.1	2.6	3.3	3.2	1.8	4.3	1.83	3.94	1.41	16.0
Total Dissolved Solids	mg/L	110	130	85	160	70	70	106	110	121	132
Total Kjeldahl Nitrogen	mg/L	0.28	0.40	0.38	0.25	0.23	0.31	0.508	0.446	0.473	0.480
Total Organic Carbon	mg/L	9.7	12	8.6	9.4	4.3	11	14.0	13.5	13.4	14.8
Total Suspended Solids	mg/L	7	<1	<1	2	3	2	1.7	1.8	<1.0	3.3
Turbidity, Lab	NTU	1.6	0.8	0.7	1.3	1.4	0.6	1.31	1.22	1.16	2.54
Metals, Dissolved											
Aluminum	µg/L	8.8	3	2.6	2.1	2.5	12	6	4.8	6.1	4
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	3.6	0.7	0.6	0.7	0.6	1.1	1.87	1.99	2.11	4.46
Barium	µg/L	11.8	12.4	10	11.1	6	9.3	10.2	11	11.6	11.3
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	5	4	4	4	2	3	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	29.1	36.6	28.5	33.1	16.3	23.5	24.2	28.0	27.8	29.4
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.13
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	0.4	0.5	1.5	1.6	1	0.5	0.43	0.76 DTC	0.36	0.47
Iron	µg/L	28	42	33	30	13	47	36	17	46	60
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	0.19	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	1	0.9	0.8	0.9	<0.5	0.7	<1	<1	<1	1.1
Magnesium	mg/L	5.91	6.74	5.71	6.95	2.99	4.82	5.21	6.05	6.06	6.55
Manganese	µg/L	2.4	5.7	4.9	4.6	5.7	4.5	1.01	0.78	2	3.76
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.12	0.11	0.1	0.12	0.06	0.09	0.1	0.118	0.119	0.113
Nickel	µg/L	0.2	0.2	0.3	0.3	0.2	0.3	<0.5	<0.5	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.80	0.76	0.66	0.79	0.39	0.59	0.547	0.614	0.558	0.712
Rubidium	µg/L	1.98	1.82	1.49	1.71	0.84	1.33	1.39	1.64	1.7	1.86
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.052	0.064	0.088	0.062
Silicon	µg/L	2,660	3,170	2,630	2,850	1,180	1,800	1,700	1,820	2,540	2,940
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	3.56	0.93	0.78	0.94	0.50	1.08	0.971	1.95	0.905	3.30
Strontium	µg/L	28.5	28.3	23.6	28.3	14.8	21	22.5	26.7	27.4	30.7
Sulfur	µg/L	-	-	-	-	-	-	620	1,420	<500	2,710
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.2	0.25	0.22	0.26	0.12	0.17	0.163	0.199	0.19	0.178
Vanadium	µg/L	0.28	0.12	0.09	0.11	0.06	0.17	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	<0.5	1.3	1.1	1.9	2.9	0.6	1.3	1	4.2 DTMF	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location							24				
Sample Date		3-Oct-23	24-Jan-24	12-Feb-24	13-Mar-24	9-Apr-24	7-May-24	20-Jun-24	11-Jul-24	12-Aug-24	23-Sep-24
Sample ID		24	24	24	24	24	24	24	24	24	24
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3V1811	C425851	C444971	C478150	C4A7017	C4D8729	TY2406519	TY2407498	TY2408830	TY2410843
Laboratory Sample ID	Units	XFK852	YFI923	YJK754	YQG350	YWE919	ZCU003	TY2406519-005	TY2407498-005	TY2408830-005	TY2410843-003
Metals, Total											
Aluminum	µg/L	15.2	5.2	7.6	11.8	37.3	18.7	24.6	22.7	16.3	41.8
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	4.1	0.8	0.7	0.8	0.9	1.1	1.62	1.92	2.26	4.8
Barium	µg/L	11.8	12.8	10	11.8	7.9	9.5	10.4	11.9	12.2	12.6
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	5	4	4	4	2	3	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	0.0118
Calcium	mg/L	30.9	37.0	30.0	36.4	16.7	23.3	25.3	27.6	28.1	27.8
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	0.01	0.014
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.27
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	0.11	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	0.5	0.5	0.4	0.5	0.7	0.7	<0.5	<0.5	<0.5	0.63
Iron	µg/L	103	83	68	78	77	78	92	73	113	162
Lead	µg/L	0.06	<0.05	<0.05	0.06	0.51	0.06	<0.05	<0.05	<0.05	0.1
Lithium	µg/L	0.9	1	0.8	0.9	<0.5	0.8	<1	<1	<1	1.2
Magnesium	mg/L	6.33	7.11	6.03	7.34	3.19	4.76	5.46	6.13	6.33	6.73
Manganese	µg/L	18.3	7.8	6.4	8.2	7.6	11	11.6	13.3	22.1	18.7
Mercury	µg/L	0.00096	0.00088	0.00104	0.0028 AS	0.00109	0.00240	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	0.00187	0.00122	0.00194	0.00098
Molybdenum	µg/L	0.11	0.12	0.1	0.12	0.09	0.1	0.098	0.121	0.115	0.105
Nickel	µg/L	0.2	0.2	0.2	0.3	0.3	0.3	<0.5	<0.5	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	9	<5	<50	<50	<50	<50
Potassium	mg/L	0.82	0.79	0.68	0.83	0.44	0.58	0.558	0.601	0.578	0.709
Rubidium	µg/L	2.07	1.9	1.55	1.76	0.94	1.33	1.53	1.68	1.81	1.97
Selenium	µg/L	0.06	0.05	0.06	0.06	<0.05	<0.05	0.077	0.069	0.065	0.092
Silicon	µg/L	2,780	3,300	2,740	3,120	1,310	1,830	1,740	1,890	2,730	3,100
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	3.76	0.94	0.81	0.96	0.51	0.93	0.920	1.84	0.858	3.43
Strontium	µg/L	28.2	29.9	24.4	29.2	15.6	20.3	23.4	28.1	26.5	29.6
Sulfur	µg/L	-	-	-	-	-	-	810	1,540	690	2,840
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	0.9	<0.5	<0.5	0.6	1	0.5	<1.5 DLM	0.74	0.44	1.64
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.2	0.25	0.22	0.26	0.13	0.16	0.17	0.201	0.195	0.194
Vanadium	µg/L	0.37	0.14	0.13	0.16	0.16	0.21	<0.5	<0.5	<0.5	0.59
Zinc	µg/L	<0.5	2	0.9	1.8	4.5	0.6	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		25												
Sample Date		3-Oct-23	29-Dec-23	29-Dec-23	29-Dec-23	24-Jan-24	5-Feb-24	13-Mar-24	9-Apr-24	7-May-24	20-Jun-24	11-Jul-24	12-Aug-24	23-Sep-24
Sample ID		25	25	25 REPEAT	25 REPEAT	25	25	25	25	25	25	25	25	25
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3V1811	C401369	C401369	C401369	C425851	C437213	C478150	C4A7017	C4D8729	TY2406519	TY2407498	TY2408830	TY2410843
Laboratory Sample ID	Units	XFK853	YAD622	YAD622	YAD622	YFI924	YHV192	YQG347	YWE923	ZCU004	TY2406519-007	TY2407498-006	TY2408830-008	TY2410843-001
Field Parameters														
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.48	7.03	-	-	7.04	6.83	7.22	7.02	7.24	7.71	7.25	7.06	7.30
Temperature, Field	deg C	20.6	0.3	-	-	0.0	0.7	0.8	0.5	13.8	22.0	22.1	19.0	15.0
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry														
Acidity as CaCO3	mg/L	5.0	7.2	-	-	6.2	10	8.6	<5.0	<5.0	<2.0	5.1	2.4	3.8
Alkalinity, Bicarbonate (as CaCO3)	mg/L	170	140	-	-	160	150	150	120	110	124	136	183	186
Alkalinity, Carbonate (as CaCO3)	mg/L	1.7	<1.0	-	-	1.0	<1.0	1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	170	140	-	-	170	150	150	120	110	124	136	183	186
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	0.057	-	-	0.16	0.12	0.19	<0.050	<0.050	0.0248	0.0107	0.0105	0.0279
Ammonia, Un-ionized (As N)	mg/L	<0.00062	<0.0004	-	-	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	11	11	-	-	3.3	3.3	9.0	12	8.5	12.0	12.4	22.5	18.2
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	5.1 VV	-	-	-	-
Color, True	TCU	46	29	-	-	29	25	19	16	36	43.8	43.3	43.0	35.2
Cyanide	mg/L	<0.00050	<0.00050	-	-	0.00071	<0.00050	0.00203	0.00081	0.00064 CYN	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	-	-	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0028 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	16	12	-	-	12	11	8.9	7.5	11	16.0	16.4	16.0	14.1
Electrical Conductivity, Lab	µS/cm	363	318	-	-	338	301	334	284	241	267	291	343	335
Fluoride	mg/L	<0.10	<0.10	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.034	<0.020	0.040
Hardness (as CaCO3)	mg/L	180	150	-	-	170	150	160	130	120	130	145	164	168
Nitrate (as N)	mg/L	<0.10	<0.10	-	-	<0.10	<0.10	0.25	0.23	<0.10	<0.020	<0.030 DLB	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	-	-	<0.10	<0.10	0.25	0.23	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	8.03	7.81	-	-	7.82	7.80	7.87	7.76	7.90	8.22	7.58	7.89	8.09
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.013	0.47	0.0082	0.0072	0.0077	0.010	0.0054	0.0082	0.012	0.0200	0.0191	0.0125	0.0394
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	2.4	6.8	-	-	3.5	2.9	6.8	8.9	5.5	3.12	2.15	7.28	3.89
Total Dissolved Solids	mg/L	200	155	-	-	205	200	210	170	140	168	170	222	207
Total Kjeldahl Nitrogen	mg/L	0.56	0.54	-	-	0.63	0.56	0.59	0.33	0.44	0.727	0.564	0.502	0.744
Total Organic Carbon	mg/L	17	12	-	-	13	12	9.1	7.7	11	15.4	15.5	14.5	15.6
Total Suspended Solids	mg/L	1	2	-	-	1	2	2	5	3	1.3	<1.0	<1.0	2.4
Turbidity, Lab	NTU	0.5	0.8	-	-	0.8	0.9	1.9	2.2	0.9	1.22	0.52	0.36	2.19
Speciated Metals														
Methyl Mercury	µg/L	0.00026 MSE	0.00034	-	-	0.00043	<0.00005	0.00023	0.00019	0.0002	0.000633	0.000656	0.000582	0.000880
Metals, Dissolved														
Aluminum	µg/L	3	3.2	-	-	2.5	1.7	1.9	2.8	4.9	3.1	2.2	3.2	1.5
Antimony	µg/L	<0.1	0.1	-	-	<0.1	<0.1	0.7	1	0.3	0.2	0.22	0.28	0.13
Arsenic	µg/L	34.3	10.6	-	-	11.7	9	6.8	7.8	12.3	20.7	25.5	21.7	27.6
Barium	µg/L	13.8	12.2	-	-	13.6	12	12	9.3	10.3	8.73	18.2	12	10.9
Beryllium	µg/L	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	3	4	-	-	4	3	4	4	4	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	59.0	49.0	-	-	54.4	49.4	49.6	41.9	38.7	40.0	44.7	49.8	52.1
Cesium	µg/L	<0.02	<0.02	-	-	<0.02	<0.02	0.02	0.04	0.03	0.026	0.029	0.034	0.034
Chromium	µg/L	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	<0.1
Cobalt	µg/L	<0.05	<0.05	-	-	0.08	<0.05	0.24	0.24	0.06	<0.1	<0.1	<0.1	0.12
Copper	µg/L	0.1	0.4	-	-	3.5	0.4	0.4	1.3	0.8	0.54	1.26 DTC	0.94 DTMF	<0.2
Iron	µg/L	56	70.0	-	-	124	83	45	31	44	59	83	48	149
Lead	µg/L	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	0.26	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	1	0.9	-	-	0.8	0.8	1.1	0.9	0.7	<1	<1	1.2	1.1
Magnesium	mg/L	8.86	7.90	-	-	8.10	7.68	9.12	7.02	6.34	7.29	8.22	9.60	9.18
Manganese	µg/L	18.5	29.4	-	-	142	56	32.6	49.1	33.3	11.2	29.2	5.93	49.3
Mercury	µg/L	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.06	0.24	-	-	0.19	0.19	0.34	0.42	0.25	0.193	0.194	0.254	0.125
Nickel	µg/L	0.2	0.6	-	-	0.7	0.4	1.4	3.1	1.3	0.98	0.99	0.83	0.78
Phosphorus	µg/L	<5	<5	-	-	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	2.23	1.28	-	-	1.09	1.03	1.45	1.34	0.91	0.741	0.802	1.38	1.42
Rubidium	µg/L	4.84	2.64	-	-	2.66	2.33	2.74	2	2.01	2	2.05	2.89	3.02
Selenium	µg/L	<0.2	<0.2	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	0.071	0.102	0.096	0.078
Silicon	µg/L	1,730	2,710	-	-	3,430	3,210	2,970	2,150	1,120	827	1,930	1,990	1,700
Silver	µg/L	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	4.81	4.29	-	-	2.34	2.01	6.01	5.51	4.28	6.26	5.83	6.55	7.45
Strontium	µg/L	73.3	51.6	-	-	50	48.7	59	63.6	42.6	51.1	57.9	85.6	69.4
Sulfur	µg/L	-	-	-	-	-	-	-	-	-	1,210	920	2,610	1,680
Tellurium	µg/L	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.08	0.23	-	-	0.18	0.17	0.36	0.56	0.2	0.142	0.084	0.166	0.118
Vanadium	µg/L	0.11	0.10	-	-	0.08	0.07	0.09	0.1	0.19	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	0.7	4.8	-	-	9.1	4.7	4.5	4.6	2.3	1.9	2.5	9	1.3
Zirconium	µg/L	<0.1	0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location		25												
Sample Date		3-Oct-23	29-Dec-23	29-Dec-23	29-Dec-23	24-Jan-24	5-Feb-24	13-Mar-24	9-Apr-24	7-May-24	20-Jun-24	11-Jul-24	12-Aug-24	23-Sep-24
Sample ID		25	25	25 REPEAT	25 REPEAT	25	25	25	25	25	25	25	25	25
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3V1811	C401369	C401369	C401369	C425851	C437213	C478150	C4A7017	C4D8729	TY2406519	TY2407498	TY2408830	TY2410843
Laboratory Sample ID	Units	XFK853	YAD622	YAD622	YAD622	YFI924	YHV192	YQG347	YWE923	ZCU004	TY2406519-007	TY2407498-006	TY2408830-008	TY2410843-001
Metals, Total														
Aluminum	µg/L	4.1	20.2	-	-	9.5	25.8	34.9	62.2	31.8	62.3	20.1	4.1	10.4
Antimony	µg/L	<0.1	0.1	-	-	<0.1	<0.1	0.7	1.1	0.3	0.25	0.22	0.28	0.14
Arsenic	µg/L	36.1	11.6	-	-	13.4	9.8	7.5	9.5	12.9	26.4	27.8	22.5	30.8
Barium	µg/L	13.1	12.5	-	-	14.5	12.4	12.8	10.5	10.5	11	19.8	12.4	12.1
Beryllium	µg/L	<0.05	<0.05	-	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.04 DLM	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1 DLM	<0.05	<0.05	<0.05
Boron	µg/L	3	3	-	-	4	3	4	4	4	<20 DLM	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	0.008	<0.005	<0.01 DLM	<0.005	<0.005	<0.005
Calcium	mg/L	59.0	49.3	-	-	55.4	50.4	49.9	42.9	38.8	44.7	46.6	49.9	52.0
Cesium	µg/L	<0.02	<0.02	-	-	<0.02	<0.02	0.02	0.04	0.02	0.036	0.028	0.034	0.035
Chromium	µg/L	<0.5	<0.5	-	-	<0.5	<0.5	<0.5	<0.5	<0.5	<1 DLM	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	0.14
Cobalt	µg/L	<0.05	0.06	-	-	0.07	0.05	0.28	0.3	0.08	0.21	<0.1	<0.1	0.13
Copper	µg/L	0.1	0.5	-	-	0.5	0.6	0.6	1.7	1.1	1.37	<0.5	<0.5	<0.5
Iron	µg/L	77	120	-	-	186	138	116	159	90	281	192	71	250
Lead	µg/L	<0.05	<0.05	-	-	<0.05	0.06	0.06	3.75	0.09	<0.1 DLM	<0.05	<0.05	<0.05
Lithium	µg/L	1	0.8	-	-	1	0.9	1.1	0.9	0.7	<2 DLM	<1	1.4	1.4
Magnesium	mg/L	9.33	8.15	-	-	8.62	7.76	9.28	7.48	6.37	8.34	8.31	9.47	9.33
Manganese	µg/L	24.6	32.1	-	-	153	58	34	54.1	43.2	33.6	49.5	8.01	70.9
Mercury	µg/L	<0.01	0.00164	-	-	0.00141	0.00104	0.0021 AS	0.00122	<0.01	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	0.00221	<0.01	-	-	-	-	-	-	-	0.00181	0.00139	0.00157	0.00125
Molybdenum	µg/L	0.06	0.23	-	-	0.2	0.19	0.35	0.43	0.25	0.456	0.165	0.273	0.139
Nickel	µg/L	0.2	0.7	-	-	0.5	0.4	1.4	3.5	1.3	1.55	1	0.87	0.83
Phosphorus	µg/L	9	6	-	-	6	6	5	6	10	152	<50	<50	55
Potassium	mg/L	2.21	1.36	-	-	1.19	1.08	1.52	1.43	0.92	0.899	0.789	1.44	1.39
Rubidium	µg/L	4.73	2.77	-	-	2.84	2.36	2.8	2.14	2.08	2.22	2.15	3.04	3.15
Selenium	µg/L	0.06	0.06	-	-	0.07	0.06	0.06	0.07	0.06	0.128	0.086	0.067	0.094
Silicon	µg/L	1,800	2,800	-	-	3,590	3,330	3,090	2,310	1,140	1,150	2,000	2,090	1,790
Silver	µg/L	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02 DLM	<0.01	<0.01	<0.01
Sodium	mg/L	5.00	4.59	-	-	2.54	2.07	6.06	5.81	4.35	6.57	5.86	6.18	7.33
Strontium	µg/L	70.4	53.9	-	-	55.3	48.9	59.2	66.2	43.4	55.8	57.9	86.2	66.8
Sulfur	µg/L	-	-	-	-	-	-	-	-	-	1,680	1,000	2,810	1,900
Tellurium	µg/L	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.4 DLM	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	-	-	<0.005	<0.005	<0.005	<0.005	0.006	<0.02 DLM	<0.01	<0.01	0.012
Thorium	µg/L	-	-	-	-	-	-	-	-	-	<0.2 DLM	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2 DLM	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	1.1	-	-	0.7	0.9	1.2	1.6	2.1	1.52	0.37	<0.3	0.33
Tungsten	µg/L	<0.1	<0.1	-	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2 DLM	<0.1	<0.1	<0.1
Uranium	µg/L	0.08	0.23	-	-	0.19	0.17	0.35	0.57	0.19	0.234	0.096	0.186	0.132
Vanadium	µg/L	0.12	0.14	-	-	0.1	0.11	0.16	0.23	0.26	<1 DLM	<0.5	<0.5	<0.5
Zinc	µg/L	0.6	5.3	-	-	8.8	8.5	5	8.6	2.8	<6 DLM	<3	<3	<3
Zirconium	µg/L	<0.1	0.1	-	-	0.1	0.1	0.1	0.3	0.2	<0.4 DLM	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		26										
Sample Date		18-Oct-23	11-Jan-24	13-Feb-24	20-Mar-24	11-Apr-24	15-May-24	21-Jun-24	17-Jul-24	25-Aug-24	25-Aug-24	18-Sep-24
Sample ID		26	26	26	26	26	26	26	26	26	26	26
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W8747	C413312	C448115	C488039	C4A9816	C4E8855	TY2406540	TY2407793	TY2409445	TY2409445	TY2410613
Laboratory Sample ID	Units	XJD008	YCT684	YKB044	YSI550	YWU140	ZEV919	TY2406540-002	TY2407793-012	TY2409445-002	TY2409445-005	TY2410613-002
Field Parameters												
Depth, Field	m	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.94	7.26	7.10	7.44	7.00	8.03	8.22	8.17	8.28	-	8.14
Temperature, Field	deg C	8.6	1.2	1.9	3.1	3.9	13.2	20.3	22.1	22.0	-	21.5
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	5.8	<5.0	<5.0	<2.0	<2.0	<2.0	-	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	91	110	99	88	28	92	94.9	94.4	93.9	-	96.4
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	<2.0	<2.0	<2.0	-	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	-	<2.0
Alkalinity, Total (as CaCO3)	mg/L	92	110	100	88	28	93	94.9	94.4	93.9	-	96.4
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	0.36	0.46	0.43	0.15	0.15	0.0114	0.0081	0.0057	-	0.0469
Ammonia, Un-ionized (As N)	mg/L	<0.00071	0.0006	0.0006	0.0013	<0.0004	0.0038	-	-	-	-	-
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	42	56	49	43	8.3	46	51.2	53.4	53.6	-	52.0
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	3.14	-
Color, True	TCU	3	4	3	2	<2	4	5.2	5.9	3.3	-	3.9
Cyanide	mg/L	<0.00050	0.00080	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050	<0.0050	<0.0050	-	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	-	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	6.5	6.7	5.8	4.8	0.85	5.2	9.05	7.74	11.6	-	8.24
Electrical Conductivity, Lab	µS/cm	337	417	369	323	80	335	350	349	352	-	346
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.027	0.023	-	<0.020
Hardness (as CaCO3)	mg/L	110	140	120	91	13	110	94.6	112	112	-	102
Ion Balance	%	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	<0.020	<0.020	-	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.98	7.77	7.74	7.57	6.92	8.07	8.17	8.10	7.93	-	8.01
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	0.804	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	<2.0	<2.0	<2.0	-	<2.0
Phosphorus, Total	mg/L	0.0067	0.0034	0.0031	0.0028	0.0021	0.0045	0.0100	0.0128	0.0103	-	0.0102
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	3.3	3.5	3.5	3.1	<1.0	2.6	2.89	2.77	2.76	-	2.15
Total Dissolved Solids	mg/L	200	185	220	175	60	140	180	198	197	-	198
Total Kjeldahl Nitrogen	mg/L	0.31	0.69	0.70	0.70	0.23	0.38	0.506	0.506	0.501	-	-
Total Organic Carbon	mg/L	6.8	7.2	6.1	5.3	0.96	5.6	7.59	7.87	8.64 DTC	-	8.31
Total Suspended Solids	mg/L	4	3	1	2	5	4	4.0	4.3	4.6	-	4.4
Turbidity, Lab	NTU	0.6	1.0	0.7	0.7	1.5	2.0	1.73	2.97	1.51	-	2.14
Volume Sampled	L	-	-	-	-	-	-	-	-	-	0.250	-
Metals, Dissolved												
Aluminum	µg/L	1.9	0.6	1.5	1.2	2.1	2.1	6.6	4.8	5.5	-	3.6
Antimony	µg/L	0.1	0.1	0.1	<0.1	<0.1	0.1	0.12	0.16	0.14	-	0.14
Arsenic	µg/L	16	11.9	8.1	5.4	1.1	6.5	12.7	18.2	25.2	-	23
Barium	µg/L	13.4	15.6	14.3	11.8	2.2	12.7	13.1	14.3	14.2	-	15.4
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	-	<0.05
Boron	µg/L	9	4	4	3	<1	3	<10	<10	<10	-	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	-	<0.005
Calcium	mg/L	35.4	42.9	36.4	28.5	4.35	34.4	28.3	34.8	34.0	-	30.4
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	-	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	<0.1
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.1	<0.1	<0.1	-	<0.1
Copper	µg/L	0.7	0.1	0.1	2.6	6.7	0.1	0.45 DTC	<0.2	0.91 DTMF	-	<0.2
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	9	<5	<5	6	5	11	10	14	<10	-	<10
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	0.13	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	0.092	-	<0.05
Lithium	µg/L	0.5	0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	-	<1
Magnesium	mg/L	5.76	7.17	6.54	4.92	0.588	5.47	5.81	6.00	6.49	-	6.29
Manganese	µg/L	1.8	2.7	10.1	9.4	2.8	3.4	1.97	0.86	0.42	-	3
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	-	<0.005
Molybdenum	µg/L	0.06	0.07	0.07	<0.05	<0.05	0.06	0.053	0.067	0.059	-	0.058
Nickel	µg/L	<0.1	<0.1	<0.1	0.3	0.6	<0.1	<0.5	<0.5	<0.5	-	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<50	<50	<50	-	<50
Potassium	mg/L	0.58	0.77	0.67	0.55	0.10	0.54	0.574	0.590	0.672	-	0.632
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.11	1.39	1.14	1.01	0.17	0.97	1.08	1.14	1.22	-	1.22
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.05	0.087	<0.05	-	0.061
Silicon	µg/L	1,770	1,710	1,510	1,240	189	1,060	1,000	1,110	1,500	-	2,020
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	27.2	31.6	28.9	21.9	3.44	25.9	27.7	28.1	29.6	-	26.9
Strontium	µg/L	59.8	75.7	64.9	53	7.9	56	59.9	65.6	66.9	-	67.3
Sulfur	µg/L	-	-	-	-	-	-	1,030	1,060	1,140	-	940
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	-	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	<0.1
Tin	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.45	<0.1	0.11	-	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	-	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Uranium	µg/L	0.04	0.04	0.03	0.03	<0.01	0.04	0.048	0.049	0.051	-	0.042
Vanadium	µg/L	0.1	<0.05	<0.05	<0.05	<0.05	0.06	<0.5	<0.5	<0.5	-	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	0.9	<0.5	<0.5	1.3	3.5	<0.5	1	1	1.6	-	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	-	<0.3

Sample Location		26										
Sample Date		18-Oct-23	11-Jan-24	13-Feb-24	20-Mar-24	11-Apr-24	15-May-24	21-Jun-24	17-Jul-24	25-Aug-24	25-Aug-24	18-Sep-24
Sample ID		26	26	26	26	26	26	26	26	26	26	26
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W8747	C413312	C448115	C488039	C4A9816	C4E8855	TY2406540	TY2407793	TY2409445	TY2409445	TY2410613
Laboratory Sample ID	Units	XJD008	YCT684	YKB044	YSI550	YWU140	ZEV919	TY2406540-002	TY2407793-012	TY2409445-002	TY2409445-005	TY2410613-002
Metals, Total												
Aluminum	µg/L	6.1	2.2	3.7	1.9	55	4.9	11.5	13.5	14	-	14
Antimony	µg/L	0.1	0.1	0.2	<0.1	<0.1	<0.1	0.13	0.17	0.17	-	0.14
Arsenic	µg/L	17.7	12.4	8.5	6.1	2.3	7.3	14.4	21	27.9	-	25.2
Barium	µg/L	14.1	17.7	14.6	14.4	3.6	13	13.6	15	15	-	16.3
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	-	<0.05
Boron	µg/L	4	4	4	3	<1	3	<10	<10	<10	-	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.005	<0.005	<0.005	-	<0.005
Calcium	mg/L	35.1	40.8	36.3	29.6	6.08	33.3	32.7	35.0	32.4	-	33.7
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	-	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	0.14
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.1	<0.1	<0.1	-	<0.1
Copper	µg/L	0.1	0.2	0.3	0.2	0.4	0.1	<0.5	<0.5	<0.5	-	<0.5
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	50	21	17	17	90	30	74	99	81	-	79
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	0.06	<0.05	0.06	<0.05	0.23	<0.05	0.059	0.079	0.063	-	<0.05
Lithium	µg/L	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<1	<1	<1	-	<1
Magnesium	mg/L	5.85	6.99	6.40	5.20	0.881	5.77	5.98	6.24	6.52	-	6.69
Manganese	µg/L	31.7	12.4	14.5	16	6.5	18.1	57.2	74.9	56.8	-	62.6
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	-	<0.005
Molybdenum	µg/L	0.05	0.06	0.06	<0.05	<0.05	0.06	0.068	0.062	0.065	-	<0.05
Nickel	µg/L	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.5	<0.5	<0.5	-	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<50	<50	<50	-	<50
Potassium	mg/L	0.60	0.78	0.68	0.56	0.12	0.57	0.593	0.714	0.701	-	0.671
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.15	1.39	1.15	1.05	0.24	1.04	1.14	1.19	1.19	-	1.18
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	-	0.075
Silicon	µg/L	1,730	1,620	1,520	1,210	273	1,010	1,090	1,180	1,580	-	2,020
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	26.4	30.9	28.0	22.4	3.71	26.9	28.7	29.2	30.3	-	30.0
Strontium	µg/L	61.7	75	65.1	54.1	10	55.7	63.9	65.9	68	-	71.7
Sulfur	µg/L	-	-	-	-	-	-	1,300	1,080	1,390	-	910
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	-	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	1.5	<0.5	<0.3	<0.3	<0.3	-	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8 DLB	<0.1	-	<0.1
Uranium	µg/L	0.04	0.04	0.03	0.03	0.01	0.04	0.046	0.047	0.049	-	0.046
Vanadium	µg/L	0.12	0.06	0.05	<0.05	0.14	0.07	<0.5	<0.5	<0.5	-	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	0.6	1.4	0.8	0.7	3.8	<0.5	<3	4.1	<3	-	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	-	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location							28				
Sample Date		**17-Oct-23**	**29-Jan-24**	**8-Feb-24**	**7-Mar-24**	**10-Apr-24**	**13-May-24**	**18-Jun-24**	**17-Jul-24**	**16-Aug-24**	**15-Sep-24**
Sample ID		**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**	**28**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**ALS**	**ALS**	**ALS**	**ALS**
Laboratory Work Order		**C3W7540**	**C430242**	**C444003**	**C471795**	**C4A8649**	**C4E5436**	**TY2406394**	**TY2407793**	**TY2409015**	**TY2410348**
Laboratory Sample ID	**Units**	**XIV832**	**YGI604**	**YJF726**	**YOY284**	**YWN539**	**ZED909**	**TY2406394-004**	**TY2407793-001**	**TY2409015-001**	**TY2410348-002**
Field Parameters											
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.45	7.24	7.13	7.60	7.07	7.02	7.57	7.45	7.75	7.75
Temperature, Field	deg C	6.8	2.3	2.1	3.7	0.1	10.6	17.4	20.4	21.8	19.0
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Acidity as CaCO3	mg/L	<5.0	5.0	5.8	6.0	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	100	140	130	150	27	54	72.4	96.0	99.2	134
Alkalinity, Carbonate (as CaCO3)	mg/L	1.2	1.1	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	100	140	130	150	27	55	72.4	96.0	99.2	134
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	0.074	0.11	0.062	<0.050	<0.050	0.0229	0.0234	0.0147	0.0273
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	12	5.4	4.9	5.4	4.3	5.1	8.88	7.97	11.7	6.10
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	51	35	34	26	6	87	91.6	77.7	63.8	37.5
Cyanide	mg/L	0.00056	0.00072	0.00058	<0.00050	0.00053	0.00056	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	14	12	10	9.8	2.0	16	23.7	19.5	19.5	15.6
Electrical Conductivity, Lab	µS/cm	240	291	269	308	63	129	168	203	227	239
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.031	<0.020	0.026
Hardness (as CaCO3)	mg/L	120	150	130	150	22	66	76.5	102	105	128
Nitrate (as N)	mg/L	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	<0.020	0.021	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	8.08	7.92	7.79	7.71	7.16	7.70	7.94	8.20	7.91	8.00
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.0059	0.0037	0.0046	0.0051	0.0051	0.0032	0.0114	0.0131	0.0123	0.0100
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	2.9	3.3	3.0	3.3	1.4	4.0	1.74	0.87	1.60	0.47
Total Dissolved Solids	mg/L	155	155	180	210	55	125	143	142	161	162
Total Kjeldahl Nitrogen	mg/L	0.51	0.43	0.48	0.40	0.15	0.53	0.713	0.574	-	0.539
Total Organic Carbon	mg/L	14	12	11	9.7	1.9	17	21.3	19.4	20.1	15.3
Total Suspended Solids	mg/L	1	1	2	<1	3	<1	<1.0	1.1	1.3	<1.0
Turbidity, Lab	NTU	1.0	0.8	1.9	0.9	3.1	0.7	2.18	2.03	1.41	2.54
Metals, Dissolved											
Aluminum	µg/L	4.6	5.6	5.3	3.2	4.6	14.9	12.4	6.8	7.9	3.5
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	17.4	5.8	6.6	5.6	5.1	11.8	29.3	58.1	118	28.8
Barium	µg/L	7.4	8.6	8.9	8.5	2	5.2	6.87	7.52	8.13	9.23
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	3	3	3	4	<1	3	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	38.4	46.2	41.7	48.3	6.64	19.8	23.0	31.0	31.2	39.2
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.12
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	0.3	0.6	0.9	0.4	0.3	0.4	0.61	0.47	0.79	0.37
Iron	µg/L	116	146	165	126	37	115	154	240	99	135
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	0.056	<0.05	<0.05	<0.05
Lithium	µg/L	0.8	0.8	0.7	0.7	<0.5	0.5	<1	<1	<1	<1
Magnesium	mg/L	6.51	8.17	7.20	7.94	1.21	3.99	4.63	6.00	6.60	7.20
Manganese	µg/L	20.7	24	44	24.5	14.6	7.6	18.2	63.7	20.1	44.9
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.07	0.07	0.1	0.06	<0.05	0.07	0.098	0.11	0.14	0.065
Nickel	µg/L	0.2	0.2	0.2	0.2	<0.1	0.3	<0.5	<0.5	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.33	0.40	0.39	0.46	0.12	0.20	0.128	0.144	0.206	0.270
Rubidium	µg/L	0.88	1	0.94	1.06	0.22	0.5	0.44	0.56	0.72	0.9
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.088	0.088	0.098	0.054
Silicon	µg/L	3,140	4,090	3,790	3,880	513	1,150	1,140	2,250	2,630	3,340
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	7.60	3.65	3.67	3.69	2.32	4.01	5.00	5.08	6.71	3.99
Strontium	µg/L	39	44.4	43.2	48	8	21.5	29.3	37.9	45.9	47.9
Sulfur	µg/L	-	-	-	-	-	-	<500	<500	720	<500
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.05	0.06	0.06	0.07	0.01	0.01	0.024	0.046	0.058	0.062
Vanadium	µg/L	0.12	0.09	0.1	0.09	<0.05	0.14	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	1.8	1.1	5	1	2.5	1	<1	1.5	2.3	1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location							28				
Sample Date		17-Oct-23	29-Jan-24	8-Feb-24	7-Mar-24	10-Apr-24	13-May-24	18-Jun-24	17-Jul-24	16-Aug-24	15-Sep-24
Sample ID		28	28	28	28	28	28	28	28	28	28
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C430242	C444003	C471795	C4A8649	C4E5436	TY2406394	TY2407793	TY2409015	TY2410348
Laboratory Sample ID	Units	XIV832	YGI604	YJF726	YOY284	YWN539	ZED909	TY2406394-004	TY2407793-001	TY2409015-001	TY2410348-002
Metals, Total											
Aluminum	µg/L	9	9.6	16.7	5	62.8	19	27.6	16.6	15.9	6.7
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
Arsenic	µg/L	20.5	7.2	8.6	7.3	6.6	12.5	32.9	62.1	120	32.4
Barium	µg/L	7.8	8.8	10.1	8.6	2.9	5.3	7.19	8.25	8.74	9.26
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	3	4	3	4	<1	3	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	37.1	49.6	40.3	49.2	7.37	19.5	21.6	31.6	33.6	39.7
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.14
Cobalt	µg/L	<0.05	<0.05	0.06	<0.05	0.09	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	0.3	0.4	0.6	0.3	0.6	0.5	0.71	0.55	0.88	<0.5
Iron	µg/L	203	214	277	207	130	138	263	367	168	281
Lead	µg/L	<0.05	0.06	0.13	0.05	0.44	<0.05	0.123	0.058	0.053	<0.05
Lithium	µg/L	0.8	0.8	0.7	0.8	<0.5	0.5	<1	<1	<1	<1
Magnesium	mg/L	6.56	8.33	7.06	8.27	1.37	4.01	4.77	6.14	6.87	7.74
Manganese	µg/L	30.5	26.4	47.2	26.7	18.5	12.9	40.7	86.4	44.7	67.3
Mercury	µg/L	0.00153	0.00123	0.00250	0.00100	0.00192	0.00450	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	0.00345	0.00207	0.00176	0.00096
Molybdenum	µg/L	0.08	0.07	0.06	0.07	<0.05	0.07	0.095	0.118	0.114	0.071
Nickel	µg/L	0.2	0.2	0.3	0.2	0.2	0.3	0.53	<0.5	0.57	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	6	<50	<50	<50	<50
Potassium	mg/L	0.33	0.42	0.39	0.46	0.15	0.20	0.139	0.145	0.210	0.287
Rubidium	µg/L	0.82	0.97	0.93	1.08	0.34	0.49	0.45	0.58	0.71	0.94
Selenium	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.102	0.099	0.106	0.078
Silicon	µg/L	3,020	4,170	3,680	4,010	689	1,160	1,270	2,310	2,600	3,340
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	7.66	3.84	3.62	3.82	2.52	3.87	5.34	5.14	7.84	4.07
Strontium	µg/L	38	44.2	42.5	47.8	9	21.4	30.1	39.1	44.7	49.7
Sulfur	µg/L	-	-	-	-	-	-	580	<500	560	<500
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	0.9	<0.5	<2.5	<0.5	<0.75 DLM	0.41	0.35	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.36	0.94	<0.1	<0.1
Uranium	µg/L	0.04	0.06	0.06	0.07	0.02	0.02	0.029	0.046	0.058	0.062
Vanadium	µg/L	0.15	0.11	0.15	0.11	0.14	0.15	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	2.2	3	6.1	1.9	4	0.8	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location											
						38					
Sample Date		**17-Oct-23**	**6-Nov-23**	**28-Dec-23**	**16-Jan-24**	**8-Feb-24**	**11-Apr-24**	**12-May-24**	**19-Jun-24**	**26-Aug-24**	**19-Sep-24**
Sample ID		**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**	**38**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**ALS**	**ALS**	**ALS**
Laboratory Work Order		**C3W7540**	**C3Z0071**	**C400950**	**C418561**	**C443866**	**C4A9816**	**C4E3554**	**TY2406457**	**TY2409539**	**TY2410622**
Laboratory Sample ID	**Units**	**XIV842**	**XNR725**	**YAB403**	**YDU817**	**YJE955**	**YWU141**	**ZDT541**	**TY2406457-003**	**TY2409539-002**	**TY2410622-001**
Field Parameters											
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.78	7.57	7.57	7.56	7.24	7.27	7.40	7.90	7.77	7.66
Temperature, Field	deg C	9.6	2.7	1.3	1.4	0.8	2.8	11.20	18.8	22.8	19.5
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	2.1
Alkalinity, Bicarbonate (as CaCO3)	mg/L	82	85	87	92	93	110	79	77.8	85.4	90.5
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	82	86	88	92	94	110	80	77.8	85.4	90.5
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.0062	0.0087	0.0082
Ammonia, Un-ionized (As N)	mg/L	<0.00054	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	1.1	3.0	2.6	2.3	2.8	3.5	3.2	3.75	3.79	3.33
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	33	28	30	32	29	24	42	42.1	35.4	30.6
Cyanide	mg/L	<0.00050	0.00065	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	11	9.9	12	11	11	9.9	11	14.6	15.9	13.2
Electrical Conductivity, Lab	µS/cm	173	175	185	197	205	223	171	158	174	188
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	<0.020	<0.020	0.025
Hardness (as CaCO3)	mg/L	96	88	88	100	100	110	88	82.1	91.1	88.2
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.99	7.83	7.84	7.77	7.80	7.72	7.95	7.91	7.97	7.93
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.011	0.016	0.0060	0.0049	0.0033	0.0064	0.0075	0.0187	0.0117	0.0167
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	2.8	2.9	4.2	4.4	4.4	5.6	5.7	3.67	3.04	1.96
Total Dissolved Solids	mg/L	115	115	135	125	120	135	115	111	121	110
Total Kjeldahl Nitrogen	mg/L	0.38	0.37	0.40	0.34	0.31	0.36	0.41	0.491	0.446	0.474
Total Organic Carbon	mg/L	11	11	11	12	11	10	11	14.9	14.2	13.7
Total Suspended Solids	mg/L	4	3	<1	2	<1	4	6	2.9	3.8	3.4
Turbidity, Lab	NTU	1.3	1.6	0.8	0.9	2.2	1.2	1.7	3.37	1.05	2.22
Metals, Dissolved											
Aluminum	µg/L	4.2	2.3	2.3	2.5	2.4	2.4	5.8	78.6 DTC	4.6	3.7
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1
Arsenic	µg/L	5.1	3.5	5.1	5.3	5.5	3.6	2.4	3.86	8.62	6.48
Barium	µg/L	7.5	6.6	7.6	8.1	8.6	8.9	6.6	7.28	7.95	7.87
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05
Boron	µg/L	5	4	4	5	5	4	4	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
Calcium	mg/L	29.5	27.2	26.0	31.1	30.4	33.3	26.6	24.5	27.4	26.2
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.89 DTC	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.14
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.1	<0.1	<0.1
Copper	µg/L	0.5	0.5	1.6	1.6	1	2.8	1	1.41	1.49	0.54
Iron	µg/L	73	46	45	46	46	42	42	304 DTC	41	40
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.16	0.06	0.52 DTC	<0.05	<0.05
Lithium	µg/L	0.6	0.6	0.7	0.8	0.7	0.7	0.7	<1	<1	<1
Magnesium	mg/L	5.30	4.97	5.52	6.37	5.94	6.67	5.33	5.08	5.50	5.52
Manganese	µg/L	9.9	10.4	16.0	15.3	17.1	17.3	3.4	13.8	4.28	5.88
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.09	0.08	0.10	0.11	0.1	0.1	0.09	0.127	0.151	0.098
Nickel	µg/L	0.2	0.2	0.3	0.3	0.3	0.4	0.2	1.36 DTC	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50
Potassium	mg/L	0.46	0.44	0.52	0.63	0.58	0.67	0.45	0.463	0.482	0.423
Rubidium	µg/L	1.15	1.04	1.19	1.27	1.3	1.35	1	1.33	1.31	1.16
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.05	0.094	0.097
Silicon	µg/L	2,310	2,210	2,410	2,950	2,750	3,050	1,920	1,600	2,020	2,410
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	2.28	2.22	2.64	3.24	3.02	3.48	3.12	3.34	3.30	2.78
Strontium	µg/L	26	25.4	25.2	27.7	28.9	31.1	24.7	24.4	26.4	27.5
Sulfur	µg/L	-	-	-	-	-	-	-	1,170	1,220	930
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.1	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.09	0.10	0.10	0.12	0.12	0.15	0.1	0.083	0.095	0.107
Vanadium	µg/L	0.24	0.16	0.14	0.16	0.15	0.14	0.13	<0.5	<0.5	<0.5
Zinc	µg/L	0.6	<0.5	1.5	0.7	0.6	2.1	1.5	4.5 DTC	17.9	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3

Sample Location											
						38					
Sample Date		17-Oct-23	6-Nov-23	28-Dec-23	16-Jan-24	8-Feb-24	11-Apr-24	12-May-24	19-Jun-24	26-Aug-24	19-Sep-24
Sample ID		38	38	38	38	38	38	38	38	38	38
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C3Z0071	C400950	C418561	C443866	C4A9816	C4E3554	TY2406457	TY2409539	TY2410622
Laboratory Sample ID	Units	XIV842	XNR725	YAB403	YDU817	YJE955	YWU141	ZDT541	TY2406457-003	TY2409539-002	TY2410622-001
Metals, Total											
Aluminum	µg/L	33.1	19.5	8.7	9.6	11	28.3	35.4	42.7	25	52.8
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.5	<0.1	0.1	<0.1
Arsenic	µg/L	5.7	4.4	6.0	6	6.3	4.3	2.4	3.97	9.45	7.22
Barium	µg/L	7.6	7.3	8.2	8.6	8.9	9.3	7	7.66	8.29	8.8
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.05	<0.05	<0.05
Boron	µg/L	4	4	4	4	5	4	<5	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025	<0.005	<0.005	<0.005
Calcium	mg/L	29.5	28.0	27.5	29.4	30.3	34.8	25.2	25.1	27.9	29.5
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.29
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	<0.1	<0.1	<0.1
Copper	µg/L	0.7	0.5	0.7	0.8	0.8	0.8	0.6	0.78	0.74	0.64
Iron	µg/L	177	152	108	105	100	120	106	108	91	140
Lead	µg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	0.064	<0.05	<0.05
Lithium	µg/L	0.6	0.6	0.7	0.7	0.7	0.8	<2.5	<1	<1	<1
Magnesium	mg/L	5.15	5.04	5.75	5.98	6.00	7.02	5.16	5.13	5.50	5.79
Manganese	µg/L	21.4	25.9	20.8	19.8	23.7	28.2	12	12.8	18	26.6
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.08	0.09	0.08	0.1	0.1	0.1	<0.25	0.089	0.112	0.098
Nickel	µg/L	0.3	0.3	0.4	0.3	0.3	0.3	<0.5	<0.5	<0.5	<0.5
Phosphorus	µg/L	7	6	<5	<5	<5	5	<25	<50	<50	<50
Potassium	mg/L	0.47	0.45	0.56	0.58	0.59	0.68	0.5	0.464	0.464	0.460
Rubidium	µg/L	1.19	1.14	1.30	1.34	1.39	1.35	1.1	1.32	1.42	1.24
Selenium	µg/L	<0.05	0.05	0.06	0.06	0.07	0.05	<0.25	0.053	0.08	0.057
Silicon	µg/L	2,350	2,340	2,580	2,800	2,780	3,180	1,890	1,570	2,200	2,580
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01
Sodium	mg/L	2.32	2.17	2.81	2.94	3.04	3.55	2.94	3.43	3.29	2.99
Strontium	µg/L	25.1	25.5	27.0	27.6	29.1	31.3	24.4	25.6	27.5	32
Sulfur	µg/L	-	-	-	-	-	-	-	1,200	1,290	930
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1
Titanium	µg/L	1.7	1.2	0.7	0.6	1	1.4	<2.5	1.37	0.94	2.02
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.1	<0.1	<0.1
Uranium	µg/L	0.09	0.10	0.11	0.11	0.13	0.16	0.1	0.089	0.116	0.119
Vanadium	µg/L	0.35	0.24	0.19	0.2	0.2	0.21	<0.25	<0.5	0.53	0.56
Zinc	µg/L	0.8	1.2	<0.5	0.6	<0.5	1.2	<2.5	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location													
								39					
Sample Date		17-Oct-23	19-Dec-23	11-Jan-24	11-Feb-24	10-Mar-24	7-Apr-24	15-May-24	10-Jun-24	17-Jul-24	23-Aug-24	23-Aug-24	17-Sep-24
Sample ID		39	39	39	39	39	39	39	39	39	39	39	39
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C3BO809	C413312	C443566	C473326	C4A3859	C4E8855	C4H7635	TY2407793	TY2409363	TY2409363	TY2410547
Laboratory Sample ID	Units	XIV843	XYM839	YCT683	YJD538	YPH124	YVO726	ZEV921	ZKW188	TY2407793-011	TY2409363-001	TY2409363-002	TY2410547-005
Field Parameters													
Depth, Field	m	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.79	7.40	7.25	7.16	7.22	7.49	7.95	7.55	7.95	7.77	-	8.02
Temperature, Field	deg C	9.9	2.9	0.9	0.3	1.6	1.5	14.1	17.8	21.7	20.1	-	21.3
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry													
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	-	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	150	120	130	120	140	140	110	110	124	133	-	147
Alkalinity, Carbonate (as CaCO3)	mg/L	1.7	<1.0	<1.0	<1.0	<1.0	1.0	1.3	1.0	<2.0	<2.0	-	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	-	<2.0
Alkalinity, Total (as CaCO3)	mg/L	150	120	130	120	140	140	110	110	124	133	-	147
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	0.087	<0.050	<0.050	0.18	0.081	<0.050	<0.050	0.0092	0.0075	-	0.0275
Ammonia, Un-ionized (As N)	mg/L	<0.00056	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0011	<0.00059	-	-	-	-
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	4.4	<1.0	1.3	<1.0	1.0	1.8	4.5	10	4.58	4.12	-	10.3
Chlorophyll a	µg/L	-	-	-	-	-	-	<2.1 VV	-	-	-	1.54	-
Color, True	TCU	27	26	25	21	24	15	27	32	23.5	20.7	-	17.6
Cyanide	mg/L	<0.00050	0.00056	0.00057	<0.00050 CYN	0.00496	0.00134	0.00050	<0.00050	<0.0050	<0.0050	-	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0021 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	-	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	10	11	11	9.2	10	8.2	9.9	11	11.1	11.8	-	11.1
Electrical Conductivity, Lab	µS/cm	309	244	254	238	283	263	219	253	241	242	-	284
Fluoride	mg/L	<0.10	0.12	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.035	0.028	-	<0.020
Hardness (as CaCO3)	mg/L	160	130	140	120	150	150	110	120	128	136	-	141
Ion Balance	%	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	0.15	0.36	0.22	<0.10	<0.10	0.033	<0.020	-	0.026
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	0.15	0.38	0.22	<0.10	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	0.015	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	8.08	7.85	7.84	7.83	7.74	7.90	8.11	8.01	8.17	8.03	-	8.12
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	0.572	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	-	<2.0	<2.0	-	<2.0
Phosphorus, Total	mg/L	0.0029	0.0038	0.0049	0.0075	0.0099	0.0042	0.0039	0.0046	0.0071	0.0057	-	0.0059
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	3.8	3.3	3.8	4.7	4.1	4.6	3.0	3.9	3.22	2.99	-	3.49
Total Dissolved Solids	mg/L	185	175	150	95	195	195	85	115	136	135	-	170
Total Kjeldahl Nitrogen	mg/L	0.38	0.45	0.35	0.37	0.54	0.34	0.29	0.25	0.326	0.423	-	0.543
Total Organic Carbon	mg/L	11	11	11	9.5	10	8.2	10	11	11.6	13.1	-	11.1
Total Suspended Solids	mg/L	3	2	1	4	2	2	3	6	1.2	1.4	-	1.3
Turbidity, Lab	NTU	1.2	1.5	1.8	5.0	1.3	4.1	1.1	1.7	1.04	0.56	-	0.55
Volume Sampled	L	-	-	-	-	-	-	-	-	-	-	0.250	-
Speciated Metals													
Methyl Mercury	µg/L	0.00014	0.00013	0.0001	0.00021	0.00013	0.00013	<0.00005	0.00015	0.000123	0.000110	-	0.000208
Metals, Dissolved													
Aluminum	µg/L	3	3.1	2.8	3.6	2.4	8	15.6	16.4	15.1	12.1	-	6.8
Antimony	µg/L	<0.1	0.1	<0.1	0.1	0.7	1.4	0.3	0.3	0.5	0.36	-	0.43
Arsenic	µg/L	7.2	3.4	3.5	2.7	3.3	4.3	4.1	5.5	8.87	7.43	-	7.65
Barium	µg/L	12.3	14.0	14.9	11.2	12.9	7.7	9.9	11	12.9	13.3	-	14.2
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	-	<0.05
Boron	µg/L	5	4	4	4	4	5	3	5	<10	<10	-	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.005	0.0051	-	0.0051
Calcium	mg/L	48.9	41.4	43.2	37.2	47.5	45.8	35.4	37.6	39.2	41.4	-	43.0
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	0.02	<0.02	<0.02	0.03	0.06	0.05	0.04	0.073	0.073	-	0.058
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-	0.15
Cobalt	µg/L	<0.05	0.06	0.06	0.06	0.37	1.48	0.25	0.13	0.25	0.3	-	0.18
Copper	µg/L	0.7	1.1	0.8	0.6	0.8	2.4	1.5	1.8	2.42	2.72	-	2.8
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	22	47	55	45	45	18	30	34	18	17	-	18
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	0.09	<0.05	0.06	0.13	0.05	<0.05	<0.05	-	<0.05
Lithium	µg/L	0.8	0.8	0.7	0.6	1	0.8	0.7	0.7	<1	<1	-	1.1
Magnesium	mg/L	8.03	6.49	7.06	6.25	8.71	8.42	5.92	6.68	7.40	7.90	-	8.14
Manganese	µg/L	22.7	11.1	14	25.4	23.2	37	4.6	5.6	4.08	1.63	-	3.18
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	-	<0.005
Molybdenum	µg/L	0.4	0.25	0.25	0.3	0.32	0.45	0.21	0.23	0.305	0.276	-	0.332
Nickel	µg/L	0.5	0.6	0.6	0.4	3	13.6	2.4	2	3.58	3.28	-	3.81
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	-	<50
Potassium	mg/L	1.16	0.95	0.98	0.82	1.29	1.15	0.75	0.77	0.861	0.920	-	0.920
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	2.78	2.37	2.18	1.76	2.55	2.12	1.69	1.71	2.16	2.3	-	2.46
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.121	0.086	-	0.085
Silicon	µg/L	1,280	2,760	3,090	2,580	3,300	3,060	1,970	1,650	1,360	1,600	-	1,800
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	3.99	0.94	0.89	1.03	1.63	1.67	2.78	6.82	3.11	2.91	-	5.34
Strontium	µg/L	52.2	39.6	40.5	35	48.3	56.2	33.9	38.7	45.7	45.6	-	51.8
Sulfur	µg/L	-	-	-	-	-	-	-	-	1,240	1,110	-	1,510
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	<0.2
Thallium	µg/L	0.005	<0.005	<0.005	<0.005	<0.005	0.008	0.007	0.007	<0.01	<0.01	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	-	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Uranium	µg/L	0.29	0.23	0.21	0.22	0.31	0.77	0.25	0.21	0.299	0.254	-	0.33
Vanadium	µg/L	0.23	0.21	0.22	0.21	0.18	0.23	0.2	0.21	<0.5	<0.5	-	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	2	4.8	4.7	3.3	5.9	5.6	3.5	4.7	5	7.7	-	5.2
Zirconium	µg/L	0.2	<0.1	<0.1	0.1	<0.1	0.2	0.1	0.4	<0.3	<0.3	-	<0.3

Sample Location													
								39					
Sample Date		17-Oct-23	19-Dec-23	11-Jan-24	11-Feb-24	10-Mar-24	7-Apr-24	15-May-24	10-Jun-24	17-Jul-24	23-Aug-24	23-Aug-24	17-Sep-24
Sample ID		39	39	39	39	39	39	39	39	39	39	39	39
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C3BO809	C413312	C443566	C473326	C4A3859	C4E8855	C4H7635	TY2407793	TY2409363	TY2409363	TY2410547
Laboratory Sample ID	Units	XIV843	XYM839	YCT683	YJD538	YPH124	YVO726	ZEV921	ZKW188	TY2407793-011	TY2409363-001	TY2409363-002	TY2410547-005
Metals, Total													
Aluminum	µg/L	33.3	34.2	24.3	116	32.4	71.1	34.2	33.3	24.4	148	-	23.7
Antimony	µg/L	<0.1	<0.1	0.1	0.2	0.7	1.5	0.3	0.3	0.54	0.42	-	0.46
Arsenic	µg/L	7.9	3.9	3.7	3.1	3.5	4.8	4.3	5.8	9.15	8.3	-	7.96
Barium	µg/L	12.6	14.2	15.1	12.2	13.3	8.5	10.3	11.4	13.4	14.8	-	15.4
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	-	<0.05
Boron	µg/L	5	4	4	4	4	5	3	4	<10	<10	-	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	0.006	<0.005	0.008	<0.005	<0.005	0.006	0.008	-	0.0063
Calcium	mg/L	48.4	40.2	42.9	39.5	47.7	43.6	35.6	37.7	41.1	41.8	-	43.5
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	0.02	<0.02	<0.02	0.03	0.09	0.05	0.04	0.076	0.086	-	0.068
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.58	-	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-	0.4
Cobalt	µg/L	0.07	0.09	0.08	0.14	0.38	1.61	0.33	0.2	0.47	0.72	-	0.37
Copper	µg/L	0.8	1.5	0.9	1	0.7	2.8	1.5	1.5	2.81	2.62	-	2.52
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	91	112	101	200	101	125	77	67	47	299	-	53
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	0.07	0.36	0.58	0.06	1.08	0.27	0.13	0.188	0.32	-	0.103
Lithium	µg/L	0.9	0.8	0.8	0.8	1	1	0.7	0.8	<1	<1	-	<1
Magnesium	mg/L	8.25	6.94	6.85	6.67	8.61	8.24	6.31	6.70	7.39	8.56	-	8.38
Manganese	µg/L	41.9	13.6	16.2	31	23.9	40.5	10	11.3	12.3	13.5	-	10.5
Mercury	µg/L	0.00172	0.00132	0.00142	0.00127	0.00108	0.00157	0.00224	0.00183	<0.005	<0.005	-	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	0.00095	0.00103	-	0.00075
Molybdenum	µg/L	0.41	0.24	0.24	0.28	0.3	0.4	0.22	0.21	0.364	0.306	-	0.339
Nickel	µg/L	0.6	0.7	0.6	0.6	2.7	13.7	2.5	2.1	3.83	3.95	-	4.26
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	5	<5	7	<5	<5	<5	7	<50	<50	-	<50
Potassium	mg/L	1.18	0.97	0.98	0.89	1.29	1.23	0.77	0.79	0.876	0.975	-	1.02
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	2.81	2.37	2.28	1.99	2.56	2.18	1.77	1.73	2.32	2.62	-	2.58
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	0.06	0.07	0.08	0.07	0.09	0.13	0.08	0.07	0.105	0.112	-	0.098
Silicon	µg/L	1,410	2,720	3,040	2,960	3,470	3,350	1,960	1,640	1,420	1,930	-	1,860
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	3.97	0.96	0.90	1.15	1.57	1.63	3.24	6.92	3.12	3.11	-	5.76
Strontium	µg/L	52.3	39.4	40.8	36.9	47.6	57.1	33.8	38.9	49.6	48	-	57
Sulfur	µg/L	-	-	-	-	-	-	-	-	1,330	1,310	-	1,640
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	-	<0.2
Thallium	µg/L	0.006	0.005	0.005	<0.005	<0.005	0.01	0.006	0.007	<0.01	0.011	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	-	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Titanium	µg/L	2.1	1.5	1.5	5.6	2.1	3.1	1.1	0.7	0.38	3.24	-	0.54
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8 DLB	<0.1	-	<0.1
Uranium	µg/L	0.29	0.22	0.21	0.23	0.29	0.74	0.25	0.21	0.336	0.284	-	0.338
Vanadium	µg/L	0.34	0.31	0.28	0.43	0.26	0.37	0.25	0.28	<0.5	0.6	-	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	2.4	5.1	5.2	4.4	4.6	6.1	3.8	4.2	13.2	9.8	-	7.7
Zirconium	µg/L	0.2	0.2	0.1	0.3	0.3	0.3	0.1	0.3	<0.2	<0.2	-	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		40										
Sample Date		**17-Oct-23**	**27-Dec-23**	**29-Jan-24**	**8-Feb-24**	**7-Mar-24**	**10-Apr-24**	**13-May-24**	**18-Jun-24**	**17-Jul-24**	**16-Aug-24**	**15-Sep-24**
Sample ID		**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**ALS**	**ALS**	**ALS**	**ALS**
Laboratory Work Order		**C3W7540**	**C3BT968**	**C430242**	**C444003**	**C471795**	**C4A8649**	**C4E5436**	**TY2406394**	**TY2407793**	**TY2409015**	**TY2410348**
Laboratory Sample ID	**Units**	**XIV834**	**XZR415**	**YGI606**	**YJF731**	**YOY289**	**YWN536**	**ZED914**	**TY2406394-003**	**TY2407793-003**	**TY2409015-003**	**TY2410348-004**
Field Parameters												
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.64	7.15	6.79	6.69	7.11	6.75	7.35	7.69	7.77	8.04	7.94
Temperature, Field	deg C	8.5	3.3	0.9	2.3	2.1	2.6	12.6	18.3	21.5	22.7	19.7
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Acidity as CaCO3	mg/L	<5.0	<5.0	6.4	<5.0	<5.0	<5.0	<5.0	<2.0	2.2	<2.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	79	98	110	95	110	44	54	68.8	76.0	84.4	90.4
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	80	99	110	95	110	44	55	68.8	76.0	84.4	90.4
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.0141	0.0086	0.0125	0.0098
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	7.1	11	14	11	15	6.6	8.1	8.51	12.0	12.6	15.1
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	39	44	54	48	54	11	71	74.7	65.0	50.0	44.3
Cyanide	mg/L	0.00061	<0.00050	0.00092	<0.00050	0.00085	<0.00050	<0.00050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	13	14	16	12	16	4.2	13	19.9	18.7	20.6	17.7
Electrical Conductivity, Lab	µS/cm	201	243	268	238	285	106	142	175	186	207	225
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.026	<0.020	<0.020
Hardness (as CaCO3)	mg/L	99	110	130	100	130	40	66	71.3	85.0	91.2	105
Nitrate (as N)	mg/L	<0.10	<0.10	0.13	0.11	<0.10	0.11	<0.10	<0.020	<0.020	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	0.13	0.11	<0.10	0.11	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.85	7.71	7.77	7.61	7.53	7.27	7.75	7.94	8.10	8.09	7.96
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.020	0.0063	0.0094	0.0040	0.011	0.0011	0.011	0.0185	0.0236	0.0207	0.0303
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	8.0	5.6	5.2	4.8	6.0	2.3	3.8	1.44	3.13	4.95	6.48
Total Dissolved Solids	mg/L	125	200	165	140	185	70	130	133	125	134	161
Total Kjeldahl Nitrogen	mg/L	0.48	0.51	0.48	0.44	0.48	0.26	0.45	0.731	0.592	-	0.716
Total Organic Carbon	mg/L	13	15	16	14	16	4.2	14	18.7	19.3	18.3	17.1
Total Suspended Solids	mg/L	3	1	1	1	2	2	5	2.7	2.9	1.7	3.2
Turbidity, Lab	NTU	1.4	1.3	1.2	1.2	1.1	0.6	2.2	3.25	3.42	2.41	4.58
Metals, Dissolved												
Aluminum	µg/L	4.5	3.5	5.1	4.5	4.1	2.2	8.8	8.7	4.6	3	3.9
Antimony	µg/L	0.8	0.6	0.5	0.4	0.5	0.2	0.2	0.32	0.36	0.47	0.61
Arsenic	µg/L	52.3	19.6	14.5	12	12	3	11.6	26	53.2	86.2	104
Barium	µg/L	7.1	7.8	9.2	7.9	9.2	3.4	4.6	6.31	7	7.17	7.97
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	7	5	5	4	5	1	3	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	30.1	32.1	38.6	31.2	40.2	12.3	19.9	21.1	25.2	26.9	31.2
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	0.011
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	0.11
Cobalt	µg/L	0.06	0.07	0.07	0.07	0.06	0.06	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	2.6	1.9	1.3	1	1.1	0.7	0.8	2.81	2.09	2.04	2.67
Iron	µg/L	95	107	157	137	147	39	102	125	88	68	70
Lead	µg/L	0.07	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	0.185	0.053	<0.05	0.051
Lithium	µg/L	0.7	0.8	0.8	0.7	0.9	<0.5	<0.5	<1	<1	<1	<1
Magnesium	mg/L	5.75	6.42	7.45	6.02	7.41	2.30	4.07	4.53	5.35	5.83	6.52
Manganese	µg/L	2.4	24.9	38.4	33.6	31.5	15.6	5.2	1.88	3.78	0.83	3.64
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.1	0.09	0.09	0.09	0.08	0.05	0.06	0.099	0.09	0.116	0.101
Nickel	µg/L	0.9	0.6	0.5	0.4	0.6	0.2	0.4	0.67	0.71	0.76	0.94
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.65	0.46	0.45	0.38	0.47	0.20	0.29	0.310	0.297	0.396	0.495
Rubidium	µg/L	1.35	0.97	0.93	0.81	1.03	0.38	0.63	0.74	0.82	1.02	1.25
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.071	0.076	0.107	0.109
Silicon	µg/L	2,220	2,820	3,630	3,050	3,850	1,160	1,300	1,150	1,360	2,080	2,890
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	6.60	7.13	8.54	6.96	8.73	3.91	5.72	6.42	7.32	7.50	9.14
Strontium	µg/L	43	44.0	45.5	39.5	49.7	16.4	24.7	31	36.8	41.8	50.1
Sulfur	µg/L	-	-	-	-	-	-	-	1,250	1,200	2,170	2,450
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	0.2	0.2	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.21	0.26
Uranium	µg/L	0.04	0.04	0.04	0.04	0.04	0.01	0.02	0.026	0.028	0.039	0.048
Vanadium	µg/L	0.21	0.11	0.11	0.09	0.11	<0.05	0.13	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	1.2	1.5	2.4	2.3	1.9	4.1	0.6	1.7	1.7	3.5	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location		40										
Sample Date		17-Oct-23	27-Dec-23	29-Jan-24	8-Feb-24	7-Mar-24	10-Apr-24	13-May-24	18-Jun-24	17-Jul-24	16-Aug-24	15-Sep-24
Sample ID		40	40	40	40	40	40	40	40	40	40	40
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C3BT968	C430242	C444003	C471795	C4A8649	C4E5436	TY2406394	TY2407793	TY2409015	TY2410348
Laboratory Sample ID	Units	XIV834	XZR415	YGI606	YJF731	YOY289	YWN536	ZED914	TY2406394-003	TY2407793-003	TY2409015-003	TY2410348-004
Metals, Total												
Aluminum	µg/L	28.1	8.0	8.1	5.9	6.9	14.7	33.7	57.9	44	10.2	56.2
Antimony	µg/L	0.8	0.6	0.5	0.4	0.5	0.2	0.2	0.36	0.43	0.46	0.58
Arsenic	µg/L	58.6	23.3	17.2	13.5	14	3.8	15.5	30.4	55.9	87.1	114
Barium	µg/L	7.7	8.0	10.1	8.5	10.6	3.9	5.2	6.72	7.59	7.71	8.53
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	7	5	5	4	5	2	3	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	0.005	<0.005	<0.005
Calcium	mg/L	29.2	32.5	40.8	32.6	39.6	13.7	20.0	21.5	25.0	30.0	30.4
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.014	0.013	<0.01	0.017
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	0.36
Cobalt	µg/L	0.1	0.08	0.07	0.06	0.07	0.08	0.09	0.11	0.12	<0.1	0.12
Copper	µg/L	3	1.9	1.4	1.1	1.2	0.5	1.1	2.37	2.45	2.46	3.3
Iron	µg/L	245	187	219	146	197	76	247	298	236	136	271
Lead	µg/L	0.19	0.09	0.07	0.05	0.07	0.12	0.19	0.271	0.182	0.064	0.212
Lithium	µg/L	0.7	0.8	0.9	0.7	0.9	<0.5	0.5	<1	<1	<1	<1
Magnesium	mg/L	5.58	6.35	7.48	6.29	7.57	2.52	3.92	4.80	5.39	6.17	6.91
Manganese	µg/L	11.8	25.3	40.3	32.6	33.8	17.2	11.1	12.5	19.4	11.3	23.8
Mercury	µg/L	0.00198	0.00151	0.00113	0.00167	0.00112	0.00096	0.00500	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	0.00358	0.00265	0.00098	0.00155
Molybdenum	µg/L	0.1	0.08	0.09	0.1	0.09	<0.05	0.06	0.096	0.11	0.103	0.12
Nickel	µg/L	1	0.6	0.5	0.4	0.5	0.2	0.4	0.82	0.92	0.79	1.14
Phosphorus	µg/L	11	<5	7	<5	6	<5	9	<50	<50	<50	<50
Potassium	mg/L	0.66	0.46	0.48	0.40	0.49	0.21	0.30	0.332	0.301	0.397	0.546
Rubidium	µg/L	1.28	0.96	1.03	0.87	1.04	0.43	0.7	0.77	0.79	1.07	1.33
Selenium	µg/L	0.06	0.07	0.07	0.07	0.07	<0.05	<0.05	0.082	0.126	0.115	0.108
Silicon	µg/L	2,200	2,920	3,760	3,210	3,830	1,290	1,330	1,370	1,400	2,070	3,000
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	6.46	7.06	8.71	7.22	8.91	4.15	5.63	6.82	7.28	8.60	9.38
Strontium	µg/L	42.7	43.8	46.6	42	49.5	17.7	24.9	33.8	37.3	45.1	51.7
Sulfur	µg/L	-	-	-	-	-	-	-	1,400	1,220	1,680	2,780
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	1.1	0.6	<0.5	<0.5	<0.5	<0.5	1.4	1.7	1.31	<0.3	<1.71 DLM
Tungsten	µg/L	0.3	0.2	0.1	0.1	<0.1	<0.1	0.3	0.59	0.91	0.21	0.34
Uranium	µg/L	0.05	0.04	0.05	0.04	0.04	0.02	0.02	0.028	0.033	0.039	0.047
Vanadium	µg/L	0.31	0.14	0.14	0.1	0.12	0.07	0.2	<0.5	<0.5	<0.5	0.59
Zinc	µg/L	1.6	1.4	1.9	1.6	2	4.9	1.2	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		46										
Sample Date		3-Oct-23	8-Jan-24	15-Jan-24	5-Feb-24	11-Mar-24	8-Apr-24	6-May-24	10-Jun-24	2-Jul-24	12-Aug-24	9-Sep-24
Sample ID		46	46	46	46	46	46	46	46	46	46	46
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS
Laboratory Work Order		C3V1811	C410702	C418507	C437213	C475166	C4A5379	C4D8691	C4H7665	TY2407088	TY2408830	TY2410198
Laboratory Sample ID	Units	XFK848	YCE143	YDU502	YHV189	YPQ806	YVW959	ZCT794	ZKW385	TY2407088-002	TY2408830-007	TY2410198-002
Field Parameters												
Depth, Field	m	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.49	7.86	7.51	7.01	7.62	7.41	7.30	7.95	8.04	7.78	7.60
Temperature, Field	deg C	17.5	0.6	2.6	1.3	1.5	1.1	7.3	15.4	17.5	21.0	15.2
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Acceptable Percent Difference	none	-	-	-	-	-	-	-	-	-	-	-
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	91	110	110	110	110	16	70	76	84.8	92.1	93.1
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	1.1	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	92	110	110	110	110	16	70	76	84.8	92.1	93.1
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.16	<0.050	<0.050	0.0071	0.0060	0.0066
Ammonia, Un-ionized (As N)	mg/L	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0012	-	-	-
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	1.8	<1.0	<1.0	1.0	<1.0	<1.0	1.0	1.4	1.43	1.57	1.77
Chlorophyll a	µg/L	-	-	-	-	-	-	8.5 VV	-	-	-	-
Color, True	TCU	23	24	28	28	25	<2	35	44	35.5	26.3	46.7
Cyanide	mg/L	<0.00050 CYN	0.00051	0.00053	<0.00050	<0.00050	<0.00050	0.00051 CYN	0.00054	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	0.007 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0028 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	9.6	9.7	10	10	9.3	1.4	9.5	12	14.4	14.0	15.7
Electrical Conductivity, Lab	µS/cm	207	224	225	218	218	34	153	159	180	188	196
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	<0.020	<0.020
Hardness (as CaCO3)	mg/L	97	130	130	110	130	15	83	86	89.6	94.9	100
Ion Balance	%	-	-	-	-	-	-	-	-	-	-	-
Langelier Index	none	-	-	-	-	-	-	-	-	-	-	-
Langelier Index Temperature	deg C	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	0.26	<0.10	<0.10	<0.020	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	0.26	<0.10	<0.10	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	8.03	7.78	8.01	7.86	7.81	7.19	7.98	7.93	8.01	8.09	8.02
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.0059	0.0032	0.0041	0.0072	0.0027	0.0052	0.0060	0.0096	0.0115	0.0129	0.0154
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.009	<0.005	0.01
Silica (as SiO2)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	11	3.5	3.1	2.0	3.0	<1.0	9.2	7.2	9.59	7.06	7.48
Total Dissolved Solids	mg/L	120	140	155	130	205	20	90	150	127	122	130
Total Kjeldahl Nitrogen	mg/L	0.29	0.34	0.39	0.37	0.37	0.16	0.32	0.32	0.507	0.461	0.513
Total Organic Carbon	mg/L	10	9.8	10	11	9.9	1.5	9.7	13	13.4	11.9	15.7
Total Suspended Solids	mg/L	2	<1	<1	<1	2	3	3	3	3.1	1.2	1.9
Turbidity, Lab	NTU	1.3	0.7	0.7	0.8	1.2	1.4	0.8	2.1	1.69	1.04	2.24
Speciated Metals												
Methyl Mercury	µg/L	-	-	-	-	-	-	-	-	-	-	-
Metals, Dissolved												
Aluminum	µg/L	2.8	2.8	3.1	3.2	1.9	3.3	7.8	6.2	4.8	4.1	5.2
Antimony	µg/L	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	5.2	0.8	0.8	0.7	0.7	0.9	1.6	3.9	2.8	3.69	4.61
Barium	µg/L	12.7	12.6	12.8	12.1	12.3	2	8	9.3	10.2	10.9	11.9
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05
Boron	µg/L	5	4	4	4	4	<1	4	4	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
Calcium	mg/L	28.7	38.6	39.3	34.5	38.2	4.93	24.3	25.3	25.9	27.4	29.3
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	<0.1
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	0.05	0.07	<0.05	<0.05	<0.1	<0.1	<0.1
Copper	µg/L	0.5	0.4	0.5	3.6	0.5	0.3	0.4	0.4	0.5	0.42	0.47
Iron	µg/L	22	37	42	46	34	<5	41	41	27	17	38
Lead	µg/L	<0.05	<0.05	<0.05	0.08	<0.05	0.1	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	1	1	1	1.1	1	<0.5	0.7	0.7	<1	<1	<1
Magnesium	mg/L	6.08	7.29	7.50	6.66	7.70	0.694	5.36	5.55	6.05	6.44	6.59
Manganese	µg/L	2.1	6.4	7.6	5.5	3.5	11.9	3.8	1.4	0.86	1.48	1.92
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	µg/L	0.12	0.13	0.13	0.12	0.13	<0.05	0.09	0.09	0.115	0.131	0.112
Nickel	µg/L	0.2	0.3	0.2	0.4	0.2	0.2	0.3	0.3	<0.5	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50
Potassium	mg/L	0.83	0.84	0.89	0.81	0.89	0.11	0.69	0.62	0.676	0.628	0.707
Rubidium	µg/L	2.06	1.97	1.94	1.88	1.84	0.2	1.32	1.47	1.7	1.86	1.8
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.076	0.066	0.065
Silicon	µg/L	2,640	3,400	3,440	3,260	3,190	196	1,740	1,580	1,660	2,380	2,900
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	4.79	0.98	1.01	1.00	1.11	0.42	2.99	2.26	3.43	3.15	3.52
Strontium	µg/L	28.1	29.8	29.7	29.3	30.2	7.6	22.4	23.9	28.6	30.7	32
Sulfur	µg/L	-	-	-	-	-	-	-	-	3,040	2,480	2,830
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.18	0.29	0.27	0.25	0.26	0.02	0.15	0.14	0.16	0.178	0.191
Vanadium	µg/L	0.3	0.12	0.13	0.12	0.12	0.05	0.15	0.23	<0.5	<0.5	<0.5
Zinc	µg/L	0.5	1	0.9	5.5	2.6	2.2	0.5	2.7	<1	2.4	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3

Sample Location		46										
Sample Date		3-Oct-23	8-Jan-24	15-Jan-24	5-Feb-24	11-Mar-24	8-Apr-24	6-May-24	10-Jun-24	2-Jul-24	12-Aug-24	9-Sep-24
Sample ID		46	46	46	46	46	46	46	46	46	46	46
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS
Laboratory Work Order		C3V1811	C410702	C418507	C437213	C475166	C4A5379	C4D8691	C4H7665	TY2407088	TY2408830	TY2410198
Laboratory Sample ID	Units	XFK848	YCE143	YDU502	YHV189	YPQ806	YVW959	ZCT794	ZKW385	TY2407088-002	TY2408830-007	TY2410198-002
Metals, Total												
Aluminum	µg/L	15.3	5.4	5.1	5.3	21.9	49.1	18.7	26.4	35	18.3	29.5
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	5.8	1.4	0.8	0.8	0.9	1.5	1.7	2.1	3.05	4.03	4.91
Barium	µg/L	11.4	13.3	12.5	12.4	12.3	2.5	8.5	9.8	10.5	11.7	12.6
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05
Boron	µg/L	6	4	4	4	4	<1	3	4	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	30.4	36.6	34.8	35.5	36.4	5.06	23.6	25.2	27.0	26.8	28.9
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.014	0.011	0.014
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	<0.1
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.13	<0.05	<0.05	<0.1	<0.1	<0.1
Copper	µg/L	0.5	0.6	0.4	0.7	0.5	0.6	0.4	0.5	0.54	<0.5	0.54
Iron	µg/L	86	83	79	76	105	73	82	114	97	73	118
Lead	µg/L	0.06	0.17	0.24	0.22	0.42	0.42	<0.05	0.08	0.067	<0.05	0.078
Lithium	µg/L	0.9	1.1	1	1	1	<0.5	0.7	0.8	<1	<1	<1
Magnesium	mg/L	6.43	6.84	7.00	7.04	7.33	0.720	5.28	5.33	6.24	6.63	6.99
Manganese	µg/L	16.8	8.7	9.5	8.1	8.3	12.9	12	14.3	13.1	19.8	16.6
Mercury	µg/L	0.00113	0.00136	0.00078	0.00093	0.00079	0.00163	0.00212	0.00223	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	0.00142	0.00113	0.00128
Molybdenum	µg/L	0.12	0.12	0.11	0.11	0.13	<0.05	0.08	0.09	0.113	0.134	0.123
Nickel	µg/L	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	<0.5	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	5	<50	<50	<50
Potassium	mg/L	0.83	0.79	0.81	0.82	0.86	0.13	0.68	0.61	0.678	0.676	0.719
Rubidium	µg/L	2.06	1.87	1.9	1.94	1.82	0.26	1.35	1.49	1.77	1.92	1.95
Selenium	µg/L	0.06	0.05	0.06	0.06	0.06	0.08	<0.05	0.06	0.081	0.083	0.098
Silicon	µg/L	2,760	3,230	3,150	3,240	3,100	283	1,720	1,570	1,740	2,580	3,230
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	5.13	0.82	0.93	1.02	1.03	0.41	2.88	2.18	3.43	2.88	3.79
Strontium	µg/L	28.4	28.6	29.5	29.7	30.5	8.4	22.4	23.3	29.5	29.1	32
Sulfur	µg/L	-	-	-	-	-	-	-	-	3,180	2,750	3,050
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	0.9	<0.5	<0.5	<0.5	0.7	0.8	0.7	0.9	1.25	0.57	<2.01 DLM
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.19	0.27	0.25	0.25	0.28	0.03	0.14	0.13	0.173	0.19	0.194
Vanadium	µg/L	0.35	0.15	0.16	0.14	0.18	0.15	0.2	0.28	<0.5	0.51	0.59
Zinc	µg/L	<0.5	3	4.7	6.5	2.6	3.9	0.7	0.7	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location							47				
Sample Date		17-Oct-23	30-Jan-24	12-Feb-24	13-Mar-24	10-Apr-24	14-May-24	24-Jun-24	11-Jul-24	22-Aug-24	15-Sep-24
Sample ID		47	47	47	47	47	47	47	47	47	47
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C431931	C444971	C478150	C4A8649	C4E7177	TY2406682	TY2407498	TY2409357	TY2410348
Laboratory Sample ID	Units	XIV837	YGR694	YJK750	YQG345	YWN535	ZEM948	TY2406682-002	TY2407498-008	TY2409357-007	TY2410348-008
Field Parameters											
Depth, Field	m	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.68	7.13	7.05	7.47	7.27	7.67	8.00	8.11	7.82	8.26
Temperature, Field	deg C	9.8	1.0	4.1	2.9	2.2	11.6	20.9	22.5	22.3	18.4
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Acceptable Percent Difference	none	-	-	-	-	-	-	-	-	-	-
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	2.3	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	81	99	89	110	36	68	77.1	78.5	84.4	86.9
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	82	99	89	110	36	69	77.1	78.5	84.4	86.9
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	0.071	0.065	<0.050	0.077	<0.050	0.0057	0.0088	0.0104	0.0091
Ammonia, Un-ionized (As N)	mg/L	<0.00043	<0.0004	<0.0004	<0.0004	<0.0004	<0.00049	-	-	-	-
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	1.4	2.3	1.0	<1.0	<1.0	4.5	2.78	3.44	2.56	3.35
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	29	38	34	31	7	38	41.6	39.0	40.7	39.6
Cyanide	mg/L	<0.00050	0.00071	0.00057	<0.00050	<0.00050	0.00076	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	11	13	11	12	3.0	10	14.3	16.2	15.8	15.2
Electrical Conductivity, Lab	µS/cm	182	218	189	220	67	169	165	171	177	185
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.025	0.023	<0.020
Hardness (as CaCO3)	mg/L	94	110	97	120	25	83	79.8	86.8	95.8	93.6
Ion Balance	%	-	-	-	-	-	-	-	-	-	-
Langelier Index	none	-	-	-	-	-	-	-	-	-	-
Langelier Index Temperature	deg C	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	<0.020	<0.030 DLB	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	8.02	7.76	7.68	8.00	7.28	7.88	8.02	8.02	7.96	7.96
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.010	0.0037	0.0038	0.0041	0.0028	0.015	0.0129	0.0156	0.0134	0.0144
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Silica (as SiO2)	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	6.9	8.2	5.8	4.0	1.6	9.1	5.04	6.27	6.39	6.47
Total Dissolved Solids	mg/L	120	125	95	150	30	125	117	123	114	136
Total Kjeldahl Nitrogen	mg/L	0.39	0.46	0.45	0.52	0.25	0.30	0.514	0.471	0.558	0.535
Total Organic Carbon	mg/L	11	13	11	12	2.8	10	15.1	14.9	15.2	15.9
Total Suspended Solids	mg/L	2	<1	<1	3	3	1	2.0	1.8	<1.0	1.4
Turbidity, Lab	NTU	0.7	0.6	0.6	1.8	1.9	1.3	1.08	1.51	0.78	1.68
Metals, Dissolved											
Aluminum	µg/L	2	4	3.8	3.8	3.1	4.3	4.2	3.5	3.8	3.8
Antimony	µg/L	0.2	0.1	0.2	<0.1	<0.1	<0.1	<0.1	0.13	0.11	0.15
Arsenic	µg/L	18.2	6.8	3.3	1.6	0.5	4.5	6.7	8.87	14.1	19.8
Barium	µg/L	9.6	12.2	10.3	12.7	3.3	7.7	8.65	9.48	10.5	10.6
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	6	5	4	5	1	4	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	28.3	32.3	28.7	36.1	7.51	24.7	23.2	25.2	27.6	26.8
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.15
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	3.7	0.8	1	1.3	0.3	0.6	0.73	1.07	0.76	1.13
Europium	µg/L	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	25	53	44	48	15	35	30	20	19	30
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	0.05	0.06	0.06	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	0.8	1	0.8	1	<0.5	0.7	<1	<1	<1	1
Magnesium	mg/L	5.74	6.94	6.09	7.54	1.42	5.25	5.32	5.81	6.54	6.49
Manganese	µg/L	1.6	11.1	10	7.2	3.7	1	0.54	1.04	0.93	1.77
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.12	0.12	0.11	0.14	0.24	0.08	0.101	0.114	0.098	0.111
Nickel	µg/L	0.4	0.3	0.3	0.3	0.3	0.3	<0.5	<0.5	<0.5	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.73	0.81	0.71	0.88	0.21	0.61	0.578	0.602	0.605	0.632
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.81	1.85	1.56	1.91	0.45	1.26	1.36	1.5	1.62	1.63
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.083	0.094	0.075	0.068
Silicon	µg/L	2,420	3,350	2,960	3,610	695	1,660	1,360	1,450	2,180	2,760
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	3.95	3.66	2.17	1.31	0.42	4.64	3.12	3.60	3.78	3.84
Strontium	µg/L	27.5	32.2	26.6	30.8	7.3	27	25.6	28.2	30.1	33.6
Sulfur	µg/L	-	-	-	-	-	-	1,900	2,130	2,220	2,420
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.13	0.13	0.15	0.22	0.04	0.12	0.128	0.134	0.125	0.137
Vanadium	µg/L	0.32	0.15	0.11	0.13	<0.05	0.14	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	1.1	1.2	2.5	4	3.3	<0.5	<1	<1	<1	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location		47									
Sample Date		17-Oct-23	30-Jan-24	12-Feb-24	13-Mar-24	10-Apr-24	14-May-24	24-Jun-24	11-Jul-24	22-Aug-24	15-Sep-24
Sample ID		47	47	47	47	47	47	47	47	47	47
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C431931	C444971	C478150	C4A8649	C4E7177	TY2406682	TY2407498	TY2409357	TY2410348
Laboratory Sample ID	Units	XIV837	YGR694	YJK750	YQG345	YWN535	ZEM948	TY2406682-002	TY2407498-008	TY2409357-007	TY2410348-008
Metals, Total											
Aluminum	µg/L	11.6	5.3	6.8	19.8	58.8	12.2	15.5	15.4	14.6	25.2
Antimony	µg/L	0.2	0.1	0.1	<0.1	<0.1	<0.1	0.11	0.14	0.13	0.16
Arsenic	µg/L	19.7	7.3	3.7	1.9	1.1	5	7.47	9.57	15.2	21.2
Barium	µg/L	10.1	12.6	10.4	13.5	4.9	8.5	9.62	10.4	11.4	11.3
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	5	6	4	5	1	4	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	0.016	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	27.9	33.1	28.1	37.1	9.14	24.2	23.9	25.1	27.4	28.5
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.21
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	1.4	0.9	0.6	0.6	0.6	0.7	0.96	1.18	0.96	1.26
Europium	µg/L	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	75	81	68	101	96	79	70	63	59	86
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	0.06	0.07	0.08	0.12	0.7	<0.05	<0.05	0.056	<0.05	0.073
Lithium	µg/L	0.8	1	0.8	1.1	<0.5	0.7	<1	<1	<1	1
Magnesium	mg/L	5.77	7.13	6.19	7.78	1.82	5.14	5.59	5.95	6.78	6.70
Manganese	µg/L	10.2	13.1	11.5	10.1	6.8	9.5	7.67	14.4	12.9	17.6
Mercury	µg/L	0.00085	0.00128	0.00123	0.0027 AS	0.00118	0.00164	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	0.00103	0.00107	0.00113	0.00078
Molybdenum	µg/L	0.1	0.11	0.1	0.13	<0.05	0.08	0.122	0.125	0.12	0.129
Nickel	µg/L	0.5	0.3	0.3	0.3	0.3	0.3	<0.5	0.65	<0.5	0.54
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	6	<5	<5	<5	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.72	0.86	0.72	0.92	0.27	0.60	0.610	0.623	0.640	0.649
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.8	1.88	1.65	1.94	0.62	1.23	1.59	1.5	1.71	1.68
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	0.06	0.07	0.06	0.08	<0.05	<0.05	0.12	0.06	0.087	0.098
Silicon	µg/L	2,360	3,640	2,930	3,660	940	1,640	1,470	1,550	2,400	2,750
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	3.92	3.75	2.16	1.37	0.49	4.49	3.32	3.76	3.76	3.86
Strontium	µg/L	27.6	32.9	26.9	30.9	9.2	26.1	26.7	29.2	31.2	34.4
Sulfur	µg/L	-	-	-	-	-	-	2,090	2,270	2,720	2,490
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	0.6	<0.5	<0.5	0.9	2.3	0.6	0.31	0.52	0.34	0.71
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.13	0.14	0.14	0.23	0.06	0.11	0.132	0.138	0.137	0.146
Vanadium	µg/L	0.36	0.17	0.13	0.16	0.16	0.16	<0.5	<0.5	<0.5	0.64
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	1	1.9	3.2	4	6.5	<0.5	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		49										
Sample Date		3-Oct-23	8-Jan-24	15-Jan-24	5-Feb-24	11-Mar-24	8-Apr-24	6-May-24	10-Jun-24	2-Jul-24	12-Aug-24	9-Sep-24
Sample ID		49	49	49	49	49	49	49	49	49	49	49
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS
Laboratory Work Order		C3V1811	C410702	C418507	C437213	C475166	C4A5379	C4D8691	C4H7665	TY2407088	TY2408830	TY2410198
Laboratory Sample ID	Units	XFK849	YCE142	YDU503	YHV190	YPQ807	YVW960	ZCT793	ZKW384	TY2407088-001	TY2408830-009	TY2410198-003
Field Parameters												
Depth, Field	m	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.90	7.50	7.43	7.06	7.58	7.47	7.36	7.97	8.11	7.92	7.29
Temperature, Field	deg C	17.7	0.6	0.9	0.7	1.4	3.1	7.8	15.4	17.9	21.3	15.5
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Acceptable Percent Difference	none	-	-	-	-	-	-	-	-	-	-	-
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	85	120	120	120	120	61	71	76	83.7	90.7	91.5
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	86	120	120	120	120	62	72	77	83.7	90.7	91.5
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.064	<0.050	<0.050	<0.0050	0.0098	0.0076
Ammonia, Un-ionized (As N)	mg/L	<0.0013	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0013	-	-	-
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	2.6	<1.0	<1.0	<1.0	<1.0	<1.0	1.6	1.3	1.38	2.51	2.09
Chlorophyll a	µg/L	-	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	25	27	25	28	27	10	34	46	36.4	27.0	45.0
Cyanide	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050 CYN	0.00076	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0026 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	9.9	11	10	10	9.9	5.0	9.5	12	13.6	14.0	15.8
Electrical Conductivity, Lab	µS/cm	198	246	240	231	226	119	162	156	179	195	191
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.040 DLDS	<0.020	0.020
Hardness (as CaCO3)	mg/L	92	140	130	120	130	58	84	85	87.8	95.2	95.0
Ion Balance	%	-	-	-	-	-	-	-	-	-	-	-
Langelier Index	none	-	-	-	-	-	-	-	-	-	-	-
Langelier Index Temperature	deg C	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	<0.10	<0.10	<0.020	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	<0.10	<0.10	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	<0.010	<0.004	-	-	-	-	-	-	-
pH, lab	S.U.	7.95	7.84	8.04	7.94	7.87	7.77	8.03	7.98	8.01	8.08	8.02
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.0082	0.0056	0.0059	0.0055	0.0027	0.0038	0.0050	0.013	0.0131	0.0136	0.0105
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.005	<0.005	0.007
Silica (as SiO2)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	10	4.5	3.6	2.3	3.0	2.1	11	6.2	7.83	10.6	6.58
Total Dissolved Solids	mg/L	120	170	125	145	220	60	90	160	123	118	144
Total Kjeldahl Nitrogen	mg/L	0.31	0.36	0.33	0.41	0.40	0.22	0.30	0.30	0.528	0.471	0.493
Total Organic Carbon	mg/L	10	11	10	12	10	5.0	9.9	13	13.8	12.4	23.6
Total Suspended Solids	mg/L	2	1	1	<1	<1	2	3	2	2.1	1.3	1.5
Turbidity, Lab	NTU	1.1	1.1	0.6	0.7	0.7	1.0	0.7	1.8	1.71	1.36	1.89
Speciated Metals												
Methyl Mercury	µg/L	-	-	-	-	-	-	-	-	-	-	-
Metals, Dissolved												
Aluminum	µg/L	8	2.3	1.9	3.2	2.6	3.5	6.8	6.1	12.4	4.8	4.9
Antimony	µg/L	0.1	<0.1	<0.1	<0.1	1.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	9.8	1.7	0.8	0.8	0.8	0.7	2.1	2.7	3.34	5.86	8.52
Barium	µg/L	11.4	13.9	12.9	12.9	13.1	6.2	7.9	9.6	9.75	10.8	11.3
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05
Boron	µg/L	5	5	4	4	4	3	4	4	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
Calcium	mg/L	27.2	41.2	40.3	36.8	39.4	17.8	24.3	25.4	25.7	26.9	27.8
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.01	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.79	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	<0.1
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	<0.1	<0.1	<0.1
Copper	µg/L	0.7	0.7	0.4	3.8	2.1	5	0.5	0.5	0.57	0.87	0.57
Iron	µg/L	57	29	29	36	33	16	39	42	39	23	43
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	0.06	0.59	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	0.9	1.2	1.1	1.1	1	<0.5	0.7	0.7	<1	<1	<1
Magnesium	mg/L	5.89	7.98	7.96	7.03	7.84	3.34	5.70	5.24	5.73	6.82	6.22
Manganese	µg/L	9.8	6.8	6.4	5	2	4.5	3.4	1.1	0.92	1.69	1.61
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	µg/L	0.11	0.13	0.13	0.12	0.12	0.08	0.09	0.09	0.116	0.149	0.11
Nickel	µg/L	0.3	0.2	0.2	0.5	0.3	0.6	0.3	0.3	0.91	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50
Potassium	mg/L	0.81	0.93	0.95	0.85	0.92	0.47	0.73	0.59	0.644	0.680	0.694
Rubidium	µg/L	1.99	2.15	2.13	2.03	1.92	0.85	1.38	1.41	1.58	1.85	1.78
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.094	0.057	0.094
Silicon	µg/L	2,530	3,610	3,430	3,410	3,500	1,530	1,700	1,520	1,600	2,200	2,830
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	4.57	1.59	1.24	1.01	1.13	0.71	3.78	1.86	3.09	4.64	3.40
Strontium	µg/L	28.4	33.4	32.4	30.3	30.9	15.2	24.4	23.1	27.2	34.3	31
Sulfur	µg/L	-	-	-	-	-	-	-	-	2,650	3,430	2,480
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.16	0.3	0.3	0.28	0.27	0.13	0.14	0.13	0.152	0.172	0.174
Vanadium	µg/L	0.33	0.14	0.12	0.12	0.12	0.08	0.15	0.22	<0.5	<0.5	<0.5
Zinc	µg/L	<0.5	1.1	0.9	2.8	2.2	8.7	0.6	1	1.1	5.7 DTMF	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3

Sample Location		49										
Sample Date		3-Oct-23	8-Jan-24	15-Jan-24	5-Feb-24	11-Mar-24	8-Apr-24	6-May-24	10-Jun-24	2-Jul-24	12-Aug-24	9-Sep-24
Sample ID		49	49	49	49	49	49	49	49	49	49	49
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS
Laboratory Work Order		C3V1811	C410702	C418507	C437213	C475166	C4A5379	C4D8691	C4H7665	TY2407088	TY2408830	TY2410198
Laboratory Sample ID	Units	XFK849	YCE142	YDU503	YHV190	YPQ807	YVW960	ZCT793	ZKW384	TY2407088-001	TY2408830-009	TY2410198-003
Metals, Total												
Aluminum	µg/L	11.6	7.9	7	4.7	5.3	25.4	25.9	21	30.1	21.1	26
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	9.9	4.7	0.9	0.8	0.8	0.8	2.2	3.3	3.68	6.41	9.23
Barium	µg/L	11.1	14.5	13.5	13.7	13	7.6	8.7	10	10.6	12	12.4
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05
Boron	µg/L	6	5	4	4	4	2	4	4	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	29.2	39.9	37.2	37.9	38.1	20.0	24.6	25.4	26.4	27.4	29.2
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.012	0.011	0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	<0.1
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.1	<0.1	<0.1
Copper	µg/L	0.7	1.1	0.4	0.5	0.5	1.1	0.5	0.5	0.58	0.55	0.8
Iron	µg/L	76	88	56	62	64	53	91	98	85	73	105
Lead	µg/L	0.05	0.07	<0.05	<0.05	<0.05	3.32	0.05	0.05	0.068	<0.05	0.083
Lithium	µg/L	0.9	1.1	1	1.1	1.1	<0.5	0.7	0.7	<1	<1	1
Magnesium	mg/L	6.20	7.37	7.50	7.26	7.59	3.84	5.55	5.25	5.99	6.74	6.89
Manganese	µg/L	14.2	9.6	9.1	7.4	6	6.3	12	12.7	12.8	20	17.2
Mercury	µg/L	0.00088	0.00138	0.00107	0.00089	0.00084	0.00123	0.00214	0.00227	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	0.00125	0.00135	0.00092
Molybdenum	µg/L	0.12	0.12	0.14	0.13	0.12	0.08	0.09	0.1	0.118	0.131	0.134
Nickel	µg/L	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	<0.5	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	5	<50	<50	<50
Potassium	mg/L	0.81	0.89	0.88	0.86	0.89	0.49	0.72	0.59	0.659	0.734	0.702
Rubidium	µg/L	2.06	2.12	2.08	1.96	1.95	0.99	1.39	1.51	1.66	1.95	1.93
Selenium	µg/L	0.06	0.06	<0.05	0.06	0.06	0.06	<0.05	0.06	0.122	0.062	0.113
Silicon	µg/L	2,620	3,550	3,310	3,360	3,350	1,680	1,760	1,540	1,740	2,430	3,190
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	4.87	1.47	1.14	0.96	1.06	0.71	3.79	1.86	3.06	4.19	3.65
Strontium	µg/L	28.4	32.2	31.9	31.5	31.4	18.2	24.6	23.3	26.7	32.5	33.6
Sulfur	µg/L	-	-	-	-	-	-	-	-	2,790	4,110	2,680
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	0.011
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	0.6	0.6	<0.5	<0.5	<0.5	0.9	0.9	0.7	1.05	0.67	1.09
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.16	0.27	0.28	0.27	0.28	0.14	0.15	0.13	0.173	0.183	0.189
Vanadium	µg/L	0.36	0.15	0.15	0.14	0.14	0.13	0.2	0.27	<0.5	0.54	0.58
Zinc	µg/L	<0.5	2.9	0.9	1.7	2.6	10.3	0.9	2.5	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		52												
Sample Date		25-Oct-23	7-Nov-23	6-Dec-23	11-Jan-24	13-Feb-24	6-Mar-24	17-Apr-24	16-May-24	24-Jun-24	18-Jul-24	25-Aug-24	25-Aug-24	25-Sep-24
Sample ID		52	52	52	52	52	52	52	52	52	52	52	52	52
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order		C3X7650	C3Z3957	C3BB280	C413312	C448115	C470075	C4B7955	C4F0028	TY2406682	TY2407827	TY2409445	TY2409445	TY2410916
Laboratory Sample ID	Units	XLA034	XOL812	XVQ115	YCT686	YKB045	YOP543	YYK818	ZFC033	TY2406682-005	TY2407827-001	TY2409445-001	TY2409445-004	TY2410916-001
Field Parameters														
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.64	7.60	7.70	7.15	7.57	7.41	7.33	7.71	7.65	7.82	7.98	-	8.24
Temperature, Field	deg C	6.1	2.8	1.2	0.7	0.9	1.00	4.3	13.2	22.1	20.3	21.6	-	15.2
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry														
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	2.0	-	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	91	98	100	99	97	100	78	95	95.4	97.3	99.8	-	105
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	-	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	-	<2.0
Alkalinity, Total (as CaCO3)	mg/L	92	99	100	99	98	100	79	96	95.4	97.3	99.8	-	105
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	0.14	<0.050	<0.050	<0.050	0.0195	0.0185	0.0131	-	0.0182
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	0.0005	<0.0004	<0.0004	<0.0006	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2.0	<2.0	<2.0	-	<2.0
Chemical Oxygen Demand	mg/L	22	30	30	28	26	28	33	27	28	33	32	-	40
Chloride	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.34	0.39	0.36	-	0.36
Chlorophyll a	µg/L	-	-	-	-	-	-	-	<2.1 VV	-	-	-	0.948	-
Color, True	TCU	20	23	23	23	21	20	39	24	25.5	24.0	19.1	-	19.3
Cyanide	mg/L	0.00066	0.00073	<0.00050	0.00072	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050	<0.0050	<0.0050	-	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	-	<0.0050
Dissolved Organic Carbon (DOC)	mg/L	10	10	10	10	9.8	9.5	11	9.2	12.6	12.1	13.5	-	12.2
Electrical Conductivity, Lab	µS/cm	183	192	195	202	202	206	216	186	182	191	189	-	195
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.031	0.028	-	0.025
Hardness (as CaCO3)	mg/L	100	110	100	120	110	110	82	100	92.6	98.6	105	-	103
Mineral Oil and Grease	mg/L	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	-	-	-	-	-
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	0.15	0.16	0.14	0.17	<0.10	<0.020	<0.020	<0.020	-	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	0.15	0.16	0.14	0.17	<0.10	-	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	-	<1.0
Orthophosphate (as P)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0010	0.0014	<0.0010	-	<0.0010
pH, lab	S.U.	7.72	7.89	7.79	7.79	7.84	7.77	7.72	8.00	8.08	7.71	7.87	-	8.02
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-	0.764	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	-	<2.0
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.0045	0.0046	0.0035	0.0031	0.0029	0.0025	0.0064	0.0033	0.0115	0.0104	0.0084	-	0.0071
Sulfate	mg/L	2.9	2.6	2.8	3.2	2.9	2.3	3.6	2.1	1.64	1.33	1.25	-	1.42
Total Dissolved Solids	mg/L	60	100	125	80	125	190	140	145	117	87	104	-	136
Total Kjeldahl Nitrogen	mg/L	0.37	0.43	0.38	0.31	0.33	0.34	0.37	0.29	0.472	0.487	0.446	-	0.468
Total Organic Carbon	mg/L	9.8	11	11	11	10	10	11	9.5	12.6	12.3	12.6	-	12.2
Total Suspended Solids	mg/L	1	2	<1	<1	<1	<1	<1	<1	1.6	2.1	1.2	-	<1.0 DLIS
Turbidity, Lab	NTU	0.5	0.7	0.4	0.5	0.5	0.2	0.4	0.5	1.02	1.10	0.57	-	0.62
Volume Sampled	L	-	-	-	-	-	-	-	-	-	-	-	0.250	-
Speciated Metals														
Methyl Mercury	µg/L	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	-	0.000069	0.000094	0.000067	-	0.000050
Metals, Dissolved														
Aluminum	µg/L	3.7	2.3	2.0	3.5	1.8	1.6	20.2	5.9	4.6	4.9	8.6	-	5.5
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Arsenic	µg/L	5.3	3.5	3.6	3.1	2.4	2.4	2.2	1.9	3.32	3.85	5.12	-	4.8
Barium	µg/L	10.8	11.8	10.9	12.8	11.8	12.2	9	9.8	10.4	11.5	11.5	-	11.8
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	-	<0.05
Boron	µg/L	5	5	12	4	5	4	4	3	<10	<10	<10	-	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	-	<0.005
Calcium	mg/L	32.2	33.1	31.2	36.7	34.0	34.4	25.4	30.9	28.0	29.8	31.6	-	31.6
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	-	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Cobalt	µg/L	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	-	<0.1
Copper	µg/L	2.2	0.5	1.7	0.4	0.8	0.4	0.9	0.4	1.33 DTC	0.31	2.05 DTC	-	0.27
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	85	105	80.0	61	41	37	39	27	36	25	20	-	23
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.059	<0.05	0.124	-	<0.05
Lithium	µg/L	0.6	0.6	0.6	0.7	0.7	0.7	0.5	0.6	<1	<1	<1	-	<1
Magnesium	mg/L	5.57	5.61	5.66	6.38	6.25	6.01	4.63	5.67	5.52	5.88	6.29	-	5.96
Manganese	µg/L	4.7	11.6	13.8	6.3	4.8	3.3	7.8	5.1	14.7	5.99	3.7	-	3.97
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	-	<0.005
Molybdenum	µg/L	0.15	0.13	0.41	0.14	0.13	0.15	0.09	0.11	0.133	0.13	0.133	-	0.147
Nickel	µg/L	0.3	0.2	0.3	0.3	0.2	23.2	0.3	0.2	<0.5	<0.5	<0.5	-	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	-	<50
Potassium	mg/L	0.67	0.70	0.67	0.78	0.74	0.74	0.55	0.59	0.619	0.612	0.661	-	0.691
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.39	1.55	1.47	1.66	1.49	1.59	1.23	1.24	1.28	1.39	1.51	-	1.52
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.059	0.07	0.089	-	0.069
Silicon	µg/L	2,430	2,770	2,610	3,450	3,170	3,230	2,570	2,330	1,670	2,250	2,370	-	2,650
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	0.93	0.91	0.77	0.79	0.81	0.74	0.63	0.80	0.796	0.692	0.746	-	0.766
Strontium	µg/L	30.3	27.4	27.8	31.9	29.6	31.3	24.6	25.6	28	29.7	30.5	-	30.4
Sulfur	µg/L	-	-	-	-	-	-	-	-	550	540	<500	-	650
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	-	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	-	<0.3
Tungsten	µg/L	<0.1	<0.1	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Uranium	µg/L	0.13	0.11	0.13	0.13	0.12	0.13	0.08	0.11	0.096	0.131	0.13	-	0.135
Vanadium	µg/L	0.22	0.21	0.24	0.23	0.15	0.15	0.13	0.15	<0.5	<0.5	<0.5	-	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	1.8	1.2	8.3	0.9	0.7	7.4	0.8	4.2	2.5	<1	6.7 DTC	-	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	-	<0.3

Sample Location														
								52						
Sample Date		25-Oct-23	7-Nov-23	6-Dec-23	11-Jan-24	13-Feb-24	6-Mar-24	17-Apr-24	16-May-24	24-Jun-24	18-Jul-24	25-Aug-24	25-Aug-24	25-Sep-24
Sample ID		52	52	52	52	52	52	52	52	52	52	52	52	52
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order		C3X7650	C3Z3957	C3BB280	C413312	C448115	C470075	C4B7955	C4F0028	TY2406682	TY2407827	TY2409445	TY2409445	TY2410916
Laboratory Sample ID	Units	XLA034	XOL812	XVQ115	YCT686	YKB045	YOP543	YYK818	ZFC033	TY2406682-005	TY2407827-001	TY2409445-001	TY2409445-004	TY2410916-001
Metals, Total														
Aluminum	µg/L	6.7	4.3	3.0	4.8	2.5	2.1	22.6	9.3	12.3	13.9	10.1	-	10.6
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Arsenic	µg/L	3.5	3.8	3.6	3	2.5	2.5	2.1	2	3.3	4.17	5.09	-	4.58
Barium	µg/L	11	11.8	11.7	12.2	12	12.4	9.2	9.9	11.1	12	11.7	-	12.5
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	-	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	-	<0.05
Boron	µg/L	3	4	4	4	4	4	3	4	<10	<10	<10	-	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005
Calcium	mg/L	30.3	33.0	32.8	33.8	33.3	34.4	25.7	30.2	31.4	30.5	30.5	-	31.5
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	-	<0.01
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.1	<0.1	<0.1	-	<0.1
Copper	µg/L	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.4	<0.5	<0.5	<0.5	-	<0.5
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	125	157	104	79	63	53	53	53	80	87	63	-	53
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.106	-	<0.05
Lithium	µg/L	0.6	0.6	0.7	0.6	0.6	0.7	0.5	0.6	<1	<1	<1	-	<1
Magnesium	mg/L	5.35	5.75	5.79	5.90	6.27	6.31	4.71	5.57	6.03	6.02	6.25	-	6.01
Manganese	µg/L	9.7	17.2	11.4	9.1	6.3	5.7	9.5	15.4	27.3	32.5	15.9	-	12.4
Mercury	µg/L	0.00105	0.00190	0.00123	0.00386 MS	0.00079	0.00067	0.00239	0.00118	<0.005	<0.005	<0.005	-	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	0.00099	0.00079	0.00064	-	0.00045
Molybdenum	µg/L	0.13	0.13	0.14	0.14	0.14	0.15	0.09	0.11	0.126	0.145	0.15	-	0.129
Nickel	µg/L	0.2	0.2	0.2	0.3	0.2	3	0.3	0.2	<0.5	<0.5	<0.5	-	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<50	<50	<50	-	<50
Potassium	mg/L	0.64	0.69	0.71	0.74	0.75	0.76	0.51	0.57	0.684	0.629	0.659	-	0.630
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.41	1.58	1.58	1.61	1.51	1.61	1.18	1.25	1.42	1.43	1.44	-	1.56
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	0.06	0.06	0.07	0.07	0.06	0.07	0.06	0.06	0.058	0.071	0.096	-	0.077
Silicon	µg/L	2,320	2,760	2,840	3,140	3,160	3,260	2,530	2,210	1,640	2,340	2,400	-	2,630
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01
Sodium	mg/L	0.66	0.73	0.72	0.73	0.78	0.92	0.60	0.70	0.771	0.687	0.727	-	0.723
Strontium	µg/L	27.7	28.2	29.6	30.7	29.9	31	23.9	26.3	29.6	30.4	29.9	-	31.2
Sulfur	µg/L	-	-	-	-	-	-	-	-	620	<500	570	-	720
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	-	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	-	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	-	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	-	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1
Uranium	µg/L	0.14	0.12	0.12	0.12	0.11	0.13	0.08	0.11	0.107	0.134	0.129	-	0.147
Vanadium	µg/L	0.29	0.25	0.22	0.19	0.18	0.17	0.15	0.17	<0.5	<0.5	0.52	-	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	0.6	0.5	<0.5	0.5	<0.5	0.6	0.5	<0.5	<3	<3	<3	-	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	-	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location						53			
Sample Date		3-Oct-23	24-Jan-24	5-Feb-24	13-Mar-24	9-Apr-24	7-May-24	20-Jun-24	11-Jul-24
Sample ID		53	53	53	53	53	53	53	53
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS
Laboratory Work Order		C3V1811	C425851	C437213	C478150	C4A7017	C4D8729	TY2406519	TY2407498
Laboratory Sample ID	Units	XFK850	YFI925	YHV191	YQG346	YWE924	ZCU005	TY2406519-006	TY2407498-007
Field Parameters									
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.91	7.56	7.07	7.52	7.45	7.64	7.90	8.13
Temperature, Field	deg C	18.0	1.2	0.9	1.0	1.6	10.1	19.8	22.3
Turbidity, Field	NTU	-	-	-	-	-	-	-	-
General Chemistry									
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	90	120	120	110	63	69	81.6	85.0
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	1.0	1.0	1.0	<1.0	<1.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	91	120	120	110	63	69	81.6	85.0
Ammonia	mg/L	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.0097	0.0064
Ammonia, Un-ionized (As N)	mg/L	<0.0014	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-
Chloride	mg/L	3.0	<1.0	<1.0	<1.0	<1.0	1.6	1.17	2.18
Chlorophyll a	µg/L	-	-	-	-	-	4.2 VV	-	-
Color, True	TCU	24	27	30	22	10	37	40.4	35.3
Cyanide	mg/L	<0.00050	0.00060	<0.00050	<0.00050	<0.00050	<0.00050 CYN	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0026 ICB	<0.0050	<0.0050
Dissolved Organic Carbon (DOC)	mg/L	9.6	10	10	9.8	4.4	9.5	14.3	15.4
Electrical Conductivity, Lab	µS/cm	208	240	224	227	118	157	169	186
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.026
Hardness (as CaCO3)	mg/L	97	120	120	120	54	80	83.6	95.6
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	<0.020	<0.030 DLB
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Orthophosphate (as P)	mg/L	-	<0.010	<0.004	-	-	-	-	-
pH, lab	S.U.	8.04	7.96	7.98	7.98	7.74	7.90	8.09	8.08
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	<2.0	<2.0
Phosphorus, Total	mg/L	0.013	0.0046	0.0066	0.0022	0.0040	0.0065	0.0126	0.0109
Radium-226	Bq/L	-	-	-	-	-	-	-	-
Sulfate	mg/L	12	2.8	2.5	4.1	1.5	8.5	6.93	10.7
Total Dissolved Solids	mg/L	100	165	145	240	85	100	109	130
Total Kjeldahl Nitrogen	mg/L	0.30	0.41	0.38	0.46	0.23	0.28	0.498	0.445
Total Organic Carbon	mg/L	10	11	12	9.9	4.5	10	14.2	13.9
Total Suspended Solids	mg/L	2	<1	2	1	6	1	1.5	1.8
Turbidity, Lab	NTU	1.1	0.7	0.9	0.6	2.0	0.6	1.93	1.17
Speciated Metals									
Methyl Mercury	µg/L	-	-	-	-	-	-	-	-
Metals, Dissolved									
Aluminum	µg/L	3	2.3	2.9	1.8	3.5	7.3	5.5	4.4
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	5.4	0.8	0.8	0.7	0.5	1.9	1.97	3.66
Barium	µg/L	11.5	13.2	13	12.2	6	8.7	9.97	10.4
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05
Boron	µg/L	5	4	4	5	2	4	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005
Calcium	mg/L	28.7	37.6	36.5	36.5	16.3	23.8	24.3	27.5
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.011	0.014
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1
Copper	µg/L	0.4	0.4	0.5	0.8	3.7	0.4	1	0.6
Iron	µg/L	22	34	39	28	14	41	36	21
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.05	<0.05
Lithium	µg/L	1	1	1.1	1	<0.5	0.7	<1	<1
Magnesium	mg/L	6.06	7.45	7.12	7.64	3.10	5.06	5.58	6.54
Manganese	µg/L	1.1	6.6	6.2	4.7	3.9	3.7	0.46	0.85
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-
Molybdenum	µg/L	0.11	0.12	0.12	0.12	0.07	0.1	0.115	0.123
Nickel	µg/L	0.2	0.2	0.2	0.3	0.4	0.3	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<50	<50
Potassium	mg/L	0.83	0.83	0.82	0.87	0.40	0.64	0.602	0.698
Rubidium	µg/L	2.04	1.97	1.95	1.9	0.84	1.35	1.56	1.7
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.065	0.065
Silicon	µg/L	2,630	3,200	3,310	3,310	1,320	1,700	1,660	1,700
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	4.86	1.04	0.98	1.24	0.61	2.62	2.91	4.23
Strontium	µg/L	29.1	30.8	30.9	30.9	14.7	23.8	25	33
Sulfur	µg/L	-	-	-	-	-	-	2,460	3,780
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.18	0.27	0.26	0.27	0.14	0.16	0.16	0.175
Vanadium	µg/L	0.31	0.12	0.12	0.11	0.06	0.15	<0.5	<0.5
Zinc	µg/L	<0.5	1.3	2.1	1.9	4.5	<0.5	1.1	<1
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3

Sample Location						53			
Sample Date		3-Oct-23	24-Jan-24	5-Feb-24	13-Mar-24	9-Apr-24	7-May-24	20-Jun-24	11-Jul-24
Sample ID		53	53	53	53	53	53	53	53
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS
Laboratory Work Order		C3V1811	C425851	C437213	C478150	C4A7017	C4D8729	TY2406519	TY2407498
Laboratory Sample ID	Units	XFK850	YFI925	YHV191	YQG346	YWE924	ZCU005	TY2406519-006	TY2407498-007
Metals, Total									
Aluminum	µg/L	12.1	4.7	6.7	4.9	60.2	19	27.2	20.5
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	5.8	0.9	0.9	0.8	1.4	2	1.88	4.04
Barium	µg/L	11.2	14.6	13.6	12.9	7.5	8.8	10.4	11.3
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05
Boron	µg/L	6	4	4	5	2	4	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	0.0059	<0.005
Calcium	mg/L	30.2	39.2	37.2	38.0	17.6	23.0	25.8	27.1
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.012	0.018
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	<0.1	<0.1
Copper	µg/L	0.5	0.4	0.5	0.4	0.9	5.5	0.51	0.57
Iron	µg/L	80	71	77	63	129	77	96	67
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	0.69	0.07	0.053	<0.05
Lithium	µg/L	0.9	1.1	1.2	1	0.5	0.8	<1	<1
Magnesium	mg/L	6.45	7.76	7.37	7.82	3.48	5.03	5.73	6.58
Manganese	µg/L	15.9	10.1	9	9.3	7.1	10.9	12	13.2
Mercury	µg/L	<0.01	0.00068	0.00099	0.0025 AS	0.00157	0.00231	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	0.00172	0.00111
Molybdenum	µg/L	0.11	0.12	0.12	0.13	0.07	0.14	0.114	0.129
Nickel	µg/L	0.3	0.2	0.2	0.2	0.4	0.5	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5	<50	<50
Potassium	mg/L	0.84	0.90	0.86	0.91	0.44	0.64	0.624	0.690
Rubidium	µg/L	2.04	2.17	1.99	1.98	0.95	1.44	1.56	1.71
Selenium	µg/L	0.06	0.06	0.07	0.06	<0.05	<0.05	0.068	0.097
Silicon	µg/L	2,700	3,470	3,350	3,390	1,460	1,660	1,700	1,760
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	5.17	1.17	0.98	1.26	0.64	2.63	2.31	4.14
Strontium	µg/L	28.2	33	31.7	30.8	16	24	25.3	33
Sulfur	µg/L	-	-	-	-	-	-	2,050	3,850
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	0.013
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1
Titanium	µg/L	0.6	<0.5	0.5	<0.5	1.3	0.7	0.92	0.67
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.18	0.28	0.26	0.27	0.14	0.15	0.165	0.188
Vanadium	µg/L	0.37	0.15	0.15	0.13	0.21	0.19	<0.5	<0.5
Zinc	µg/L	<0.5	2	2.3	2.1	5.4	0.8	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	0.1	0.1	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		53A	
Sample Date		12-Aug-24	23-Sep-24
Sample ID		53A	53A
Sampling Company		GGM	GGM
Laboratory		ALS	ALS
Laboratory Work Order		TY2408830	TY2410843
Laboratory Sample ID	Units	TY2408830-006	TY2410843-002
Field Parameters			
pH, Field	S.U.	7.79	7.91
Temperature, Field	deg C	19.1	17.8
General Chemistry			
Acidity as CaCO3	mg/L	<2.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	92.6	92.3
Alkalinity, Carbonate (as CaCO3)	mg/L	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	92.6	92.3
Ammonia (as N)	mg/L	0.0065	0.0185
Chloride	mg/L	1.11	2.94
Color, True	TCU	29.1	41.0
Cyanide	mg/L	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.0050	<0.0050
Dissolved Organic Carbon (DOC)	mg/L	13.1	15.1
Electrical Conductivity, Lab	µS/cm	184	207
Fluoride	mg/L	<0.020	0.032
Hardness (as CaCO3)	mg/L	92.4	102
Nitrate (as N)	mg/L	<0.020	<0.020
Nitrite (as N)	mg/L	<0.010	<0.010
pH, lab	S.U.	8.08	7.95
Phenolphthalein Alkalinity	mg/L	<2.0	<2.0
Phosphorus, Total	mg/L	0.0133	0.0126
Sulfate	mg/L	4.62	15.2
Total Dissolved Solids	mg/L	122	143
Total Kjeldahl Nitrogen	mg/L	0.483	0.508
Total Organic Carbon	mg/L	12.4	15.0
Total Suspended Solids	mg/L	1.4	2.5
Turbidity, Lab	NTU	1.16	2.23
Metals, Dissolved			
Aluminum	µg/L	5	3.9
Antimony	µg/L	<0.1	<0.1
Arsenic	µg/L	3.29	6.05
Barium	µg/L	10.9	11.5
Beryllium	µg/L	<0.02	<0.02
Bismuth	µg/L	<0.05	<0.05
Boron	µg/L	<10	<10
Cadmium	µg/L	<0.005	<0.005
Calcium	mg/L	26.6	30.1
Cesium	µg/L	<0.01	0.014
Chromium	µg/L	<0.5	<0.5
Chromium, Trace	µg/L	-	0.16
Cobalt	µg/L	<0.1	<0.1
Copper	µg/L	0.41	0.48
Iron	µg/L	24	52
Lead	µg/L	<0.05	<0.05
Lithium	µg/L	<1	1.2
Magnesium	mg/L	6.32	6.56
Manganese	µg/L	1.93	2.72
Mercury	µg/L	<0.005	<0.005
Molybdenum	µg/L	0.108	0.123
Nickel	µg/L	<0.5	<0.5
Phosphorus	µg/L	<50	<50
Potassium	mg/L	0.604	0.803
Rubidium	µg/L	1.83	1.96
Selenium	µg/L	0.068	0.066
Silicon	µg/L	2,390	3,040
Silver	µg/L	<0.01	<0.01
Sodium	mg/L	2.25	5.26
Strontium	µg/L	30.9	35.1
Sulfur	µg/L	1,580	5,260
Tellurium	µg/L	<0.2	<0.2
Thallium	µg/L	<0.01	<0.01
Thorium	µg/L	<0.1	<0.1
Tin	µg/L	<0.1	<0.1
Titanium	µg/L	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1
Uranium	µg/L	0.18	0.168
Vanadium	µg/L	<0.5	<0.5
Zinc	µg/L	1.2	<1
Zirconium	µg/L	<0.3	<0.3

Sample Location		53A	
Sample Date		12-Aug-24	23-Sep-24
Sample ID		53A	53A
Sampling Company		GGM	GGM
Laboratory		ALS	ALS
Laboratory Work Order		TY2408830	TY2410843
Laboratory Sample ID	Units	TY2408830-006	TY2410843-002
Metals, Total			
Aluminum	µg/L	20.4	31.7
Antimony	µg/L	<0.1	<0.1
Arsenic	µg/L	3.62	6.39
Barium	µg/L	11.8	12.7
Beryllium	µg/L	<0.02	<0.02
Bismuth	µg/L	<0.05	<0.05
Boron	µg/L	<10	<10
Cadmium	µg/L	<0.005	<0.005
Calcium	mg/L	27.4	29.4
Cesium	µg/L	<0.01	0.019
Chromium	µg/L	<0.5	<0.5
Chromium, Trace	µg/L	-	0.24
Cobalt	µg/L	<0.1	<0.1
Copper	µg/L	<0.5	0.65
Iron	µg/L	85	130
Lead	µg/L	<0.05	0.08
Lithium	µg/L	<1	1.1
Magnesium	mg/L	6.40	7.22
Manganese	µg/L	21.4	15.8
Mercury	µg/L	<0.005	<0.005
Mercury, Trace	µg/L	0.00124	0.00094
Molybdenum	µg/L	0.121	0.122
Nickel	µg/L	<0.5	<0.5
Phosphorus	µg/L	<50	<50
Potassium	mg/L	0.641	0.787
Rubidium	µg/L	1.89	2.1
Selenium	µg/L	0.085	0.087
Silicon	µg/L	2,600	3,060
Silver	µg/L	<0.01	<0.01
Sodium	mg/L	2.01	5.75
Strontium	µg/L	28.2	34.7
Sulfur	µg/L	1,770	5,300
Tellurium	µg/L	<0.2	<0.2
Thallium	µg/L	<0.01	<0.01
Thorium	µg/L	<0.1	<0.1
Tin	µg/L	<0.1	<0.1
Titanium	µg/L	0.61	1.29
Tungsten	µg/L	<0.1	<0.1
Uranium	µg/L	0.191	0.177
Vanadium	µg/L	0.5	0.56
Zinc	µg/L	<3	<3
Zirconium	µg/L	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location		54					
Sample Date		**24-Oct-23**	**7-Nov-23**	**5-Dec-23**	**13-Jan-24**	**11-Feb-24**	**7-Mar-24**
Sample ID		**54**	**54**	**54**	**54**	**54**	**54**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**
Laboratory Work Order		**C3X4962**	**C3Z3957**	**C3AY056**	**C416358**	**C443566**	**C471795**
Laboratory Sample ID		**XKL336**	**XOL813**	**XUY798**	**YDJ049**	**YJD534**	**YOY291**
Field Parameters							
pH, Field	S.U.	7.71	7.51	7.35	7.22	7.26	7.16
Temperature, Field	deg C	7.5	2.4	1.3	0.8	0.9	0.9
General Chemistry							
Acidity as CaCO3	mg/L	<5.0	<5.0	<5.0	<5.0	5.0	<5.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	120	120	110	110	100	110
Alkalinity, Carbonate (as CaCO3)	mg/L	1.1	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total (as CaCO3)	mg/L	120	120	110	110	100	110
Ammonia (as N)	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Chloride	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Color, True	TCU	30	29	27	24	21	22
Cyanide	mg/L	0.00058	0.00063	<0.00050	<0.00050	<0.00050	<0.00050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB
Dissolved Organic Carbon (DOC)	mg/L	12	12	12	11	9.9	11
Electrical Conductivity, Lab	µS/cm	238	239	223	221	204	222
Fluoride	mg/L	<0.10	<0.10	<0.10	0.10	<0.10	<0.10
Hardness (as CaCO3)	mg/L	130	130	120	120	110	120
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	0.11	0.14	0.13
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	0.11	0.14	0.13
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH, lab	S.U.	8.00	7.93	7.77	7.76	7.76	7.71
Phosphorus, Total	mg/L	0.015	0.011	0.0060	0.0043	0.0042	0.0025
Sulfate	mg/L	2.5	2.4	2.4	3.5	2.7	3.3
Total Dissolved Solids	mg/L	150	150	135	150	80	180
Total Kjeldahl Nitrogen	mg/L	0.54	0.51	0.42	0.40	0.35	0.34
Total Organic Carbon	mg/L	12	13	12	11	9.9	11
Total Suspended Solids	mg/L	6	4	1	1	3	<1
Turbidity, Lab	NTU	2.3	1.1	0.6	0.5	0.5	0.3
Speciated Metals							
Methyl Mercury	µg/L	<0.00005	<0.00005	<0.00005	0.00014	0.00025	0.00015
Metals, Dissolved							
Aluminum	µg/L	4	3.6	2.8	3.2	2.1	1.6
Antimony	µg/L	0.1	0.2	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	6.2	5.2	4.1	3.6	2.8	2.9
Barium	µg/L	16.9	17.6	13.1	13.8	11.5	13.4
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	µg/L	5	7	6	4	4	4
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Calcium	mg/L	43.1	42.2	38.3	38.9	33.4	36.6
Cesium	µg/L	0.02	0.02	<0.02	<0.02	<0.02	<0.02
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Copper	µg/L	1.1	1.9	0.9	0.5	0.5	0.7
Iron	µg/L	24	28	54	61	46	45
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	0.7	0.7	0.7	0.8	0.6	0.7
Magnesium	mg/L	6.48	6.36	6.61	6.53	5.95	6.25
Manganese	µg/L	12.3	13.1	19.8	21.4	20.1	13.7
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum	µg/L	0.49	0.51	0.25	0.21	0.18	0.17
Nickel	µg/L	0.7	0.8	0.4	0.4	0.3	0.3
Phosphorus	µg/L	<5	<5	<5	<5	<5	<5
Potassium	mg/L	1.63	1.54	0.99	0.91	0.82	0.89
Rubidium	µg/L	4.09	3.92	2.35	2.15	1.95	1.98
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Silicon	µg/L	788	1,020	2,510	2,930	2,660	2,920
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	0.75	0.77	0.84	0.81	0.72	0.79
Strontium	µg/L	37.8	38.1	35.9	34.9	30.1	34.9
Sulfur	µg/L	-	-	-	-	-	-
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thallium	µg/L	0.007	0.006	<0.005	<0.005	<0.005	<0.005
Thorium	µg/L	-	-	-	-	-	-
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.24	0.26	0.18	0.16	0.14	0.15
Vanadium	µg/L	0.2	0.20	0.17	0.17	0.12	0.14
Zinc	µg/L	4.1	7.7	11.6	2.1	0.8	1.2
Zirconium	µg/L	<0.1	0.1	<0.1	<0.1	<0.1	<0.1

Sample Location		54					
Sample Date		24-Oct-23	7-Nov-23	5-Dec-23	13-Jan-24	11-Feb-24	7-Mar-24
Sample ID		54	54	54	54	54	54
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV
Laboratory Work Order		C3X4962	C3Z3957	C3AY056	C416358	C443566	C471795
Laboratory Sample ID		XKL336	XOL813	XUY798	YDJ049	YJD534	YOY291
Metals, Total							
Aluminum	µg/L	34.6	27.0	35.1	4.1	9	2.5
Antimony	µg/L	0.2	0.2	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	7.4	6.4	4.3	3.8	3.2	3.3
Barium	µg/L	18.4	18.0	13.6	13.4	12.1	13.7
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	µg/L	5	4	4	4	4	4
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	43.7	41.2	38.8	36.8	34.6	37.8
Cesium	µg/L	0.03	0.03	<0.02	<0.02	<0.02	<0.02
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	µg/L	0.08	0.08	0.06	<0.05	<0.05	<0.05
Copper	µg/L	1	1.1	0.7	0.5	0.4	0.4
Iron	µg/L	98	74	140	93	86	74
Lead	µg/L	0.08	0.06	0.06	<0.05	<0.05	<0.05
Lithium	µg/L	0.7	0.7	0.7	0.7	0.6	0.7
Magnesium	mg/L	6.35	6.55	6.48	6.34	6.18	6.32
Manganese	µg/L	34.9	25.7	33.6	27.6	27.9	20.5
Mercury	µg/L	0.00150	0.00313	0.00215	0.00329	0.00115	0.00075
Molybdenum	µg/L	0.46	0.42	0.20	0.19	0.17	0.18
Nickel	µg/L	0.8	0.9	0.5	0.4	0.4	0.4
Phosphorus	µg/L	9	7	6	<5	<5	<5
Potassium	mg/L	1.65	1.58	0.96	0.90	0.86	0.89
Rubidium	µg/L	4.05	4.10	2.28	2.12	1.98	1.98
Selenium	µg/L	0.08	0.08	0.07	0.07	0.07	0.07
Silicon	µg/L	869	936	2,450	2,800	2,770	3,020
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	0.72	0.75	0.77	0.79	0.75	0.76
Strontium	µg/L	38.6	39.3	33.9	33.5	30.8	34.1
Sulfur	µg/L	-	-	-	-	-	-
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thallium	µg/L	0.007	0.007	<0.005	<0.005	<0.005	<0.005
Thorium	µg/L	-	-	-	-	-	-
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	1.2	1.0	1.8	<0.5	<0.5	<0.5
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.24	0.26	0.17	0.15	0.14	0.14
Vanadium	µg/L	0.32	0.30	0.29	0.18	0.16	0.16
Zinc	µg/L	4.3	2.7	1.4	0.8	0.8	0.7
Zirconium	µg/L	0.1	0.1	<0.1	<0.1	<0.1	<0.1

Summary of Surface Water Quality Analytical Results
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Sample Location		54b					
Sample Date		8-Apr-24	16-May-24	21-Jun-24	11-Jul-24	21-Aug-24	17-Sep-24
Sample ID		54b	54b	54B	54B	54B	54B
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C4A5379	C4F0028	TY2406540	TY2407498	TY2409335	TY2410547
Laboratory Sample ID	Units	YVW962	ZFC031	TY2406540-003	TY2407498-013	TY2409335-001	TY2410547-003
Field Parameters							
pH, Field	S.U.	6.95	7.76	7.74	-	7.66	7.87
Temperature, Field	deg C	1.7	13.8	20.7	-	21.8	23.4
General Chemistry							
Acidity as CaCO3	mg/L	<5.0	<5.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	110	99	104	106	111	118
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	110	100	104	106	111	118
Ammonia (as N)	mg/L	<0.050	<0.050	0.0066	0.0132	0.0142	0.0158
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.00071	-	-	-	-
Chloride	mg/L	<1.0	<1.0	0.33	0.37	0.36	0.37
Color, True	TCU	19	28	25.4	29.3	23.5	22.9
Cyanide	mg/L	<0.00050	<0.00050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Dissolved Organic Carbon (DOC)	mg/L	9.0	10	14.6	13.0	14.2	13.4
Electrical Conductivity, Lab	µS/cm	209	190	190	196	202	207
Fluoride	mg/L	<0.10	<0.10	<0.020	0.028	0.021	<0.020
Hardness (as CaCO3)	mg/L	110	100	92.3	108	117	112
Nitrate (as N)	mg/L	0.13	<0.10	<0.020	<0.030 DLB	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	0.13	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH, lab	S.U.	7.79	7.89	8.10	7.99	7.85	8.03
Phenolphthalein Alkalinity	mg/L	-	-	<2.0	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.0060	0.0042	0.0145	0.0154	0.0126	0.0168
Sulfate	mg/L	3.5	2.1	1.47	1.28	1.13	1.05
Total Dissolved Solids	mg/L	130	135	113	131	142	122
Total Kjeldahl Nitrogen	mg/L	0.33	0.27	0.503	0.543	0.419	0.544
Total Organic Carbon	mg/L	9.4	10	12.8	13.7	12.5	13.4
Total Suspended Solids	mg/L	4	1	1.9	5.6	2.2	9.9
Turbidity, Lab	NTU	0.6	0.9	0.96	1.95	1.28	1.22
Speciated Metals							
Methyl Mercury	µg/L	0.00017	0.0001	0.000259	0.000224	0.000182	0.000282
Metals, Dissolved							
Aluminum	µg/L	2.5	8.1	14.9	6.3	4.8	9.8
Antimony	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	2.3	2.8	3.49	4.31	5.69	6.34
Barium	µg/L	11.5	10.3	12.5	14.3	15.3	14.9
Beryllium	µg/L	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	4	3	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	35.3	31.9	27.5	33.0	35.7	34.7
Cesium	µg/L	<0.02	<0.02	0.011	0.018	0.023	0.022
Chromium	µg/L	<0.5	<0.5	1.28	<0.5	<0.5	<0.5
Chromium, Trace	µg/L	-	-	-	-	-	0.11
Cobalt	µg/L	0.06	<0.05	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	2.7	0.5	0.89 DTC	0.8	0.69	0.62
Iron	µg/L	48	33	39	18	<10	18
Lead	µg/L	<0.05	<0.05	0.092	<0.05	<0.05	<0.05
Lithium	µg/L	0.6	0.6	<1	<1	<1	<1
Magnesium	mg/L	5.89	5.68	5.73	6.30	6.68	6.18
Manganese	µg/L	23.5	7.3	3.83	3.28	3.23	7.69
Mercury	µg/L	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.21	0.16	0.154	0.187	0.218	0.221
Nickel	µg/L	0.5	0.4	1.16 DTC	0.58	<0.5	<0.5
Phosphorus	µg/L	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.85	0.71	0.708	0.761	0.863	0.882
Rubidium	µg/L	1.63	1.59	1.68	2.04	2.5	2.62
Selenium	µg/L	<0.2	<0.2	0.068	0.088	0.057	0.062
Silicon	µg/L	2,860	2,000	1,450	1,330	1,790	1,900
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	0.79	0.69	0.730	0.746	0.726	0.665
Strontium	µg/L	30.1	28.2	30.7	33	35.4	37.5
Sulfur	µg/L	-	-	560	<500	560	520
Tellurium	µg/L	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	0.29	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.16	0.15	0.112	0.119	0.136	0.176
Vanadium	µg/L	0.13	0.17	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	1.1	1.2	1.3	4	13.5 DTMF	1.9
Zirconium	µg/L	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location		54b					
Sample Date		8-Apr-24	16-May-24	21-Jun-24	11-Jul-24	21-Aug-24	17-Sep-24
Sample ID		54b	54b	54B	54B	54B	54B
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C4A5379	C4F0028	TY2406540	TY2407498	TY2409335	TY2410547
Laboratory Sample ID	Units	YVW962	ZFC031	TY2406540-003	TY2407498-013	TY2409335-001	TY2410547-003
Metals, Total							
Aluminum	µg/L	15.2	11.7	18	41.5	18.3	79.7
Antimony	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	2.7	2.8	3.76	4.5	5.96	6.58
Barium	µg/L	11.9	10.5	12.7	15.2	16.3	17.5
Beryllium	µg/L	<0.05	<0.05	<0.02	<0.02	<0.02	0.02
Bismuth	µg/L	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	4	3	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	34.7	32.0	31.5	33.5	35.0	36.7
Cesium	µg/L	<0.02	<0.02	0.014	0.022	0.026	0.037
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Trace	µg/L	-	-	-	-	-	0.42
Cobalt	µg/L	0.07	<0.05	<0.1	<0.1	<0.1	0.11
Copper	µg/L	0.5	0.5	0.58	0.64	0.51	0.73
Iron	µg/L	92	60	57	83	54	162
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.069
Lithium	µg/L	0.6	0.5	<1	<1	<1	<1
Magnesium	mg/L	6.06	5.53	6.07	6.43	6.74	6.50
Manganese	µg/L	28.3	16.9	20.2	21	21.2	23.7
Mercury	µg/L	0.00098	0.00150	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	0.0014	0.00116	0.00106	0.00094
Molybdenum	µg/L	0.21	0.14	0.155	0.183	0.171	0.221
Nickel	µg/L	0.4	0.4	<0.5	<0.5	0.51	0.69
Phosphorus	µg/L	<5	<5	<50	<50	<50	<50
Potassium	mg/L	0.86	0.68	0.737	0.742	0.891	0.926
Rubidium	µg/L	1.76	1.53	1.8	2.08	2.48	2.66
Selenium	µg/L	0.07	0.06	0.081	0.068	0.055	0.107
Silicon	µg/L	2,870	1,980	1,580	1,440	1,860	2,070
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	0.77	0.69	0.731	0.713	0.716	0.726
Strontium	µg/L	31.8	28.6	31.7	33.8	36.3	41.8
Sulfur	µg/L	-	-	700	630	600	550
Tellurium	µg/L	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	0.8	<0.5	0.55	1.6	<0.75	1.59
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.16	0.14	0.112	0.136	0.141	0.183
Vanadium	µg/L	0.18	0.18	<0.5	<0.5	<0.5	0.61
Zinc	µg/L	0.6	0.5	<3	<3	<3	<3
Zirconium	µg/L	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location													
								55					
Sample Date		23-Oct-23	7-Nov-23	5-Dec-23	25-Jan-24	12-Feb-24	10-Mar-24	7-Apr-24	14-May-24	23-Jun-24	17-Jul-24	8-Aug-24	17-Sep-24
Sample ID		55	55	55	55	55	55	55	55	55	55	55	55
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3X4958	C3Z3957	C3AY056	C427035	C444971	C473326	C4A3859	C4E7177	TY2406572	TY2407793	TY2408786	TY2410547
Laboratory Sample ID	Units	XKL319	XOL814	XUY797	YFP507	YJK752	YPH122	YVO728	ZEM946	TY2406572-001	TY2407793-008	TY2408786-002	TY2410547-001
Field Parameters													
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	6.96	7.04	7.12	6.91	6.81	6.97	7.25	7.32	7.36	7.14	7.01	7.21
Temperature, Field	deg C	5.1	1.3	0.2	0.2	0.1	0.1	0.7	11.2	21.0	20.2	17.9	19.3
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry													
Acidity as CaCO3	mg/L	7.6	7.2	5.8	8.0	7.0	9.0	<5.0	<5.0	<2.0	3.2	4.5	3.8
Alkalinity, Bicarbonate (as CaCO3)	mg/L	170	170	150	160	140	150	110	110	130	154	181	165
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	170	170	150	160	140	150	110	110	130	154	181	165
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	0.057	<0.050	<0.050	0.16	0.23	0.27	<0.050	<0.050	0.0121	0.0148	0.0174	0.0281
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	-	-	-	-
Chloride	mg/L	11	8.9	4.1	4.2	11	3.5	15	6.7	8.76	11.0	12.8	11.5
Color, True	TCU	54	34	30	28	23	23	17	31	38.1	33.9	34.5	31.8
Cyanide	mg/L	<0.00050	0.00063	<0.00050	0.00062	<0.00050	0.00395	<0.00050	0.00083	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Dissolved Organic Carbon (DOC)	mg/L	16	13	13	12	9.5	9.6	7.3	11	14.5	14.4	15.2	14.6
Electrical Conductivity, Lab	µS/cm	371	360	313	331	310	318	275	250	262	289	316	302
Fluoride	mg/L	<0.10	<0.10	0.18	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	0.034	0.022	0.020
Hardness (as CaCO3)	mg/L	190	180	160	170	140	170	130	130	131	151	158	152
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	0.33	0.12	<0.10	<0.020	<0.020	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.10	0.33	0.12	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH, lab	S.U.	7.68	7.74	7.47	7.65	7.75	7.62	7.73	7.89	8.16	8.02	7.92	8.02
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.026	0.010	0.0060	0.012	0.0078	0.0072	0.0099	0.013	0.0252	0.0314	0.0368	0.0327
Sulfate	mg/L	3.3	3.8	3.9	3.2	5.3	4.8	7.3	4.1	2.59	2.34	2.33	1.83
Total Dissolved Solids	mg/L	180	205	160	205	160	200	175	170	158	179	204	154
Total Kjeldahl Nitrogen	mg/L	0.61	0.57	0.40	0.59	0.45	0.56	0.22	0.33	0.594	0.511	0.672	0.617
Total Organic Carbon	mg/L	17	14	12	12	9.9	9.8	6.4	11	14.1	14.0	15.1	14.7
Total Suspended Solids	mg/L	4	1	2	<1	1	<1	2	4	2.0	1.6	1.4	2.2
Turbidity, Lab	NTU	0.6	0.4	1.0	0.8	1.4	0.6	2.6	0.8	1.02	1.10	0.79	1.51
Speciated Metals													
Methyl Mercury	µg/L	<0.00005	<0.00005	<0.00005 MSE	0.00045	0.00038	0.00025	0.00028	0.00018	0.000762	0.000959	0.00139	0.00204
Metals, Dissolved													
Aluminum	µg/L	3.5	1.8	2.2	2.1	2.7	1.7	3.3	5.9	2.1	2	1.4	1.4
Antimony	µg/L	<0.1	<0.1	0.1	<0.1	0.1	0.6	0.9	0.3	0.22	0.2	0.16	0.18
Arsenic	µg/L	32.9	23.3	13.1	11.6	7.7	6.9	9.6	11.4	18.4	22.7	25.4	22.8
Barium	µg/L	12.3	13.3	12.3	14	10.7	12.7	9.6	10.6	7.66	14.3	12.9	8.7
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	3	3	5	4	3	4	4	5	<10	<10	<10	<10
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	58.4	56.8	50.8	54.9	45.8	54.1	39.5	39.6	40.8	46.6	49.2	46.7
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	0.02	0.034	0.036	0.037	0.041
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	µg/L	0.1	0.07	0.05	0.08	0.08	0.3	0.13	0.06	<0.1	0.12	0.11	<0.1
Copper	µg/L	0.8	0.4	1.3	0.3	3.3	0.7	0.7	1.1	0.82	0.29	<0.2	1.27 DTMF RRV
Iron	µg/L	76	75	86	144	72	60	42	44	50	70	98	47
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	0.9	0.9	0.8	0.8	0.7	1	0.9	0.7	<1	<1	<1	1.3
Magnesium	mg/L	9.76	8.72	8.16	8.45	7.35	9.30	6.69	6.48	7.04	8.48	8.54	8.52
Manganese	µg/L	75.3	70.5	43.2	150	36.4	23.5	80.3	34	35.8	82	169	118
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.09	0.20	0.29	0.19	0.24	0.26	0.37	0.22	0.232	0.182	0.145	0.208
Nickel	µg/L	0.5	0.3	0.5	0.4	0.7	0.9	2.5	1.2	1.15	1.05	0.85	0.82
Phosphorus	µg/L	12	<5	6	<5	<5	<5	<5	8	<50	<50	<50	<50
Potassium	mg/L	1.98	1.43	1.31	1.12	1.13	1.45	1.14	0.84	0.761	0.863	1.10	1.08
Rubidium	µg/L	5.16	3.29	2.97	2.59	2.18	2.94	1.9	2.01	2.04	2.3	2.87	2.97
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.08	0.104	0.106	0.086
Silicon	µg/L	1,640	1,840	2,720	3,390	2,820	3,450	2,050	964	1,020	1,630	1,910	1,150
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	4.98	4.36	2.41	2.32	5.65	2.69	7.04	4.17	4.40	5.20	5.84	5.26
Strontium	µg/L	63.2	58.8	51.9	51.9	47	52.3	56.5	41.1	49.7	59.6	62	59.7
Sulfur	µg/L	-	-	-	-	-	-	-	-	1,130	1,040	1,090	1,120
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.13	0.17	0.25	0.18	0.18	0.27	0.46	0.18	0.137	0.122	0.102	0.13
Vanadium	µg/L	0.14	0.09	0.10	0.08	0.08	0.09	0.11	0.17	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	3	5.7	12.6	7.2	4.1	3.5	2.2	2.7	2.4	6.2	3.6	3.1
Zirconium	µg/L	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location													
							55						
Sample Date		23-Oct-23	7-Nov-23	5-Dec-23	25-Jan-24	12-Feb-24	10-Mar-24	7-Apr-24	14-May-24	23-Jun-24	17-Jul-24	8-Aug-24	17-Sep-24
Sample ID		55	55	55	55	55	55	55	55	55	55	55	55
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3X4958	C3Z3957	C3AY056	C427035	C444971	C473326	C4A3859	C4E7177	TY2406572	TY2407793	TY2408786	TY2410547
Laboratory Sample ID	Units	XKL319	XOL814	XUY797	YFP507	YJK752	YPH122	YVO728	ZEM946	TY2406572-001	TY2407793-008	TY2408786-002	TY2410547-001
Metals, Total													
Aluminum	µg/L	6.7	4.2	24.7	7.3	28.9	13.5	65.2	19.1	16.6	10.1	5.1	5.7
Antimony	µg/L	<0.1	<0.1	0.1	<0.1	0.1	0.6	0.9	0.3	0.23	0.22	0.18	0.18
Arsenic	µg/L	33.1	24.4	13.7	12.1	8.3	7.2	10.3	12.1	19.5	23.1	28.2	24.1
Barium	µg/L	12.9	12.7	12.3	14.6	11	12.7	10.3	10.3	7.89	15.4	13	9.67
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	2	3	4	4	3	4	4	3	<10	<10	<10	<10
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	58.5	57.5	51.0	54.3	47.3	52.1	39.3	41.4	40.0	47.8	47.8	48.0
Cesium	µg/L	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	0.02	0.033	0.036	0.041	0.04
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	-	-	0.11
Cobalt	µg/L	0.1	0.07	0.06	0.08	0.08	0.29	0.21	0.08	<0.1	<0.1	0.12	0.11
Copper	µg/L	0.2	0.2	0.5	0.4	0.4	0.4	0.9	1	0.9	<0.5	<0.5	0.56
Iron	µg/L	103	99	130	187	136	98	143	83	102	126	184	118
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.12	0.07	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	1	0.9	0.8	0.8	0.7	1	1	0.7	<1	1	<1	<1
Magnesium	mg/L	9.75	8.89	7.94	8.06	7.48	8.96	6.87	6.57	7.44	8.32	9.16	8.84
Manganese	µg/L	74.4	68.7	46.1	148	38.8	26	73	38.9	41.6	91.9	197	163
Mercury	µg/L	0.00174	0.00682	0.00117	0.00187	0.00113	0.00100	0.00142	0.00204	<0.005	<0.005	<0.005	<0.005
Mercury, Trace	µg/L	-	-	-	-	-	-	-	-	0.00166	0.00164	0.00175	0.00153
Molybdenum	µg/L	0.09	0.20	0.28	0.18	0.24	0.27	0.36	0.22	0.249	0.188	0.164	0.187
Nickel	µg/L	0.5	0.3	0.5	0.4	0.5	0.9	2.7	1.3	1.23	1.04	0.91	0.9
Phosphorus	µg/L	19	9	9	6	7	8	7	12	<50	<50	<50	<50
Potassium	mg/L	2.07	1.43	1.29	1.09	1.12	1.38	1.22	0.92	0.777	0.854	1.08	1.11
Rubidium	µg/L	5.2	3.25	2.94	2.58	2.2	2.84	2.02	2.06	2.14	2.42	2.81	2.88
Selenium	µg/L	0.05	<0.05	0.07	0.06	0.06	0.09	0.06	0.07	0.092	0.073	0.072	0.098
Silicon	µg/L	1,630	1,890	2,710	3,400	2,860	3,340	2,250	996	1,070	1,660	2,030	1,140
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	5.01	4.52	2.37	2.23	5.53	2.57	7.30	4.24	4.56	5.38	5.80	5.75
Strontium	µg/L	63.7	59.5	52.2	51.1	47.3	52.2	59.2	39.3	50.8	61.9	66.7	62.9
Sulfur	µg/L	-	-	-	-	-	-	-	-	1,180	1,110	1,340	1,110
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.01	<0.01	<0.01	0.018
Thorium	µg/L	-	-	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	1.4	0.7	2	2.1	2.1	0.8	0.39	0.4	<0.3	<0.3
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.8 DLB	<0.1	<0.1
Uranium	µg/L	0.12	0.17	0.24	0.17	0.18	0.29	0.48	0.17	0.142	0.128	0.103	0.131
Vanadium	µg/L	0.15	0.10	0.14	0.1	0.13	0.13	0.26	0.21	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	2.5	5.2	6.2	7.2	3.6	3.6	2.6	2.9	<3	3.8	<3	<3
Zirconium	µg/L	<0.1	<0.1	0.1	0.1	0.1	<0.1	0.3	<0.1	<0.2	<0.2	<0.2	<0.2

Summary of Surface Water Quality Analytical Results
2024 Fish and Fish Habitat Follow-up Monitoring Report
Greenstone Gold Mine GP Inc.

Sample Location							56				
Sample Date		**17-Oct-23**	**29-Jan-24**	**8-Feb-24**	**7-Mar-24**	**10-Apr-24**	**13-May-24**	**18-Jun-24**	**17-Jul-24**	**16-Aug-24**	**14-Sep-24**
Sample ID		**56**	**56**	**56**	**56**	**56**	**56**	**56**	**56**	**56**	**56**
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**ALS**	**ALS**	**ALS**	**ALS**
Laboratory Work Order		**C3W7540**	**C430242**	**C444003**	**C471795**	**C4A8649**	**C4E5436**	**TY2406394**	**TY2407793**	**TY2409015**	**TY2410348**
Laboratory Sample ID	**Units**	**XIV835**	**YGI607**	**YJF729**	**YOY288**	**YWN537**	**ZED913**	**TY2406394-002**	**TY2407793-004**	**TY2409015-004**	**TY2410348-001**
Field Parameters											
pH, Field	S.U.	7.35	6.27	6.34	6.66	6.81	6.88	7.35	7.15	6.92	6.90
Temperature, Field	deg C	7.4	0.2	0.4	0.1	1.2	9.0	18.8	19.9	19.2	16.2
General Chemistry											
Acidity as CaCO3	mg/L	<5.0	43	<5.0	20	<5.0	5.2	<2.0	5.0	8.2	7.3
Alkalinity, Bicarbonate (as CaCO3)	mg/L	100	170	23	180	51	77	98.4	145	128	170
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	100	170	23	180	51	77	98.4	145	128	170
Ammonia (as N)	mg/L	<0.050	1.6	0.30	1.8	0.43	0.33	0.134	0.110	0.0296	0.0716
Ammonia, Un-ionized (As N)	mg/L	<0.0004	<0.0004	<0.0004	0.0007	<0.0004	0.0004	-	-	-	-
Chloride	mg/L	21	67	6.9	93	22	16	22.5	48.2	27.7	76.2
Color, True	TCU	38	40	3	19	13	86	94.2	83.0	110	31.4
Cyanide	mg/L	<0.00050	0.00099	<0.00050	0.00096	0.00050	<0.00050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	12	11	1.7	8.2	3.8	17	20.9	21.0	29.1	13.7
Electrical Conductivity, Lab	µS/cm	306	661	82.8	788	189	222	270	456	323	633
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.040 DLDS	0.036	<0.020	0.026
Hardness (as CaCO3)	mg/L	130	220	20	240	41	95	102	175	134	214
Nitrate (as N)	mg/L	0.53	<0.10	0.22	0.73	0.12	<0.10	0.138	0.438	<0.020	5.24
Nitrate + Nitrite (as N)	mg/L	0.53	<0.10	0.22	0.86	0.12	<0.10	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	0.127	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH, lab	S.U.	7.88	7.46	7.26	7.25	7.33	7.71	7.96	8.24	7.40	7.74
Phenolphthalein Alkalinity	mg/L	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0
Phosphorus, Total	mg/L	0.022	0.24	0.046	0.071	0.049	0.020	0.0967	0.0815	0.0642	0.0818
Sulfate	mg/L	14	43	4.4	57	6.0	6.8	6.28	21.9	6.16	49.7
Total Dissolved Solids	mg/L	195	380	55	465	90	185	213	298	234	407
Total Kjeldahl Nitrogen	mg/L	0.58	2.1	0.54	2.3	0.79	0.89	1.24	0.905	-	1.35
Total Organic Carbon	mg/L	14	13	2.7	8.5	4.6	19	23.2	22.0	31.0	13.9
Total Suspended Solids	mg/L	2	22	4	28	5	1	7.9	1.3	10.2	26.0
Turbidity, Lab	NTU	1.2	1.9	1.2	0.8	3.4	0.5	4.00	0.88	2.57	9.44
Metals, Dissolved											
Aluminum	µg/L	4.5	14.6	2	9.7	9.1	25.1	28.7	17.6	13.3	43.9
Antimony	µg/L	0.6	0.1	<0.1	0.1	<0.1	<0.1	0.17	0.11	0.1	0.18
Arsenic	µg/L	47.2	9.9	0.9	3.9	2.9	9.1	16.2	12.7	18	10.4
Barium	µg/L	9	18.2	2.4	16.5	3.3	5.7	8.17	13	9.96	15.4
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	15	52	5	52	5	8	10	23	11	41
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	0.008
Calcium	mg/L	41.1	68.1	6.64	78.5	12.9	30.0	31.8	55.8	42.2	68.9
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	0.011	<0.01	0.02
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.16
Cobalt	µg/L	0.06	0.35	0.06	0.18	0.07	0.05	<0.1	<0.1	<0.1	0.28
Copper	µg/L	2.6	0.8	0.5	1.2	6.1	0.7	1.31	0.98	0.58	3.34
Iron	µg/L	75	1,180	10	197	44	135	216	259	187	281
Lead	µg/L	0.05	0.07	<0.05	0.06	0.08	<0.05	0.083	0.063	<0.05	0.134
Lithium	µg/L	1.1	1.7	<0.5	1.9	<0.5	0.6	<1	1.5	<1	1.4
Magnesium	mg/L	6.99	11.0	0.908	11.2	2.06	4.93	5.59	8.69	6.98	10.3
Manganese	µg/L	11.6	432	41.4	185	18.2	15.6	19.6	23.4	9.64	207
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.05 DLM	<0.005
Molybdenum	µg/L	0.12	<0.05	0.07	0.12	0.09	0.08	0.12	0.144	0.122	0.161
Nickel	µg/L	0.9	0.5	0.1	0.5	0.6	0.2	<0.5	<0.5	<0.5	0.61
Phosphorus	µg/L	7	170	12	50	17	17	<50	<50	<50	<50
Potassium	mg/L	1.39	4.24	0.55	4.08	0.65	0.46	0.594	1.08	0.754	3.89
Rubidium	µg/L	1.87	3.82	0.53	3.94	0.76	0.58	0.91	1.74	1.41	3.81
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.082	0.074	0.096	0.06
Silicon	µg/L	2,090	4,670	334	4,180	852	1,200	1,680	1,820	2,030	3,400
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	16.3	45.4	3.85	55.5	10.7	11.0	12.6	28.7	16.6	46.2
Strontium	µg/L	56.3	80.3	9.1	94	17.7	30.1	42.4	69.8	54	94.9
Sulfur	µg/L	-	-	-	-	-	-	2,500	7,870	2,730	17,300
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.07	0.07	<0.01	0.11	0.04	0.04	0.056	0.076	0.035	0.049
Vanadium	µg/L	0.2	0.11	<0.05	0.08	0.05	0.15	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	1.9	10.8	12.3	6.6	5.5	2.2	2.4	3.9	22.8 DTMF	17.8
Zirconium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.3	<0.3	<0.3	<0.3

Sample Location							56				
Sample Date		17-Oct-23	29-Jan-24	8-Feb-24	7-Mar-24	10-Apr-24	13-May-24	18-Jun-24	17-Jul-24	16-Aug-24	14-Sep-24
Sample ID		56	56	56	56	56	56	56	56	56	56
Sampling Company		STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		BV	BV	BV	BV	BV	BV	ALS	ALS	ALS	ALS
Laboratory Work Order		C3W7540	C430242	C444003	C471795	C4A8649	C4E5436	TY2406394	TY2407793	TY2409015	TY2410348
Laboratory Sample ID	Units	XIV835	YGI607	YJF729	YOY288	YWN537	ZED913	TY2406394-002	TY2407793-004	TY2409015-004	TY2410348-001
Metals, Total											
Aluminum	µg/L	26.2	51.2	27.5	28.5	92	33.6	65.3	36.1	17.8	202
Antimony	µg/L	0.6	0.1	<0.1	0.1	0.1	<0.1	0.2	0.14	0.11	0.18
Arsenic	µg/L	53	11.8	1.7	4.7	3.6	9.5	18	13	19	14.6
Barium	µg/L	9.2	20	3.5	17.6	4.5	5.8	10.2	13.5	13.1	15
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	14	53	5	52	5	8	12	25	10	52
Cadmium	µg/L	<0.005	0.008	0.006	<0.005	0.006	<0.005	0.005	<0.005	<0.005	0.007
Calcium	mg/L	39.7	73.5	6.94	79.4	14.9	30.4	34.0	57.4	45.7	70.2
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.01	0.014	0.012	0.026
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium, Trace	µg/L	-	-	-	-	-	-	-	-	-	0.47
Cobalt	µg/L	0.08	0.38	0.08	0.2	0.09	0.05	0.12	0.11	<0.1	0.36
Copper	µg/L	3	2.3	0.8	2.4	2	0.8	2	1.32	0.8	3.44
Iron	µg/L	168	1,480	187	323	148	159	350	372	290	678
Lead	µg/L	0.12	0.66	0.24	0.19	0.26	<0.05	0.191	0.125	<0.05	0.184
Lithium	µg/L	1	1.8	0.6	1.9	<0.5	0.7	<1	1.5	<1	2.2
Magnesium	mg/L	6.94	11.2	0.952	11.8	2.36	4.92	6.06	8.87	7.68	11.2
Manganese	µg/L	16.5	453	46.4	192	23.7	16.3	29.1	25.8	14.7	204
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005
Molybdenum	µg/L	0.12	<0.05	0.06	0.11	0.09	0.09	0.14	0.14	0.093	0.152
Nickel	µg/L	1	0.5	0.3	0.5	0.3	0.3	0.53	0.51	<0.5	0.8
Phosphorus	µg/L	17	235	41	72	53	24	93	58	<50	77
Potassium	mg/L	1.33	4.49	0.58	4.27	0.69	0.47	0.662	1.06	0.814	4.11
Rubidium	µg/L	1.93	4.02	0.59	4.06	0.87	0.6	0.98	1.75	1.53	4.03
Selenium	µg/L	0.06	0.05	<0.05	<0.05	<0.05	0.06	0.097	0.094	0.103	0.085
Silicon	µg/L	2,120	4,800	402	4,180	936	1,260	1,880	1,860	1,970	3,480
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	<0.01	<0.01	<0.01
Sodium	mg/L	15.1	47.1	3.92	58.0	11.6	10.9	13.8	29.1	19.5	48.2
Strontium	µg/L	54.4	85.1	9.6	97.3	19.9	31	43.8	72.3	54.7	98.2
Sulfur	µg/L	-	-	-	-	-	-	2,550	7,800	2,500	19,200
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	-	-	-	-	-	-	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	1.6	1.5	0.8	1.1	4.3	1.1	1.64	0.89	<0.3	<1.29 DLM
Tungsten	µg/L	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.47	<0.8 DLB	<0.1	<0.1
Uranium	µg/L	0.06	0.08	0.01	0.1	0.04	0.05	0.069	0.076	0.037	0.049
Vanadium	µg/L	0.26	0.19	0.08	0.1	0.15	0.15	<0.5	<0.5	<0.5	0.55
Zinc	µg/L	2.3	12.8	17.8	8.3	7.6	2.4	<3	3.5	3.3	17.6
Zirconium	µg/L	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2	<0.2

Appendix B.3 Seasonal Trigger Threshold Data

Appendix B
Summary of Surface Water Quality Trigger Thresholds
Greenstone Mine

Station	Parameter	Units	PWQO	Predicted EIS/EA concentration + 10%	Sample Count Summary	95th Percentile	Sample Count Summary	95th Percentile	Sample Count Summary	95th Percentile	Sample Count Summary	95th Percentile
4	Phosphorus, Total	mg/L	0.02$_{ss}$[c]	-	11	0.0372	14	0.0446	6	0.0318	11	0.0389
	Antimony	µg/L	20[c]	-	13	0.42	18	1.04	9	1.02	13	0.70
	Arsenic	µg/L	100*5[c]	-	13	42.4	18	122.4	9	68.3	13	21.7
	Cobalt	µg/L	0.9[c]	-	13	0.29	18	0.31	9	0.26	13	0.25
	Iron	µg/L	300[a]	-	13	627	18	591	9	633	13	374
	Uranium	µg/L	5[c]	-	8	0.038	14	0.066	7	0.073	8	0.063
8	Phosphorus, Total	mg/L	0.02$_{ss}$[c]	-	10	0.0149	13	0.0204	5	0.0133	10	0.008
	Antimony	µg/L	20[c]	-	13	0.13	17	0.30	7	0.28	13	0.30
	Arsenic	µg/L	100*5[c]	-	13	7.56	17	23.4	7	17.7	13	6.06
	Cobalt	µg/L	0.9[c]	-	13	0.05	17	0.25	7	0.19	13	0.25
	Iron	µg/L	300[a]	-	13	141	17	127	7	152.1	13	108
	Uranium	µg/L	5[c]	-	7	0.126	14	0.165	6	0.166	7	0.271
20A	Phosphorus, Total	mg/L	0.03$_{ss}$[c]	-	7	0.0463	8	0.0118	2	0.0113	7	0.009
	Cyanide	mg/L	n/v	0.0053	3	-	3	-	1	-	3	-
	Cyanide (Free)	mg/L	0.005[a]	0.0053	3	-	3	-	1	-	3	-
	Antimony	µg/L	20[c]	0.73	7	-	8	-	4	-	7	-
	Arsenic	µg/L	100*5[c]	9.04	7	-	8	-	4	-	7	-
	Cobalt	µg/L	0.9[c]	0.664	7	-	8	-	4	-	7	-
	Copper	µg/L	5*1/S$_{CaCO3}$[c]	1.487	7	-	8	-	4	-	7	-
	Iron	µg/L	300[a]	389	7	-	8	-	4	-	7	-
	Uranium	µg/L	5[c]	3.127	7	-	8	-	4	-	7	-
24	Phosphorus, Total	mg/L	0.02$_{ss}$[c]	-	7	0.0162	8	0.0144	2	0.0141	7	0.0066
	Cyanide	mg/L	n/v	0.0030	10	-	12	-	5	-	10	-
	Cyanide (Free)	mg/L	0.005[a]	0.0030	10	-	12	-	5	-	10	-
	Antimony	µg/L	20[c]	-	10	0.1	12	0.30	5	0.30	10	0.30
	Arsenic	µg/L	100*5[c]	-	10	1.92	12	5.03	5	3.23	10	0.82
	Cobalt	µg/L	0.9[c]	-	10	0.05	12	0.25	5	0.25	10	0.25
	Copper	µg/L	5*1/S$_{CaCO3}$[c]	-	10	0.75	12	0.60	5	0.50	10	0.59
	Iron	µg/L	300[a]	-	10	140	12	169	5	158	10	113
	Uranium	µg/L	5[c]	-	10	0.186	9	0.231	3	0.263	4	0.303
25	Phosphorus, Total	mg/L	0.03$_{ss}$[c]	-	9	0.0138	11	0.0134	6	0.0127	9	0.0211
	Antimony	µg/L	20[c]	1.88	12	-	15	-	12	-	12	-
	Arsenic	µg/L	100*5[c]	-	12	46.4	15	51.4	12	25.16	12	42.5
	Cobalt	µg/L	0.9[c]	-	12	0.16	15	0.25	12	0.21	12	0.25
	Iron	µg/L	300[a]	-	12	129	15	184	12	106	12	799
	Mercury	µg/L	0.2[a]	-	3	0.00253	5	0.00253	1	0.00253	3	0.00253
	Methyl Mercury	µg/L	n/v	-	3	0.000436	5	0.000436	1	0.000436	3	0.000436
	Uranium	µg/L	5[c]	-	6	0.040	12	0.165	7	0.189	6	0.095
26	Phosphorus, Total	mg/L	0.03$_{ss}$[c]	-	6	0.0102	9	0.0170	5	0.0166	6	0.0115
	Antimony	µg/L	20[c]	1.57	9	-	13	-	11	-	9	-
	Arsenic	µg/L	100*5[c]	-	9	20.7	13	35.2	11	26.1	9	16.5
	Cobalt	µg/L	0.9[c]	-	9	0.18	13	0.25	11	0.25	9	0.71
	Iron	µg/L	300[a]	-	9	91	13	131	11	125	9	48
	Uranium	µg/L	5[c]	-	5	0.057	10	0.065	6	0.062	5	0.063
39	Phosphorus, Total	mg/L	0.03$_{ss}$[c]	-	8	0.008	10	0.0082	6	0.0104	8	0.0053
	Antimony	µg/L	20[c]	-	8	0.05	10	0.05	6	0.12	8	0.11
	Arsenic	µg/L	100*5[c]	-	8	7.03	10	8.04	6	6.64	8	5.89
	Cobalt	µg/L	0.9[c]	-	8	0.05	10	0.05	6	0.05	8	0.05
	Iron	µg/L	300[a]	-	8	98.2	10	64	6	95	8	244.4
	Mercury	µg/L	0.2[a]	-	2	0.00199*	5	0.00199*	1	0.00199*	2	0.00199*
	Methyl Mercury	µg/L	n/v	-	2	0.000088*	5	0.000088*	1	0.000088*	2	0.000088*
	Uranium	µg/L	5[c]	-	8	0.057	10	0.075	6	0.096	8	0.099
49	Phosphorus, Total	mg/L	0.03$_{ss}$[c]	-	8	0.0131	11	0.0158	7	0.0369	8	0.0362
	Antimony	µg/L	20[c]	-	8	0.05	11	0.09	7	0.13	8	0.1085
	Arsenic	µg/L	100*5[c]	-	8	3.28	11	15.05	7	7.02	8	1.3475
	Cobalt	µg/L	0.9[c]	-	8	0.11	11	0.05	7	0.05	8	0.05
	Iron	µg/L	300[a]	-	8	168	11	137	7	190	8	103.3
	Uranium	µg/L	5[c]	-	8	0.149	11	0.232	7	0.262	8	0.32305
52	Phosphorus, Total	mg/L	0.03$_{ss}$[c]	-	11***	0.0121	5	0.0175	7**	0.0101**	11**	0.0058**
	Antimony	µg/L	20[c]	-	11***	0.05	5	0.05	7**	0.12**	11**	0.1**
	Arsenic	µg/L	100*5[c]	-	11***	3.14	5	5.40	7**	6.63**	11**	5.78**
	Cobalt	µg/L	0.9[c]	-	11***	0.05	5	0.05	7**	0.05**	11**	0.05**
	Iron	µg/L	300[a]	-	11***	99	5	327	7**	95**	11**	243**
	Mercury	µg/L	0.2[a]	-	2	0.00236***	6***	0.00236***	2	0.00236***	5	0.00236***
	Methyl Mercury	µg/L	n/v	-	2	0.000126***	6***	0.000126***	2	0.000126***	5	0.000126***
	Uranium	µg/L	5[c]	-	11***	0.138	5	0.192	7**	0.12**	11**	0.137**
53	Phosphorus, Total	mg/L	0.03$_{ss}$[c]	-	9	0.0130	14	0.0154	7	0.0369	9	0.0349
	Antimony	µg/L	20[c]	-	9	0.05	14	0.08	7	0.13	9	0.1
	Arsenic	µg/L	100*5[c]	-	9	3.26	14	13.56	7	7.02	9	1.34
	Cobalt	µg/L	0.9[c]	-	9	0.1	14	0.05	7	0.05	9	0.05
	Iron	µg/L	300[a]	-	9	190	14	136	7	190	9	103
	Uranium	µg/L	5[c]	-	9	0.148	14	0.229	7	0.262	9	0.322

Notes:

PWQO Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
[a] PWQO Table 2
[b] PWQO Table 2 - Calculated
[c] PWQO Table 2 - Interim
15.2 Measured concentration did not exceed the indicated standard.
<0.50 Laboratory reporting limit was greater than the applicable standard.
<0.03 Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v No standard/guideline value.
- Parameter not analyzed / not available.
[e] This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
[ss] Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
* Annual 95th percentile calculated using a sample count of 13
** Due to a limitied seasonal dataset, seasonal data with shoulder months from station 39 has been included in the sample count and 95th percentile calculations
*** Annual 95th percentile calculated using a sample count of 12

Greenstone Mine - Surface Water Quality Trigger Parameters
October 2023 - September 2024
Station 4

Season			Fall*					Winter					Spring					Summer				
Sample Date					17-Oct-23	17-Nov-23	17-Dec-23			29-Jan-24	8-Feb-24	7-Mar-24			10-Apr-24	13-May-24	18-Jun-24			17-Jul-24	22-Aug-24	15-Sep-24
Sample ID					4	4	4			4	4	4			4	4	4			4	4	4
Sampling Company					GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM
Laboratory					TESTMARK					BV	BV	BV			BV	BV	ALS			ALS	ALS	ALS
Laboratory Work Order			95th		C3W7540			95th		C430242	C444003	C471795	95th		C4A8649	C4E5436	TY2406394	95th		TY2407793	TY2409357	TY2410348
Laboratory Sample ID	**Units**	**PWQO**	**Percentile**	**RDL**	XIV836			**Percentile**	**RDL**	YGI607	YJF730	YOY288	**Percentile**	**RDL**	YWN538	ZED912	TY2406394-001	**Percentile**	**RDL**	TY2407793-005	TY2409357-001	TY2410348-005
Nutrients																						
Phosphorus, Total	mg/L	0.02_{s4} [C]	0.0318	0.001	0.022	-	-	0.0389	0.001	0.0093	0.0013	0.021	0.0372	0.001	0.0025	0.018	0.022	0.0446	0.001	0.03	**0.023** [C]	**0.04** [C]
Total Metals																						
Antimony	µg/L	20 [C]	1.02	0.1	0.9	-	-	0.70	0.10	0.7	0.2	0.7	0.42	0.1	0.1	0.2	0.41	1.04	0.1	0.43	0.47	0.61
Arsenic	µg/L	100 [A] 5 [C]	68.3	0.1	**74.6** [C]	-	-	21.7	0.10	**24.9** [C]	4.4	**20.3** [C]	42.4	0.1	4.1	25.6	**42.8** [C]	122.4	0.1	**71.2** [C]	**132** [C,A]	**130** [C,A]
Cobalt	µg/L	0.9 [C]	0.26	0.1	0.13	-	-	0.25	0.05	0.09	0.09	0.07	0.29	0.05	0.06	0.16	0.19	0.31	0.05	0.21	<0.1	0.24
Iron	µg/L	300 [A]	633	10	247	-	-	374	5	145	111	127	627	5	94	344	**446** [A]	591	5	**404** [A]	141	**567** [A]
Uranium	µg/L	5_a [C]	0.073	0.01	0.05	-	-	0.063	0.01	0.06	0.02	0.06	0.038	0.01	0.02	0.03	0.04	0.066	0.01	0.05	0.05	0.06

Notes:

PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
[A]	PWQO Table 2
[B]	PWQO Table 2 - Calculated
[C]	PWQO Table 2 - Interim
6.5 [A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
[a]	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
[s4]	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
*	November and December 2023 was not sampled due to unsafe conditions

Greenstone Mine - Surface Water Quality Trigger Parameters
October 2023 - September 2024
Station 8

Season			Fall					Winter					Spring					Summer				
Sample Date					16-Oct-23	17-Nov-23	27-Dec-23			25-Jan-24	8-Feb-24	7-Mar-24			1-Apr-24	12-May-24	21-Jun-24			9-Jul-24	22-Aug-24	18-Sep-24
Sample ID					8	8	8			8	8	8			8	8	8			8	8	8
Sampling Company					GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM
Laboratory					TESTMARK	TESTMARK	BV			BV	BV	BV			BV	BV	ALS			ALS	ALS	ALS
Laboratory Work Order			95th		C3W4155	C3Z0071	C3BT968	95th		C427035	C443866	C471795	95th		C497435	C4E3554	TY2406540	95th	Sep-23	TY2407408	TY2409357	TY2410613
Laboratory Sample ID	**Units**	**PWQO**	**Percentile**	**RDL**	XID772	XNR727	XZR416	**Percentile**	**RDL**	YFP509	YJE956	YOY290	**Percentile**	**RDL**	YUH221	ZDT539	TY2406540-005	**Percentile**	**RDL**	TY2407208-001	TY2409357-005	TY2410613-002
Nutrients																						
Phosphorus, Total	mg/L	0.02_{s4}[C]	0.0133	0.001	0.22	0.0091	0.0042	0.008	0.001	0.01	0.0034	0.0029	0.0149	0.001	0.0031	0.0089	0.0146	0.0204	0.001	0.0141	0.015	0.0186
Total Metals																						
Antimony	µg/L	20[C]	0.28	0.1	0.2	0.2	0.1	0.30	0.10	0.1	0.1	<0.1	0.13	0.1	<0.1	<0.5	0.1	0.30	0.1	0.14	0.16	0.17
Arsenic	µg/L	100[A] 5[C]	17.7	0.1	**19[C]**	**15.9[C]**	**11.6[C]**	6.06	0.10	**9.4[C]**	**7.3[C]**	**5.4[C]**	7.56	0.1	4.3	**5.5[C]**	**8.49[C]**	23.4	0.1	**10.1[C]**	**21.1[C]**	**23.9[C]**
Cobalt	µg/L	0.9[C]	0.19	0.1	<0.05	<0.05	<0.05	0.25	0.05	<0.05	<0.05	<0.05	0.05	0.05	<0.05	<0.25	<0.1	0.25	0.05	<0.1	<0.1	<0.1
Iron	µg/L	300[A]	152.1	10	71	70	2	108	5	26	43	39	141	5	31	95	92	127	5	81	71	92
Uranium	µg/L	5_a[C]	0.166	0.01	0.12	0.12	0.16	0.271	0.01	0.19	0.22	0.22	0.126	0.01	0.24	0.11	0.12	0.165	0.01	0.13	0.13	0.148

Notes:

PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
A	PWQO Table 2
B	PWQO Table 2 - Calculated
C	PWQO Table 2 - Interim
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
a	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
s4	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.

Greenstone Mine - Surface Water Quality Trigger Parameters
October 2023 - September 2024
Station 20A

Season			Fall***						Winter						Spring						Summer					
Sample Date						18-Oct-23	18-Nov-23	29-Dec-23				24-Jan-24	11-Feb-24	19-Mar-24				9-Apr-24	7-May-24	20-Jun-24				11-Jul-24	12-Aug-24	23-Sep-24
Sample ID						20A	20A	20A				20A	20A	20A				20A	20A	20A				20A	20A	20A
Sampling Company						GGM	GGM	GGM				GGM	GGM	GGM				GGM	GGM	GGM				GGM	GGM	GGM
Laboratory						TESTMARK		BV				BV	BV	BV				BV	BV	ALS				ALS	ALS	ALS
Laboratory Work Order			95th	Predicted		C3W8747		C401369	95th	Predicted		C425851	C443566	C488131	95th	Predicted		C4A7017	C4D8729	TY2406519	95th	Predicted		TY2407498	TY2408830	TY2410843
Laboratory Sample ID	**Units**	**PWQO**	**Percentile**	**EIS/EA**	**RDL**	XJD010		YAD619	**Percentile**	**EIS/EA**	**RDL**	YFI920	YJD537	YSJ070	**Percentile**	**EIS/EA**	**RDL**	YWE922	ZCU001	TY2406519-001	**Percentile**	**EIS/EA**	**RDL**	TY2407498-003	TY2408830-002	TY2410843-006
Nutrients																										
Phosphorus, Total	mg/L	0.03_{s4}[C]	0.0113**	-	0.001	0.039	-	0.0021	0.009	-	0.001	0.0057	0.0022	0.0037	0.0463	-	0.001	0.0028	0.0087	0.0092	0.0118	-	0.001	0.0115	0.0102	1.0102
Cyanide																										
Cyanide	mg/L	n/v	-	0.0053*	0.002	-	-	-	-	0.0053*	0.002	-	-	0.00053	-	0.0053*	0.002	<0.0005	<0.0005	<0.005	-	0.0053*	0.002	<0.005	<0.005	<0.005
Cyanide (Free)	mg/L	0.005[A]	-	0.0053	0.001	<0.002	-	<0.002	-	0.0053	0.002	<0.002	<0.002	<0.002	-	0.0053	0.002	<0.002	0.0023	<0.005	-	0.0053	0.002	<0.005	<0.005	<0.005
Total Metals																										
Antimony	µg/L	20[C]	-	0.73	0.1	<0.1	-	<0.1	-	0.73	0.1	<0.1	<0.1	<0.1	-	0.73	0.1	<0.1	<0.1	<0.1	-	0.73	0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	100[A] 5[C]	-	9.04	0.1	3.2	-	2.7	-	9.04	0.1	2.4	1.5	2.3	-	9.04	0.1	1.4	2.7	4.31	-	9.04	0.1	**5.51**[C]	4.4	5.4
Cobalt	µg/L	0.9[C]	-	0.664	0.1	0.07	-	0.08	-	0.664	0.05	<0.05	0.05	0.11	-	0.664	0.05	0.09	0.1	0.11	-	0.664	0.05	0.15	<0.1	<0.1
Copper	µg/L	5[A] $1/5_{s13}$[C]	-	1.487	0.2	0.2	-	0.4	-	1.487	0.1	0.5	0.2	0.3	-	1.487	0.1	0.4	0.3	<0.5	-	1.487	0.1	<0.5	<0.5	<0.5
Iron	µg/L	300[A]	-	389	10	109	-	147	-	389	5	109	126	157	-	389	5	99	95	150	-	389	5	189	174	174
Uranium	µg/L	5_a[C]	-	3.127	0.01	0.09	-	0.06	-	3.127	0.01	0.13	0.05	0.07	-	3.127	0.01	0.02	0.06	0.039	-	3.127	0.01	0.056	0.022	0.022

Notes:

PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
[A]	PWQO Table 2
[B]	PWQO Table 2 - Calculated
[C]	PWQO Table 2 - Interim
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
[a]	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
[s4]	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
[s13]	The interim PWQO for copper is hardness dependent. If hardness <20 mg/L than PWQO is 0.001 mg/L. For hardness >20 mg/L, PWQO is 0.005 mg/L.
*	No EIS/EA predictions were made for total cyanides. Therefore, free cyanides were conservatively used as triggers for both free and total forms of cyanides
**	95th percentile calculated using 4 samples
***	November 2023 was not sampled due to unsafe conditions

Greenstone Mine - Surface Water Quality Trigger Parameters
October 2023 - September 2024
Station 24

Season			Fall***						Winter						Spring						Summer					
Sample Date						3-Oct-23	3-Nov-23	3-Dec-23				24-Jan-24	12-Feb-24	19-Mar-24				9-Apr-24	7-May-24	20-Jun-24				11-Jul-24	12-Aug-24	23-Sep-24
Sample ID						24	24	24				24	24	24				24	24	24				24	24	24
Sampling Company						GGM	GGM	GGM				GGM	GGM	GGM				GGM	GGM	GGM				GGM	GGM	GGM
Laboratory						TESTMARK						BV	BV	BV				BV	BV	ALS				ALS	ALS	ALS
Laboratory Work Order			95th	Predicted		C3V1811			95th	Predicted		C425851	C444971	C478150	95th	Predicted		C4A7017	C4D8729	TY2406519	95th	Predicted		TY2407498	TY2408830	TY2410843
Laboratory Sample ID	**Units**	**PWQO**	**Percentile**	**EIS/EA**	**RDL**	XFK852			**Percentile**	**EIS/EA**	**RDL**	YFI923	YJK754	YQG350	**Percentile**	**EIS/EA**	**RDL**	YWE919	ZCU003	TY2406519-005	**Percentile**	**EIS/EA**	**RDL**	'2407498-0	TY2407498-005	TY2410843-003
Nutrients																										
Phosphorus, Total	mg/L	0.02_{s4}[C]	0.0141	-	0.001	0.0054	-	-	0.0066	-	0.001	0.0033	0.0028	0.003	0.0162	-	0.0010	0.0022	0.0065	0.01	0.0144	-	0.001	0.0105	0.0116	0.0125
Cyanide																										
Cyanide	mg/L	n/v	-	0.0030*	0.001	<0.0005	-	-	-	0.0030*	0.0020	0.00074	<0.0005	<0.0005	-	0.0030*	0.002	<0.0005	0.0005	<0.005	-	0.0030*	0.002	<0.005	<0.005	<0.005
Cyanide (Free)	mg/L	0.005[A]	-	0.0030	0.002	<0.002	-	-	-	0.0030	0.002	<0.002	<0.002	<0.002	-	0.0030	0.002	0.002	0.0023	<0.005	-	0.0030	0.002	<0.005	<0.005	<0.005
Total Metals																										
Antimony	µg/L	20[C]	0.30	-	0.1	<0.1	-	-	0.30	-	0.1	<0.1	<0.1	<0.1	0.1	-	0.1	<0.1	<0.1	<0.1	0.30	-	0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	100[A] 5[C]	3.23	-	0.1	4.1	-	-	0.82	-	0.1	0.8	0.7	0.8	1.92	-	0.1	0.9	1.1	1.62	5.03	-	0.1	1.92	2.26	4.8
Cobalt	µg/L	0.9[C]	0.25	-	0.1	<0.05	-	-	0.25	-	0.05	<0.05	<0.05	<0.05	0.05	-	0.05	0.11	<0.05	<0.10	0.25	-	0.05	<0.10	<0.1	<0.1
Copper	µg/L	5[A] $1/5_{s13}$[C]	0.50	-	0.2	0.5	-	-	0.59	-	0.1	0.5	0.4	0.5	0.75	-	0.1	0.7	0.5	<0.5	0.60	-	0.1	<0.5	<0.5	0.63
Iron	µg/L	300[A]	158	-	10	103	-	-	113	-	5	83	68	78	140	-	5	77	78	92	169	-	5	73	113	162
Uranium	µg/L	5_a[C]	0.263	-	0.01	0.2	-	-	0.303**	-	0.01	0.25	0.22	0.11	0.186	-	0.01	0.13	0.16	0.17	0.231	-	0.01	0.201	0.195	0.194

Notes:

PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
A	PWQO Table 2
B	PWQO Table 2 - Calculated
C	PWQO Table 2 - Interim
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
a	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
s4	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
s13	The interim PWQO for copper is hardness dependent. If hardness <20 mg/L than PWQO is 0.001 mg/L. For hardness >20 mg/L, PWQO is 0.005 mg/L.
*	No EIS/EA predictions were made for total cyanides. Therefore, free cyanides were conservatively used as triggers for both free and total forms of cyanides
***	November and December 2023 was not sampled due to unsafe conditions

Greenstone Mine - Surface Water Quality Trigger Parameters
October 2023 - September 2024
Station 25

Season			Fall**						Winter						Spring						Summer					
Sample Date						3-Oct-23	3-Nov-23	29-Dec-23				24-Jan-24	5-Feb-24	13-Mar-24				9-Apr-24	7-May-24	20-Jun-24				11-Jul-24	12-Aug-24	23-Sep-24
Sample ID						25	25	25				25	25	25				25	25	25				25	25	25
Sampling Company						GGM	GGM	GGM				GGM	GGM	GGM				GGM	GGM	GGM				GGM	GGM	GGM
Laboratory						TESTMARK		BV				BV	BV	BV				BV	BV	ALS				ALS	ALS	ALS
Laboratory Work Order						C3V1811		C401369				C425851	C437213	C478150				C3J0007	C4D8729	TY2406519				TY2407498	TY2408830	TY2410843
Laboratory Sample ID	**Units**	**PWQO**	**95th Percentile**	**Predicted EIS/EA**	**RDL**	XFK853		YAD622	**95th Percentile**	**Predicted EIS/EA**	**RDL**	YFI924	YHV192	YQG347	**95th Percentile**	**Predicted EIS/EA concentr**	**RDL**	WFV595	ZCU004	TY2406519-007	**95th Percentile**	**Predicted EIS/EA**	**RDL**	TY2407498-006	TY2408830-008	TY2410843-001
Nutrients																										
Phosphorus, Total	mg/L	0.03_{s4}[C]	0.0127	-	0.001	0.013	-	0.47	0.0211	-	0.001	0.0077	0.01	0.0054	0.0138	-	0.001	0.0082	0.012	0.02	0.0134	-	0.001	0.019	0.125	0.0394
Total Metals																										
Antimony	µg/L	20[C]	-	1.88	0.1 - 0.5	<0.1	-	0.1	-	1.88	0.1	<0.1	<0.1	0.7	-	1.88	0.1	1.1	0.3	0.25	-	1.88	0.1	0.22	0.28	0.14
Arsenic	µg/L	100[A] 5[C]	25.16	-	0.1 - 1	**36.1[C]**	-	**11.6[C]**	42.5	-	0.1	**13.4[C]**	**9.8[C]**	**7.5[C]**	46.4	-	0.1	**9.5[C]**	**12.9[C]**	**26.4[C]**	51.4	-	0.1	**27.8[C]**	**22.5[C]**	**30.80[C]**
Cobalt	µg/L	0.9[C]	0.21	-	0.1 - 0.5	<0.05	-	0.06	0.25	-	0.05	0.07	0.05	0.28	0.16	-	0.05	0.3	0.08	0.21	0.25	-	0.05	<0.1	<0.1	0.13
Iron	µg/L	300[A]	106	-	10 - 100	77	-	120	799	-	5	186	138	116	129	-	5	159	90	0.28	184	-	5	192	71	250
Mercury	µg/L	0.2[A]	0.00253*	-	0.00001	0.00221	-	0.00164	0.00253*	-	0.0001	0.00141	0.00104	0.0021	0.00253*	-	0.0001	0.0012	-	0.0018	0.00253*	-	0.0001	0.00139	0.00157	0.00067
Methyl Mercury	µg/L	n/v	0.000436*	-	0.00002	0.00026	-	0.00034	0.000436*	-	0.00005	0.00043	<0.00005	0.00023	0.000436*	-	0.00005	0.00019	0.0002	0.000633	0.000436*	-	0.00005	0.000656	0.000582	0.00088
Uranium	µg/L	5_a[C]	0.189	-	0.01 - 0.1	0.08	-	0.23	0.095	-	0.01	0.19	0.17	0.35	0.040	-	0.01	0.57	0.19	0.23	0.165	-	0.01	0.096	0.186	0.13

Notes:

PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
[A]	PWQO Table 2
[B]	PWQO Table 2 - Calculated
[C]	PWQO Table 2 - Interim
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
[a]	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
[s4]	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
[s13]	The interim PWQO for copper is hardness dependent. If hardness <20 mg/L than PWQO is 0.001 mg/L. For hardness >20 mg/L, PWQO is 0.005 mg/L.
*	Annual 95th percentile calculated using a sample count of 13
**	November 2023 was not sampled due to unsafe conditions

Greenstone Mine - Surface Water Quality Trigger Parameters
October 2023 - September 2024
Station 26

Season			Fall*						Winter						Spring						Summer					
Sample Date						18-Oct-23	18-Nov-23	18-Dec-23				11-Jan-24	13-Feb-24	20-Mar-24				9-Apr-24	15-May-24	21-Jun-24				17-Jul-24	25-Aug-24	18-Sep-24
Sample ID						26	26	26				26	26	26				26	26	26				26	26	26
Sampling Company						GGM	GGM	GGM				GGM	GGM	GGM				GGM	GGM	GGM				GGM	GGM	GGM
Laboratory						TESTMARK						BV	BV	BV				BV	BV	ALS				ALS	ALS	ALS
Laboratory Work Order			95th	Predicted		C3W8747			95th	Predicted		C413312	C448115	C488039	95th	Predicted		C4A9816	C4E8855	TY2406540	95th	Predicted		TY2407793	TY2409445	TY2410613
Laboratory Sample ID	**Units**	**PWQO**	**Percentile**	**EIS/EA**	**RDL**	XJD008			**Percentile**	**EIS/EA**	**RDL**	YCT684	YKB044	YSI550	**Percentile**	**EIS/EA**	**RDL**	YWU139	ZEV919	TY2406540-002	**Percentile**	**EIS/EA**	**RDL**	TY2407793-012	TY2409445-002	TY2410613-002
Nutrients																										
Phosphorus, Total	mg/L	0.03_{s4}[C]	0.0166	-	0.001	0.0067	-	-	0.0115	-	0.001	0.0034	0.0031	0.0028	0.0102	-	0.001	0.0021	0.0045	0.01	0.0170	-	0.001	0.0128	0.0103	0.0102
Total Metals																										
Antimony	µg/L	20[C]	-	1.57	0.1	0.1	-	-	-	1.57	0.10	0.1	0.2	<0.1	-	1.57	0.1	<0.1	<0.1	0.13	-	1.57	0.1	0.17	0.17	0.14
Arsenic	µg/L	100[A] 5[C]	26.1	-	0.1	**17.7[C]**	-	-	16.5	-	0.10	**12.4[C]**	**8.5[C]**	**6.1[C]**	20.7	-	0.1	2.3	7.3	**14.4[C]**	35.2	-	0.1	**21[C]**	**27.9[C]**	**25.2[C]**
Cobalt	µg/L	0.9[C]	0.25	-	0.1	<0.05	-	-	0.71	-	0.05	<0.05	<0.05	<0.05	0.18	-	0.05	0.07	<0.05	<0.1	0.25	-	0.05	<0.1	<0.1	<0.1
Iron	µg/L	300[A]	125	-	10	50	-	-	48	-	5	21	17	17	91	-	5	90	30	74	131	-	5	99	81	79
Uranium	µg/L	5_a[C]	0.062	-	0.01	0.04	-	-	0.063	-	0.01	0.04	0.03	0.03	0.057	-	0.01	0.01	0.04	0.046	0.065	-	0.01	0.05	0.049	0.046

Notes:

PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
[A]	PWQO Table 2
[B]	PWQO Table 2 - Calculated
[C]	PWQO Table 2 - Interim
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
[a]	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
[s4]	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
*	November and December 2023 was not sampled due to unsafe conditions

Greenstone Mine - Surface Water Quality Trigger Parameters
October 2023 - September 2024
Station 39

Season			Fall**					Winter					Spring					Summer				
Sample Date					17-Oct-23	19-Nov-23	19-Dec-23			11-Jan-24	11-Feb-24	10-Mar-24			7-Apr-24	15-May-24	10-Jun-24			17-Jul-24	23-Aug-24	17-Sep-24
Sample ID					39	39	39			39	39	39			39	39	39			39	39	39
Sampling Company					GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM
Laboratory					BV		BV			BV	BV	BV			BV	BV	BV			ALS	ALS	ALS
Laboratory Work Order			95th		C3W7540		C3BO809	95th		C413312	C443566	C473326	95th		C4A3859	C4E8855	C4H7635	95th		TY2407793	TY2409363	TY2410547
Laboratory Sample ID	**Units**	**PWQO**	**Percentile**	**RDL**	XIV842		XYM839	**Percentile**	**RDL**	YCT683	YJD538	YPH124	**Percentile**	**RDL**	YVO726	ZEV921	ZKW187	**Percentile**	**RDL**	TY2407793-011	TY2409363-001	TY2410547-005
Nutrients																						
Phosphorus, Total	mg/L	0.03_{s4} [C]	0.0104	0.001	0.0029	-	0.0038	0.0053	0.001	0.0049	0.0075	0.0099	0.008	0.001	0.0042	0.0039	0.0066	0.0082	0.001	0.01	0.01	0.01
Total Metals																						
Antimony	µg/L	20 [C]	0.12	0.1	<0.1	-	<0.1	0.11	0.10	0.1	0.2	0.7	0.05	0.1	1.5	0.3	0.3	0.05	0.1	0.54	0.42	0.46
Arsenic	µg/L	100 [A] 5 [C]	6.64	0.1	**7.9 [C]**	-	3.9	5.89	0.10	3.7	3.1	3.5	7.03	0.1	4.8	4.3	5.8	8.04	0.1	**9.15 [C]**	**8.3 [C]**	**7.96 [C]**
Cobalt	µg/L	0.9 [C]	0.05	0.1	0.07	-	0.09	0.05	0.05	0.08	0.14	0.38	0.05	0.05	1.61	0.33	0.2	0.05	0.05	0.47	0.72	0.37
Iron	µg/L	300 [A]	95	10	91	-	112	244.4	5	101	200	101	98.2	5	125	77	67	64	5	47	299	53
Mercury	µg/L	0.2 [A]	0.00199*	0.00001	0.00172	-	0.00132	0.00199*	0.0001	0.00142	0.00127	0.00108	0.00199*	0.0001	0.00157	<0.00005	0.00183	0.00199*	0.0001	0.00095	0.00103	0.00075
Methyl Mercury	µg/L	n/v	0.000088*	0.00002	0.00014	-	0.00013	0.000088*	0.000050	0.0001	0.00021	0.00013	0.000088*	0.00005	0.00013	<0.00005	0.00015	0.000088*	0.00005	0.00012	0.00011	0.00021
Uranium	µg/L	5_a [C]	0.096	0.01	0.29	-	0.22	0.099	0.010	0.21	0.23	0.29	0.057	0.01	0.48	0.25	0.21	0.075	0.01	0.34	0.28	0.338

Notes:

PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
[A]	PWQO Table 2
[B]	PWQO Table 2 - Calculated
[C]	PWQO Table 2 - Interim
6.5 [A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
[a]	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
[s4]	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
*	Annual 95th percentile calculated using a sample count of 13
**	November 2023 was not sampled due to unsafe conditions

Greenstone Mine - Surface Water Quality Trigger Parameters
October 2023 - September 2024
Station 49

Season			Fall*					Winter					Spring					Summer				
Sample Date					3-Oct-23	3-Nov-23	3-Dec-23			15-Jan-24	5-Feb-24	11-Mar-24			23-Apr-24	6-May-24	10-Jun-24			2-Jul-24	12-Aug-24	9-Sep-24
Sample ID					49	49	49			49	49	49			49	49	49			49	49	49
Sampling Company					GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM
Laboratory					TESTMARK					BV	BV	BV			BV	BV	BV			ALS	ALS	ALS
Laboratory Work Order			95th		C3V1811			95th		C418507	C437213	C437214	95th		C4A5379	C4D8691	C4H7665	95th		TY2407088	TY2408830	TY2410198
Laboratory Sample ID	**Units**	**PWQO**	**Percentile**	**RDL**	**XFK849**			**Percentile**	**RDL**	**YDU503**	**YHV190**	**YHV191**	**Percentile**	**RDL**	**YVW960**	**ZCT793**	**ZKW384**	**Percentile**	**RDL**	**TY2407088-001**	**TY2408830-008**	**TY2410198-003**
Nutrients																						
Phosphorus, Total	mg/L	0.03_{s4} [C]	0.0369	0.001	0.008	-	-	0.0362	0.001	0.0059	0.0055	0.0027	0.0131	0.001	0.0038	0.005	0.013	0.0158	0.001	0.0131	0.0136	0.0105
Total Metals																						
Antimony	µg/L	20 [C]	0.13	0.1	<0.1	-	-	0.1085	0.10	<0.1	<0.1	<0.1	0.05	0.1	0.2	<0.1	<0.1	0.09	0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	100 [A] 5 [C]	7.02	0.1	**9.9** [C]	-	-	1.3475	0.10	0.9	0.8	0.8	3.28	0.1	0.8	2.2	3.3	15.05	0.1	3.68	6.41	9.23
Cobalt	µg/L	0.9 [C]	0.05	0.1	<0.05	-	-	0.05	0.05	<0.05	<0.05	<0.05	0.11	0.05	0.06	<0.05	<0.05	0.05	0.05	<0.1	<0.1	<0.1
Iron	µg/L	300 [A]	190	10	76	-	-	103.3	5	56	62	64	168	5	53	91	98	137	5	85	73	105
Uranium	µg/L	5_a [C]	0.262	0.01	0.16	-	-	0.32305	0.01	0.28	0.27	0.28	0.149	0.01	0.14	0.15	0.13	0.232	0.01	0.173	0.183	0.189

Notes:

PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
A	PWQO Table 2
B	PWQO Table 2 - Calculated
C	PWQO Table 2 - Interim
6.5 [A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
a	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
s4	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
*	November and December 2023 was not sampled due to unsafe conditions

Greenstone Mine - Surface Water Quality Trigger Parameters
October 2023 - September 2024
Station 52

Season			Fall					Winter					Spring					Summer				
Sample Date					25-Oct-23	7-Nov-23	6-Dec-23			11-Jan-24	05-Feb-24	06-Mar-24			17-Apr-24	16-May-24	22-Jun-24			18-Jul-24	25-Aug-24	25-Sep-24
Sample ID					52	52	52			52	52	52			52	52	52			52	52	52
Sampling Company					GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM
Laboratory					TESTMARK	TESTMARK	BV			BV	BV	BV			BV	BV	ALS			ALS	ALS	ALS
Laboratory Work Order			95th		C3X7650	C3Z3957	C3BB280	95th		C413312	C448115	C470075	95th		C4B7955	C4F0028	TY2406682	95th		TY2407827	TY2409445	TY2410916
Laboratory Sample ID	**Units**	**PWQO**	**Percentile**	**RDL**	XLA034	XOL812	XVQ115	**Percentile**	**RDL**	YCT686	YKB045	YOP543	**Percentile**	**RDL**	YYK818	ZFC033	TY2406682-005	**Percentile**	**RDL**	TY2407827-001	TY2409445-001	TY2410916-001
Nutrients																						
Phosphorus, Total	mg/L	0.03_{s4}[C]	0.0101**	0.001	0.0045	0.0046	0.0035	0.0058**	0.0010	0.0031	0.0029	0.0025	0.0121	0.001	0.0064	0.0033	0.0115	0.0175	0.001	0.0104	0.0084	0.0071
Total Metals																						
Antimony	µg/L	20[C]	0.12**	0.1	<0.1	<0.1	<0.1	0.1**	0.10	<0.1	<0.1	<0.1	0.05	0.1	<0.1	<0.1	<0.1	0.05	0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	100[A] 5[C]	6.63**	0.1	3.5	3.8	3.6	5.78**	0.10	3	2.5	2.5	3.14	0.1	2.1	2	3.3	5.40	0.1	4.17	**5.09**[C]	4.58
Cobalt	µg/L	0.9[C]	0.05**	0.1	<0.05	<0.05	<0.05	0.05**	0.05	<0.05	<0.05	<0.05	0.05	0.05	0.06	<0.05	<0.1	0.05	0.05	<0.1	<0.1	<0.1
Iron	µg/L	300[A]	95**	10	125	157	104	243**	5	79	63	53	99	5	53	53	80	327	5	87	63	53
Mercury	µg/L	0.2[A]	0.00236*	0.00001	0.00105	0.0019	0.00123	0.00236*	0.000100	0.00386	0.00079	0.0067	0.00236*	0.0001	0.00239	0.00118	0.00099	0.00236*	0.0001	0.00079	0.00064	0.00045
Methyl Mercury	µg/L	n/v	0.000126*	0.00002	<0.00005	<0.00005	<0.00005	0.000126*	0.000050	<0.00005	<0.00005	<0.00005	0.000126*	0.00005	<0.00005	-	0.000069	0.000126*	0.00005	0.000094	0.000067	0.00005
Uranium	µg/L	5_a[C]	0.12**	0.01	0.14	0.12	0.12	0.137**	0.010	0.12	0.11	0.13	0.138	0.01	0.08	0.11	0.11	0.192	0.01	0.13	0.129	0.147

Notes:

PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
A	PWQO Table 2
B	PWQO Table 2 - Calculated
C	PWQO Table 2 - Interim
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
a	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
s4	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
*	Annual 95th percentile calculated using a sample count of 12
**	Due to a limitied seasonal dataset, seasonal data with shoulder months from station 39 has been included in the sample count and 95th percentile calculations

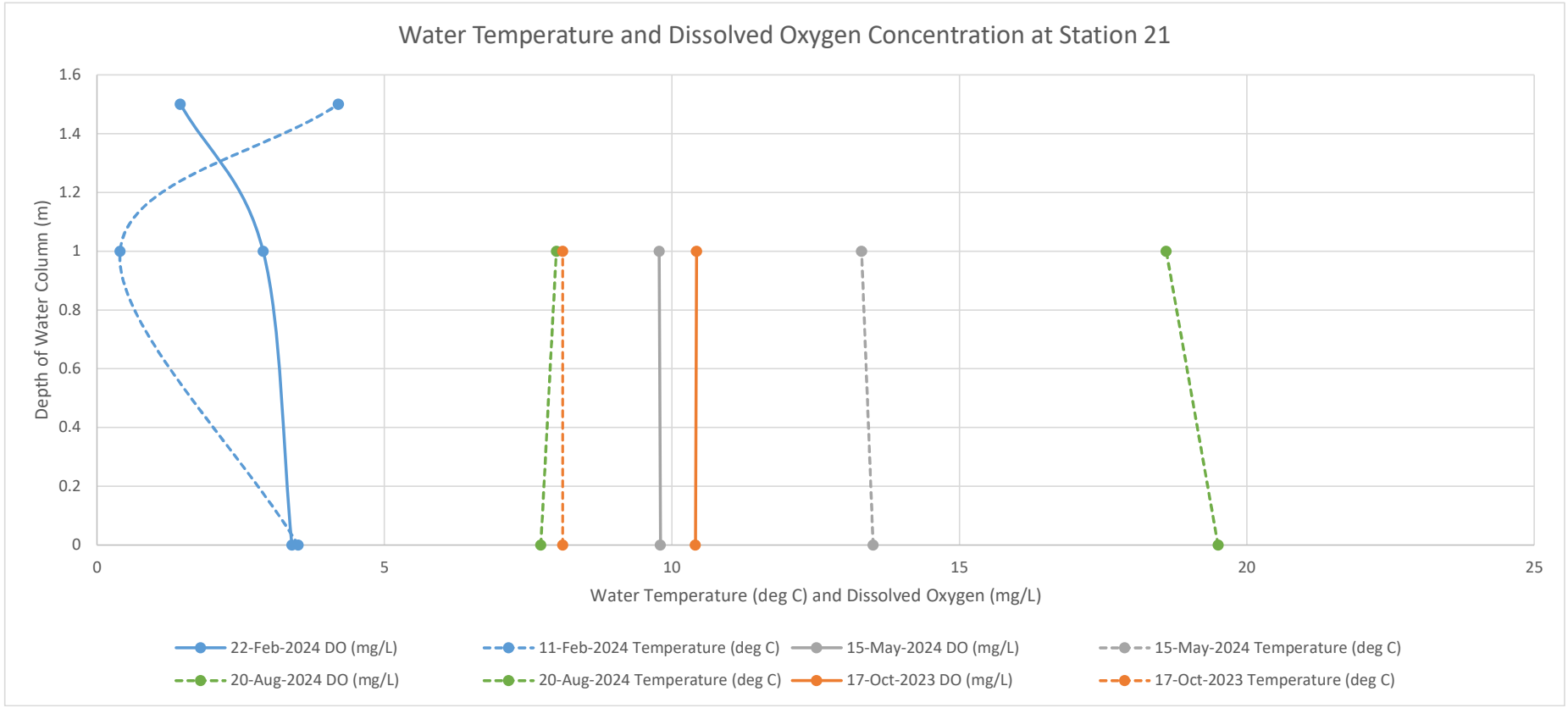
Greenstone Mine - Surface Water Quality Parameters
October 2023 - September 2024
Station 53

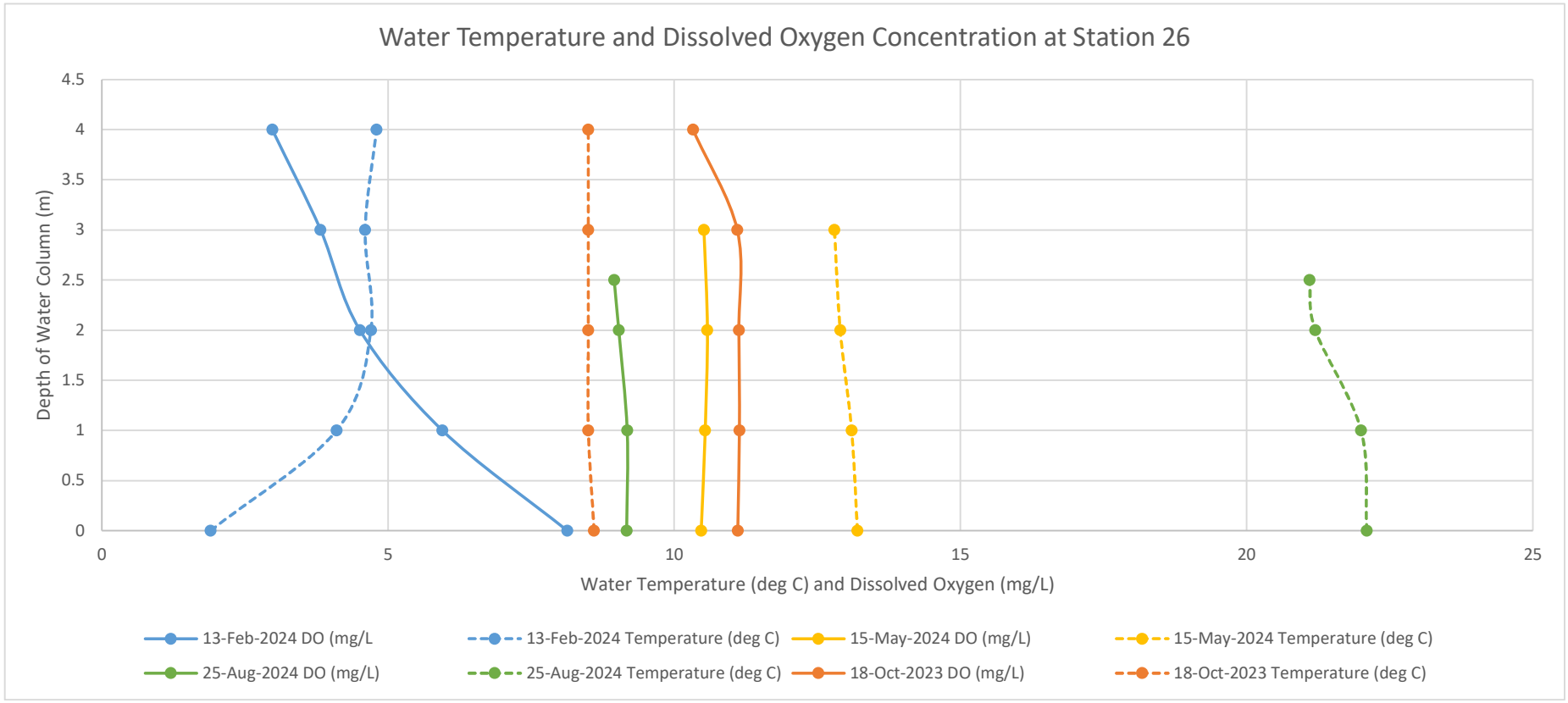
Season			Fall**					Winter					Spring					Summer				
Sample Date					3-Oct-23	8-Nov-22	8-Dec-23			24-Jan-24	5-Feb-24	13-Mar-24			9-Apr-24	7-May-24	20-Jun-24			11-Jul-24	12-Aug-24	23-Sep-24
Sample ID					53	53	53			53	53	53			53	53	53			53	53	53
Sampling Company					GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM			GGM	GGM	GGM
Laboratory					TESTMARK					BV	BV	BV			BV	BV	ALS			ALS	ALS	ALS
Laboratory Work Order			95th		C3V1811			95th		C425851	C437213	C478150	95th		C4A7017	C4D8729	TY2406519	95th		TY2407498	TY2408830	TY2410843
Laboratory Sample ID	**Units**	**PWQO**	**Percentile***	**RDL**	XFK850			**Percentile***	**RDL**	YFI925	YHV191	YQG346	**Percentile***	**RDL**	YWE924	ZCU005	TY2406519-006	**Percentile***	**RDL**	TY2407498-007	TY2408830-006	TY2410843-002
Nutrients																						
Phosphorus, Total	mg/L	0.03_{s4}[C]	0.0369	0.001	0.013	-	-	0.0349	0.0010	0.0046	0.0066	0.0022	0.0130	0.001	0.004	0.0065	0.0126	0.0154	0.001	0.0109	0.0133	0.0126
Total Metals																						
Antimony	µg/L	20[C]	0.13	0.1	<0.1	-	-	0.1	0.10	<0.1	<0.1	<0.1	0.05	0.10	<0.1	<0.1	<0.1	0.08	0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	100[A] 5[C]	7.02	0.1	**5.8[C]**	-	-	1.34	0.10	0.9	0.9	0.8	3.26	0.10	1.4	2	1.88	13.56	0.1	4.04	3.62	**6.39[C]**
Cobalt	µg/L	0.9[C]	0.05	0.1	<0.05	-	-	0.05	0.05	<0.05	<0.05	<0.05	0.1	0.10	0.09	<0.05	<0.1	0.05	0.05	<0.1	<0.1	<0.1
Iron	µg/L	300[A]	190	10	80	-	-	103	5	71	77	63	190	10	129	77	96	136	5	67	85	130
Uranium	µg/L	5_a[C]	0.262	0.01	0.18	-	-	0.322	0.010	0.28	0.26	0.27	0.148	0.010	0.14	0.15	0.165	0.229	0.01	0.188	0.191	0.177

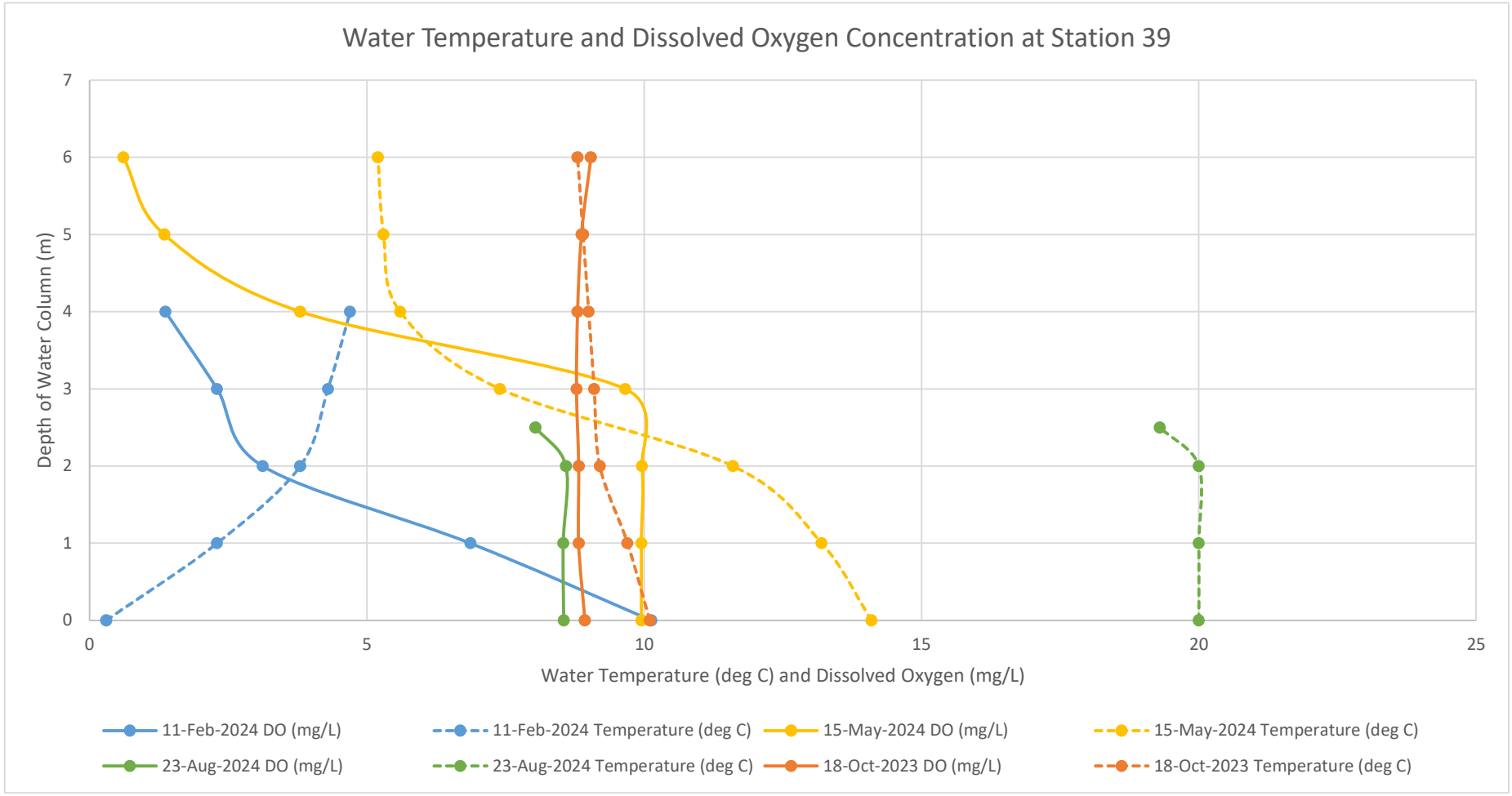
Notes:

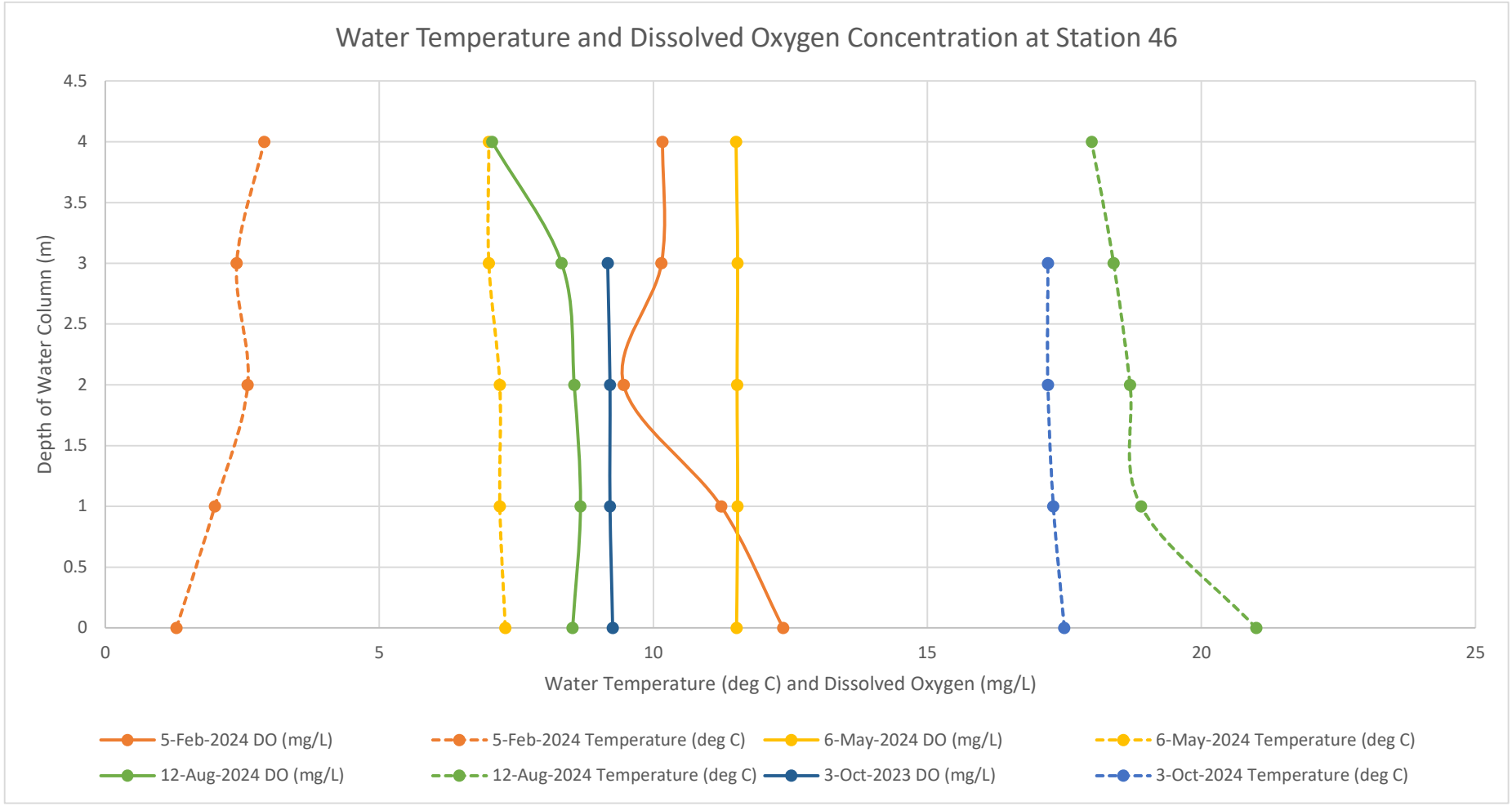
PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
[A]	PWQO Table 2
[B]	PWQO Table 2 - Calculated
[C]	PWQO Table 2 - Interim
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
[a]	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
[s4]	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
*	No seasonal data was available for station 53. Seasonal data from station 49 was included in the sample count and 95th percentile calculations
**	November and December 2023 was not sampled due to unsafe conditions

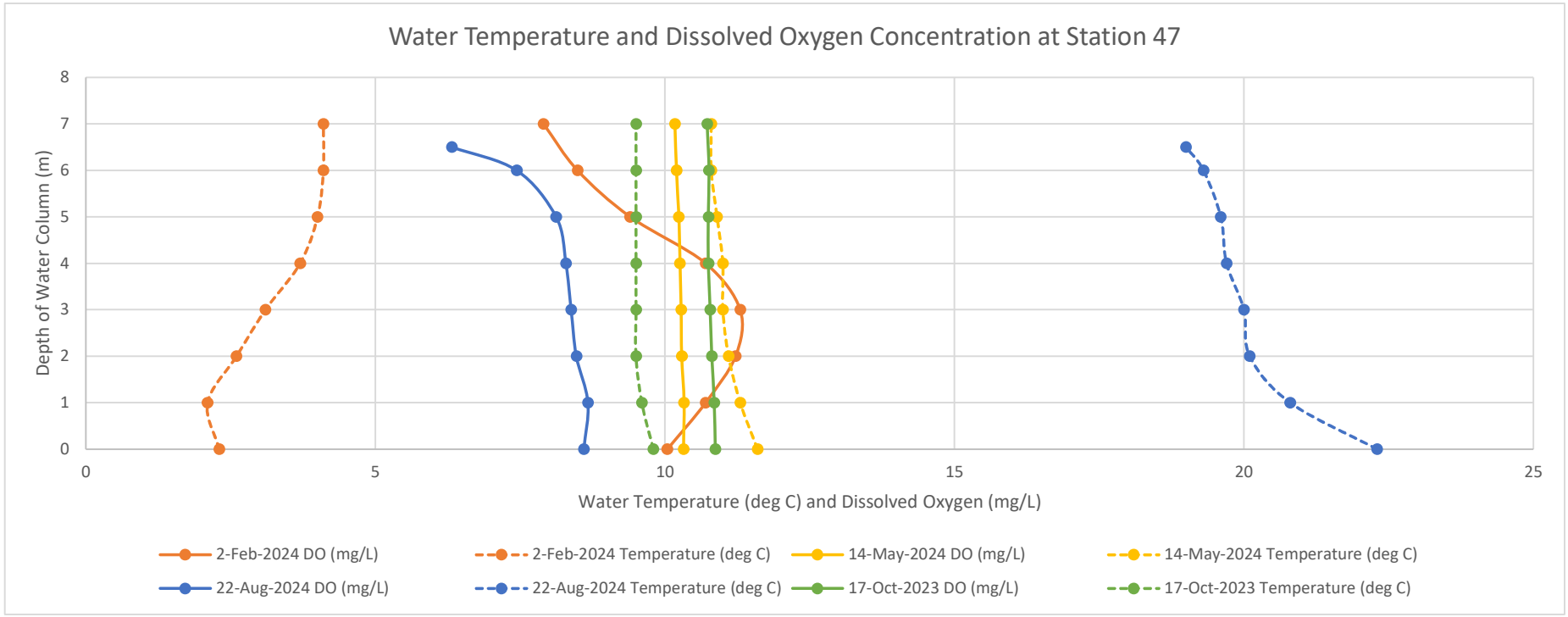
Appendix B.4 In-situ Dissolved Oxygen and Water Temperature

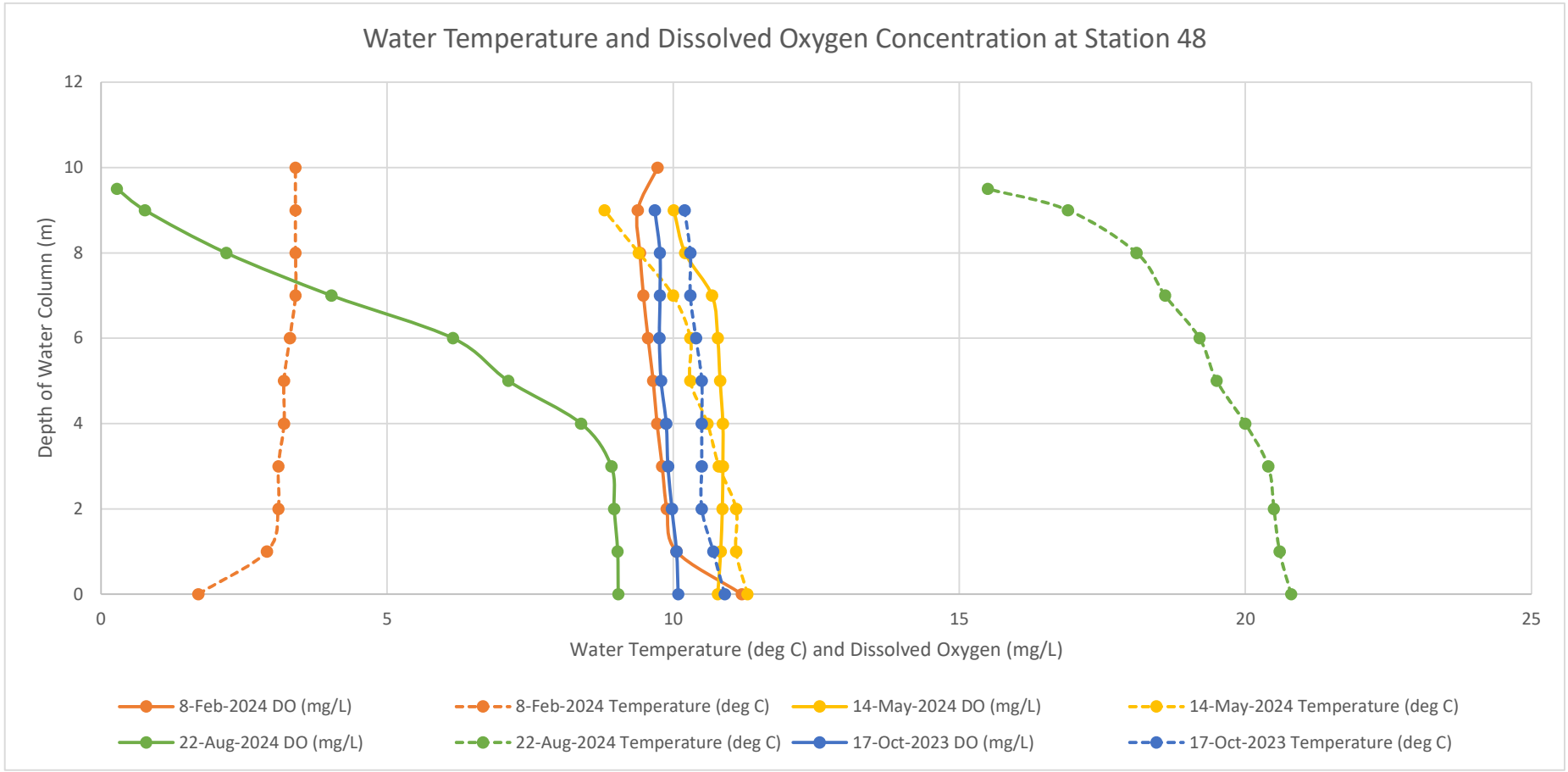

Water Temperature and Dissolved Oxygen Concentration at Station 21
Depth of Water Column (m)
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
5
10
15
20
25
Water Temperature (deg C) and Dissolved Oxygen (mg/L)
22-Feb-2024 DO (mg/L)
11-Feb-2024 Temperature (deg C)
15-May-2024 DO (mg/L)
15-May-2024 Temperature (deg C)
20-Aug-2024 DO (mg/L)
20-Aug-2024 Temperature (deg C)
17-Oct-2023 DO (mg/L)
17-Oct-2023 Temperature (deg C)

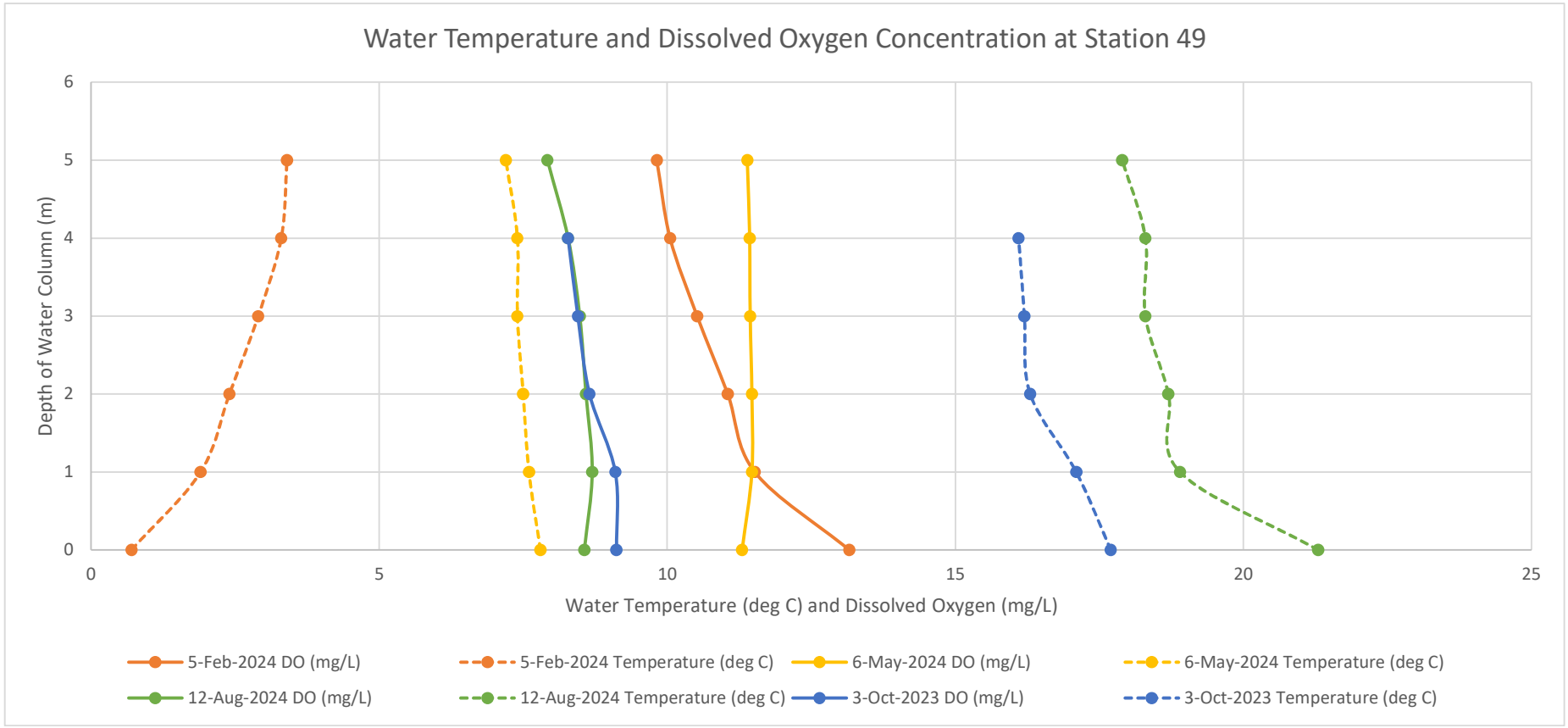

Water Temperature and Dissolved Oxygen Concentration at Station 26
Depth of Water Column (m)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
5
10
15
20
25
Water Temperature (deg C) and Dissolved Oxygen (mg/L)
13-Feb-2024 DO (mg/L
13-Feb-2024 Temperature (deg C)
15-May-2024 DO (mg/L)
15-May-2024 Temperature (deg C)
25-Aug-2024 DO (mg/L)
25-Aug-2024 Temperature (deg C)
18-Oct-2023 DO (mg/L)
18-Oct-2023 Temperature (deg C)

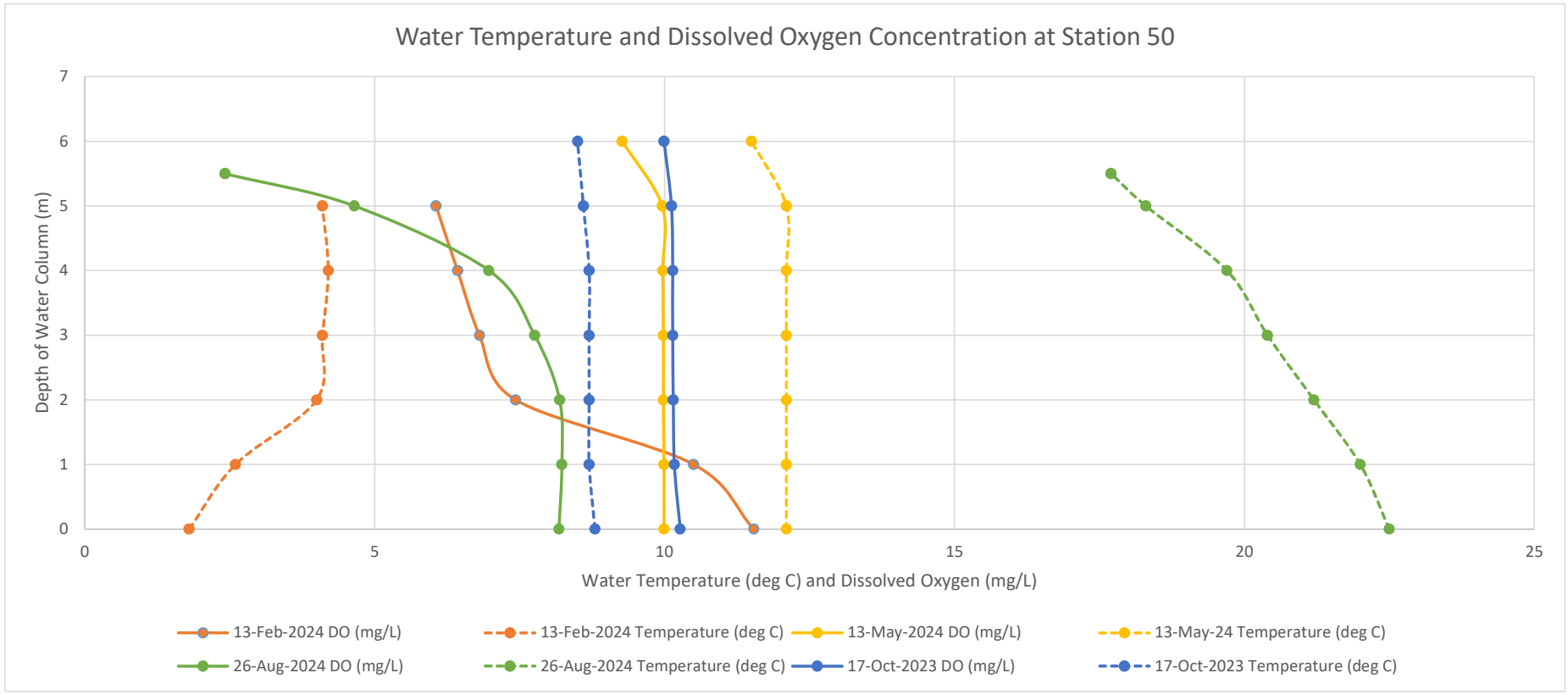

Water Temperature and Dissolved Oxygen Concentration at Station 39
Depth of Water Column (m)
0
1
2
3
4
5
6
7
0
5
10
15
20
25
Water Temperature (deg C) and Dissolved Oxygen (mg/L)
11-Feb-2024 DO (mg/L)
11-Feb-2024 Temperature (deg C)
15-May-2024 DO (mg/L)
15-May-2024 Temperature (deg C)
23-Aug-2024 DO (mg/L)
23-Aug-2024 Temperature (deg C)
18-Oct-2023 DO (mg/L)
18-Oct-2023 Temperature (deg C)


Water Temperature and Dissolved Oxygen Concentration at Station 46
Depth of Water Column (m)
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
0
5
10
15
20
25
Water Temperature (deg C) and Dissolved Oxygen (mg/L)
5-Feb-2024 DO (mg/L)
5-Feb-2024 Temperature (deg C)
6-May-2024 DO (mg/L)
6-May-2024 Temperature (deg C)
12-Aug-2024 DO (mg/L)
12-Aug-2024 Temperature (deg C)
3-Oct-2023 DO (mg/L)
3-Oct-2024 Temperature (deg C)


Water Temperature and Dissolved Oxygen Concentration at Station 47
Depth of Water Column (m)
0
1
2
3
4
5
6
7
8
0
5
10
15
20
25
Water Temperature (deg C) and Dissolved Oxygen (mg/L)
2-Feb-2024 DO (mg/L)
2-Feb-2024 Temperature (deg C)
14-May-2024 DO (mg/L)
14-May-2024 Temperature (deg C)
22-Aug-2024 DO (mg/L)
22-Aug-2024 Temperature (deg C)
17-Oct-2023 DO (mg/L)
17-Oct-2023 Temperature (deg C)


Water Temperature and Dissolved Oxygen Concentration at Station 48
Depth of Water Column (m)
12
10
8
6
4
2
0
0
5
10
15
20
25
Water Temperature (deg C) and Dissolved Oxygen (mg/L)
8-Feb-2024 DO (mg/L)
8-Feb-2024 Temperature (deg C)
14-May-2024 DO (mg/L)
14-May-2024 Temperature (deg C)
22-Aug-2024 DO (mg/L)
22-Aug-2024 Temperature (deg C)
17-Oct-2023 DO (mg/L)
17-Oct-2023 Temperature (deg C)


Water Temperature and Dissolved Oxygen Concentration at Station 49
Depth of Water Column (m)
0
1
2
3
4
5
6
0
5
10
15
20
25
Water Temperature (deg C) and Dissolved Oxygen (mg/L)
5-Feb-2024 DO (mg/L)
5-Feb-2024 Temperature (deg C)
6-May-2024 DO (mg/L)
6-May-2024 Temperature (deg C)
12-Aug-2024 DO (mg/L)
12-Aug-2024 Temperature (deg C)
3-Oct-2023 DO (mg/L)
3-Oct-2023 Temperature (deg C)


Water Temperature and Dissolved Oxygen Concentration at Station 50
Depth of Water Column (m)
0
1
2
3
4
5
6
7
0
5
10
15
20
25
Water Temperature (deg C) and Dissolved Oxygen (mg/L)
13-Feb-2024 DO (mg/L)
13-Feb-2024 Temperature (deg C)
13-May-2024 DO (mg/L)
13-May-24 Temperature (deg C)
26-Aug-2024 DO (mg/L)
26-Aug-2024 Temperature (deg C)
17-Oct-2023 DO (mg/L)
17-Oct-2023 Temperature (deg C)

Sub-Location	ID	Date	Time	Sample Depth (m)	Dissolved Oxygen, Field (mg/L)	Temperature, Field (deg C)
Lake A-322	21	2/11/2024	11:47	-	3.39	3.5
Lake A-322	21	2/11/2024	11:48	1	2.89	0.4
Lake A-322	21	2/11/2024	11:50	1.5	1.45	4.2
Lake A-322	21	5/15/2024	12:16	-	9.8	13.5
Lake A-322	21	5/15/2024	12:20	1	9.78	13.3
Lake A-322	21	8/20/2024	12:06	-	7.72	19.5
Lake A-322	21	8/20/2024	12:08	1	7.99	18.6
Lake A-322	21	10/17/2023	10:26	-	10.41	8.1
Lake A-322	21	10/17/2023	10:26	1	10.43	8.1
Mosher Lake	26	2/13/2024	15:04	-	8.13	1.9
Mosher Lake	26	2/13/2024	15:05	1	5.95	4.1
Mosher Lake	26	2/13/2024	15:07	2	4.51	4.7
Mosher Lake	26	2/13/2024	15:08	3	3.82	4.6
Mosher Lake	26	2/13/2024	15:10	4	2.98	4.8
Mosher Lake	26	5/15/2024	10:28	-	10.47	13.2
Mosher Lake	26	5/15/2024	10:30	1	10.54	13.1
Mosher Lake	26	5/15/2024	10:31	2	10.58	12.9
Mosher Lake	26	5/15/2024	10:32	3	10.52	12.8
Mosher Lake	26	8/25/2024	14:24	-	9.17	22.1
Mosher Lake	26	8/25/2024	14:24	1	9.18	22
Mosher Lake	26	8/26/2024	14:25	2	9.03	21.2
Mosher Lake	26	8/25/2024	14:27	2.5	8.95	21.1
Mosher Lake	26	10/18/2023	10:42	-	11.11	8.6
Mosher Lake	26	10/18/2023	10:43	1	11.14	8.5
Mosher Lake	26	10/18/2023	10:44	2	11.13	8.5
Mosher Lake	26	10/18/2023	10:45	3	11.1	8.5
Mosher Lake	26	10/18/2023	10:48	4	10.33	8.5
Southwest Pond 3	39	2/11/2024	14:33	-	10.13	0.3
Southwest Pond 3	39	2/11/2024	14:34	1	6.87	2.3
Southwest Pond 3	39	2/11/2024	14:35	2	3.12	3.8
Southwest Pond 3	39	2/11/2024	14:35	3	2.3	4.3
Southwest Pond 3	39	2/11/2024	14:36	4	1.37	4.7
Southwest Pond 3	39	5/15/2024	14:32	-	9.95	14.1
Southwest Pond 3	39	5/15/2024	14:34	1	9.95	13.2
Southwest Pond 3	39	5/15/2024	14:35	2	9.96	11.6
Southwest Pond 3	39	5/15/2024	14:36	3	9.66	7.4
Southwest Pond 3	39	5/15/2024	14:37	4	3.8	5.6
Southwest Pond 3	39	5/15/2024	14:39	5	1.35	5.3
Southwest Pond 3	39	5/15/2024	14:41	6	0.61	5.2
Southwest Pond 3	39	8/23/2024	9:07	-	8.55	20
Southwest Pond 3	39	8/23/2024	8:08	1	8.54	20
Southwest Pond 3	39	8/23/2024	9:09	2	8.59	20
Southwest Pond 3	39	8/23/2024	9:17	2.5	8.04	19.3
Southwest Pond 3	39	10/18/2023	16:02	-	8.93	10.1
Southwest Pond 3	39	10/18/2023	16:03	1	8.82	9.7
Southwest Pond 3	39	10/18/2023	16:03	2	8.82	9.2
Southwest Pond 3	39	10/18/2023	16:03	3	8.78	9.1
Southwest Pond 3	39	10/18/2023	16:03	4	8.8	9
Southwest Pond 3	39	10/18/2023	16:04	5	8.87	8.9
Southwest Pond 3	39	10/18/2023	16:04	6	9.04	8.8
Southwest Arm	46	2/5/2024	12:03	-	12.37	1.3
Southwest Arm	46	2/5/2024	12:05	1	11.24	2
Southwest Arm	46	2/5/2024	12:07	2	9.46	2.6
Southwest Arm	46	2/5/2024	12:09	3	10.15	2.4
Southwest Arm	46	2/5/2024	12:11	4	10.17	2.9
Southwest Arm	46	5/6/2024	10:44	-	11.52	7.3
Southwest Arm	46	5/6/2024	10:47	1	11.54	7.2
Southwest Arm	46	5/6/2024	10:49	2	11.53	7.2
Southwest Arm	46	5/6/2024	10:50	3	11.54	7
Southwest Arm	46	5/6/2024	10:53	4	11.51	7
Southwest Arm	46	8/12/2024	12:54	-	8.53	21
Southwest Arm	46	8/12/2024	13:09	1	8.67	18.9
Southwest Arm	46	8/12/2024	13:11	2	8.56	18.7
Southwest Arm	46	8/12/2024	13:12	3	8.33	18.4
Southwest Arm	46	8/12/2024	13:13	4	7.06	18
Southwest Arm	46	10/3/2023	11:16	-	9.26	17.5
Southwest Arm	46	10/3/2023	11:19	1	9.21	17.3
Southwest Arm	46	10/3/2023	11:21	2	9.21	17.2
Southwest Arm	46	10/3/2023	11:23	3	9.17	17.2
Central Basin	47	2/2/2024	10:14	-	10.04	2.3

Central Basin	47	2/2/2024	10:15	1	10.7	2.1
Central Basin	47	2/2/2024	10:17	2	11.22	2.6
Central Basin	47	2/2/2024	10:18	3	11.3	3.1
Central Basin	47	2/2/2024	10:19	4	10.7	3.7
Central Basin	47	2/2/2024	10:20	5	9.4	4
Central Basin	47	2/2/2024	10:21	6	8.49	4.1
Central Basin	47	2/2/2024	10:22	7	7.9	4.1
Central Basin	47	5/14/2024	12:25	-	10.32	11.6
Central Basin	47	5/14/2024	12:27	1	10.33	11.3
Central Basin	47	5/14/2024	12:29	2	10.29	11.1
Central Basin	47	5/14/2024	12:31	3	10.28	11
Central Basin	47	5/14/2024	12:33	4	10.26	11
Central Basin	47	5/14/2024	12:35	5	10.24	10.9
Central Basin	47	5/14/2024	12:36	6	10.2	10.8
Central Basin	47	5/14/2024	12:39	7	10.17	10.8
Central Basin	47	8/22/2024	12:03	-	8.6	22.3
Central Basin	47	8/22/2024	12:04	1	8.67	20.8
Central Basin	47	8/22/2024	12:04	2	8.47	20.1
Central Basin	47	8/22/2024	12:04	3	8.38	20
Central Basin	47	8/22/2024	12:05	4	8.29	19.7
Central Basin	47	8/22/2024	12:05	5	8.12	19.6
Central Basin	47	8/22/2024	12:06	6	7.44	19.3
Central Basin	47	8/22/2024	12:08	6.5	6.32	19
Central Basin	47	10/17/2023	12:32	-	10.87	9.8
Central Basin	47	10/17/2023	12:34	1	10.85	9.6
Central Basin	47	10/17/2023	12:36	2	10.81	9.5
Central Basin	47	10/17/2023	12:37	3	10.78	9.5
Central Basin	47	10/17/2023	12:38	4	10.75	9.5
Central Basin	47	10/17/2023	12:39	5	10.75	9.5
Central Basin	47	10/17/2023	12:40	6	10.76	9.5
Central Basin	47	10/17/2023	12:42	7	10.73	9.5
Outlet Basin	48	2/8/2024	12:47	-	11.2	1.7
Outlet Basin	48	2/8/2024	12:49	1	10.06	2.9
Outlet Basin	48	2/8/2024	12:50	2	9.89	3.1
Outlet Basin	48	2/8/2024	12:51	3	9.81	3.1
Outlet Basin	48	2/8/2024	12:52	4	9.72	3.2
Outlet Basin	48	2/8/2024	12:54	5	9.65	3.2
Outlet Basin	48	2/8/2024	12:55	6	9.56	3.3
Outlet Basin	48	2/8/2024	12:56	7	9.48	3.4
Outlet Basin	48	2/8/2024	12:57	8	9.42	3.4
Outlet Basin	48	2/8/2024	12:59	9	9.38	3.4
Outlet Basin	48	2/8/2024	1:01	10	9.73	3.4
Outlet Basin	48	5/14/2024	13:50	-	10.78	11.3
Outlet Basin	48	5/14/2024	13:51	1	10.83	11.1
Outlet Basin	48	5/14/2024	13:53	2	10.86	11.1
Outlet Basin	48	5/14/2024	13:54	3	10.87	10.8
Outlet Basin	48	5/14/2024	13:55	4	10.87	10.6
Outlet Basin	48	5/14/2024	13:56	5	10.82	10.3
Outlet Basin	48	5/14/2024	13:57	6	10.78	10.3
Outlet Basin	48	5/14/2024	13:58	7	10.68	10
Outlet Basin	48	5/14/2024	14:00	8	10.21	9.4
Outlet Basin	48	5/14/2024	14:01	9	10.01	8.8
Outlet Basin	48	8/22/2024	10:49	-	9.04	20.8
Outlet Basin	48	8/22/2024	10:49	1	9.03	20.6
Outlet Basin	48	8/22/2024	10:48	2	8.97	20.5
Outlet Basin	48	8/22/2024	10:48	3	8.92	20.4
Outlet Basin	48	8/22/2024	10:48	4	8.39	20
Outlet Basin	48	8/22/2024	10:48	5	7.12	19.5
Outlet Basin	48	8/22/2024	10:48	6	6.15	19.2
Outlet Basin	48	8/22/2024	10:48	7	4.03	18.6
Outlet Basin	48	8/22/2024	10:48	8	2.19	18.1
Outlet Basin	48	8/22/2024	10:48	9	0.77	16.9
Outlet Basin	48	8/22/2024	10:48	9.5	0.28	15.5
Outlet Basin	48	10/17/2023	13:44	-	10.09	10.9
Outlet Basin	48	10/17/2023	13:45	1	10.06	10.7
Outlet Basin	48	10/17/2023	13:47	2	9.98	10.5
Outlet Basin	48	10/17/2023	13:48	3	9.91	10.5
Outlet Basin	48	10/17/2023	13:49	4	9.88	10.5
Outlet Basin	48	10/17/2023	13:51	5	9.79	10.5
Outlet Basin	48	10/17/2023	13:52	6	9.76	10.4
Outlet Basin	48	10/17/2023	13:53	7	9.77	10.3
Outlet Basin	48	10/17/2023	13:55	8	9.77	10.3

Outlet Basin	48	10/17/2023	13:57	9	9.68	10.2
Southwest Arm	49	2/5/2024	12:34	-	13.16	0.7
Southwest Arm	49	2/5/2024	12:36	1	11.52	1.9
Southwest Arm	49	2/5/2024	12:37	2	11.05	2.4
Southwest Arm	49	2/5/2024	12:39	3	10.52	2.9
Southwest Arm	49	2/5/2024	12:40	4	10.05	3.3
Southwest Arm	49	2/5/2024	12:42	5	9.82	3.4
Southwest Arm	49	5/6/2024	10:02	-	11.3	7.8
Southwest Arm	49	5/6/2024	10:06	1	11.47	7.6
Southwest Arm	49	5/6/2024	10:07	2	11.47	7.5
Southwest Arm	49	5/6/2024	10:09	3	11.44	7.4
Southwest Arm	49	5/6/2024	10:10	4	11.43	7.4
Southwest Arm	49	5/6/2024	10:12	5	11.39	7.2
Southwest Arm	49	8/12/2024	14:18	-	8.56	21.3
Southwest Arm	49	8/12/2024	14:21	1	8.7	18.9
Southwest Arm	49	8/12/2024	14:24	2	8.59	18.7
Southwest Arm	49	8/12/2024	14:26	3	8.48	18.3
Southwest Arm	49	8/12/2024	14:28	4	8.28	18.3
Southwest Arm	49	8/12/2024	14:31	5	7.92	17.9
Southwest Arm	49	10/3/2023	11:51	-	9.12	17.7
Southwest Arm	49	10/3/2023	11:53	1	9.1	17.1
Southwest Arm	49	10/3/2023	11:54	2	8.65	16.3
Southwest Arm	49	10/3/2023	11:56	3	8.45	16.2
Southwest Arm	49	10/3/2023	11:58	4	8.28	16.1
Gamsby Lake	50	2/13/2024	10:54	-	11.54	1.8
Gamsby Lake	50	2/13/2024	10:56	1	10.5	2.6
Gamsby Lake	50	2/13/2024	10:59	2	7.43	4
Gamsby Lake	50	2/13/2024	11:01	3	6.81	4.1
Gamsby Lake	50	2/13/2024	11:04	4	6.43	4.2
Gamsby Lake	50	2/13/2024	11:07	5	6.06	4.1
Gamsby Lake	50	5/13/2024	16:08	-	9.99	12.1
Gamsby Lake	50	5/13/2024	16:09	1	9.99	12.1
Gamsby Lake	50	5/13/2024	16:09	2	9.98	12.1
Gamsby Lake	50	5/13/2024	16:10	3	9.98	12.1
Gamsby Lake	50	5/13/2024	16:10	4	9.97	12.1
Gamsby Lake	50	5/13/2024	16:11	5	9.96	12.1
Gamsby Lake	50	5/13/2024	16:11	6	9.27	11.5
Gamsby Lake	50	8/26/2024	10:50	-	8.18	22.5
Gamsby Lake	50	8/26/2024	10:53	1	8.23	22
Gamsby Lake	50	8/26/2024	10:55	2	8.19	21.2
Gamsby Lake	50	8/26/2024	10:56	3	7.76	20.4
Gamsby Lake	50	8/26/2024	10:58	4	6.97	19.7
Gamsby Lake	50	8/26/2024	11:00	5	4.65	18.3
Gamsby Lake	50	8/26/2024	11:03	5.5	2.42	17.7
Gamsby Lake	50	10/17/2023	10:25	-	10.27	8.8
Gamsby Lake	50	10/17/2023	10:26	1	10.17	8.7
Gamsby Lake	50	10/17/2023	10:27	2	10.15	8.7
Gamsby Lake	50	10/17/2023	10:28	3	10.14	8.7
Gamsby Lake	50	10/17/2023	10:30	4	10.14	8.7
Gamsby Lake	50	10/17/2023	10:31	5	10.12	8.6
Gamsby Lake	50	10/17/2023	10:32	6	9.99	8.5

Appendix B.5 Trigger Exceedance Investigation Reports

Stantec

Memo

To:	Braeden Connor	From:	Mahyar Shafii, Igor Iskra, Amy Domaratzki, Michelle Fraser
	Greenstone Gold Mines		Stantec Consulting Ltd.
File:	160901121	Date:	May 30, 2024
	HP-MG003-EV-119-0173_0		

Reference: Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39

1 INTRODUCTION

Greenstone Gold Mines (GGM) is in the process of commissioning a new open pit gold mine that includes a processing plant and ancillary facilities, collectively known as the Greenstone Mine (the Mine). Construction and operation of the gold mine are governed by a series of permits issued by the Ministry of Environment, Conservation and Parks (MECP) each with various monitoring requirements. Monitoring requirements for the Mine are also detailed in conditions of the federal Environmental Impact Statement (EIS) Decision Statement and provincial Environmental Assessment (EA) Notice of Approval.

A surface water quality adaptive management plan was implemented in October 2021 for the Mine. The adaptive management plan for the surface water quality monitoring program is a requirement of the following permits and/or monitoring plans for the Mine.

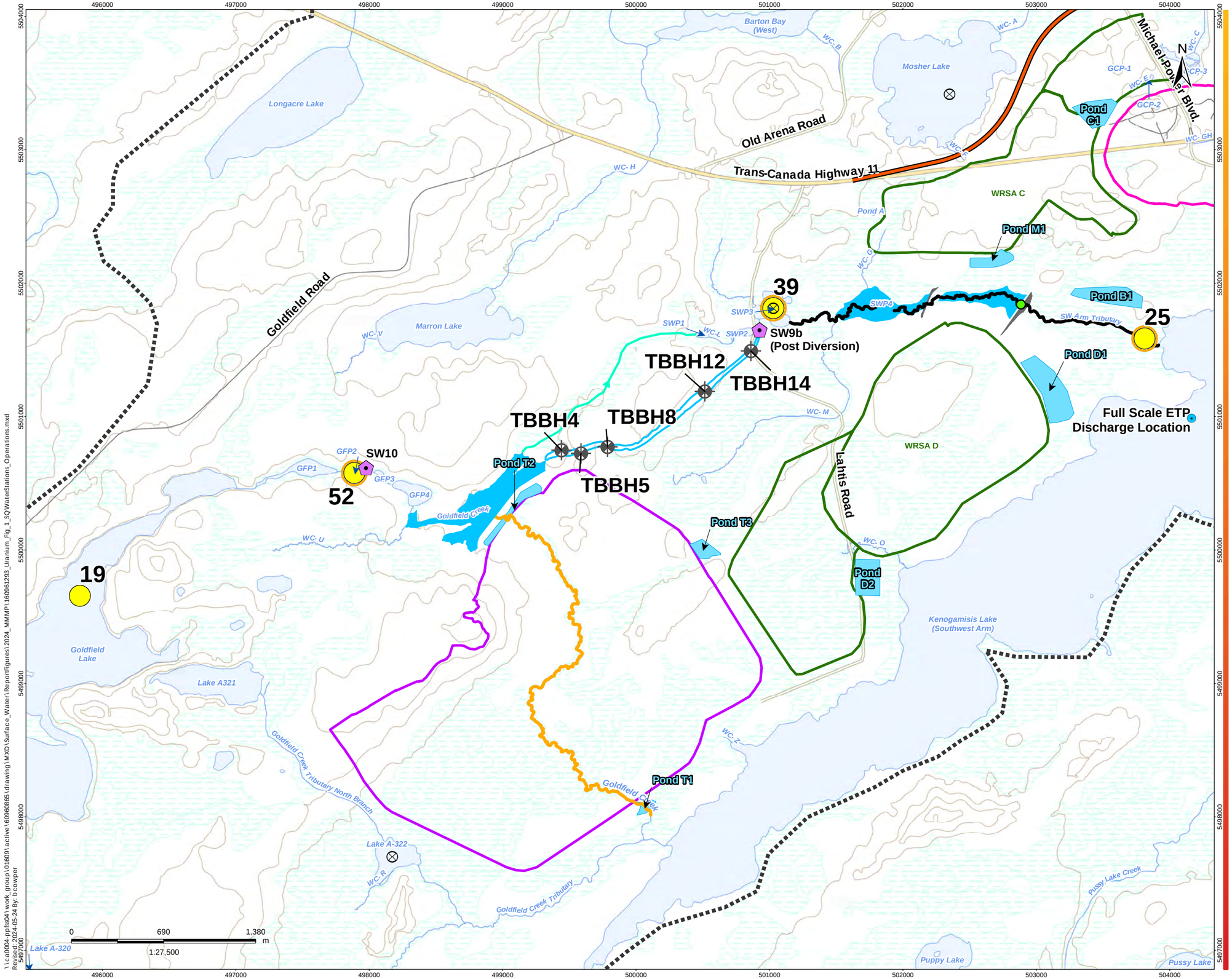
- Conditions 8.16 and 8.17 of the full-scale effluent treatment plant (ETP) Environmental Compliance Approval (ECA) number 0735-C9PMD6.
- The Multi-Media Monitoring Plan (GGM 2021a), developed in accordance with condition 13 of the provincial EA Notice of Approval.
- The Fish and Fish Habitat Follow-Up Monitoring Plan (GGM 2021b), developed in accordance with conditions 3.14, 3.15, 3.16, 3.17, 3.2, 5.4, and 5.5.1. of the federal EIS Decision Statement.

The adaptive management plan for surface water quality is consistent among the full scale ETP ECA, Multi-Media Monitoring Plan (MMMP), and Fish and Fish Habitat Follow-Up Monitoring Plan. The adaptive management plan defines triggers for additional assessment of cause and associated action plans that will be carried out should exceedances to the triggers occur. There are two trigger thresholds for surface water quality indicator parameters with a corresponding action plan should the threshold be exceeded. The action plan identifies notification, investigation, and mitigation measures and strategies that may be carried out when exceedances of the triggers occur, and those exceedances are deemed mine related. Surface water quality trigger threshold 1 and trigger threshold 2 were exceeded for uranium at Stations 25 and 39 and therefore the respective action plan was initiated. The objective of the action plan is to assess whether the exceedance is mine related and, if it is mine related, to undertake a quantitative risk evaluation, identify exceedance source, and mitigate effects of the mine, as required.

This letter documents the investigation report for the trigger threshold 2 exceedance for uranium at Station 25 and Station 39. An initial investigation report for the trigger threshold 2 exceedance of uranium at Station 39 was previously submitted in May 2022 (Stantec 2023) and this investigation report is an update to that initial investigation report.

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

Station 25 is located in the downstream section of the Southwest Arm Tributary (SWAT), near the outflow to the Southwest Arm. Station 39 is located in Southwest Pond 3 (SWP3) on the SWAT, downstream of the Goldfield Creek (GFC) diversion channel and upstream of Station 25. Stations 25 and 39 are shown in Figure 1.



Stantec

Legend

- Local Assessment Area
- Regional Assessment Area
- Discharge Location
- Flow Monitoring Station
- Temporary Bypass Channel Monitoring Well
- Routine Water Quality Monitoring
- Temperature/ DO Profile
- Mercury and Methylmercury Monitoring

Site Plan Revised Post Final EA/EIS

- New Highway 11 Alignment
- Diversion Channel
- Temporary By-Pass Channel Limit of Grading
- Collection Ponds
- Open Pit- Full Extent
- Tailings Management Facility
- Grade Control Structure
- Inundated Area ; Backwater effect
- Waste Rock Storage Area

Existing Features

- Highway
- Major Road
- Local Road
- Existing SW Arm Tributary Channel
- Overprinted Portion of Goldfield Creek
- Watercourse
- Wetland (Eco-Site Based)
- Waterbody

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.

May 2024
160961293

Client/Project

Greenstone Gold Mines GP Inc. (GGM)
Hardrock Project

Figure No.
1

Title

Surface Water and Groundwater Quality Monitoring Locations

\\ca0004-ppfss01\work_group\01609\active\160960665\drawing\MXD\Surface_Water\ReportFigures\2024_MMMP\160961293_Uranium_Fig_1_SQWaterStations_Operations.mxd
Revised: 2024-05-24 By: bcowper

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

2 BACKGROUND

To support discussion of the trigger threshold exceedances of uranium at Stations 39 and 25, context is provided for the EIS/EA assessment of effects of uranium in the SWAT and a summary of the 2023 station 39 uranium investigation report (Stantec 2023).

2.1 EIS/EA ASSESSMENT OF EFFECTS OF URANIUM IN SWAT, POST GFC DIVERSION

In the EIS/EA, the concentration of uranium during each phase of mine life for surface water features was predicted using a mass balance approach (Stantec 2017). The baseline concentration was calculated using data collected from 2013 up to October 2016 (the cut off for baseline studies in the EIS/EA). Within the SWAT, the baseline concentration of uranium was calculated in the EIS/EA based on 27 samples, 13 of which had concentrations less than a laboratory detection limit of 5 µg/L. Where the concentration of a parameter was less than the laboratory detection limit, half the detection limit was used to calculate the average baseline concentration. As presented in Table 10-35 of the EIS/EA (Stantec 2017) the baseline concentration of uranium in the SWAT was calculated as 1.146 µg/L.

In June 2015, the detection limit of uranium was lowered to 0.010 µg/L and uranium was consistently detected in subsequent sampling events. Baseline conditions for surface water quality at the Mine ended on September 15, 2021. Using the baseline data collected during and after the EIS/EA, and excluding the initial 13 samples with an elevated detection limit, the baseline concentration of uranium is 0.065 µg/L. The measurable average baseline concentration of uranium of 0.065 µg/L is two orders of magnitude lower than the baseline concentration of uranium used in the EIS/EA (Stantec 2017) of 1.146 µg/L.

In the EIS/EA (Stantec 2017), the concentration of uranium at the end of Mine operations in the SWAT, post GFC diversion, was predicted to be 1.064 µg/L. This means, in the EIS/EA, the concentration of uranium in the SWAT was predicted to slightly decrease from 1.146 µg/L in baseline conditions to 1.064 µg/L at the end of Mine operations. Given that the baseline concentration of uranium was artificially elevated in the EIS/EA, the mass balance assessment to predict the concentration of uranium at the end of mine operations in the SWAT was redone using the updated average baseline concentration of 0.065 µg/L.

The mass load of uranium diverted from the GFC is used in the calculation of the predicted concentration of the SWAT at the end of mine operations. Therefore, the baseline concentration from the EIS/EA for station 19 (used to represent the GFC quality in the EIS/EA) (Figure 1) was also reevaluated using the full baseline data set and excluding 10 of 43 measurements where the concentration was less than the elevated detection limit of 5 µg/L. The revised baseline uranium concentration at Station 19 is 0.141 µg/L compared to the EIS/EA baseline concentration of 0.983 µg/L, which was artificially elevated due to an elevated laboratory detection limit and the use of half the detection limit in the calculation.

Using the updated baseline concentrations of uranium for Stations 25 and 19, the mass loading assessment and predicted concentration of the SWAT was updated for the end of mine operations as presented in Table 1. The mass load and concentration of uranium in the SWAT is predicted to increase from baseline of 0.00159 kg/day and 0.065 µg/L to 0.0101 kg/day and 0.522 µg/L, respectively, at the end of mine operations. The revised predicted mass load and concentration of uranium in the SWAT at the end of mine operations is about half of the EIS/EA predicted mass load and concentration of 0.0249 kg/day and 1.064 µg/L, meaning

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

the assessment of effects of mine operations on uranium concentrations in the SWAT remains valid as the assessment of effects was completed at a higher mass load and concentration.

The concentration of uranium in the SWAT is predicted to increase as the mass load of uranium from surface water is predicted to increase by six times the baseline mass load from surface water due to diversion of the GFC and reduction in catchment for the original SWAT. In addition, the mass load of uranium from natural groundwater discharge is predicted to increase three times compared to baseline conditions due to the addition of groundwater discharge to the GFC diversion channel as well as an additional mass load from seepage associated with WRSA C and D. These mass loading calculations are based on average annual flows and average concentrations and therefore do not account for potential seasonal variation each year.

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

Table 1 Predicted Average Annual Mass Loading to the Southwest Arm Tributary (SWAT)

Source	SWAT Surface Water and Runoff			GFC Inflow			Groundwater									Dust Mass Load (kg/day)	Overall Concentration in SWAT	Total Mass Load (kg/day)
							Natural Background			WRSA C			WRSA D					
	Concentration (µg/L)	Flux (m^3/s)	Mass Load (kg/day)	Concentration (µg/L)	Flux (m^3/s)	Mass Load (kg/day)	Concentration (µg/L)	Flux (m^3/s)	Mass Load (kg/day)	Concentration (µg/L)	Flux (m^3/s)	Mass Load (kg/day)	Concentration (µg/L)	Flux (m^3/s)	Mass Load (kg/day)			
EIS/EA Baseline	1.146	0.0607	0.00601	n/a	n/a	n/a	1.50	0.00962	0.00125	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.146	0.00726
Updated Baseline	0.065	0.0607	0.000341	n/a	n/a	n/a	1.50	0.00962	0.00125	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.065	0.00159
Predicted EIS/EA End of Operations	1.146	0.0414	0.00410	0.983	0.1497	0.0127	1.50	0.0292	0.00378	17.836	0.00101	0.00155	18.589	0.00169	0.00271	$2.29x10^{-6}$	1.064	0.0249
Predicted Updated End of Operations	0.065	0.0414	0.000232	0.141	0.1497	0.00182	1.50	0.0292	0.00378	17.836	0.00101	0.00155	18.589	0.00169	0.00271	$2.29x10^{-6}$	0.522	0.0101

Note:

Update baseline mass loading calculations reflect the addition of baseline data from the EIS/EA to the baseline data collection cut off of September 15, 2021 and the removal of samples collected with a concentration less than an elevated detection limit for uranium of 5 µg/L

n/a – not applicable

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

2.2 2023 URANIUM TRIGGER THRESHOLD 2 INVESTIGATION AT STATION 39

In February 2023, the concentration of uranium at Station 39 exceeded surface water quality trigger threshold 1 as defined in ECA No. 0735-C9PMD6, the MMMP (GGM 2021a), and Fish and the Fish Habitat Follow-Up Monitoring Plan (GGM 2021b). The trigger threshold 1 action plan was initiated which included confirming the result, confirming previous data for trends, and, if there is a statistically significant increasing trend in the parameter, evaluation of trigger threshold 2. An exceedance of trigger threshold 2 for uranium at Station 39 was identified and the trigger threshold 2 action plan was implemented. The trigger threshold 2 action plan includes notification to Impact Assessment Agency of Canada (IAAC), MECP, and Environmental Advisory Subcommittees (EASs) of the trigger threshold 2 exceedance, completion of an investigation and quantitative risk evaluation, identification of the source of exceedance, followed by mitigating effects if related to the Mine.

IAAC, MECP, and the EASs were notified and provided with the investigation report for trigger threshold 2 exceedance of uranium at Station 39 (Stantec 2023). The conclusion of the trigger threshold 2 investigation is summarized as follows.

In Q1 2023, when the trigger threshold 1 exceedance occurred, the concentration of uranium at Station 39 was only slightly elevated above the baseline seasonal 95th percentile concentration. Baseline concentrations of total uranium at Station 39 generally ranged from 0.02 µg/L to 0.10 µg/L with concentrations up to 0.14 µg/L measured historically (Figure 2). Whereas the highest concentration of uranium in Q1 2023, at the time of the trigger threshold exceedance, was 0.14 µg/L (Figure 2). The trigger threshold exceedance in Q1 2023 occurred at a time when the GFC diversion channel was commissioned.

Soil with elevated concentration of uranium but with low potential for leaching from soil (compared to regulatory criteria) were identified in the area disturbed during the construction of the GFC diversion channel. The proportion of dissolved to total uranium in surface water at Station 39 (Figure 3) was typically greater than 90% prior to construction of the GFC diversion channel, however a trend of lower dissolved to total uranium commenced during construction of the GFC diversion channel (Spring 2022), reaching less than 70% when full flow through the GFC diversion was achieved (January 2023). The increase in particulate uranium in surface water and the commissioning of the GFC diversion channel through a portion of soil with elevated concentrations of uranium supported the assessment of potential construction influence on uranium concentrations at Station 39. Also noted in the original Station 39 trigger investigation report (Stantec 2023) is that uranium concentrations at Station 39 decreased notably in April 2023, when the proportion of dissolved to total uranium had increased (meaning less particulate uranium in the water), which supported the interpretation of an influence of construction/commissioning of the GFC diversion on uranium concentrations at Station 39.

In response to the trigger threshold exceedance and investigation report for uranium at Station 39, as well as response to the release of sediment from the GFC diversion channel in May 2023, GGM implemented additional erosion and sediment control (ESC) mitigation measures (installation of silt fencing and installation of ESC berms), conducted weekly ESC inspections, daily turbidity monitoring until flows stabilized in August, and designed, permitted, and constructed a temporary bypass channel for flow from the GFC diversion channel. While the concentration of uranium in Q1 2023 (up to 0.14 µg/L) exceeded the baseline seasonal 95th percentile (0.050 µg/L to 0.189 µg/L), the concentration was an order of magnitude less than that predicted at the end of mine operations in the EIS/EA (1.06 µg/L for SWAT) and less than the PWQO (5 µg/L).

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

Subsequent to April 2023 and the investigation report for uranium at Station 39 (Stantec 2023), the concentration of uranium notably increased from about 0.14 µg/L in March 2023, to about 0.27 µg/L at the end of August 2024 and continued to exceed trigger threshold 2. Therefore, in July 2023, GGM re-evaluated the site conditions and data available for uranium at Station 39 to assess if the initial assessment of cause was still valid and/or if there were additional sources of uranium to GFC diversion channel and/or SWAT to account for the change in trend in uranium concentrations at Station 39 since the previous assessment. The results of the subsequent investigation and evaluation of the ongoing trigger threshold 2 exceedance of uranium at Station 39 are documented herein.

In addition, trigger threshold 1 for uranium was exceeded at Station 25, located downstream of Station 39 (Figure 1), in February 2024. The results of the Trigger Threshold 2 action plan for uranium at Station 25 is also documented herein.

3 TRIGGER THRESHOLD EVALUATION

3.1 SURFACE WATER QUALITY TRIGGER THRESHOLD 1 EVALUATION

The surface water quality trigger thresholds and associated action plans are described in conditions 8.16 and 8.17 of the full scale ETP ECA number 0735-C9PMD6, Section 4.2.4 of the MMMP (GGM 2021a), and Section 2.2.2.2 of the Fish and Fish Habitat Follow-Up Monitoring Plan (GGM 2021b).

Surface water quality trigger threshold 1 is defined as three consecutive monthly parameter concentration exceedances above the seasonal 95th percentile baseline concentration AND five times the detection limit. The 95th percentile of baseline concentration for a given parameter is calculated based on data collected prior to September 15, 2021.

For some stations where the 95th percentile is less than the predicted surface water quality concentrations from the EIS/EA, trigger threshold 1 is defined as 10% above the predicted surface water quality concentration from the EIS/EA for the surface water feature at a given monitoring station, AND five times the detection limit.

As noted, the concentration of uranium in the SWAT at the end of mine operations was predicted to be lower than the baseline concentration in the EIS/EA (Stantec 2017). As a result, trigger threshold 1 for uranium was defined in the adaptive management plans based on the seasonal 95th percentile baseline concentration at Stations 25 and 39. As presented in Section 2.1, the baseline concentration of uranium in the EIS/EA was artificially inflated due to an elevated laboratory detection limit. Using additional baseline data collected since the EIS/EA and removal of the concentration data less than the elevated detection limit, the concentration of uranium is predicted to increase from 0.065 ug/L in baseline to 0.522 µg/L at the end of mine operations. However, for the purpose of the trigger threshold assessment, trigger threshold 1 for uranium at Stations 25 and 39 is approved under ECA No. 0735-C9PMD6, the MMMP (GGM 2021a), and Fish and the Fish Habitat Follow-Up Monitoring Plan (GGM 2021b) as the seasonal 95th percentile baseline concentration that ranged from 0.05 µg/L (spring) to 0.189 µg/L (Fall).

The concentration of uranium at Station 25 exceeded the seasonal 95th percentile baseline concentration and was over five times the detection limit from December 2023 to February 2024. Therefore, in February 2024, uranium at Station 25 exceeded the surface water quality trigger threshold 1.

At Station 39, the concentration of uranium exceeded the seasonal 95th percentile baseline concentration and was over five times the detection limit since November 2022. Therefore, in February 2023, uranium at Station 39 exceeded the surface water quality trigger threshold 1.

Accordingly, trigger threshold 1 action plan was undertaken at both Stations 25 and 39. The trigger threshold 1 action plan is to confirm the result (QA/QC review and resampling) and, if the result is confirmed, to complete a trend analysis of the concentration over time.

As per the action plan, a QA/QC review of the sampling methods, laboratory report, and chain of custody was completed for the surface water quality samples collected at Station 25. No anomalies were detected in the sampling methods, sample handling, or laboratory analyses. Therefore, resampling of Station 25 was completed in March 2024, which also accounted for the scheduled March monthly surface water sampling event. Uranium at Station 25 continued to exceed the associated seasonal 95th percentile in March 2024, as such, the trigger threshold 1 exceedance for uranium at Station 25 was confirmed. In cases where a trigger threshold 1 exceedance is confirmed, the previous concentration data is reviewed for trends, and an assessment of trigger threshold 2 is subsequently completed.

Uranium at Station 39 exceeded the surface water quality trigger threshold 1 in February 2023. Resampling of Station 39 was completed in March 2023 which also accounted for the scheduled March monthly surface water sampling event. The results of the March sampling event showed that uranium at Station 39 continued to exceed the associated seasonal 95th percentile. As such, the trigger threshold 1 exceedance for uranium at Station 39 was confirmed and an assessment of trigger threshold 2 was completed.

3.2 SURFACE WATER QUALITY TRIGGER THRESHOLD 2 EVALUATION

Surface water quality trigger threshold 2 is defined as an exceedance of trigger threshold 1 and a statistically significant upward trend for a given indicator parameter, or for stations that have a statistically significant upward trend compared to baseline data, an increase in the magnitude of the trend compared to baseline.

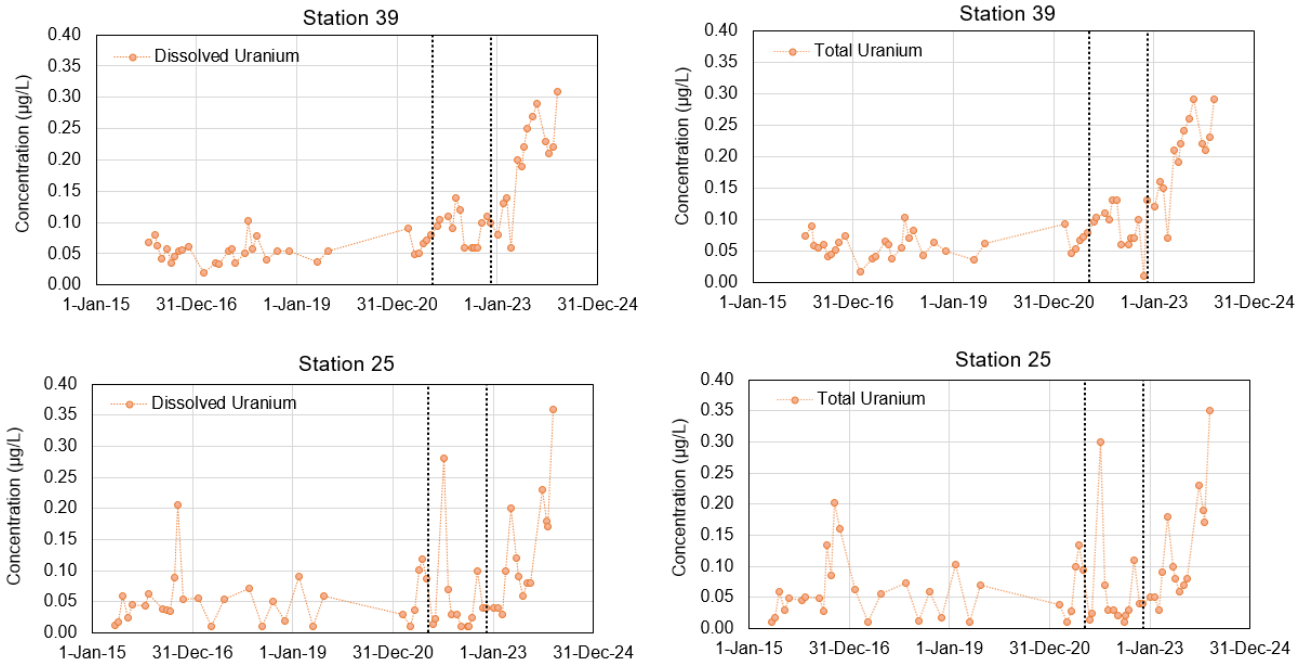
Figure 2 shows the concentration of uranium over time at Stations 25 and 39. Monthly sampling at a detection limit of 0.010 µg/L commenced at Station 25 in June 2015 and at Station 39 in January 2016.

The trend analysis for uranium at Stations 25 and 39 was completed using the Mann-Kendall test. Initially, the trend analysis was completed on baseline data to confirm if an upward trend in the concentration of the indicator parameter was observed under baseline conditions. Surface water quality data collected prior to September 15, 2021 was considered baseline data. There was no upward trend observed in the baseline concentration of uranium at Stations 25 and 39.

The trend analysis was then completed on the entire available data set for uranium at Stations 25 and 39. A statistically significant increasing trend in the concentration of uranium was identified through the Mann-Kendall analysis for both stations. Therefore, trigger threshold 2 has been exceeded for uranium at both Stations 25 and 39, and the trigger threshold 2 action plan was undertaken for this parameter and the two stations. The objective of the trigger threshold 2 action plan is to determine whether the exceedance is related to mine activities or if it is a result of a natural trend, sample variation, a single anomalous event, such as a meteorological event, or seasonal variation.

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

The trigger threshold 2 action plan for uranium at Station 39 was first completed in May 2023 and documented in Stantec (2023) in which construction and commissioning of the GFC diversion channel (refer to Section 2.2) was interpreted to be contributing to particulate uranium at Station 39. The magnitude of increasing trend in the concentration of uranium has changed since the initial trigger threshold 2 action plan was undertaken in spring 2023. Therefore, this trigger threshold 2 action plan for uranium at Station 39 pertains to the data subsequent to April 2023 to assess if there is an additional source or cause of the increasing concentration of uranium at Station 39.



Note: first dashed black line represents the end of baseline conditions and second dashed black line represents commissioning of the GFC diversion channel.

Figure 2: Uranium Concentration (Dissolved and Total) at Station 39 (top row) and Station 25 (bottom row)

4 SURFACE WATER QUALITY TRIGGER THRESHOLD 2 ACTION PLAN RESULTS

The trigger threshold 2 action plan has five steps:

- Step 1 is to notify the Impact Assessment Agency of Canada (IAAC), MECP, and the Environmental Advisory Committees (EACs) of the trigger threshold 2 exceedance.
- Step 2 requires an investigation to assess whether the exceedance is mine related.
- Step 3 requires a quantitative risk evaluation.
- Step 4 is to identify exceedance source.
- Step 5 is to mitigate effects of the Project, if deemed necessary

The following summarizes the results of the investigation, quantitative risk evaluation, and identification of exceedance sources for the trigger threshold 2 exceedance of uranium at Stations 25 and 39.

4.1 STEP 1: NOTIFICATION

Step one of the surface water quality Trigger Threshold 2 action plan is to notify IAAC, MECP, and the EASs of the trigger threshold exceedance and that an investigation will be completed. Notification to IAAC, MECP, and EASs of the Trigger Threshold 2 exceedance of uranium at station 39 was completed on June 1, 2023, June 5th 2023, and June 19th, 2023, respectively.

4.2 STEP 2: EXCEEDANCE INVESTIGATION

Table 2 presents uranium concentrations at Stations 25 and 39 for the samples analyzed after the end of the baseline period (September 15, 2021). Samples with concentrations of uranium exceeding the seasonal baseline 95th percentile concentration are bolded. The investigation into uranium at Station 39 is focused on the data subsequent to the previous investigation report (Stantec 2023) dataset, April 2023. After April 2023, there was a notable increase in the trend in concentration of uranium compared to the previous trigger threshold 2 exceedance for uranium. The purpose of this investigation is to confirm if there is an additional source or cause of the ongoing trigger threshold 2 exceedance of uranium at station 39 and to the source and/or cause of increasing uranium concentrations at Station 25.

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

Table 2: Post Baseline Uranium Concentrations at Stations 25 and 39

Station		25			39		EIS/EA Prediction (Table 10-35 EIS/EA)	Interim PWQO, µg/L
Parameter		Total Uranium Concentration µg/L	95th Percentile Baseline Seasonal Concentration µg/L		Total Uranium Concentration µg/L	95th Percentile Baseline Seasonal Concentration µg/L		
Fall	19-Oct-21	0.013	0.189	21-Oct-21	0.095	0.096	1.064	5
	9-Nov-21	0.024	0.189	10-Nov-21	**0.102**	0.096	1.064	5
Winter	6-Jan-22	**0.300**	0.095	11-Jan-22	**0.110**	0.099	1.064	5
	8-Feb-22	0.070	0.095	9-Feb-22	**0.100**	0.099	1.064	5
	3-Mar-22	0.030	0.095	8-Mar-22	**0.130**	0.099	1.064	5
Spring	11-Apr-22	0.030	0.050	4-Apr-22	**0.130**	0.057	1.064	5
	17-May-22	0.020	0.050	10-May-22	**0.060**	0.057	1.064	5
	27-Jun-22	<0.01	0.050	28-Jun-22	**0.060**	0.057	1.064	5
Summer	4-Jul-22	0.020	0.165	18-Jul-22	0.070	0.075	1.064	5
	4-Aug-22	0.025	0.165	11-Aug-22	0.070	0.075	1.064	5
	6-Sep-22	0.110	0.165	6-Sep-22	**0.100**	0.075	1.064	5
Fall	19-Oct-22	0.040	0.189	19-Oct-22	**0.120**	0.096	1.064	5
	8-Nov-22	0.040	0.189	8-Nov-22	**0.130**	0.096	1.064	5
Winter	4-Jan-23	0.050	0.095	9-Jan-23	**0.120**	0.099	1.064	5
	6-Feb-23	0.050	0.095	13-Feb-23	**0.160**	0.099	1.064	5
	9-Mar-23	0.030	0.095	8-Mar-23	**0.150**	0.099	1.064	5
Spring	4-Apr-23	**0.090**	0.05	11-Apr-23	**0.070**	0.057	1.064	5
	9-May-23	**0.180**	0.05	31-May-23	**0.210**	0.057	1.064	5
	23-Jun-23	**0.100**	0.05	29-Jun-23	**0.190**	0.057	1.064	5
Summer	4-Jul-23	0.080	0.165	10-Jul-23	**0.220**	0.075	1.064	5
	8-Aug-23	0.060	0.165	10-Aug-23	**0.240**	0.075	1.064	5
	7-Sep-23	0.070	0.165	18-Sep-23	**0.260**	0.075	1.064	5
Fall	3-Oct-23	0.080	0.189	17-Oct-23	**0.290**	0.096	1.064	5
	3-Nov-23	-	0.189	17-Nov-23	-	0.096	1.064	5
	29-Dec-23	**0.230**	0.189	19-Dec-23	**0.220**	0.096	1.064	5
Winter	24-Jan-24	**0.190**	0.095	11-Jan-24	**0.210**	0.099	1.064	5
	5-Feb-24	**0.170**	0.095	11-Feb-24	**0.230**	0.099	1.064	5
	13-Mar-24	**0.350**	0.095	10-Mar-24	**0.290**	0.099	1.064	5

Note: Color coding represents different seasons.

General water chemistry (turbidity, TSS, conductivity, hardness, etc.) from April 2023 through March 2024 regular monthly sampling events was reviewed for Stations 25 and 39. Analytical results for stations 25 and 39 are presented in Attachment A.

The ratio between dissolved and total uranium at Station 39 is plotted on Figure 3. In pre GFC diversion conditions, the ratio of dissolved to total uranium was generally greater than 90%. During the initial trigger threshold 1 and 2 exceedance of uranium (November 2022 through April 2023) the proportion of particulate uranium increased relative to pre diversion, causing the ratio of dissolved and total uranium to decrease to less than 70%. The increase in particulate uranium is consistent with the original trigger threshold 2

investigation report that interpreted an influence of commissioning the GFC diversion channel and release of sediment from the GFC diversion channel on the concentration of uranium at station 39. The data increase in particulate uranium at station 39 is consistent with the ratio of dissolved to total uranium at station 25, located downstream of the GFC diversion and downstream of the grade control structures on the SWAT. At station 25, there was also an increase in particulate uranium with the ratio of dissolved to total uranium decreasing to 50% during the construction period for the GFC diversion and grade control structures.

Since April 2023, when the trend in concentration of uranium increased at Station 39, the ratio of dissolved to total uranium was an average of 99% at both station 39 and 25, indicating an influence of particulate uranium on total uranium concentrations at Station 39 and 25 was no longer a factor.

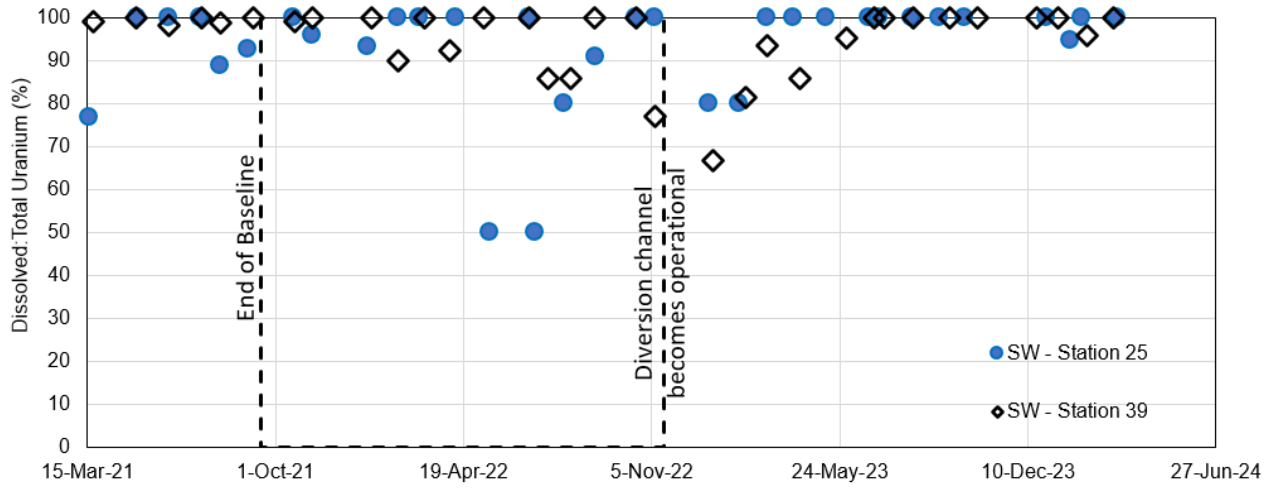


Figure 3 **Ratio of Dissolved and Total Uranium in Surface Water at Station 39**

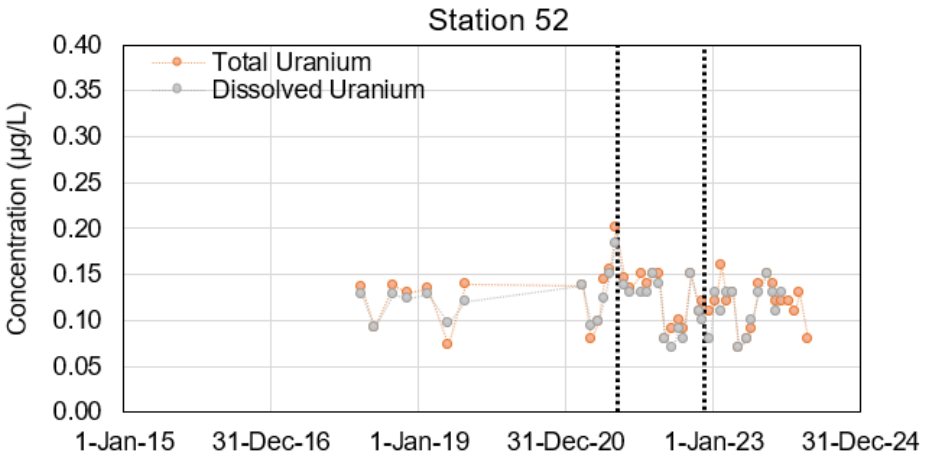
The surface water quality upstream of Stations 39 and 25 was reviewed to confirm influence of upstream water quality, upstream of the GFC diversion channel and the Mine, on uranium concentrations at Station 39 and 25. Surface water quality Station 52 and stream flow station SW10 are located upstream of the GFC diversion channel (between GFP2 and GFP3) and upstream of the Mine and can be used to calculate mass load of uranium from the headwaters of GFC that were diverted to the SWAT.

Figure 4 presents available total and dissolved uranium concentrations at Station 52. The concentration of uranium has remained relatively similar since monitoring commenced in March 2018, ranging from 0.07 µg/L to 0.20 µg/L with an average of 0.12 µg/L total uranium. The ratio between dissolved and total uranium was consistent throughout the monitored period at an average of 96%. The concentration of uranium at Station 52 is consistent with the updated baseline concentration of uranium for the inflow from GFC to the SWAT of 0.141 µg/L (refer to Section 2.2 and Table 1).

Figure 5 presents available flow data for 2023 from Station SW10. Flow monitoring of SW10 commenced on February 25, 2023, and so the average annual flow rate at station SW10 was calculated for March 2023 to March 2024. The average annual flow rate at SW10 was 0.198 m^3/s and within 30% of the flow used in the EIS/EA mass loading assessment for the SWAT (refer to Section 2.2 and Table 1).

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

Using the average uranium concentration at Station 52 (0.12 µg/L) and the average annual flow rate at SW10 (0.198 m^3/s), the average annual mass load of uranium from the headwaters of GFC (Station 52 / SW10) that was directed to the SWAT was calculated as 0.00205 kg/day. The mass load of uranium is within 15% of the mass load of uranium calculated as part of the updated prediction of mass loading for the end of operations (Table 1).



Note: first dashed black line represents the end of baseline conditions and second dashed black line represents commissioning of the GFC diversion channel.

Figure 4 **Uranium Concentration (Dissolved and Total) at Station 52, Located Upstream of Station 39, the GFC Diversion Channel, and the Mine**

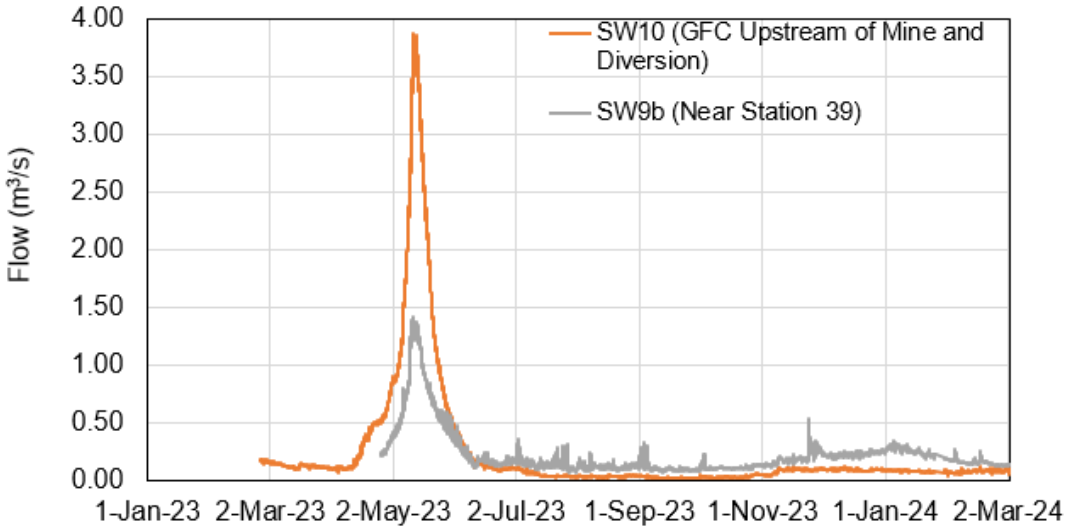


Figure 5 **Flow at SW10 Upstream of the GFC Diversion Channel and the Mine and SW9b located near Station 39**

Reference: Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39

The mass loading of uranium from groundwater discharge to the SWAT was also reviewed to understand the effect of groundwater discharge on the surface water concentration of uranium in the SWAT.

The concentration of uranium in groundwater near the GFC diversion was reviewed with respect to that used in the EIS/EA mass loading and updated mass loading predictions for the SWAT (Table 1). In 2023, GGM installed groundwater monitoring wells along the temporary bypass channel which roughly parallels the GFC diversion channel about 130 m to 150 m to the south (Figure 1). The monitoring wells were installed to obtain water level data for the design of the temporary bypass channel, however, given the increasing concentrations of uranium at the GFC diversion channel, GGM sampled the wells for general chemistry and metals. The temporary bypass channel monitoring wells are located within the predicted flow path of groundwater that discharges to the GFC diversion channel (Figure 5-10 of Appendix F04 of Stantec (2017)). The temporary bypass channel monitoring wells were sampled in December 2023 and January 2024 and the analytical results are provided in Attachment A and borehole logs provided in Attachment B. The concentration of uranium in the temporary bypass channel monitoring wells ranged from 0.05 µg/L (TBBH-5) to 9.6 µg/L (TBBH-8) with an average concentration of 1.73 µg/L. In comparison to the EIS/EA, the predicted concentration of uranium in overburden and bedrock monitoring wells representative of background conditions was 1.8 µg/L and 1.2 µg/L, respectively, (Table 9-8 of Stantec (2017)) resulting in an average groundwater concentration of 1.5 µg/L (Table 1). The concentration of uranium in monitoring wells located near the GFC diversion was consistent with the concentration of uranium used to represent groundwater discharge to the SWAT in the mass loading assessment of effects in the EIS/EA (Stantec 2017). Consistent with the assessment of effects in the EIS/EA, the concentration of uranium in groundwater is elevated relative to the concentration of uranium in surface water of the SWAT. The concentration of uranium in groundwater was over six times the concentration of uranium in surface water at station 39 (0.220 µg/L).

In the EIS/EA (Stantec 2017), groundwater discharge to the GFC diversion channel was predicted using a three dimensional groundwater flow model (Appendix F04 of Stantec (2017)). Under steady state conditions, groundwater at the end of operations was predicted to flow towards and discharge to the GFC diversion at an average annual rate of 0.031 m^3/s (Figure 5-10 and Table 5-7 of Appendix F04 of Stantec (2017)). A portion of this groundwater discharge is associated with natural background groundwater (94%) and a portion is associated with seepage from WRSA C and D (9%).

WRSA D has not been developed and storage within WRSA C commenced in December 2021. The conservatively predicted mean travel time of seepage from WRSA C to the SWAT was 7.1 years (Table 5-10 of Appendix F04 of Stantec (2017)). Therefore, the mass load of uranium from groundwater to the SWAT was calculated assuming the groundwater discharge was characteristic of background groundwater concentrations. Using the predicted average annual groundwater discharge rate to the SWAT (0.031 m^3/s) and the average concentration of uranium in the temporary bypass channel monitoring wells (1.73 µg/L), the average annual mass load of uranium from groundwater discharge to the SWAT is calculated as 0.00463 kg/day. At the end of operations, the predicted average annual mass load of uranium from groundwater discharge to the SWAT is 0.00702 kg/day, which is slightly greater than 0.00463 kg/day as an additional component of seepage from WRSA C and D is accounted for at the end of operations.

Reference: Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39

Based on this assessment, the average mass load of uranium to the SWAT in 2023 is similar to that predicted in the EIS/EA for the components of which are active at this stage of mine life. The average mass load of uranium to the SWAT in 2023 (including the GFC diversion) is estimated at 0.00691 kg/day and based on the following:

- SWAT baseline concentration of 0.065 µg/L and flow of 0.0414 m^3/s resulting in an average annual mass load of 0.000232 kg/day.
- GFC headwaters concentration of 0.12 µg/L (Station 52 mean concentration in 2023) and 0.198 m^3/s (SW10 average annual flow from March 2023 to March 2024) resulting in an average annual mass load of 0.00205 kg/day.
- Groundwater discharge concentration of 1.73 µg/L (temporary bypass channel monitoring wells) and predicted groundwater discharge rate of 0.031 m^3/s (groundwater flow model) resulting in an average annual mass load of 0.00463 kg/day.

The predicted average annual mass load of uranium to the SWAT for 2023 of 0.00691 kg/day is slightly less than the predicted average annual mass load of uranium to the SWAT at the end of operations of 0.0101 kg/day (Table 1) as a component of mass load from seepage associated with WRSA C and D is yet to be realized and the equilibrium with groundwater and the diversion channel is fully established. If the predicted mass load and concentration for the end of operation were updated to reflect seepage from WRSA C and D representative of background groundwater concentrations, then the mass load and concentration of uranium to/of the SWAT would be 0.00619 kg/day and 0.320 µg/L, respectively. Therefore, the concentration of uranium in the SWAT was predicted to increase due to the additional mass load of uranium from the diversion of GFC and the additional groundwater discharge to the GFC diversion channel. The concentrations of uranium at station 39, about 0.30 µg/L, and Station 25, about 0.35 µg/L, are consistent with that predicted based on average annual mass loading assessment of 0.320 µg/L (without WRSA C and D) and is predicted to increase to about 0.522 µg/L once seepage from WRSA C and D is fully realized and the equilibrium of groundwater discharge to the GFC diversion channel is established.

These mass balance calculations are based on average annual flows and concentrations and does not account for seasonality. Seasonality is expected to affect the concentration of uranium measured in the SWAT at a given time which may result in the concentration being greater than or less than the average annual predicted concentration based on the mass loading assessment.

The increase in uranium concentration at Station 39 and 25 is consistent with the predicted increase in mass loading to the SWAT compared to baseline conditions based on the current stage of development of the Mine, which suggested additional mass loading of uranium from the diversion of GFC and additional groundwater discharge to the GFC diversion channel.

4.3 STEP 3: QUANTITATIVE RISK EVALUATION

Step 3 of the surface water quality trigger threshold 2 action plan is a quantitative risk evaluation. The observed and predicted concentration of uranium in the SWAT at the end of mine life were compared to the PWQO.

Reference: Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39

The interim PWQO for uranium is 5 µg/L. As explained in Appendix A-1 of Water Management, Policies Guidelines Provincial Water Quality Objectives (MoEE 1994), the PWQOs and the interim PWQOs represent a risk based criteria as it relates to the surface water environment. "The interim PWQOs are developed through a prescriptive process that employs toxicological data as well as considers bioaccumulation, mutagenicity, and other factors. The interim PWQOs are based on the lowest effect concentration reported and an "uncertainty factor". The size of the uncertainty factor reflects the quality and quantity of data available and the potential of the substance to bioaccumulate" (MoEE 1994).

The concentration of uranium in the SWAT at Station 39 and 25 of about 0.30 µg/L and 0.35 µg/L, respectively, are less than 10% of the PWQO of 5 µg/L. Ultimately, the average annual concentration of uranium in the SWAT was conservatively assessed in the EIS/EA at a higher rate of 1.284 µg/L representing about 20% of the PWQO. Therefore, the impact of the observed concentrations of uranium at Station 39 and 25 were predicted in the EIS/EA and were determined to be within acceptable limits.

4.4 STEP 4: IDENTIFY EXCEEDANCE SOURCE

Based on the above evaluation, the concentration of uranium at Stations 25 and 39 is consistent with the additional mass loading of uranium from the diversion of the GFC and groundwater discharge to the GFC diversion channel. The concentration of uranium in the SWAT is predicted to continue to increase throughout mine operations due to the diversion of GFC flow, seepage from groundwater, and seepage from WSRA C and D but remain well below the PWQO. In addition, seasonality may result in concentrations of uranium greater or less than that predicted based on the mass balance loading calculations which were based on average annual flows and average concentrations. In the EIS/EA, the average annual concentration of uranium in the SWAT at the end of mine operations was assessed at 1.064 µg/L, over three times greater than that observed at Station 25 and 39 in 2023 and Q1 2024, which was determined to be within acceptable limits and well below the PWQO.

4.5 STEP 5: MITIGATE EFFECTS OF THE PROJECT

If the effect is deemed Project related and mitigation is deemed necessary, Step 5 of the surface water quality trigger threshold action plan is to mitigate the effects. The concentration of uranium in the SWAT is consistent with the predictions of the EIS/EA and less than 10% of the PWQO and therefore no additional mitigation, beyond that documented in the EIS/EA, is deemed necessary. Mitigation measures implemented related to the release of sediment from the GFC and mitigation measures identified in the EIS/EA include:

- To mitigate release of sediment from the GFC
    - Installation of silt fencing
    - Installation of rip rap on select meanders
    - Installation of ESC berms within the creek
    - Designed, permitted, and constructed a temporary bypass channel to divert flow from the GFC diversion channel while remediation of the channel is completed.

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

  - Weekly ESC inspections of the GFC diversion channel during non frozen ground conditions with implementation of recommendations from the ESC inspection reports.

- Overall mitigation strategies as presented in the EIS/EA as it relates to groundwater quantity and quality:
  - Limit construction footprint to the extent possible.
  - Use standard management practices, including drainage control and excavation and open pit dewatering.
  - Use standard construction methods, such as seepage cutoff collars, where trenches extend below the water table to mitigate preferential flow paths.
  - Return water generated from historical underground dewatering (with treatment at the effluent treatment plant as required) to Kenogamisis Lake during operation to offset a reduction in groundwater discharge.
  - Consider accelerating open pit filling at closure to return groundwater levels to baseline conditions in a shorter time frame.
  - Removal of contaminated soils and managed in accordance with the Soil Management Plan
  - Relocation of a portion of the historical MacLeod and Hardrock tailings with placement in the TMF to reduce chemical loading from the historical tailings to groundwater and surface water and result in an improvement to groundwater quality.
  - Installation of enhanced cover over the remaining historical MacLeod high tailings to reduce infiltration and increase runoff, thereby further reducing loadings to groundwater and surface water.
  - Installation of a subsurface seepage collection system around the base of the historical MacLeod high tailings to collect seepage and groundwater recharge from the tailings.
  - Design WRSAs to increase the amount of runoff and reduce the amount of infiltration through the WRSAs, thereby reducing the recharge and loading to groundwater.
  - Installation of contact water collection ditches around the overburden storage area, ore stockpile, and WRSAs to collect toe seepage and groundwater recharge from these Mine components.
  - Installation of seepage collection ditches around the TMF to collect seepage from the TMF dam and groundwater recharge originating from the TMF.
  - Implementation of progressive rehabilitation to reduce infiltration into the WRSAs and TMF, thereby reducing the amount of water and loading to groundwater and improvements to groundwater quality.

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

To mitigate ongoing trigger threshold 1 exceedances for Stations 25 and 39 that are within the assessed effects of the EIS/EA, GGM is requesting that trigger threshold 1 be revised as described in Section 5.0.

5 PROPOSED MODIFICATION TO TRIGGER THRESHOLD 1

Trigger threshold 1 for uranium at Stations 25 and 39 was initially assigned in ECA No. 0735-C9PMD6, the MMMP (GGM 2021a), and Fish and Fish Habitat Follow-Up Monitoring Plan (2021b) based on the seasonal 95th percentile baseline concentrations without considering the increase in mass loading of uranium from the diversion of the GFC and groundwater discharge to the newly formed GFC diversion channel.

Table 2 presents the existing seasonal 95th percentile concentrations for uranium compared to the EIS/EA predicted concentration for the SWAT at the end of mine operations. As stated in the MMMP, trigger threshold 1 will be defined as 10% above the predicted surface water quality concentration from the EIS/EA (Stantec 2017) for the surface water feature at the given monitoring station AND five times the detection limit when the seasonal 95th percentile baseline concentration is less than the predicted surface water quality concentrations from the EIS/EA. Therefore, to mitigate additional trigger threshold 1 exceedances for Stations 25 and 39 that are within the assessed effects of the EIS/EA, GGM is requesting that trigger threshold 1 criteria be revised from the seasonal 95th percentile to 1.170 µg/L, which is the predicted EIS/EA concentration of 1.064 µg/L plus 10%.

Table 3: Existing and Proposed Uranium Trigger Threshold 1 Concentration Criteria (µg/L) at Stations 25 and 39

Stations	Existing Trigger Threshold 1 Concentrations (ECA No. 0735-C9PMD6, GGM 2021a/b)	Interim PWQO	EIS/EA Prediction End of Mine Operations (Table 10-35, Stantec 2017)	Proposed Trigger Threshold Concentrations (EIS/EA Prediction for End of Mine Operations + 10 %)
25	0.095 (Winter) 0.050 (Spring) 0.165 (Summer) 0.189 (Fall)	5.0	1.064	1.170
39	0.099 (Winter) 0.057 (Spring) 0.075 (Summer) 0.096 (Fall)	5.0	1.064	1.170

6 SUMMARY AND CLOSING

In summary, trigger threshold 2 was exceeded for uranium at Stations 25 and 39. The trigger threshold 2 action plan was completed and concluded that uranium exceedances at Stations 25 and 39 are related to additional mass load from the diversion of GFC and groundwater discharge to the GFC diversion channel. The concentration of uranium is predicted to increase through Mine operations but predicted to remain below the PWQO. The average annual concentration of uranium in the SWAT at the end of mine operations was assessed in the EIS/EA (Stantec 2017) at 1.064 µg/L, which is over three times that measured at Stations 25 and 39 of about 0.3 µg/L and less than the PWQO. As the predicted concentrations in the EIS/EA were

Reference: **Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Surface Water Quality Trigger Threshold 2 at Stations 25 and 39**

based on average annual flow rates and average concentrations, seasonality may result in the concentration of uranium measured in the SWAT being greater than or less than the predicted concentration at a given time of year.

The adaptive management plan for surface water quality (ECA No. 0735-C9PMD6, GGM 2021a/b) allows the criteria for trigger threshold 1 as the predicted concentration for the surface water receiver in instances where the seasonal 95th percentile baseline concentration is less than the predicted surface water quality concentrations from the EIS/EA. It is recommended to revise the uranium trigger threshold 1 in ECA No. 0735-C9PMD6, the MMMP (GGM 2021a), and the Fish and Fish Habitat Follow-Up Monitoring Plan (GGM 2021b) for Stations 25 and 39 from three consecutive monthly parameter concentration exceedances above the seasonal 95th percentile baseline concentration AND five times the detection limit to 10% above the predicted surface water quality concentration from the EIS/EA for the surface water feature at a given monitoring station AND five times the detection limit. The revised trigger threshold 1 criteria for Stations 25 and 39 would be 1.170 µg/L (EIS/EA predicted concentration at the end of mine operations of 1.064 + 10%). The new proposed trigger threshold 1 concentration of uranium is less than the PWQO and is consistent with the assessment of effects presented in the EIS/EA (Stantec 2017).

Should you have any questions or comments, please contact the undersigned.

Stantec Consulting Ltd.

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Attachments: Attachment A: Summary of Analytical Results
Attachment B: Borehole Logs

7 REFERENCES

Greenstone Gold Mines (GGM). 2021a. Hardrock Project – Multi-Media Monitoring Plan – Order in Council 404/2019 Condition 13. Document control number: HP-MG003-EV-130-0004_3. March 25, 2021.

Greenstone Gold Mines (GGM). 2021b. Hardrock Project Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan. Document control number HP-MG003-EV-130-0008_0. February 16, 2021.

Ministry of the Environment and Energy (MoEE). 1994. Water Management, Policies Guidelines Provincial Water Quality Objectives. July 1994.

Stantec Consulting Ltd. (Stantec). 2017. Hardrock Project Final Environmental Impact Statement / Environmental Assessment Amendment. Document control number: HP-MG003-EV-136-0004-00-1. Prepared for Greenstone Gold Mines. June 2017 and updated in accordance with Provincial EA Approval Condition 27 – 2019.

Stantec Consulting Ltd. (Stantec). 2023. Greenstone Mine Adaptive Management Plan, Investigation of Uranium Exceedance of Trigger Threshold at Station 39 for Reporting Period November 2022 through April 2023. May 30, 2023.

ATTACHMENT A:
Summary of Analytical Results

Table A.1 Water Quality Data at Station 25, October 2013 - March 2024

Sample Location																						
Sample Date		**23-Oct-13**	**28-Jan-14**	**25-Feb-14**	**26-Mar-14**	**27-May-14**	**28-Jul-14**	**27-Aug-14**	**26-Sep-14**	**15-Oct-14**	**16-Dec-14**	**20-Jan-15**	**26-Feb-15**	**24-Mar-15**	**20-May-15**	**17-Jun-15**	**9-Jul-15**	**12-Aug-15**	**16-Sep-15**	**19-Oct-15**	**19-Jan-16**	**17-Feb-16**	**25-May-16**
Sample ID		**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**#25**	**25**	**25**
Sampling Company		**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**
Laboratory Work Order		**L1383094**	**L1417403**	**L1426623**	**L1437318**	**L1462020**	**L1494362**	**L1510316**	**L1524492**	**L1534046**	**L1559767**	**L1569556**	**L1582439**	**L1591666**	**L1614979**	**L1629524**	**L1640931**	**L1657561**	**L1674801**	**L1690756**	**L1725454**	**L1735882**	**L1774083**
Laboratory Sample ID	**Units**	**L1383094-13**	**L1417403-8**	**L1426623-4**	**L1437318-3**	**L1462020-23**	**L1494362-4**	**L1510316-4**	**L1524492-5**	**L1534046-4**	**L1559767-4**	**L1569556-3**	**L1582439-3**	**L1591666-2**	**L1614979-4**	**L1629524-4**	**L1640931-4**	**L1657561-4**	**L1674801-4**	**L1690756-4**	**L1725454-3**	**L1735882-4**	**L1774083-4**
Field Parameters																						
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	6.44	7.87	8.52	9.72	16.66	18.50	7.59	5.57	14.65	7.61	6.92	7.87	6.96	-	4.24	-	7.8
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	235	197	162	131	187	209	361	353	155	212	232	315	2.4	-	313.3	-	167
pH, Field	S.U.	7.38	7.95	7.17	6.50	7.49	7.21	7.42	7.62	7.16	7.62	7.52	7.06	6.75	6.96	7.2	7.06	7.48	7.28	-	7.02	-	7.23
Temperature, Field	deg C	1.75	0.0	0.0	0.40	17	16.45	18.15	12.88	6.27	0.18	0.01	0.17	0.12	3.94	16.44	16.03	17.19	13.05	-	0.3	-	15.74
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																							
Acidity as CaCO3	mg/L	6.0	<1.0	2.7	1.3	2.9	4.0	4.9	5.6	8.7	3.5	4.5	8.4	10.2	4.4	5.4	7.8	6.4	7.1	5.0	15.5	67.6	4.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Carbonate (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Hydroxide (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total (as CaCO3)	mg/L	76.4	118	153	161	67.0	88.6	100	81.2	74.9	89.8	99.2	120	139	62.2	87.0	90.8	128	105	120	123	119	79.3
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	0.064	0.044	0.120	0.260	<0.020	<0.020	0.075	<0.020	0.021	0.025	1.23	<0.020	0.605	0.034	0.039	2.06	0.533	0.030	<0.020	0.076	0.259	<0.020
Ammonia, Un-ionized (As N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2.0	<2.0	<2.0	4.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	8.7	<2.0
Chemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	9.84	0.57	26.3	24.2	11.6	14.0	12.9	11.0	13.3	0.40	0.77	4.03	9.30	12.1	17.9	19.2	26.3	14.4	18.7	26.0	20.9	12.1
Chlorophyll a	µg/L	-	-	-	-	0.54	0.82	0.75	0.28	0.50	1.27	1.14	0.34	0.43	0.29	0.85	0.83	0.51	1.19	1.24	0.48	0.37	2.33
Color, True	TCU	75.0	40.0	32.4	36.4	86.2	74.4	51.2	83.1	90.6	51.2	46.8	45.0	40.3	66.4	82.6	79.5	50.8	93.1	48.1	69.2	119	61.6
Cyanide	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide (Free)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	18.7	16.0	13.0	13.4	18.1	16.0	12.9	19.9	19.8	15.6	15.9	14.1	13.5	15.5	17.6	15.8	13.1	19.8	13.4	20.6	20.0	14.9
Electrical Conductivity, Lab	µS/cm	189	231	406	353	172	223	231	195	190	171	191	231	258	158	217	230	311	240	275	316	300	203
Fluoride	mg/L	<0.030	0.047	0.044	0.046	<0.030	0.034	0.036 AI	<0.030	<0.030	0.030	0.027	0.031	0.029	<0.020	0.023	0.023	<0.020	0.022	0.021	0.022	<0.020	0.025
Hardness (as CaCO3)	mg/L	87.3	129	151	191	77.2	88.9	92.1	91.8	81.8	99.9	103	126	137	70.9	94.3	96.3	143	101	115	143	142	89.2
Nitrate (as N)	mg/L	<0.030	0.041	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.040	0.069	0.182	0.067	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.043	0.032	<0.020
Nitrate + Nitrite (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	<2.0	<2.0	<2.0	<2.0 PN	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Orthophosphate (as P)	mg/L	-	-	-	-	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
pH, lab	S.U.	7.48	7.74	7.42	7.33	7.48	7.67	7.77	7.50	7.32	7.79	7.82	7.46	7.33	7.39	7.63	7.47	7.73	7.57	7.78	7.00	6.51	7.51
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.16
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.0095	0.0062	0.0083	0.0162	0.0149	0.0105	0.0113	-	-	-	-	-	-	-	-	-	-	-	-	0.0034	0.0128	0.0090
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	<0.0030	<0.0030	0.0038	-	-	-	-	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0032	<0.0030	<0.0030	0.0040	<0.0030
Radium-226	Bq/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	2.19	1.74	3.06	2.82	2.92	1.75	1.27	1.78	2.47	1.32	1.35	1.33	1.54	1.61	1.06	0.67	0.91	0.54	0.85	1.37	0.88	1.11
Total Dissolved Solids	mg/L	129	141	228	229	123	139	152	118	144	122	122	131	178	109	141	158	204	186	183	219	210	143
Total Kjeldahl Nitrogen	mg/L	-	-	-	-	0.681	0.54	0.91	0.82	0.74	0.52	1.81	0.78	0.74	0.52	0.64	2.10	0.71	0.88	0.58	0.63	1.04	0.52
Total Organic Carbon	mg/L	18.6	16.1	13.1	15.5	18.5	17.8	15.4	19.9	19.9	15.7	15.2	13.4	13.4	15.1	18.0	15.9	13.8	20.6	13.4	19.7	28.8	15.3
Total Suspended Solids	mg/L	<2.0	<2.0	2.8	17.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.1	<2.0	<2.0	<2.0	<2.0	<2.0
Turbidity, Lab	NTU	-	-	-	-	0.77	0.45	0.67	0.50	0.55	0.71	0.59	0.87	1.70	0.23	0.43	0.70	0.52	0.44	0.80	0.56	3.91	1.10
Metals, Dissolved																							
Aluminum	µg/L	10.2	9.7	<50.0 DM	12.6	29	23	<5.0	9.5	14.5	8.1	7.3	6.3	5.6	9.6	8.8	7.9	3.7	9.2	4.5	11.3	11.5	6.9
Antimony	µg/L	<0.10	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	µg/L	22.5	1.8	6	12.6	28.2	15.2	10.3	21.7	24	1.2	1.4	4.8	5.9	19.8	34.2	34.7	31.8	31.2	15.8	29.7	34.3	23
Barium	µg/L	3.86	13	10	10	<10.0	<10.0	<10.0	<10.0	<10.0	11	11	12	<10.0	3.28	5.52	5.39	8.46	6.5	5.82	6.58	7.13	5.45
Beryllium	µg/L	<0.50	<1.0	<10.0 DM	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Bismuth	µg/L	<0.050	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.138	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Boron	µg/L	<10.0	<50.0	<500 DM	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Cadmium	µg/L	<0.010	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0054	<0.0050	<0.0050
Calcium	mg/L	27.0	39.0	46.2	58.8	24.0	26.9	27.5	28.1	24.9	29.5	30.5	37.8	41.6	21.3	26.2	29.7	44.5	30.2	34.8	43.9	41.8	27.3
Cesium	µg/L	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chromium	µg/L	<0.10	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	0.15	0.15	0.14	0.11	<0.10	0.2	0.15	0.11
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0
Cobalt	µg/L	<0.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Copper	µg/L	0.19	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	0.2	0.96	<0.20	<0.20	<0.20	0.45	0.24	<0.20
Iron	µg/L	63	35	113	473	79	57	87	61	92	55	63	153	172	45	95	135	75	165	74	246	421	68
Lead	µg/L	<0.050	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.074	<0.050	<0.050
Lithium	µg/L	<5.0	<50.0	<500 DM	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Magnesium	mg/L	4.85	7.69	8.66	10.7	4.84	5.31	5.68	5.28	4.79	5.95	6.41	7.76	8.14	4.29	5.03	5.39	7.68	6.29	6.73	8.07	9.01	5.13
Manganese	µg/L	2.71	5.2	16.9	68.5	13	3	9.3 XH	3.1	3.5	2.9	3.4	31.3	37.5	1.12	9.13	11.4	7.45	6.61	2.05	44.5	66.9	6.76

Sample Location																						
Sample Date		**23-Oct-13**	**28-Jan-14**	**25-Feb-14**	**26-Mar-14**	**27-May-14**	**28-Jul-14**	**27-Aug-14**	**26-Sep-14**	**15-Oct-14**	**16-Dec-14**	**20-Jan-15**	**26-Feb-15**	**24-Mar-15**	**20-May-15**	**17-Jun-15**	**9-Jul-15**	**12-Aug-15**	**16-Sep-15**	**19-Oct-15**	**19-Jan-16**	**17-Feb-16**	**25-May-16**
Sample ID		**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**#25**	**25**	**25**
Sampling Company		**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**
Laboratory Work Order		**L1383094**	**L1417403**	**L1426623**	**L1437318**	**L1462020**	**L1494362**	**L1510316**	**L1524492**	**L1534046**	**L1559767**	**L1569556**	**L1582439**	**L1591666**	**L1614979**	**L1629524**	**L1640931**	**L1657561**	**L1674801**	**L1690756**	**L1725454**	**L1735882**	**L1774083**
Laboratory Sample ID	**Units**	**L1383094-13**	**L1417403-8**	**L1426623-4**	**L1437318-3**	**L1462020-23**	**L1494362-4**	**L1510316-4**	**L1524492-5**	**L1534046-4**	**L1559767-4**	**L1569556-3**	**L1582439-3**	**L1591666-2**	**L1614979-4**	**L1629524-4**	**L1640931-4**	**L1657561-4**	**L1674801-4**	**L1690756-4**	**L1725454-3**	**L1735882-4**	**L1774083-4**
Mercury	µg/L	<0.10	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Molybdenum	µg/L	<0.050	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.063	<0.050	<0.050	0.07	<0.050	0.057	0.067	0.073	0.068
Nickel	µg/L	0.19	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Phosphorus	µg/L	<300	-	-	-	-	-	-	3.7	<3	<3	<3	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Potassium	mg/L	0.421	0.96	0.77	0.78	<0.50	<0.50	0.58	<0.50	<0.50	0.71	0.86	0.91	0.79	0.184	0.172	0.159	0.193	0.170	0.312	0.554 XH	0.536	0.321
Rubidium	µg/L	1	-	-	-	-	-	-	-	-	-	-	-	-	0.44	0.54	0.52	0.72	0.61	0.81	1.11	1.29	0.79
Selenium	µg/L	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.050	0.05	<0.050	<0.050	0.057	0.074	<0.050	0.121	<0.050
Silicon	µg/L	2,550	-	-	-	-	-	-	-	-	-	-	-	-	1,540	1,370	2,330	4,380	4,010	3,570	4,900	5,660	1,100
Silver	µg/L	<0.010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Sodium	mg/L	6.53	1.02	9.2	14.7	7.04	4.59	2.04	6.13	7.32	0.71	0.99	3.72	6.59	7.01	9.62	10.1	14.7	8.48	11.0	13.3	13.9 XH	6.58
Strontium	µg/L	32.6	32.5	42	57.4	28	31.4	29.7	34.2	29.8	24.9	27.7	35.4	39.4	25.5	34.2	40.4	56.6	41	42.5	46.7	42.4	31.2
Sulfur	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	550	<500	<500	<500	<500	680	580	<500
Tellurium	µg/L	<0.60	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	µg/L	<0.050	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Thorium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tin	µg/L	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	µg/L	<0.30	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Tungsten	µg/L	-	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Uranium	µg/L	0.011	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.010	0.012	0.018	0.06	0.025	0.046	0.043	0.063	0.038
Vanadium	µg/L	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Zinc	µg/L	<5.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	4.6	<3.0	<3.0	<1.0	4.4	9.9	<1.0	<1.0	2.2	4.6	3.4	1.1
Zirconium	µg/L	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Metals, Total																							
Aluminum	µg/L	11.5	11.4	15.7	44.2	31.1	25.3	7.5	11.7	15.7	10.8	7.8	8.3	7.1	10.8	10.7	16.8	5.6	12.6	8.5	15.1	21	17.6
Antimony	µg/L	<0.10	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	<0.10
Arsenic	µg/L	20	1.2	6	11.1	25	25.6	19.7	22.6	25	1.3	1.4	4.3	5.3	18.8	35.7	38.6	33.4	33	15.9	26.8	45.3	23.8
Barium	µg/L	4	13	<10.0	12	<10.0	<10.0	<10.0	<10.0	<10.0	12	14	12	10	3.08	5.15	5.97	9.11	6.77	5.91	6.16	7.73	6.16
Beryllium	µg/L	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Bismuth	µg/L	<0.050	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Boron	µg/L	<10.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Cadmium	µg/L	<0.010	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium	mg/L	24.2	38.7	44.9	54.5	23.1	30.4	35.4	27.1	25.8	30.5	33.5	37.0	38.2	19.4	28.5	31.2	41.8	35.3	36.7	40.2	37.7	28.5
Cesium	µg/L	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chromium	µg/L	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.1	0.18	<0.10	0.14	0.13	0.19	0.24	0.24	0.15
Chromium (Trivalent)	µg/L	-	-	-	-	<1.0	<1.0	<1.0	-	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cobalt	µg/L	<0.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.16	<0.10
Copper	µg/L	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Iron	µg/L	69	79	235	545	98	115	135	74	101	87	87	172	193	49	114	173	129	209	107	243	677	113
Lead	µg/L	<0.050	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.065	0.092	<0.050
Lithium	µg/L	<5.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Magnesium	mg/L	4.50	7.43	8.80	9.93	4.71	5.57	6.47	5.59	5.16	5.80	6.33	7.50	7.57	4.05	5.63	5.96	7.88	6.52	7.27	7.82	7.97	5.62
Manganese	µg/L	2.94	5.5	19.7	62.6	13	10	6.3	3.6	3.8	6.1	5.8	29.6	31.9	1.26	11.1	14	11.4	7.42	2.41	41.4	82.2	10.6
Mercury	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	µg/L	0.056	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.073	<0.050	<0.050	0.086	0.056	0.084	0.08	0.066	0.076
Nickel	µg/L	0.19	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Phosphorus	µg/L	<300	-	-	-	-	-	-	-	-	-	-	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Potassium	mg/L	0.386	0.91	0.66	0.74	<0.50	<0.50	<0.50	<0.50	<0.50	0.72	0.80	0.88	0.79	0.174	0.183	0.165	0.196	0.173	0.295	0.401	0.581	0.341
Rubidium	µg/L	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	0.39	0.58	0.49	0.72	0.72	0.83	0.92	1.46	0.89
Selenium	µg/L	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.056	0.054	0.051	0.068	0.051	<0.050	<0.050	0.064	<0.050
Silicon	µg/L	2,160	-	-	-	-	-	-	-	-	-	-	-	-	1,430	1,490	2,370	4,610	4,040	3,470	4,620	5,880	1,110
Silver	µg/L	<0.010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Sodium	mg/L	6.32	0.93	11.3	12.5	7.05	8.57	7.35	6.47	7.70	0.77	0.95	3.32	5.46	6.72	10.4	10.5	14.9	8.75	10.8	13.4	10.7	6.99
Strontium	µg/L	30.4	32.2	47	54.6	26.5	40.5	38.3	33.9	31.5	26	28	35.3	38.1	24.4	37.3	41	53.2	44.9	41.6	45.3	40.7	34.1
Sulfur	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	<500	570	<500	<500	<500	<500	710	610	<500
Tellurium	µg/L	<0.60	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	µg/L	<0.050	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.010	<0.010	<0.010	<0.010	0.015	<0.010	<0.010	<0.010	<0.010
Thorium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tin	µg/L	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0 DJ	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	0.23	0.17	<0.10	<0.10
Titanium	µg/L	<0.30	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.33	0.42	0.47
Tungsten	µg/L	-	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Uranium	µg/L	0.011	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	0.011	0.017	0.059	0.03	0.049	0.046	0.051	0.048
Vanadium	µg/L	0.16	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Zinc	µg/L	<5.0	<3.0	<3.0	6.3	<3.0	<3.0	<3.0	<3.0	<3.0	3.6	<3.0	<3.0	<3.0	<3.0	<3.0	4.3	<3.0	<3.0	<3.0	6.9	7.2	<3.0
Zirconium	µg/L	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30

Sample Location		25																				
Sample Date		27-Jun-16	25-Jul-16	19-Aug-16	12-Sep-16	24-Oct-16	14-Feb-17	16-May-17	21-Aug-17	14-Feb-18	23-May-18	25-May-18	9-Aug-18	5-Nov-18	13-Feb-19	28-May-19	14-Aug-19	17-Mar-21	6-May-21	9-Jun-21	12-Jul-21	3-Aug-21	2-Sep-21
Sample ID		25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	STANTEC	GGM
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order		L1790544	L1804020	L1816596	L1827927	L1848520	L1891053	L1927633	L1978694	L2057296	L2100007	L2101401	L2144934	L2193640	L2233479	L2281634	L2330539	L2568922	L2585227	L2599960	L2613514	L2622644	L2635785
Laboratory Sample ID	Units	L1790544-4	L1804020-19	L1816596-10	L1827927-5	L1848520-7	L1891053-6	L1927633-7	L1978694-3	L2057296-2	L2100007-7	L2101401-6	L2144934-3	L2193640-3	L2233479-2	L2281634-2	L2330539-3	L2568922-1	L2585227-5	L2599960-7	L2613514-6	L2622644-5	L2635785-7
Field Parameters																							
Dissolved Oxygen, Field	mg/L	6.89	7.43	7.65	10.7	12.25	2.38	7.34	5.95	2.39	6.92	8.11	-	13.06	1.68	7.63	6.11	-	-	-	-	-	7.84
Electrical Conductivity, Field	µS/cm	227	220	235	179	265	356.6	201.6	303	433.2	182	136	296	210	491	173	236	-	-	-	-	-	335.5
pH, Field	S.U.	7.58	7.42	7.67	7.56	7.85	7.06	6.86	6.76	6.59	7.63	-	7.38	7.69	7.96	7.62	7.47	7.43	7.41	7.49	7.75	7.82	7.84
Temperature, Field	deg C	19.34	22.23	23.42	17.19	4.58	0.2	9.9	20.62	0.4	16.19	-	20.24	1.59	0.24	11.36	18.87	0.2	5.7	23.8	22.4	23	17.6
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.95
General Chemistry																							
Acidity as CaCO3	mg/L	5.1	2.5	2.7	<2.0	2.5	18.3	-	-	-	-	-	-	-	-	-	-	4.6	3.4	<2.0	4.6	<2.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	167	72.2	99.5	134	113	140
Alkalinity, Carbonate (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	88.8	88.4	104	92.6	114	171	77.9	114	165	69.0	-	113	79.0	179	69.9	115	167	72.2	99.5	134	113	140
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.000484	0.000060	-	0.00120	-	-
Ammonia (as N)	mg/L	1.10	1.53	0.732	0.039	0.105	0.171	1.19	1.91	0.239	0.093	-	0.030	<0.020	0.191	<0.020	<0.020	0.177	0.015	0.0114	0.038	0.0111	0.0189
Ammonia, Un-ionized (As N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.010	-	<0.010	<0.010
Biochemical Oxygen Demand (BOD)	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	19.9	2.20	14.3	0.95	19.9	24.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorophyll a	µg/L	1.85	-	0.99	-	0.76	-	-	-	-	-	-	-	-	-	0.47	1.69	-	0.72	2.84	-	2.72	-
Color, True	TCU	71.6	38.0	49.1	27.4	39.2	38.7	62.4	49.0	37.3	82.7	-	53.0	70.4	35.5	73.4	48.8	44.2	69.5	83.3	47.9	34.7	35.3
Cyanide	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	-	-	-	-	-	-	-	-	-	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide (Free)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide (Weak Acid Dissociable)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	16.3	16.6 XH	17.3	10.3	4.3	13.4	-	-	-	-	-	-	-	-	-	-	14.9	18.3	17.7	17.7	13.7	19.6
Electrical Conductivity, Lab	µS/cm	226	162	232	182	272	359	205	280	412	183	-	275	211	494	186	229	392	190	254	312	230	342
Fluoride	mg/L	0.033	0.026	0.032	0.030	<0.020	0.027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hardness (as CaCO3)	mg/L	103	105	107	102	116	155	-	-	165	78.1	-	122	92.9	189	80.2	111	167	82.6	107	131	105	134
Nitrate (as N)	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	0.035	<0.10 DM	<0.020	<0.020	<0.020	-	<0.020	0.070	0.063	0.023	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.050 DM	<0.010	<0.010	<0.010	-	<0.010	<0.010	0.017	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.58	7.95	7.85	8.19	7.87	7.13	7.32	7.53	7.26	7.51	-	7.72	7.53	7.55	7.42	7.77	7.39	7.67	7.91	8.10	8.05	8.03
Phaeophytin A	µg/L	1.62	-	1.00	-	0.52	-	-	-	-	-	-	-	-	-	0.37	1.27	-	0.69	1.98	-	1.13	-
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.0098	0.0118	0.0117	0.0127	0.0127	0.0063	0.0077	0.0109	0.0041	0.0011	-	0.0012	0.0047	0.0243	0.0069	0.0131	0.0039	0.0053	0.0119	0.0138	0.0129	0.0129
Phosphorus, Total (Dissolved)	mg/L	0.0048	0.0033	0.0051	0.0035	0.0132	0.0036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	0.86	2.09	0.74	2.35	2.10	1.73	1.6	0.53	1.64	0.96	-	0.40	2.21	1.65	0.69	0.49	0.51	3.38	0.36	0.60	0.97	0.56
Total Dissolved Solids	mg/L	152	184	174	124	177	244	125	186	207	117	-	170	134	294	115	153	244	129	161	221	148	198
Total Kjeldahl Nitrogen	mg/L	1.25	2.03 RV	0.95	0.44	0.46	0.66	1.63	1.95	0.55	0.56	-	0.68	0.51	0.85	0.47	0.82	0.600	0.480	0.689	0.720	0.510	0.719
Total Organic Carbon	mg/L	17.1	13.2	16.7	10.8	15.9	13.7	15.7	16.2	13.2	17.9	-	15.4	18.4	14.0	17.3	18.3	15.2	17.9	22.4	17.7	14.6	16.7
Total Suspended Solids	mg/L	<2.0	<2.0	<2.0	2.3	<2.0	<2.0	<2.0	<2.0	-	-	-	-	<2.0	4.3	<2.0	<2.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Turbidity, Lab	NTU	0.61	0.43	0.64	1.90	0.73	0.74	0.32	0.50	0.58	0.44	-	0.53	0.33	2.65	0.29	0.55	1.78	0.34	0.69	0.77	0.60	0.39
Metals, Dissolved																							
Aluminum	µg/L	6.4	8.4	4.5	4.9	3.2	4.3	8.5	4.1	4.1	9.9	-	3.7	10.5	3.9	11.6	<5	<5	10	7	3.5	3.3	2.3
Antimony	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	29.9	33.6 XH	26.1	5.56	12.2 XH	18.7	23.1	25.8	9.77	23.9	-	25.9	24.9	22.7	25.7	35.4	38.7	23.9	50.1	69.1	26.2	41.2
Barium	µg/L	6.1	7.69	9.31	11.7	6.17	6.8	3.93	8.57	6.67	4.14	-	8.14	4.01	9.46	4.39	8.58	10.1	3.7	6.99	10	9.78	10.4
Beryllium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	<10.0	<10.0	<10.0	<10.0	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cadmium	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	31.3	31.8	32.8	30.6	34.4	46.3	26.2	36.5	49.7	23.6	-	37.2	27.6	56.5	24.4	33.4	50.2	24.0	32.6	39.9	31.9	39.5
Cesium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.10	7.62 XH	<0.10	1.55 XH	<0.10	<0.1	<0.1	0.11	<0.1	<0.1	-	<0.1	0.16	<0.1	0.16	<0.5	<0.5	0.15	0.14	<0.1	0.2	<0.1
Chromium (Hexavalent)	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.22	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	<0.20	0.37	0.28	0.41	<0.20	<0.2	0.21	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	0.23	0.32	<0.2	0.32	<0.2	<0.2	0.71	<0.2
Iron	µg/L	92	122 XH	73	27	44	261	47	102	167	63	-	69	53	421	64	55	830	57	89	41	25	31
Lead	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.056	<0.05	<0.05	0.053	<0.05
Lithium	µg/L	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	-	<1	<1	1.2	<1	<1	<1	<1	<1	1	<1	<1
Magnesium	mg/L	6.15	6.28	6.13	6.18	7.36	9.47	5.16	7.20	9.95	4.64	-	7.06	5.82	11.7	4.66	6.66	10.1	5.49	6.22	7.74	6.24	8.52
Manganese	µg/L	9.62	13.8	5.03	1.88	3.07	55.6	2.86	9.61	18.5	5.19	-	6.03	1.88	167	3.09	6.61	681	2.98	8.58	4.83	3.07	3.34

Sample Location		25																				
Sample Date		27-Jun-16	25-Jul-16	19-Aug-16	12-Sep-16	24-Oct-16	14-Feb-17	16-May-17	21-Aug-17	14-Feb-18	23-May-18	25-May-18	9-Aug-18	5-Nov-18	13-Feb-19	28-May-19	14-Aug-19	17-Mar-21	6-May-21	9-Jun-21	12-Jul-21	3-Aug-21	2-Sep-21
Sample ID		25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	STANTEC	GGM
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS	ALS	ALS	ALS	ALS	ALS
Laboratory Work Order		L1790544	L1804020	L1816596	L1827927	L1848520	L1891053	L1927633	L1978694	L2057296	L2100007	L2101401	L2144934	L2193640	L2233479	L2281634	L2330539	L2568922	L2585227	L2599960	L2613514	L2622644	L2635785
Laboratory Sample ID	Units	L1790544-4	L1804020-19	L1816596-10	L1827927-5	L1848520-7	L1891053-6	L1927633-7	L1978694-3	L2057296-2	L2100007-7	L2101401-6	L2144934-3	L2193640-3	L2233479-2	L2281634-2	L2330539-3	L2568922-1	L2585227-5	L2599960-7	L2613514-6	L2622644-5	L2635785-7
Mercury	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	µg/L	0.072	0.057	0.051	0.131	0.06	0.087	0.058	<0.05	0.09	0.067	-	<0.05	0.052	0.082	0.076	<0.05	0.053	0.055 RV	0.052	0.084	0.075	<0.05
Nickel	µg/L	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phosphorus	µg/L	<50.0	<50.0	<50.0	<50.0	<50.0	<50	<50	<50	<50	<50	-	<50	<50	<50	<50	<50	<50	<30	<50	<50	<30	<30
Potassium	mg/L	0.302	0.267	0.297	0.649	0.509	0.470	0.284	0.185	0.410	0.246	-	0.172	0.227	0.673	0.359 XH	0.279	0.491	0.215	0.290	0.322	0.378	0.175
Rubidium	µg/L	0.93	0.86	0.99	1.65	1.36	1.29	0.64	0.67	1.16	0.61	-	0.62	0.54	1.67	0.66	1.04	1.29	0.57	0.93	1.16	1.23	0.74
Selenium	µg/L	<0.050	0.06	0.055	0.06	<0.050	0.055	<0.05	<0.05	<0.05	<0.05	-	0.055	<0.05	<0.05	<0.05	<0.05	0.07	<0.05	<0.05	0.063	0.075	0.069
Silicon	µg/L	1,870	2,720 XH	2,980	3,200	3,600	5,680	1,440	4,170	4,690	1,050	-	2,670	2,570	5,410	1,220	2,400	5,330	1,800	1,330	2,210	1,240	1,450
Silver	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01	<0.01	0.043 XH	<0.01
Sodium	mg/L	10.7	10.3 XH	9.28 XH	1.41 XH	12.9 XH	14.0	9.45	13.2	21.7	7.49	-	10.9	9.31	25.0	8.20	7.49	14.5	9.36	12.5	14.9	5.46	16.3
Strontium	µg/L	37.7	38.8 XH	39.8	28.6	40.4	48.2	31	44.3	54.7	30.3	-	45.2	32.1	61.6	29.6	41.6	55	27.7	41.3	56.5	37.7	61.4
Sulfur	µg/L	<500	<500	<500	<500	570	<500	810	<500	<500	<500	-	<500	680	<500	<500	<500	<500	680	<500	<500	540	<500
Tellurium	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	0.12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	-	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.036	0.035	0.089	0.206	0.054	0.056	<0.01	0.054	0.072	<0.01	-	0.051	0.019	0.091	<0.01	0.06	0.03	<0.01	0.037	0.101	0.119	0.087
Vanadium	µg/L	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	1.2	2.5	3.3	<1.0	<1	2.1	4.6	2.8	2.1	<1	-	<1	<1	2	2.1	1.1	3	1	<1	<1	<1	<1
Zirconium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.3	<0.3	<0.06	<0.06	0.095	<0.06	-	<0.06	<0.06	0.073	<0.06	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Metals, Total																							
Aluminum	µg/L	10.7	17.6	7.2	26.4	13.7	7.2	11.3	6.3	7.9	13.3	-	4.8	14.2	26.7	10.7	6.3	38.3	12	11	6.3	5.9	<3
Antimony	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	33.7	11.7	23.3	6.34	9.41	18.9	26.9	27.6	10.3	26.1	-	27.1	25.2	24.8	25	34.1	40.2	23.2	55.1	70.2	27.3	43.3
Barium	µg/L	6.25	9.84	8.75	12.2	8.71	7.52	4.33	8.84	6.79	4.35	-	8.35	4.07	10.4	4.24	8.43	10.1	3.75	7.65	10.3	9.63	11.9
Beryllium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	<10.0	<10.0	<10.0	<10.0	<10	<10	<10	<10	<10	<10	-	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cadmium	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	0.0064	<0.005	<0.005	0.0055	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	29.0	26.8	31.9	27.9	34.2	48.5	25.7	36.6	50.4	24.3	-	40.3	26.4	59.0	24.3	32.0	51.1	25.6	30.5	40.0	31.9	44.1
Cesium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	0.22	0.12	0.13	0.13	<0.10	0.16	<0.1	0.12	0.16	0.33	-	0.28	0.23	0.23	<0.1	<0.5	<0.5	0.18	0.17	<0.1	0.17	<0.1
Chromium (Trivalent)	µg/L	<1.0	<1.0	<1.0	1.5	<1	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	0.11	<0.1	<0.1	0.23	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	<0.50	<0.50	<0.50	0.64	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Iron	µg/L	135	92	107	122	86	306	58	146	200	74	-	90	64	552	63	85	948	63	122	61	55	36
Lead	µg/L	<0.050	<0.050	<0.050	0.061	<0.050	<0.05	<0.05	<0.05	0.072	<0.05	-	<0.05	<0.05	0.077	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	-	<1	<1	1.4	<1	<1	<1	<1	<1	<1	<1	<1
Magnesium	mg/L	5.66	5.49	6.47	6.21	7.18	9.58	5.78	7.54	10.1	5.05	-	7.35	5.84	11.8	4.88	6.82	10.3	5.37	6.30	8.24	6.52	9.15
Manganese	µg/L	14.5	12.6	7.63	17.3	8.25	56.2	3.86	11.1	18.8	6.04	-	7.77	2.22	168	3.14	8.84	631	2.99	13.7	11.6	6.08	4.23
Mercury	µg/L	-	-	-	-	-	-	-	-	0.00085	-	0.00225	0.00073	0.00140	0.00119	0.00184	0.00088	0.00092	0.00152	0.00296	0.00093	0.00060	0.00058
Molybdenum	µg/L	0.071	0.118	0.072	0.143	0.11	0.095	0.071	0.06	0.094	0.077	-	0.056	0.055	0.114	0.066	0.06	0.068	0.06	0.054	0.097	0.09	<0.05
Nickel	µg/L	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	1.3	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Phosphorus	µg/L	<50.0	<50.0	<50.0	<50.0	<50.0	<50	<50	<50	<50	<50	-	<50	<50	<50	<50	<50	<50	<30	<50	<50	<30	<30
Potassium	mg/L	0.243	0.507	0.275	0.676	0.622	0.461	0.344	0.201	0.411	0.259	-	0.169	0.214	0.697	0.235	0.279	0.502	0.222	0.258	0.316	0.358	0.185
Rubidium	µg/L	0.76	1.43	0.93	1.91	1.56	1.38	0.72	0.72	1.16	0.68	-	0.64	0.54	1.69	0.58	1.01	1.41	0.51	0.98	1.21	1.19	0.85
Selenium	µg/L	0.051	0.05	<0.050	0.06	0.057	<0.05	<0.05	0.054	0.052	0.058	-	0.051	0.061	0.07	<0.05	<0.05	<0.05	0.056	0.086	<0.05	<0.05	0.079
Silicon	µg/L	1,960	2,180	2,700	3,170	3,670	5,650	1,440	4,380	4,800	1,110	-	2,670	2,480	5,430	1,110	2,480	5,500	1,810	1,400	2,170	1,220	1,500
Silver	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	0.013	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	11.6	2.62	7.50	1.12	7.77	14.4	11.5	12.5	21.8	8.23	-	12.6	9.83	23.9	8.17	7.62	15.2	9.84	14.1	15.0	5.40	16.8
Strontium	µg/L	38.4	28.2	39	30.1	37.5	53.2	32.3	45.6	56.1	30.4	-	51.6	31.2	67	31.3	41.1	55.2	27.2	41.9	55.8	39.5	63.7
Sulfur	µg/L	<500	<500	<500	580	560	570	1,530	<500	<500	<500	-	<500	560	2,510	<500	<500	<500	770	730	<500	<500	<500
Tellurium	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.10	0.16	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	0.23	<0.1	<0.1	<0.1	<0.1	<0.1	0.13	<0.1	<0.1
Titanium	µg/L	<0.30	0.5	<0.30	0.78	0.47	<0.3	<0.3	<0.3	<0.3	0.36	-	<0.3	<0.3	0.81	<0.3	<0.3	1.22	<0.3	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.028	0.135	0.086	0.202	0.16	0.062	0.011	0.056	0.073	0.012	-	0.059	0.018	0.102	<0.01	0.069	0.039	<0.01	0.028	0.099	0.134	0.094
Vanadium	µg/L	<0.50	0.53	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Zinc	µg/L	<3.0	<3.0	<3.0	4.9	<3.0	<3	<3	<3	<3	9.4	-	<3	<3	4.2	<3	<3	<3	<3	<3	<3	<3	<3
Zirconium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.3	<0.3	<0.06	<0.06	0.083	0.111	-	<0.06	<0.06	0.102	<0.06	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Sample Location																							
Sample Date		19-Oct-21	9-Nov-21	6-Jan-22	8-Feb-22	3-Mar-22	11-Apr-22	17-May-22	27-Jun-22	4-Jul-22	4-Aug-22	6-Sep-22	19-Oct-22	8-Nov-22	4-Jan-23	6-Feb-23	9-Mar-23	15-Mar-23	4-Apr-23	9-May-23	23-Jun-23	4-Jul-23	8-Aug-23	7-Sep-23
Sample ID		25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	BV	BV	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory		ALS	ALS	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	ALS	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	BV	BV	BV	BV	BV	BV	BV
Laboratory Work Order		L2653518	L2661577	452488	454923	456529	459653	463246	467801	468667	L2726978	475972	480701	482783	487567	490194	C369577	C376074	C3A1264	C3D3660	C3J0006	C3K0765	C3O2537	C3R9201
Laboratory Sample ID	Units	L2653518-3	L2661577-7	1719643	1727964	1733448	1743186	1755258	1771227	1774126	L2726978-1	1796469	1815501	1824041	1840231	1849369	VGN675	VHW773	VNG420	VTX937	WFV594	WIB177	WQV776	WYR005
Field Parameters																								
Dissolved Oxygen, Field	mg/L	8.97	10.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	264.5	279.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.43	7.26	8.16	6.44	6.51	6.72	6.85	6.87	6.79	7.44	7.68	7.35	7.48	6.74	6.94	6.90	-	6.63	7.26	7.090	7.15	7.15	7.24
Temperature, Field	deg C	8.1	4.5	-0.1	0.3	0.5	0.4	11.9	16.2	18.4	21	16.7	2.4	1.9	0	0	0.0	-	0.0	3.6	23.3	26.1	21.3	15.6
Turbidity, Field	NTU	1.76	0.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																								
Acidity as CaCO3	mg/L	2.0	2.3	14	16	26	11	7	21	10	<2.0	4	24	12	67	13	26	-	24	<5.0	6.2	8.2	5.0	<5.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	115	116	117	172	174	168	75	97	109	145	67	117	76	162	131	130	-	140	93	140	150	150	160
Alkalinity, Carbonate (as CaCO3)	mg/L	<2.0	<2.0	<1	<1	<1	<1	<1	<1	<1	<2.0	<1	<1	<1	<1	<1	<1.0	-	<1.0	<1.0	<1.0	1.0	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	<2.0	<2.0	0.00347	0.00235	0.00107	0.00302	0.00347	0.00074	0.00263	<2.0	0.0141	0.00219	0.00632	0.00034	0.00229	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total (as CaCO3)	mg/L	115	116	117	172	174	168	75	97	109	145	68	117	76	162	131	130	-	140	94	140	150	150	160
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	0.0113	0.0159	0.06	0.36	0.62	0.85	<0.01	<0.01	<0.01	0.0186	<0.01	<0.01	<0.01	0.28	0.05	0.094	-	0.28	0.053	<0.050	<0.050	<0.050	<0.050
Ammonia, Un-ionized (As N)	mg/L	<0.010	<0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0004	-	<0.0004	<0.0004	<0.0004	<0.00043	<0.0004	<0.0004
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	49	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	33.1	20.4	16.8	21.2	-	4.5	33.7	30.8	26.5	6.7	4.0	-	7.0	12	3.6	4.0	5.3	8.9
Chlorophyll a	µg/L	1.17	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	<2.1 VV	-	-	-
Color, True	TCU	64.8	51.5	25.9	91.7	112	106	106	186	161	85.8	49.3	87.5	72.4	93.1	31.1	34	-	38	59	65	71	52	57
Cyanide	mg/L	<0.0020	<0.0020	<0.002	0.004	0.015	0.005	<0.002	<0.002	<0.002	<0.0020	<0.002	0.004	0.004	0.005	0.007	<0.00050	-	0.00067	0.00053 CYN	0.00062 CYN	0.00107 CYN	0.00078 CYN	0.00070
Cyanide (Free)	mg/L	<0.0020	<0.0020	<0.001	<0.001	0.014	<0.001	0.003	<0.001	<0.001	<0.0020	<0.001	0.001	0.002	<0.001	<0.001	0.0036	-	<0.0020 ICE	0.0021 ICB	0.0042 ICB	0.0042 ICB	0.0028 ICB	<0.002 ICB
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	20.0	18.3	10.6	20.9	33	22.3	19	4.8	22.5	26.0	14	19.2	18.1	22.2	12.4	12	-	13	13	16	18	18	17
Electrical Conductivity, Lab	µS/cm	270	285	237	435	438	392	208	235	273	351	102	384	344	412	253	264	-	287	234	279	305	303	346
Fluoride	mg/L	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Hardness (as CaCO3)	mg/L	113	123	135	181	219	186	79.9	115	121	147	91.2	164	145	184	123	140	-	150	100	150	170	170	190
Nitrate (as N)	mg/L	<0.020	<0.020	<0.02	<0.02	<0.02	0.18	<0.02	<0.02	<0.02	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.10	-	<0.10	0.16	<0.10	<0.10	<0.10	<0.10
Nitrate + Nitrite (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.10	-	<0.10	0.16	<0.10	<0.10	<0.10	<0.10
Nitrite (as N)	mg/L	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.78	7.74	7.31	7.14	6.8	7.25	7.31	6.64	7.19	8.19	7.92	7.11	7.57	6.3	7.13	7.58	-	7.57	7.68	7.78	7.85	7.83	7.73
Phaeophytin A	µg/L	1.83	-	-	-	-	-	-	<0.5	-	-	-	<0.5	-	-	-	-	-	-	-	-	-	-	-
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	0.025	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.0077	0.0080	<0.001	0.041	0.057	0.039	0.018	0.076	0.1	0.0292	0.013	0.024	0.02	0.009	<0.001	0.013	-	0.033	0.017	0.031	0.012	0.020	0.020
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	<0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	1.14	0.99	3.2	1.2	0.3	0.8	2.5	0.9	0.6	0.56	1.5	1.2	2	1	2.7	2.9	-	4.5	6.2	2.6	2.8	2.1	2.1
Total Dissolved Solids	mg/L	176	181	170	340	265	270	195	225	260	224	130	300	240	255	190	185	-	165	175	195	185	220	210
Total Kjeldahl Nitrogen	mg/L	0.626	0.560	0.34	1.31	1.51	1.56	0.72	0.31	2.61	1.09	<1	<1	<1	<1	<1	0.51	-	0.65	0.31	0.67	0.65	0.58	0.55
Total Organic Carbon	mg/L	20.1	18.6	10.4	18.8	33	22.2	19.9	28.1	24.5	24.2 SP	14.2	19.3	11.3	22.7	12.5	13	-	14	13	18	18	19	17
Total Suspended Solids	mg/L	<3.0	<3.0	<2	8	<0.67	4	1	2	<1	<3.0	2.7	2.7	<1	3	2.3	<1	-	5	18	3	2	2	3
Turbidity, Lab	NTU	0.39	0.31	0.5	1.1	1.3	2.7	0.7	0.8	0.7	0.56	0.6	1.1	0.8	1.4	1.7	0.5	-	0.5	9.9	0.5	0.8	0.6	0.5
Metals, Dissolved																								
Aluminum	µg/L	4.1	3.1	2	10	15	7	12	22	12	6.6	4	7	6	7	2	2.1	-	2.7	24.7	5.2	4.2	1.9	1.9
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	0.4	0.2	0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	43.8	95.5	5.7	86.7	125	83.8	47.3	237	197	304	64.6	107	121	149	21.3	21.3	-	32.2	10.2	36.5	47.4	54	46.2
Barium	µg/L	5.74	5.23	14.5	15.1	18.7	16.2	6.2	9	9.7	8.55	8.7	9.1	8.9	21.1	9.1	9.1	-	11.3	8.5	12.5	10.3	14.4	13.8
Beryllium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bismuth	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	µg/L	<10	<10	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2	3	-	3	3	4	5	4	4
Cadmium	µg/L	<0.005	<0.005	<0.005	0.006	<0.005	0.009	0.006	0.006	0.01	<0.005	0.008	0.006	<0.005	0.007	0.006	<0.01	-	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
Calcium	mg/L	33.3	36.5	38.8	57.3	69.4	53.3	25.8	33.8	38.1	44.4	29	47.2	46.4	57.8	-	41.7	-	45.3	33.5	48.3	53.1	52.2	61.3
Cesium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.02	0.017	<0.01	0.03	0.02	0.04	0.01	<0.02	-	0.05	<0.02	<0.02	<0.02	<0.02	<0.02
Chromium	µg/L	0.14	<0.1	0.2	0.4	0.3	0.2	0.4	0.7	0.9	0.2	0.8	0.4	0.5	0.6	0.1	<0.5	-	<0.5	0.8	<0.5	<0.5	<0.5	<0.5
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	µg/L	<0.1	<0.1	<0.1	0.4	0.5	0.5	0.2	0.2	0.2	<0.1	<0.1	0.1	0.1	1.3	0.2	0.16	-	0.23	0.08	0.11	0.09	<0.05	0.06
Copper	µg/L	0.31	<0.2	0.5	0.6	1	1.1	0.8	0.5	0.6	<0.2	0.4	0.7	1.9	0.6	0.2	0.1	-	0.1	0.7	0.6	0.3	0.2	0.2
Iron	µg/L	48	33	35	1,250	2,620	1,520	90	270	230	93	60	80	110	1,300	140	276	-	425	92	129	130	51	118
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	0.06	0.12	<0.05	0.12	0.07	0.061	<0.05	<0.05	0.08	0.07	<0.05	<0.05	-	<0.05	0.11	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	<1	<1	1	<1	1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	0.7	-	0.8	0.5	0.7	0.8	0.8	1
Magnesium	mg/L	7.21	7.81	7.85	11.6	13	10.4	4.91	6.54	6.03	8.85	6.03	9.63	9.27	11.4	-	7.88	-	8.78	5.17	6.94	7.95	8.58	9.10
Manganese	µg/L	2.78	6.66	3.7	805	958	793	11.8	56.1	28.3	23	4	15.7	9.8	2,910	150	184	-	340	18	134	130	20.5	41.5

Sample Location																								
Sample Date		**19-Oct-21**	**9-Nov-21**	**6-Jan-22**	**8-Feb-22**	**3-Mar-22**	**11-Apr-22**	**17-May-22**	**27-Jun-22**	**4-Jul-22**	**4-Aug-22**	**6-Sep-22**	**19-Oct-22**	**8-Nov-22**	**4-Jan-23**	**6-Feb-23**	**9-Mar-23**	**15-Mar-23**	**4-Apr-23**	**9-May-23**	**23-Jun-23**	**4-Jul-23**	**8-Aug-23**	**7-Sep-23**
Sample ID		**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**
Sampling Company		**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**BV**	**BV**	**BV**	**STANTEC**	**STANTEC**	**STANTEC**	**STANTEC**	**STANTEC**
Laboratory		**ALS**	**ALS**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**ALS**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**C369577**	**C376074**	**C3A1264**	**C3D3660**	**C3J0006**	**C3K0765**	**C3O2537**	**C3R9201**
Laboratory Work Order		**L2653518**	**L2661577**	**452488**	**454923**	**456529**	**459653**	**463246**	**467801**	**468667**	**L2726978**	**475972**	**480701**	**482783**	**487567**	**490194**	**VGN675**	**VHW773**	**VNG420**	**VTX937**	**WFV594**	**WIB177**	**WQV776**	**WYR005**
Laboratory Sample ID	**Units**	**L2653518-3**	**L2661577-7**	**1719643**	**1727964**	**1733448**	**1743186**	**1755258**	**1771227**	**1774126**	**L2726978-1**	**1796469**	**1815501**	**1824041**	**1840231**	**1849369**									
Mercury	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum	µg/L	<0.05	0.1	0.14	0.13	<0.05	0.08	0.12	0.14	0.12	0.121	0.09	0.07	0.1	0.21	0.13	0.12	-	0.21	0.26	0.24	0.19	0.13	0.11
Nickel	µg/L	<0.5	<0.5	<0.5	0.8	1.8	0.8	<0.5	0.9	1	<0.5	0.6	<0.5	0.6	1.2	<0.5	0.2	-	0.5	0.5	0.4	0.4	0.3	0.4
Phosphorus	µg/L	<30	<30	<50	<50	<50	<50	<50	<50	<50	<30	<50	<50	<50	<50	<50	10	-	21	<5	11	10	12	6
Potassium	mg/L	0.717	0.735	1.11	0.8	0.9	0.79	1.05	1.15	0.99	1.10	0.54	2.05	1.75	1.7	-	1.02	-	1.53	0.82	1.39	1.45	1.28	1.77
Rubidium	µg/L	1.73	1.53	2.3	1.9	1.9	1.9	2.7	3.3	2.6	3.04	1.6	5.6	4.7	4.3	2.3	2.34	-	3.14	1.62	3.36	3.98	3.45	4.27
Selenium	µg/L	0.066	<0.05	<0.05	0.28	0.35	<0.05	<0.05	0.18	0.11	0.084	0.15	0.09	0.15	<0.05	<0.05	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Silicon	µg/L	3,470	2,990	3,940	7,330	9,730	7,330	1,990	2,840	2,290	4,480	1,310	3,910	3,560	4,650	2,030	2,830	-	3,560	2,190	1,670	2,280	2,330	1,740
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	11.1	11.4	2.07	16.7	21.6	14.9	9.37	8.6	10.4	14.5	2.77	17.2	13.8	13.7	-	2.73	-	4.13	7.90	2.40	2.89	3.44	4.51
Strontium	µg/L	42.1	45.1	36.2	57.5	62.7	57.3	29.9	43.7	40.6	63.5	24.1	45.2	50.1	59	33.8	42.6	-	49.6	34.1	48.8	55.8	60	63.9
Sulfur	µg/L	<500	<500	1,600	<500	600	<500	<500	600	1,700	<500	<500	<500	1,800	600	600	-	-	-	-	-	-	-	-
Tellurium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thallium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	-	<0.005	<0.005	0.005	<0.005	<0.005	<0.005
Thorium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	0.2	0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.3	<0.3	1	2	2.1	2	0.7	1.2	1	<0.3	0.5	0.9	0.8	1.1	0.5	<0.5	-	<0.5	1.2	0.5	<0.5	<0.5	<0.5
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.014	0.023	0.28	0.07	0.03	0.03	0.01	<0.01	0.01	0.024	0.1	0.04	0.04	0.04	0.04	0.03	-	0.10	0.2	0.12	0.09	0.06	0.08
Vanadium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	<0.05	0.41	0.27	0.19	0.11	0.12
Zinc	µg/L	<1	<1	<1	3	3	4	5	7	8	1.8	2	3	4	24	3	0.9	-	1.0	3	3.3	1.2	0.5	1.2
Zirconium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	-	<0.1	0.2	0.2	0.1	<0.1	<0.1
Metals, Total																								
Aluminum	µg/L	5.6	7.3	6	13	15	30	20	26	26	7.6	6	12	9	11	16	4.6	-	14.5	323	14.1	5.9	2.9	12.1
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	-	0.4	0.2	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	46.7	91.9	5.5	79.9	97.9	93.1	42.6	251	202	311	52.3	96	104	140	19.6	21.6	-	33.8	10.8	39.5	48.3	53.5	56.6
Barium	µg/L	6.18	5.3	15.2	14.4	15	16.1	6.6	8.9	10.1	9.15	8.8	9.2	8.3	21	9	9.2	-	11.1	10.9	12.8	10.3	14.9	17.2
Beryllium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bismuth	µg/L	0.058	<0.05	0.07	<0.05	<0.05	0.11	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	µg/L	<10	<10	2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2	3	-	3	3	5	5	5	4
Cadmium	µg/L	<0.005	<0.005	0.006	<0.005	<0.005	0.009	0.008	0.01	0.03	0.0051	<0.005	<0.005	<0.005	0.008	<0.005	<0.005	-	<0.005	0.019	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	36.1	35.2	39.7	53.6	57	56.1	23.2	33.7	42.9	45.2	30.2	46.8	46.6	54.8	-	40.8	-	44.7	37.1	48.6	50.3	52.0	62.0
Cesium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.01	0.02	0.02	0.017	<0.01	0.03	0.02	0.04	0.01	<0.02	-	0.05	0.04	<0.02	<0.02	<0.02	<0.02
Chromium	µg/L	0.11	<0.1	0.3	0.4	0.3	<0.1	0.4	0.7	1.3	0.29	0.3	0.3	0.4	0.4	<0.1	<0.5	-	<0.5	0.9	<0.5	<0.5	<0.5	<0.5
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	µg/L	<0.1	<0.1	<0.1	0.4	0.4	0.5	0.1	0.3	0.2	<0.1	<0.1	0.1	0.1	1.3	0.2	0.16	-	0.26	0.32	0.13	0.1	<0.05	0.15
Copper	µg/L	<0.5	<0.5	0.8	54.2	0.7	0.6	0.6	0.6	1.7	<0.5	0.6	0.7	1.1	0.8	0.5	0.1	-	0.2	1.6	0.7	0.3	0.2	0.4
Iron	µg/L	59	42	62	1,320	2,320	2,260	150	340	340	130	110	130	110	1,350	240	293	-	462	485	206	192	100	351
Lead	µg/L	<0.05	<0.05	<0.05	0.07	0.11	0.25	0.08	0.21	1.68	<0.05	0.05	<0.05	<0.05	0.2	0.08	<0.05	-	0.08	0.39	<0.05	<0.05	<0.05	0.07
Lithium	µg/L	<1	<1	1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	0.8	-	0.9	0.8	0.8	0.8	1	1.1
Magnesium	mg/L	7.26	7.43	8.08	10.4	11.9	10.3	5	6.46	6.4	8.94	6.31	9.66	9.28	11.1	-	7.70	-	8.89	6.03	7.44	7.85	8.67	9.09
Manganese	µg/L	3.24	7.12	7.4	774	781	934	16	59.2	33.1	28.5	5.5	16.7	10.3	2,800	167	199	-	341	25.8	147	154	37.6	244
Mercury	µg/L	0.00070	0.00084	0.00043	0.001	0.002	0.003	0.003	0.007	<0.01	-	0.0009	0.002	0.002	0.004	0.002	0.00284	0.00377	0.00279	0.00472	0.00304	0.00251	0.00104	0.00177
Molybdenum	µg/L	<0.05	0.06	0.16	0.07	0.06	0.1	0.07	0.18	0.2	0.13	0.13	0.08	0.07	0.2	0.27	0.11	-	0.20	0.26	0.23	0.19	0.13	0.1
Nickel	µg/L	<0.5	<0.5	<0.5	0.7	1.6	1.6	<0.5	<0.5	1.3	<0.5	<0.5	<0.5	<0.5	0.9	<0.5	0.2	-	0.6	1	0.5	0.4	0.4	0.4
Phosphorus	µg/L	<30	<30	<50	<50	<50	<50	<50	<50	60	<30	-	<50	<50	<50	<50	15	-	32	19	27	19	18	30
Potassium	mg/L	0.746	0.694	1.12	0.73	0.75	0.8	0.99	1.12	1.09	1.07	0.55	2.02	1.82	1.71	-	0.975	-	1.49	0.95	1.46	1.39	1.26	1.83
Rubidium	µg/L	1.75	1.43	2.4	1.9	1.7	2	2.7	3.2	2.7	3.24	1.6	5.5	4.6	4.2	2.3	2.37	-	3.07	1.99	3.35	3.91	3.39	4.44
Selenium	µg/L	0.094	0.05	<0.05	0.07	<0.05	0.19	0.06	0.17	<0.05	0.077	0.12	0.27	0.18	<0.05	<0.05	0.07	-	0.18	0.06	0.08	0.09	0.07	0.07
Silicon	µg/L	3,590	2,940	4,020	6,320	8,940	7,490	2,130	3,000	2,770	4,420	1,540	4,480	3,790	4,740	2,070	2,850	-	3,580	2,640	1,660	2,310	2,320	1,820
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.02	<0.01	<0.01	<0.01	0.05	0.05	0.06	0.04	0.05	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	11.7	10.9	2.23	15.8	18.1	15.1	9.09	8.78	10.5	14.4	3.06	17.1	13.8	13.5	-	2.59	-	4.18	8.54	2.65	2.85	3.41	4.37
Strontium	µg/L	43.5	44.3	37.6	54.9	58.1	59.8	29.5	43.5	43.9	64.2	24.3	44.2	48.1	56.9	34	42.9	-	48.3	32.1	48.6	56.7	59.1	64.4
Sulfur	µg/L	730	580	1,900	<500	600	<500	<500	<500	3,100	<500	<500	<500	1,400	1,100	<500	-	-	-	-	-	-	-	-
Tellurium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thallium	µg/L	0.025	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	-	<0.005	0.008	0.005	<0.005	<0.005	<0.005
Thorium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	0.26	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.3	<0.3	1.2	2.2	2.3	3	2.7	1.6	1.4	<0.3	0.7	1.2	1	1.5	1.4	<0.5	-	0.6	13.2	0.9	<0.5	<0.5	0.7
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.013	0.024	0.3	0.07	0.03	0.03	0.02	<0.01	0.02	0.025	0.11	0.04	0.04	0.05	0.05	0.03	-	0.09	0.18	0.1	0.08	0.06	0.07
Vanadium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	-	0.09	0.97	0.33	0.2	0.12	0.16
Zinc	µg/L	<3	<3	<1	3	2	2	4	6	11	<3	3	3	2	35	4	1.2	-	2.6	4.1	4	1.4	0.7	2.3
Zirconium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	-	<0.1	0.5	0.2	0.1	<0.1	<0.1

Sample Location															
Sample Date		3-Oct-23	29-Dec-23	24-Jan-24	5-Feb-24	13-Mar-24									
Sample ID		25	25	25	25	25									
Sampling Company		STANTEC	GGM	GGM	GGM	GGM									
Laboratory		BV	BV	BV	BV	BV									
Laboratory Work Order		C3V1811	C401369	C425851	C437213	C478150									
Laboratory Sample ID	Units	XFK853	YAD622	YFI924	YHV192	YQG347	Minimum	Maximum	Mean	Median	75th	95th	Count	Detect	ND
Field Parameters															
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	1.68	18.5	8.21	7.63	8.97	15.45	33	33	0
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	2.4	491	242.8	229.5	301.2	386.3	34	34	0
pH, Field	S.U.	7.48	7.03	7.04	6.83	7.22	6.44	8.16	7.09	7.26	7.02	6.606	69	69	0
Temperature, Field	deg C	20.6	0.3	0.0	0.7	0.8	-0.1	26.1	9.75	8.1	17.6	23.3	69	69	0
Turbidity, Field	NTU	-	-	-	-	-	-0.95	1.76	0.43	0.48	1.12	1.63	3	3	0
General Chemistry															
Acidity as CaCO3	mg/L	5.0	7.2	6.2	10	8.6	0.5	67.6	9.4	5.4	10	26	61	53	8
Alkalinity, Bicarbonate (as CaCO3)	mg/L	170	140	160	150	150	67	174	130.3	140	150	170.8	33	33	0
Alkalinity, Carbonate (as CaCO3)	mg/L	1.7	<1.0	1.0	<1.0	1.0	0.5	1.7	0.7	0.5	1	1	33	4	29
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	0.00034	1	0.45582	0.5	1	1	33	12	21
Alkalinity, Total (as CaCO3)	mg/L	170	140	170	150	150	62.2	179	117.6	115.5	143.8	170.6	70	70	0
Ammonia	mg/L	-	-	-	-	-	6E-05	0.0012	0.000581	0.000484	0.000842	0.001128	3	3	0
Ammonia (as N)	mg/L	<0.050	0.057	0.16	0.12	0.19	0.005	2.06	0.2363	0.0415	0.1908	1.212	70	50	20
Ammonia, Un-ionized (As N)	mg/L	<0.00062	<0.0004	<0.0004	<0.0004	<0.0004	0.0002	0.005	0.00148	0.001	0.001	0.005	30	0	30
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	1	9	1.7	1	1	7	29	3	26
Chemical Oxygen Demand	mg/L	-	-	-	-	-	49	49	NC	NC	NC	NC	1	1	0
Chloride	mg/L	11	11	3.3	3.3	9.0	0.4	33.7	13.55	12.1	19.9	29.08	49	49	0
Chlorophyll a	µg/L	-	-	-	-	-	0.25	2.84	0.964	0.79	1.185	2.5445	30	27	3
Color, True	TCU	46	29	29	25	19	19	186	62.3	52.5	78.4	109.3	70	70	0
Cyanide	mg/L	<0.00050	<0.00050	0.00071	<0.00050	0.00203	0.00025	0.015	0.001542787	0.001	0.001	0.005	61	15	46
Cyanide (Free)	mg/L	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0005	0.014	0.002080328	0.0025	0.0025	0.0036	61	9	52
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	0.001	0.001	0.001	0.001	0.001	0.001	28	0	28
Dissolved Organic Carbon (DOC)	mg/L	16	12	12	11	8.9	4.3	33	16.1951	16	18.7	22.3	61	61	0
Electrical Conductivity, Lab	µS/cm	363	318	338	301	334	102	494	274.4	267	330	412	70	70	0
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.01	0.05	0.031286	0.027	0.047	0.05	49	20	29
Hardness (as CaCO3)	mg/L	180	150	170	150	160	70.9	219	128.1	123	150.2	188	68	68	0
Nitrate (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.25	0.01	0.25	0.032786	0.01	0.05	0.1195	70	14	56
Nitrate + Nitrite (as N)	mg/L	<0.10	<0.10	<0.10	<0.10	0.25	0.05	0.25	0.08	0.05	0.05	0.2	12	2	10
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	0.005	0.025	0.0061	0.005	0.005	0.01	70	1	69
Oil and Grease, Total	mg/L	-	-	-	-	-	1	1	1	1	1	1	28	0	28
Orthophosphate (as P)	mg/L	-	-	-	-	-	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	24	0	24
pH, lab	S.U.	8.03	7.81	7.82	7.80	7.87	6.3	8.19	7.35	7.57	7.34	6.88	70	70	0
Phaeophytin A	µg/L	-	-	-	-	-	0.25	2.16	1.09	1.06	1.67	2.06	12	10	2
Phosphate	mg/L	-	-	-	-	-	0.025	0.025	NC	NC	NC	NC	1	1	0
Phosphorus, Total	mg/L	0.013	0.008	0.0077	0.010	0.0054	0.0005	0.1	0.0161	0.0119	0.0168	0.0434	58	56	2
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	0.0015	0.0132	0.0031	0.0015	0.0036	0.0055	20	9	11
Radium-226	Bq/L	-	-	-	-	-	0.0025	0.005	0.005	0.005	0.005	0.005	11	0	11
Sulfate	mg/L	2.4	6.8	3.5	2.9	6.8	0.3	6.8	1.82	1.52	2.39	4.05	70	70	0
Total Dissolved Solids	mg/L	200	155	205	200	210	109	340	184.2	182	210	267.8	70	70	0
Total Kjeldahl Nitrogen	mg/L	0.56	0.54	0.63	0.56	0.59	0.31	2.61	0.79735	0.635	0.82	1.915	66	61	5
Total Organic Carbon	mg/L	17	12	13	12	9.1	9.1	33	16.9471	16.45	18.6	24.365	70	70	0
Total Suspended Solids	mg/L	1	2	1	2	2	0.335	18	2.1	1	2	4.79	67	24	43
Turbidity, Lab	NTU	0.5	0.8	0.8	0.9	1.9	0.23	9.9	0.97	0.62	0.8	2.46	66	66	0
Metals, Dissolved															
Aluminum	µg/L	3	3.2	2.5	1.7	1.9	1.7	29	7.58	6.35	9.85	22.55	70	66	4
Antimony	µg/L	<0.1	0.1	<0.1	<0.1	0.7	0.05	0.7	0.11	0.05	0.05	0.3	70	5	65
Arsenic	µg/L	34.3	10.6	11.7	9	6.8	1.2	304	43.0204	26	43.15	138.2	70	70	0
Barium	µg/L	13.8	12.2	13.6	12	12	3.28	21.1	8.87	8.64	11	14.83	70	64	6
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	5	0.17914	0.05	0.05	0.5	70	0	70
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.025	0.5	0.112	0.025	0.05	0.5	70	1	69
Boron	µg/L	3	4	4	3	4	1	250	10.7	5	5	25	70	12	58
Cadmium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.0025	0.01	0.0047	0.0038	0.006	0.0085	70	11	59
Calcium	mg/L	59.0	49.0	54.4	49.4	49.6	21.3	69.4	39	37.2	47.2	58.4	69	69	0
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	0.02	0.005	0.05	0.01	0.005	0.01	0.031	58	11	47
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.05	7.62	0.40771	0.25	0.5	0.855	70	31	39
Chromium (Hexavalent)	µg/L	-	-	-	-	-	0.5	0.5	0.5	0.5	0.5	0.5	9	0	9
Cobalt	µg/L	<0.05	<0.05	0.08	<0.05	0.24	0.025	1.3	0.14	0.05	0.23	0.33	70	19	51
Copper	µg/L	0.1	0.4	3.5	0.4	0.4	0.1	3.5	0.42	0.32	0.5	0.98	70	38	32
Iron	µg/L	56	70.0	124	83	45	25	2620	214.8	88	149.8	1061	70	70	0
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.025	0.5	0.115	0.025	0.07	0.5	70	11	59
Lithium	µg/L	1	0.9	0.8	0.8	1.1	0.5	250	8	0.5	1	25	70	17	53
Magnesium	mg/L	8.86	7.90	8.10	7.68	9.12	4.29	13	7.38	7.21	8.66	11.12	69	69	0
Manganese	µg/L	18.5	29.4	142	56	32.6	1.12	2910	118.4877	10.6	43.75	742.6	70	70	0

Sample Location															
Sample Date		**3-Oct-23**	**29-Dec-23**	**24-Jan-24**	**5-Feb-24**	**13-Mar-24**									
Sample ID		**25**	**25**	**25**	**25**	**25**									
Sampling Company		**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**									
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**									
Laboratory Work Order		**C3V1811**	**C401369**	**C425851**	**C437213**	**C478150**									
Laboratory Sample ID	**Units**	**XFK853**	**YAD622**	**YFI924**	**YHV192**	**YQG347**	**Minimum**	**Maximum**	**Mean**	**Median**	**75th**	**95th**	**Count**	**Detect**	**ND**
Mercury	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.0025	0.05	0.0052	0.005	0.005	0.005	40	0	40
Molybdenum	µg/L	0.06	0.24	0.19	0.19	0.34	0.025	0.5	0.166871	0.09	0.205	0.5	70	48	22
Nickel	µg/L	0.2	0.6	0.7	0.4	1.4	0.19	1.8	0.5	0.25	0.8	1	70	21	49
Phosphorus	µg/L	<5	<5	<5	<5	<5	1.5	150	21.1	25	25	25	62	7	55
Potassium	mg/L	2.23	1.28	1.09	1.03	1.45	0.159	2.23	0.714551	0.58	1.02	1.73	69	65	4
Rubidium	µg/L	4.84	2.64	2.66	2.33	2.74	0.44	5.6	1.85	1.44	2.63	4.36	58	58	0
Selenium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	0.025	0.5	0.145	0.072	0.118	0.5	70	22	48
Silicon	µg/L	1,730	2,710	3,430	3,210	2,970	2	9730	3107.3	2770	3932.5	5927.5	58	58	0
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.005	0.05	0.013829	0.005	0.005	0.05	70	1	69
Sodium	mg/L	4.81	4.29	2.34	2.01	6.01	0.71	25	9.06072	9.2	13.2	17	69	69	0
Strontium	µg/L	73.3	51.6	50	48.7	59	24.1	73.3	43.1029	41.8	51.225	62.205	70	70	0
Sulfur	µg/L	-	-	-	-	-	250	1800	446.4	250	580	1442	45	15	30
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	0.5	0.16	0.1	0.1	0.5	70	0	70
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	0.0025	0.15	0.03	0.005	0.005	0.15	70	1	69
Thorium	µg/L	-	-	-	-	-	0.05	0.05	0.05	0.05	0.05	0.05	45	0	45
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	0.5	0.14	0.05	0.05	0.5	70	4	66
Titanium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.15	2.1	0.5	0.25	1	1.2	70	14	56
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	5	0.91	0.05	0.05	5	69	0	69
Uranium	µg/L	0.08	0.23	0.18	0.17	0.36	0.005	2.5	0.486	0.06	0.178	2.5	70	52	18
Vanadium	µg/L	0.11	0.10	0.08	0.07	0.09	0.025	0.5	0.27	0.25	0.25	0.5	70	10	60
Zinc	µg/L	0.7	4.8	9.1	4.7	4.5	0.5	24	2.7	1.5	3.2	7.5	70	43	27
Zirconium	µg/L	<0.1	0.1	<0.1	<0.1	<0.1	0.03	2.5	0.204	0.1	0.15	0.5	70	6	64
Metals, Total															
Aluminum	µg/L	4.1	20.2	9.5	25.8	34.9	1.5	323	18.1	11.4	16.6	33.2	70	69	1
Antimony	µg/L	<0.1	0.1	<0.1	<0.1	0.7	0.05	0.7	0.11	0.05	0.1	0.3	70	7	63
Arsenic	µg/L	36.1	11.6	13.4	9.8	7.5	1.2	311	42.94	26.45	44.8	123.8	70	70	0
Barium	µg/L	13.1	12.5	14.5	12.4	12.8	3.08	21	9.21	8.95	12	15.11	70	64	6
Beryllium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	0.5	0.11	0.05	0.05	0.5	70	0	70
Bismuth	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.025	0.5	0.113	0.025	0.05	0.5	70	3	67
Boron	µg/L	3	3	4	3	4	1	25	7.5	5	5	25	70	13	57
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	0.0025	0.03	0.0047	0.0025	0.0076	0.0088	70	10	60
Calcium	mg/L	59.0	49.3	55.4	50.4	49.9	19.4	62	38.9	37.1	48.5	56.6	69	69	0
Cesium	µg/L	<0.02	<0.02	<0.02	<0.02	0.02	0.005	0.05	0.011	0.005	0.01	0.04	58	13	45
Chromium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	0.05	1.3	0.28	0.25	0.4	0.5	70	35	35
Chromium (Trivalent)	µg/L	-	-	-	-	-	0.5	1.5	0.5	0.5	0.5	0.5	22	1	21
Cobalt	µg/L	<0.05	0.06	0.07	0.05	0.28	0.025	1.3	0.15	0.05	0.25	0.36	70	23	47
Copper	µg/L	0.1	0.5	0.5	0.6	0.6	0.05	54.2	1.19	0.25	0.5	0.96	70	25	45
Iron	µg/L	77	120	186	138	116	36	2320	270.8	122	228.5	1152.6	70	70	0
Lead	µg/L	<0.05	<0.05	<0.05	0.06	0.06	0.025	1.68	0.153	0.025	0.106	0.5	70	19	51
Lithium	µg/L	1	0.8	1	0.9	1.1	0.5	25	4.8	0.5	1	25	70	16	54
Magnesium	mg/L	9.33	8.15	8.62	7.76	9.28	4.05	11.9	7.44	7.43	8.8	10.36	69	69	0
Manganese	µg/L	24.6	32.1	153	58	34	1.26	2800	121.31	13.85	52.5	709.65	70	70	0
Mercury	µg/L	0.00221	<0.01	0.00141	0.00104	0.0021 AS	0.00043	0.007	0.002119	0.00192	0.00287	0.005	40	38	2
Molybdenum	µg/L	0.06	0.23	0.2	0.19	0.35	0.025	0.5	0.176	0.098	0.2	0.5	70	54	16
Nickel	µg/L	0.2	0.7	0.5	0.4	1.4	0.19	1.6	0.51	0.25	0.98	1.3	70	19	51
Phosphorus	µg/L	9	6	6	6	5	5	150	24.9	25	25	30.4	57	13	44
Potassium	mg/L	2.21	1.36	1.19	1.08	1.52	0.165	2.21	0.71	0.622	0.99	1.776	69	64	5
Rubidium	µg/L	4.73	2.77	2.84	2.36	2.8	0.39	5.5	1.87	1.51	2.7	4.46	58	57	1
Selenium	µg/L	0.06	0.06	0.07	0.06	0.06	0.025	0.5	0.14	0.06	0.113	0.5	70	41	29
Silicon	µg/L	1,800	2,800	3,590	3,330	3,090	1110	8940	3173.1	2785	4035	5946	58	58	0
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	0.005	0.06	0.017	0.005	0.036	0.05	70	8	62
Sodium	mg/L	5.00	4.59	2.54	2.07	6.06	0.77	23.9	9.02	8.57	12.5	16.98	69	69	0
Strontium	µg/L	70.4	53.9	55.3	48.9	59.2	24.3	70.4	43.5	42.4	53.7	64	70	70	0
Sulfur	µg/L	-	-	-	-	-	250	3100	574.7	250	600	1826	45	18	27
Tellurium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	0.5	0.16	0.1	0.1	0.5	70	0	70
Thallium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	0.0025	0.15	0.03	0.005	0.005	0.15	70	5	65
Thorium	µg/L	-	-	-	-	-	0.05	0.05	0.05	0.05	0.05	0.05	45	0	45
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	5	0.20971	0.05	0.1675	0.5	70	8	62
Titanium	µg/L	<0.5	1.1	0.7	0.9	1.2	0.15	13.2	0.88	0.55	1	2.26	70	29	41
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	5	0.91	0.05	0.05	5	69	0	69
Uranium	µg/L	0.08	0.23	0.19	0.17	0.35	0.005	0.35	0.073	0.05	0.093	0.206	58	54	4
Vanadium	µg/L	0.12	0.14	0.1	0.11	0.16	0.025	0.97	0.29	0.25	0.25	0.5	70	13	57
Zinc	µg/L	0.6	5.3	8.8	8.5	5	0.5	35	3.2	1.5	3.9	8.7	70	31	39
Zirconium	µg/L	<0.1	0.1	0.1	0.1	0.1	0.03	2.5	0.212	0.1	0.15	0.5	70	10	60

Table A.2 Water Quality Data at Station 39, January 2016 - March 2024

Sample Location																							
Sample Date		20-Jan-16	9-Mar-16	22-Mar-16	19-Apr-16	29-May-16	30-Jun-16	27-Jul-16	22-Aug-16	21-Sep-16	1-Nov-16	21-Feb-17	19-May-17	13-Jun-17	24-Aug-17	18-Sep-17	10-Oct-17	19-Dec-17	15-Jan-18	14-Feb-18	19-Mar-18	29-May-18	9-Aug-18
Sample ID		39	39-1.0	39	#39 (1)	39 (1) - 1M	39A	39A	39A	39A	39A	39-0	39	39	39-0m	39	39	39	39	39	39	39	39
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM
Laboratory Work Order		L1726045	L1743564	L1747967	L1758324	L1775554	L1792262	L1805591	L1817666	L1833034	L1852490	L1893427	L1928925	L1941850	L1981329	L1994372	L2005309	L2037650	L2045686	L2057296	L2069881	L2103140	L2144934
Laboratory Sample ID	Units	L1726045-2	L1743564-4	L1747967-3	L1758324-4	L1775554-4	L1792262-4	L1805591-4	L1817666-15	L1833034-6	L1852490-5	L1893427-5	L1928925-2	L1941850-3	L1981329-1	L1994372-1	L2005309-10	L2037650-1	L2045686-5	L2057296-7	L2069881-2	L2103140-2	L2144934-6
Field Parameters																							
Depth, Field	m	-	-	-	-	1	1	1	1	0.5	0.3	0	-	-	0	-	-	-	-	-	-	-	-
Dissolved Oxygen, Field	mg/L	6.75	4.71	-	6.29	12.24	9.21	7.94	7.97	8.05	11.53	5.64	9.45	8.51	8.54	8.41	7.77	6.62	4.51	2.15	1.01	7.95	-
Electrical Conductivity, Field	µS/cm	293.7	409	-	362.5	319	341	362	410	397	403	392.3	363.7	378	435	400	383	434	448	460.1	446	335	393
pH, Field	S.U.	7.45	7.69	7.26	7.65	7.26	7.74	7.99	7.77	7.91	7.22	7.13	7.63	7.6	7.75	6.66	7.48	5.99	7.25	7.81	6.57	7.59	8
Temperature, Field	deg C	3	1.7	2.9	4.0	16.93	19.9	22.9	19.45	16.48	5.75	0.7	11.4	18.15	18	12.89	10.78	3.5	3.06	1.4	0.72	20.83	21.25
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																							
Acidity as CaCO3	mg/L	7.7	11.5	14.0	6.0	3.7	3.5	<2.0	2.9	<2.0	3.9	2.2	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Bicarbonate (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Carbonate (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Hydroxide (as CaCO3)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Alkalinity, Total (as CaCO3)	mg/L	157	173	168	138	137	123	142	154	150	166	37.6	120	124	153	146	135	139	161	172	181	113	151
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	0.112	0.179	0.133	0.252	1.66	3.29	3.46	0.221	0.284	0.085	0.212	0.071	0.63	1.13 RV	0.024	0.073	0.116	0.117	0.22	0.219	0.392	0.054
Ammonia, Un-ionized (As N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anion Sum	meq/L	-	-	-	-	4.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-
Cation Sum	meq/L	-	-	-	-	4.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	53.0	40.7	41.1	59.3	47.2	40.9	43.4	35.9	37.0	36.7	5.39	-	-	-	-	-	-	-	-	-	-	-
Chlorophyll a	µg/L	0.42 FZ	0.47	0.50	0.32	2.04	1.40	-	1.89	0.93	2.35	-	-	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	29.3	23.8	28.2	29.1	25.1	46.6	37.4	29.7	22.6	18.6	4.1	39.4	41.7	20.3	29.7	62.2	39.8	33.1	33.4	30.5	44.6	30.9
Cyanide	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	-	-	-	-	-	-	-	-	-	-
Cyanide (Free)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-
Cyanide (Weak Acid Dissociable)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	12.2	11.3	11.0	10.4	9.3	13.0	13.3	12.4	10.3	10.0	2.3	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Lab	µS/cm	476	447	415	458	403	352	391	403	396	394	88.2	366	369	405	393	382	431	449	438	434	324	389
Fluoride	mg/L	0.029	0.040	0.035	0.034	0.031	0.035	0.034	0.029	0.033	0.024	<0.020	-	-	-	-	-	-	-	-	-	-	-
Hardness (as CaCO3)	mg/L	171	180	186	142	155	131	139	156	162	163	40.1	121	-	-	-	-	-	-	167	175	119	158
Ion Balance	%	-	-	-	-	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.041	<0.020	0.042	0.035	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.112	<0.020	<0.020	<0.020	<0.020	<0.020	0.036	0.037	0.022	0.036	<0.020	<0.020
Nitrate + Nitrite (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.72	7.60	7.48	7.60	7.99	7.94	8.12	8.12	8.13	8.02	7.68	7.82	8.29	8.23	8.01	7.85	7.64	7.60	7.58	7.49	7.80	8.13
Phaeophytin A	µg/L	-	-	-	-	0.68	0.88	-	0.56	0.35	1.03	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	<0.0030	<0.0030	0.0040	0.0061	0.0064	0.0090	0.0073	0.0082	0.0082	0.0114	0.0054	0.0055	0.0058	0.0065	0.0072	0.0086	0.0032	0.0051	0.0030	0.0026	0.0014	<0.0010
Phosphorus, Total (Dissolved)	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0045	0.0030	<0.0030	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	1.54	1.63	1.35	1.43	1.63	1.24	1.74	1.25	2.38	2.38	1.22	4.15	1.55	1.88	1.45	1.63	1.91	1.86	1.49	1.27	1.39	1.25
Total Dissolved Solids	mg/L	289	245	250	260	236	236	237	248	246	249	50	215	209	239	257	235	255	268	257	257	202	226
Total Kjeldahl Nitrogen	mg/L	0.37	0.43	0.47	0.50	1.66	3.8	3.36 RV	0.60	0.65	0.37	<0.25	0.37	0.97	1.42	0.34	0.55	0.55	0.45	0.47	0.56	0.76	0.40
Total Organic Carbon	mg/L	11.0	10.9	11.1	10.4	9.2	13.2	12.3	12.2	9.7	10.4	2.3	12.1	11.9	10.9	12.0	17.7	13.8	13.2	11.2	10.5	13.6	9.45
Total Suspended Solids	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	-	-	<2.0	-	-
Turbidity, Lab	NTU	0.31	0.24	0.69	3.59	0.46	0.55	0.72	0.59	0.57	1.02	2.18	0.36	0.55	0.70	0.84	0.94	0.31	0.48	1.63	0.60	0.60	0.66
Metals, Dissolved																							
Aluminum	µg/L	2.2	<2.0	2.2	5.9	8.3	2.3	<2.0	<2.0	<2.0	<2	<2	3.6	<2	<2	<2	3.6	2.3	2	2.1	2.1	5.4	1.2
Antimony	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	5.64	4.53	4.95	4.96	4.64	6.85	6.41	7.61	6.82	5.12	0.68	5.06	6.33	6.92	6.3	8.14	5.63	3.98	3.96	3.53	5.76	7.2
Barium	µg/L	8.46	9.03	9.33	7.81	6.92	6.41	6.1	8.29	8.92	8.6	2.23	5.88	6.5	8.22	7.34	7.62	7.44	8.75	8.8	10.4	6.44	8.06
Beryllium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cadmium	µg/L	<0.0050	<0.0050	0.0071	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0103	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	52.3	55.6	56.8	43.5	47.4	40.2	44.4	47.3	49.3	49.1	12.7 XH	36.0	40.3	47.0	47.6	41.9	44.7	52.5	50.6	53.2	36.0	48.8
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	1.55 XH	<0.10	<0.10	<0.10	0.1	<0.1	0.16	0.13	0.22	0.25	0.2	0.3	0.23	0.32	0.1	<0.1
Chromium (Hexavalent)	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	-	-	-	-	-	-	-	-	-	-	-
Cobalt	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	0.26	<0.20	0.23	0.26	<0.20	0.21	<0.20	<0.20	0.99	<0.20	0.27	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.22	<0.2
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Location																							
Sample Date		**20-Jan-16**	**9-Mar-16**	**22-Mar-16**	**19-Apr-16**	**29-May-16**	**30-Jun-16**	**27-Jul-16**	**22-Aug-16**	**21-Sep-16**	**1-Nov-16**	**21-Feb-17**	**19-May-17**	**13-Jun-17**	**24-Aug-17**	**18-Sep-17**	**10-Oct-17**	**19-Dec-17**	**15-Jan-18**	**14-Feb-18**	**19-Mar-18**	**29-May-18**	**9-Aug-18**
Sample ID		**39**	**39-1.0**	**39**	**#39 (1)**	**39 (1) - 1M**	**39A**	**39A**	**39A**	**39A**	**39A**	**39-0**	**39**	**39**	**39-0m**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**
Sampling Company		**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**
Laboratory Work Order		**L1726045**	**L1743564**	**L1747967**	**L1758324**	**L1775554**	**L1792262**	**L1805591**	**L1817666**	**L1833034**	**L1852490**	**L1893427**	**L1928925**	**L1941850**	**L1981329**	**L1994372**	**L2005309**	**L2037650**	**L2045686**	**L2057296**	**L2069881**	**L2103140**	**L2144934**
Laboratory Sample ID	**Units**	**L1726045-2**	**L1743564-4**	**L1747967-3**	**L1758324-4**	**L1775554-4**	**L1792262-4**	**L1805591-4**	**L1817666-15**	**L1833034-6**	**L1852490-5**	**L1893427-5**	**L1928925-2**	**L1941850-3**	**L1981329-1**	**L1994372-1**	**L2005309-10**	**L2037650-1**	**L2045686-5**	**L2057296-7**	**L2069881-2**	**L2103140-2**	**L2144934-6**
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	44	68	112	60	13	30	14	11	<10.0	<10	<10	27	28	<10	22	117	55	70	165	162	30	28
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.050	<0.050	<0.050	0.106	<0.050	<0.050	<0.050	<0.050	0.056	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1
Magnesium	mg/L	9.94	10.0	10.8	8.16	8.85	7.33	6.84	9.25	9.36	9.90	2.05 XH	7.55	8.23	9.27	9.26	8.13	8.75	10.5	9.94	10.2	7.14	8.82
Manganese	µg/L	37.1	159	155	81.5	1.79	2.17	1.68	6.03	2.93	2.93	9.4	11.5	5.74	1.03	21.6	46.5	54.6	77	165	363	2.63	5.81
Mercury	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.005	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	µg/L	0.135	0.126	0.116	0.072	0.114	0.096	0.101	0.112	0.118	0.11	<0.05	0.082	0.108	0.116	0.102	0.077	0.092	0.167	0.105	0.115	0.101	0.111
Nickel	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Potassium	mg/L	0.420	0.491	0.546	0.542	0.489	0.341	0.293	0.423	0.460	0.487	0.112	0.365	0.396	0.427	0.444	0.415	0.381	0.480	0.429	0.491	0.382	0.381
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.18	1.29	1.34	1.15	1.2	0.93	0.93	1.27	1.4	1.54	0.31	0.84	1	1.3	1.32	1.22	1.08	1.3	1.2	1.26	0.95	1.12
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	0.053	<0.050	0.06	<0.050	<0.050	<0.050	<0.050	<0.050	0.055	<0.050	0.05	<0.05	<0.05	<0.05	0.122	0.052	<0.05	0.062	<0.05	<0.05	0.073	<0.05
Silicon	µg/L	4,110	4,370	4,300	3,220	2,380	2,430	2,930	3,490	4,060	4,210	703 XH	2,180	2,000	3,300	3,370	3,010	3,690	4,060	4,020	4,080	1,980	2,820
Silver	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	28.0	22.8	22.5	38.0	26.9	22.3	20.3	23.2	22.3	22.4	3.42 XH	26.0	27.2	21.6	22.3	23.7	28.0	22.2	23.2	22.0	21.6	19.0
Strontium	µg/L	55	55.7	60.4	45.1	49.1	42.6	47.8	51.5	52.7	50.8	12.1 XH	41.1	43.2	49.6	52.4	47	48.5	55.9	53.4	53.8	39.1	49.2
Sulfur	µg/L	620	760	580	600	650	520	570	<500	560	570	<500	880	690	550	590	510	<500	930	<500	<500	550	600
Tellurium	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.43	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.068	0.08	0.062	0.042	0.057	0.035	0.045	0.054	0.056	0.061	0.019	0.035	0.034	0.054	0.057	0.035	0.05	0.103	0.058	0.078	0.04	0.055
Vanadium	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	2.8	1.5	4.4	2.7	1.6	1.3	<1.0	<1.0	1.2	<1	3.7	2.8	2.1	<1	1.5	2.1	2.1	1.9	2.2	2.2	2.5	<1
Zirconium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.3	<0.3	0.076	0.077	0.078	0.068	0.091	0.098	0.141	0.217	0.167	0.076	0.08
Metals, Total																							
Aluminum	µg/L	4.5	<3.0	13.4	13.3	<3.0	3.6	3.5	3.3	<3.0	3.4	18.5	5.3	3.9	3.4	4.8	5.3	3.3	5	5.1	3.2	6	<3
Antimony	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.15	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	5.43	4.08	6.14	4.87	4.55	7.38	8.17	7.49	7.08	6.45	0.63	5.24	6.16	7.29	6.71	8.9	5.56	4.86	4.39	3.94	5.59	7.88
Barium	µg/L	8.05	9.28	9.75	8.74	6.49	7.21	7.56	8.28	8.92	9.03	1.96	6.04	6.39	8.4	7.41	7.64	7.57	8.48	8.92	10.5	6.41	8.2
Beryllium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Bismuth	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.05	<0.05	<0.05	<0.05	0.074	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Cadmium	µg/L	<0.0050	<0.0050	0.0151	0.0052	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0221	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	51.2	55.0	58.6	49.3	48.2	43.0	48.4	45.3	46.8	51.7	9.24	38.7	38.7	50.2	46.1	41.5	45.9	50.7	54.1	56.7	38.2	49.7
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	0.22	<0.10	0.13	0.18	<0.10	0.23	<0.10	<0.10	<0.10	<0.10	0.32	0.14	0.15	0.18	0.28	0.13	0.15	0.11	0.58	0.15	0.11	0.16
Chromium (Trivalent)	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1	<1	-	-	-	-	-	-	-	-	-	-	-
Cobalt	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	0.55	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	63	52	249	123	27	53	47	39	37	77	29	36	42	38	68	184	77	97	211	236	31	51
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.050	<0.050	<0.050	0.052	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.245	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.054	<0.05	<0.05	<0.05
Lithium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	1.3	<1	<1	1.1	<1	<1
Magnesium	mg/L	9.85	10.8	10.6	9.52	8.80	7.84	9.04	8.89	9.19	9.96	1.30	6.65	8.29	9.66	8.91	7.95	9.33	10.3	10.5	10.5	7.01	9.32
Manganese	µg/L	39	149	161	109	9.73	20	29.1	23.4	23.2	25.5	8.55	14	13.4	31.5	49.5	69.7	64	83.4	182	350	2.46	18.6
Mercury	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00102	-	0.00203	0.00085
Molybdenum	µg/L	0.13	0.141	0.119	0.104	0.12	0.117	0.12	0.127	0.134	0.136	<0.05	0.087	0.096	0.142	0.125	0.101	0.12	0.137	0.13	0.131	0.109	0.13
Nickel	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Potassium	mg/L	0.419	0.503	0.545	0.576	0.497	0.342	0.389	0.392	0.431	0.509	0.079	0.353	0.352	0.450	0.440	0.424	0.406	0.471	0.454	0.476	0.367	0.404
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.16	1.36	1.35	1.27	1.18	0.99	1.12	1.18	1.41	1.66	0.24	0.88	0.94	1.34	1.36	1.18	1.11	1.18	1.22	1.36	0.94	1.28

Sample Location																							
Sample Date		**20-Jan-16**	**9-Mar-16**	**22-Mar-16**	**19-Apr-16**	**29-May-16**	**30-Jun-16**	**27-Jul-16**	**22-Aug-16**	**21-Sep-16**	**1-Nov-16**	**21-Feb-17**	**19-May-17**	**13-Jun-17**	**24-Aug-17**	**18-Sep-17**	**10-Oct-17**	**19-Dec-17**	**15-Jan-18**	**14-Feb-18**	**19-Mar-18**	**29-May-18**	**9-Aug-18**
Sample ID		**39**	**39-1.0**	**39**	**#39 (1)**	**39 (1) - 1M**	**39A**	**39A**	**39A**	**39A**	**39A**	**39-0**	**39**	**39**	**39-0m**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**
Sampling Company		**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**
Laboratory Work Order		**L1726045**	**L1743564**	**L1747967**	**L1758324**	**L1775554**	**L1792262**	**L1805591**	**L1817666**	**L1833034**	**L1852490**	**L1893427**	**L1928925**	**L1941850**	**L1981329**	**L1994372**	**L2005309**	**L2037650**	**L2045686**	**L2057296**	**L2069881**	**L2103140**	**L2144934**
Laboratory Sample ID	**Units**	**L1726045-2**	**L1743564-4**	**L1747967-3**	**L1758324-4**	**L1775554-4**	**L1792262-4**	**L1805591-4**	**L1817666-15**	**L1833034-6**	**L1852490-5**	**L1893427-5**	**L1928925-2**	**L1941850-3**	**L1981329-1**	**L1994372-1**	**L2005309-10**	**L2037650-1**	**L2045686-5**	**L2057296-7**	**L2069881-2**	**L2103140-2**	**L2144934-6**
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.051	0.06	0.062	<0.050	0.051	<0.05	<0.05	<0.05	0.052	0.067	<0.05	0.07	0.052	<0.05	<0.05	<0.05	0.073
Silicon	µg/L	4,330	4,470	4,420	3,700	2,270	2,450	2,990	3,390	3,860	4,130	459	2,200	2,020	3,450	3,490	3,100	3,770	4,040	4,130	4,260	1,930	2,750
Silver	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	29.5	23.4	22.7	35.0	26.7	24.1	24.0	22.6	22.1	21.4	2.18	23.9	26.1	23.4	23.4	25.2	29.7	26.1	24.7	23.0	20.5	22.6
Strontium	µg/L	55	57.6	63.4	53.2	48	49.1	51.7	53.9	54.8	58.5	8.97	42	45.7	55.2	53.5	47.5	52	57.5	56.5	58.9	43.8	55.7
Sulfur	µg/L	1,010	770	630	630	560	<500	<500	780	600	660	<500	760	<500	580	750	560	750	970	530	600	640	<500
Tellurium	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	0.5	<0.10	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	<0.10	0.65	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	<0.30	<0.30	0.63	0.5	<0.30	<0.30	<0.30	<0.30	<0.30	<0.3	0.42	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Tungsten	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.074	0.089	0.058	0.055	0.059	0.041	0.044	0.051	0.063	0.074	0.016	0.037	0.04	0.064	0.059	0.037	0.054	0.103	0.07	0.082	0.043	0.063
Vanadium	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	5.4	<3.0	5.7	17.5	<3.0	<3.0	3.5	<3.0	<3.0	<3.0	4.4	<3	<3	<3	<3	<3	<3	<3	<3	<3	3.3	<3
Zirconium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.3	<0.3	0.069	0.076	0.08	0.099	0.081	0.096	0.332	0.222	0.206	0.078	0.082

Sample Location										39												
Sample Date		6-Nov-18	29-May-19	15-Aug-19	22-Mar-21	6-May-21	10-Jun-21	14-Jul-21	4-Aug-21	7-Sep-21	21-Oct-21	10-Nov-21	11-Jan-22	9-Feb-22	8-Mar-22	4-Apr-22	10-May-22	28-Jun-22	18-Jul-22	11-Aug-22	6-Sep-22	19-Oct-22
Sample ID		39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	STANTEC	GGM	GGM	GGM	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK
Laboratory Work Order		L2193640	L2283252	L2330539	L2570173	L2585227	L2600666	L2614392	L2623082	L2637034	L2654721	L2661849	452852	454983	457037	459000	462464	467957	470954	473463	475972	480701
Laboratory Sample ID	Units	L2193640-12	L2283252-2	L2330539-10	L2570173-3	L2585227-6	L2600666-2	L2614392-2	L2623082-18	L2637034-4	L2654721-5	L2661849-6	1720822	1728239	1735002	1741312	1752554	1771772	1778757	1788046	1796477	1815506
Field Parameters																						
Depth, Field	m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen, Field	mg/L	13.41	9.22	7.81	-	-	-	-	-	4.20	8.74	11.08	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	437	316	414	-	-	-	-	-	409.9	455.0	469.1	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	7.81	7.59	8.08	7.24	7.88	7.68	8	8.02	7.43	7.64	7.86	7.25	7.33	7.46	7.25	7.17	7.31	7.21	7.99	7.99	7.91
Temperature, Field	deg C	3.19	15.43	21.15	1.3	7.5	21	22.2	21.2	16.5	10.1	4.8	1.6	1.4	2.6	2.3	5.8	18.3	13.6	21.2	18.3	6
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	0.76	2.59	0.86	-	-	-	-	-	-	-	-	-	-
General Chemistry																						
Acidity as CaCO3	mg/L	-	-	-	5.5	3.1	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	13	5	11	11	9	6	5	13	5	23
Alkalinity, Bicarbonate (as CaCO3)	mg/L	-	-	-	194	135	141	156	191	167	171	171	173	172	183	193	113	136	151	137	155	144
Alkalinity, Carbonate (as CaCO3)	mg/L	-	-	-	<2.0	<2.0	<2.0	<2.0	12.6	<2.0	<2.0	<2.0	<1	1	<1	1	<1	<1	1	<1	2	<1
Alkalinity, Hydroxide (as CaCO3)	mg/L	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	0.00563	0.0123	0.00632	0.011	0.00347	0.00913	0.0132	0.00661	0.0182	0.00458
Alkalinity, Total (as CaCO3)	mg/L	157	110	170	194	135	141	156	203	167	171	171	174	173	184	194	113	137	152	138	157	144
Ammonia	mg/L	-	-	-	0.000191	<0.00014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	0.053	<0.010	<0.020	0.099	<0.010	0.0158	0.0299	0.0050	<0.0050	0.0305	0.0530	0.06	0.07	0.04	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Ammonia, Un-ionized (As N)	mg/L	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	50.5	42	40	39.9	34.9	42.7	39.4	34.8
Chlorophyll a	µg/L	-	1.57	1.61	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	107	-	1.1
Color, True	TCU	28.4	42.5	18.9	15.0	36.9	40.4	27.2	806	18.0	21.1	19.2	18.4	17.8	15	16.4	58.8	64.6	63.9	49.6	37.8	26.5
Cyanide	mg/L	-	-	-	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.002	0.004	0.003	<0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002
Cyanide (Free)	mg/L	-	-	-	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	9.78	13.6	13.8	11.6	9.19	9.85	10.5	10.3	9.4	7.9	7.3	7.3	11.6	12.2	6	7.1	10.9	9.1
Electrical Conductivity, Lab	µS/cm	442	341	394	461	386	380	404	431	445	467	473	489	456	477	494	325	351	393	409	422	427
Fluoride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	0.06	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Hardness (as CaCO3)	mg/L	163	122	165	194	149	141	149	162	162	169	176	193	183	224	226	122	137	166	165	163	199
Ion Balance	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.054	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nitrate + Nitrite (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.92	7.80	8.43	7.69	7.98	8.11	8.18	8.35	8.17	8.08	8.06	7.52	7.86	7.57	7.81	7.31	7.73	7.89	7.59	8.03	7.43
Phaeophytin A	µg/L	-	-	0.52	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.5	-	359	-	<0.5
Phosphorus, Total	mg/L	0.0056	0.0059	0.0057	0.0029	0.0051	0.0063	0.0059	0.0053	0.0062	0.0077	0.0063	0.165	0.002	<0.001	0.003	<0.001	<0.001	0.007	0.043	0.007	0.001
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	1.76	0.96	1.05	1.21	3.18	1.34	1.87	1.44	1.37	1.36	1.41	2	1.7	2.4	2.4	2.4	2	2.4	1.9	2	1.9
Total Dissolved Solids	mg/L	259	207	234	266	222	214	206	277	258	261	257	3,540	150	235	235	280	280	240	255	295	285
Total Kjeldahl Nitrogen	mg/L	0.32	0.21	0.34	0.440	0.370	0.500	0.391	0.461	0.309	0.430	0.436	0.36	0.43	0.31	0.3	3.23	0.59	0.58	<0.04	<1	<1
Total Organic Carbon	mg/L	12.4	10.5	10.6	9.55	12.7	15.5	12.5	9.47	11.3	11.5	11.3	9.4	7.9	7.4	6	11.8	12.7	12.8	12.8	11.3	9.4
Total Suspended Solids	mg/L	<2.0	<2.0	<2.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<2.9	3	1	1	<0.67	1	<0.67	1.7	1.7	2.3
Turbidity, Lab	NTU	0.93	0.99	0.38	0.96	0.54	0.58	0.60	0.64	0.76	1.64	0.97	0.5	0.5	0.9	0.8	1.7	1.8	0.8	0.6	0.6	1.5
Metals, Dissolved																						
Aluminum	µg/L	1.6	3.6	<5	<5	3.9	2.2	1.9	1	<1	<1	<1	2	2	2	1	8	4	2	1	3	4
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	5.3	5.08	7.75	2.59	4.28	6.22	6.64	6.75	6.52	5.75	4.8	4.5	3.4	6	2.5	4.4	9.7	10.2	11.3	10.1	6.7
Barium	µg/L	7.11	5.97	8.15	10.7	6.79	7.05	7.63	7.82	8.89	9.96	8.91	9.8	9.5	11	11.8	8.2	8.8	9.1	10.1	11	10.7
Beryllium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.009	<0.005	0.006	<0.005	0.01	0.01	0.01	<0.005
Calcium	mg/L	49.4	37.2	49.9	58.6	44.2	42.7	44.7	49.2	48.8	51.1	53.0	55.5	55.8	64.2	62.9	37.4	44.2	47	55.8	49.4	54.6
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	0.11	0.15	<0.5	<0.5	0.15	<0.1	0.59 DTC	0.14	<0.1	0.12	<0.1	<0.1	0.3	0.6	0.8	0.6	0.5	0.9	0.6	1.9	0.4
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	<0.1
Copper	µg/L	<0.2	<0.2	1.48	0.23	0.34	0.21	<0.2	1.65 XH	<0.2	<0.2	<0.2	<0.2	0.8	0.9	0.5	1.4	0.9	0.3	0.7	0.4	0.8
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Location										39												
Sample Date		6-Nov-18	29-May-19	15-Aug-19	22-Mar-21	6-May-21	10-Jun-21	14-Jul-21	4-Aug-21	7-Sep-21	21-Oct-21	10-Nov-21	11-Jan-22	9-Feb-22	8-Mar-22	4-Apr-22	10-May-22	28-Jun-22	18-Jul-22	11-Aug-22	6-Sep-22	19-Oct-22
Sample ID		39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK
Laboratory Work Order		L2193640	L2283252	L2330539	L2570173	L2585227	L2600666	L2614392	L2623082	L2637034	L2654721	L2661849	452852	454983	457037	459000	462464	467957	470954	473463	475972	480701
Laboratory Sample ID	Units	L2193640-12	L2283252-2	L2330539-10	L2570173-3	L2585227-6	L2600666-2	L2614392-2	L2623082-18	L2637034-4	L2654721-5	L2661849-6	1720822	1728239	1735002	1741312	1752554	1771772	1778757	1788046	1796477	1815506
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	35	32	<10	35	27	46	19	16	11	37	15	370	60	<10	<10	60	120	80	80	70	50
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	0.079	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.07	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Magnesium	mg/L	9.63	6.97	9.74	11.6	9.30	8.34	9.06	9.63	9.83	10.1	10.6	11.6	10.3	12.6	12.2	7.2	8.01	8.84	8.99	9.26	10.6
Manganese	µg/L	16.7	7.92	0.8	344	63.2	14.8	5.4	2.53	1.18	39.8	8.96	49.6	73	95.9	191	76.4	13.5	13.9	13.6	0.8	5.7
Mercury	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	µg/L	0.091	0.09	0.105	0.125	0.092	0.091	0.104	0.112	0.115	0.131	0.119	0.13	0.15	0.19	0.14	0.18	0.31	0.23	0.21	0.21	0.3
Nickel	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	0.6	0.7	0.9	1	0.7	<0.5
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<50	<50	<50	<50	<30	<50	<50	<30	<30	<30	<30	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Potassium	mg/L	0.428	0.423	0.516	0.598	0.481	0.487	0.504	0.524	0.543	0.626	0.597	0.64	0.6	0.7	0.66	0.61	0.52	0.42	0.55	0.52	0.66
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.15	1	1.48	1.75	1.24	1.26	1.41	1.51	1.54	1.73	1.64	1.8	1.7	2	1.9	1.4	1.4	1.4	1.5	1.7	1.8
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.05	<0.05	<0.05	<0.05	0.052	0.079	0.062	0.055	0.051	0.051	<0.05	0.08	0.19	0.07	<0.05	0.2	0.27	0.14	0.17	0.15	<0.05
Silicon	µg/L	3,240	2,000	2,620	4,190	2,780	2,430	2,500	2,750	3,140	3,340	3,440	4,320	3,850	4,850	5,140	2,610	2,250	2,260	2,590	2,290	2,950
Silver	µg/L	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	28.4	21.6	21.4	20	27.3	26.7	23.7	23.0	22.5	26.9	28.3	27.4	20	23	20.2	18	22.5	19.5	22.7	19.7	20
Strontium	µg/L	51.3	44.1	56.5	62.1	47.4	51.1	53.4	54.7	56.9	58.3	58.1	57.3	52.5	59.7	55.6	35.6	41.4	46.6	45.5	41.6	42.9
Sulfur	µg/L	580	760	570	630	790	<500	540	620	<500	<500	<500	<500	<500	1,100	600	1,400	1,900	<500	2,200	<500	600
Tellurium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	0.12	<0.1	0.14	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2	<0.1	0.1
Titanium	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1	1.1	0.9	0.8	0.9	0.6	0.6	1	0.6	1
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.055	0.037	0.055	0.091	0.049	0.051	0.067	0.071	0.081	0.094	0.104	0.11	0.09	0.14	0.12	0.06	0.06	0.06	0.06	0.1	0.11
Vanadium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	<1	1.3	2.7	<1	1.3	<1	1.5	1.1	<1	<1	<1	<1	2	<1	<1	2	<1	<1	<1	2	1
Zirconium	µg/L	0.078	0.077	0.21	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Metals, Total																						
Aluminum	µg/L	9.1	4.9	<5	<5	7	4	3.9	5.5	<3	3.7	3.8	5	6	4	3	44	7	5	4	5	8
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
Arsenic	µg/L	6.26	5.16	7.43	3.31	4.31	6.51	7.01	7.19	6.86	8.23	5.99	4.1	3.6	3.8	3.2	4.7	8.7	8.5	11.6	8.8	7.5
Barium	µg/L	7.47	6.43	8.15	10.6	6.76	7.21	7.88	8.26	9.05	10.8	10	10.1	9.8	11.2	11.7	8.2	8.5	9	10	11.3	11.3
Beryllium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03
Bismuth	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	0.006	0.006	<0.005	0.007	0.01	0.01	0.008	<0.005	<0.005
Calcium	mg/L	46.9	35.5	48.3	61.9	46.8	43.5	47.5	48.9	49.0	52.5	53.2	59.6	57.4	69.4	66.5	37.4	43.7	48.1	52	55.2	56.8
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03
Chromium	µg/L	0.22	<0.1	<0.5	<0.5	0.19	0.14	0.33	0.17	<0.1	<0.1	<0.1	0.2	0.4	0.2	<0.1	0.6	0.7	0.5	0.6	0.3	0.2
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cobalt	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.2
Copper	µg/L	<0.5	<0.5	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	1.3	0.9	0.5	0.9	1.7	0.6	0.8	0.6	0.8
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	90	43	44	151	54	61	46	55	60	225	114	420	190	160	180	230	150	180	170	140	200
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.15	0.06	<0.05	<0.05	<0.05	0.1
Lithium	µg/L	<1	<1	<1	<1	<1	<1	1.1	<1	<1	<1	<1	<1	1	1	<1	<1	1	<1	<1	<1	<1
Magnesium	mg/L	9.64	7.19	9.98	11.1	9.02	8.44	9.88	9.55	9.51	9.67	10.1	11.8	11.6	14	12.5	7.61	7.76	9.2	8.8	9.98	10.4
Manganese	µg/L	26.8	13.9	17.3	398	68.7	22.2	24.3	23.3	32.7	108	41.3	66.7	79.5	99.3	213	111	13.8	29.9	34.3	21.2	43.5
Mercury	µg/L	0.00069	0.00195	0.00077	0.00052	0.00112	0.00125	0.00079	0.00073	0.00050	0.00050	0.00036	0.0006	0.001	0.003	0.0006	0.002	0.002	0.002	0.001	0.001	0.001
Molybdenum	µg/L	0.109	0.084	0.123	0.134	0.093	0.116	0.13	0.114	0.117	0.129	0.132	0.15	0.13	0.2	0.16	0.19	0.29	0.25	0.18	0.24	0.25
Nickel	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.8	0.6	0.7	<0.5	1.1
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<50	<50	<50	<50	<30	<50	<50	<30	<30	<30	<30	<50	<50	<50	<50	-	<50	<50	-	-	<50
Potassium	mg/L	0.449	0.400	0.490	0.562	0.465	0.513	0.527	0.501	0.534	0.570	0.601	0.63	0.65	0.73	0.66	0.64	0.5	0.5	0.48	0.55	0.68
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.19	1.03	1.42	1.73	1.08	1.34	1.4	1.49	1.61	1.68	1.64	1.9	1.8	2.1	1.9	1.5	1.4	1.4	1.6	1.8	1.8

Sample Location									39												
Sample Date		6-Nov-18	29-May-19	15-Aug-19	22-Mar-21	6-May-21	10-Jun-21	14-Jul-21	4-Aug-21	7-Sep-21	21-Oct-21	10-Nov-21	11-Jan-22	9-Feb-22	8-Mar-22	4-Apr-22	10-May-22	28-Jun-22	18-Jul-22	11-Aug-22	6-Sep-22	19-Oct-22
Sample ID		39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	STANTEC	GGM	GGM	GGM	GGM	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK
Laboratory Work Order		L2193640	L2283252	L2330539	L2570173	L2585227	L2600666	L2614392	L2623082	L2637034	L2654721	L2661849	452852	454983	457037	459000	462464	467957	470954	473463	475972	480701
Laboratory Sample ID	Units	L2193640-12	L2283252-2	L2330539-10	L2570173-3	L2585227-6	L2600666-2	L2614392-2	L2623082-18	L2637034-4	L2654721-5	L2661849-6	1720822	1728239	1735002	1741312	1752554	1771772	1778757	1788046	1796477	1815506
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	0.05	<0.05	<0.05	<0.05	0.068	0.065	<0.05	<0.05	0.057	0.055	<0.05	<0.05	0.21	<0.05	0.24	0.33	0.44	0.09	0.48	0.17	0.15
Silicon	µg/L	3,140	1,980	2,700	3,950	2,740	2,600	2,550	2,720	3,230	3,500	3,540	4,230	4,520	5,130	5,170	2,950	2,390	2,560	2,700	2,570	2,980
Silver	µg/L	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.06	<0.01
Sodium	mg/L	30.4	21.8	22.5	19.5	26.7	26.8	23.6	23.6	22.3	26.3	27.5	26.6	23	25.3	21.2	18.9	21.4	21.3	21.6	22.7	20.2
Strontium	µg/L	54.2	40.7	54.8	65.3	45.3	49.1	55.6	58.6	58.3	59	61.2	58.5	53.9	62.7	55.1	35.8	46.7	46.9	45.5	44.3	42.8
Sulfur	µg/L	550	600	540	590	840	<500	580	<500	530	<500	<500	<500	700	1,800	500	1,200	2,100	1,400	2,800	500	600
Tellurium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05
Thorium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.3	0.3	<0.1	0.2
Titanium	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	1.2	1.4	1.1	0.9	2.8	0.9	0.9	1.2	0.9	0.8
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.05	0.035	0.062	0.092	0.046	0.052	0.067	0.072	0.078	0.095	0.102	0.11	0.1	0.13	0.13	0.06	0.06	0.07	0.07	0.1	<0.01
Vanadium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<1	3	2	<1	1	1	<1	2	3	1
Zirconium	µg/L	0.081	0.06	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Sample Location																							
Sample Date		8-Nov-22	9-Jan-23	13-Feb-23	8-Mar-23	15-Mar-23	11-Apr-23	31-May-23	29-Jun-23	10-Jul-23	10-Aug-23	18-Sep-23	17-Oct-23	19-Dec-23	11-Jan-24	11-Feb-24	10-Mar-24						
Sample ID		39	39	39	39	39	39	39	39	39	39	39	39	39	39	39	39						
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	STANTEC	STANTEC	STANTEC	GGM	STANTEC	GGM	GGM	GGM	GGM						
Laboratory		TESTMARK	TESTMARK	TESTMARK	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV						
Laboratory Work Order		482783	487939	490785	C369594	C376074	C3A4623	C3F9817	C3J6640	C3K7615	C3O7461	C3T1094	C3W7540	C3BO809	C413312	C443566	C473326						
Laboratory Sample ID	Units	1824046	1841531	1851310	VGN752	VHW776	VNY232	VZO638	WHF370	WJL689	WRX100	XBA939	XIV843	XYM839	YCT683	YJD538	YPH124	Minimum	Maximum	Mean	Median	75th	95th
Field Parameters																							
Depth, Field	m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	1	0.6	0.8	1	1
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.01	13.41	7.68	7.96	9.09	12.06
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	293.7	469.1	395	400	434.5	458.6
pH, Field	S.U.	7.87	6.59	7.38	6.96	-	7.35	7.94	7.52	7.67	7.71	7.95	7.79	7.40	7.25	7.16	7.22	5.99	8.08	7.21	7.59	7.25	6.65
Temperature, Field	deg C	4.9	3	1.2	2.1	-	0.9	20.6	18.2	20.6	21.2	15.8	9.9	2.9	0.9	0.3	1.6	0.3	22.9	10.26	8.7	18.27	21.21
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.76	2.59	1.4	0.86	1.72	2.42
General Chemistry																							
Acidity as CaCO3	mg/L	12	10	25	11	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1	25	5.9	3.3	9.2	13.8
Alkalinity, Bicarbonate (as CaCO3)	mg/L	85	201	114	130	-	62	87	120	120	140	140	150	120	130	120	140	62	201	143.7	140	171	193.4
Alkalinity, Carbonate (as CaCO3)	mg/L	<1	<1	<1	<1.0	-	<1.0	<1.0	1.3	1.2	1.2	1.7	1.7	<1.0	<1.0	<1.0	<1.0	0.5	12.6	1.2	1	1	1.8
Alkalinity, Hydroxide (as CaCO3)	mg/L	0.01	0.00777	0.00112	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.00112	1	0.42756	0.5	0.5	1
Alkalinity, Total (as CaCO3)	mg/L	85	202	114	130	-	63	88	120	120	140	140	150	120	130	120	140	37.6	203	143.9	143	166.8	194
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7E-05	0.000191	0.00013	0.00013	0.000161	0.000185
Ammonia (as N)	mg/L	<0.01	0.02	0.03	<0.050	-	0.064	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.087	<0.050	<0.050	0.18	0.0025	3.46	0.24317	0.0515	0.129	1.2095
Ammonia, Un-ionized (As N)	mg/L	<0.002	<0.002	<0.002	<0.0004	-	<0.0004	<0.0017	<0.00057	<0.00095	<0.0011	<0.0013	<0.00056	<0.0004	<0.0004	<0.0004	<0.0004	0.0002	0.005	0.00153	0.001	0.001	0.005
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.1	4.1	NC	NC	NC	NC
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	<2	-	-	-	-	-	1	1	1	1	1	1
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.28	4.28	NC	NC	NC	NC
Chemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	32	32	NC	NC	NC	NC
Chloride	mg/L	42.1	32.9	1	1.1	-	1.5	<1.0	2.9	1.3	3.4	5.6	4.4	<1.0	1.3	<1.0	1.0	0.5	59.3	25.43	35.4	41.05	51.37
Chlorophyll a	µg/L	-	-	-	-	-	-	-	<2.1 VV	-	-	-	-	-	-	-	-	0.25	107	8.19333	1.1	1.75	33.745
Color, True	TCU	24.5	20.7	22	22	-	10	47	41	40	31	29	27	26	25	21	24	4.1	806	44	28.7	39.7	62.5
Cyanide	mg/L	0.002	<0.002	0.004	0.00061	-	0.00104	0.00071	<0.00050 CYN	<0.00050	<0.00050 CYN	-	<0.00050	0.00056	0.00057	<0.00050 CYN	0.00496	0.00025	0.00496	0.001272093	0.001	0.001	0.004
Cyanide (Free)	mg/L	0.003	<0.001	0.002	0.0028	-	<0.0020 ICB	0.0052 ICB	0.0031 ICB	<0.002 ICB	0.0035 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	0.0021 ICB	<0.002 ICB	0.0005	0.0052	0.001663636	0.001	0.0025	0.00344
Cyanide (Weak Acid Dissociable)	mg/L	-	-	-	-	-	-	-	-	-	-	<0.00050	-	-	-	-	-	0.00025	0.001	0.00094	0.001	0.001	0.001
Dissolved Organic Carbon (DOC)	mg/L	8.6	8	11.1	11	-	4.3	12	13	12	12	10	10	11	11	9.2	10	2.3	13.8	10.14	10.35	11.7	13.26
Electrical Conductivity, Lab	µS/cm	440	449	223	248	-	130	180	237	243	271	289	309	244	254	238	283	88.2	494	370.8	394	439.5	476.2
Fluoride	mg/L	0.08	<0.05	<0.05	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	<0.10	<0.10	<0.10	0.01	0.12	0.04	0.034	0.05	0.067
Hardness (as CaCO3)	mg/L	177	193	129	130	-	82	100	140	130	160	150	160	130	140	120	150	40.1	226	153.6	159	169.5	196.2
Ion Balance	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.1	2.1	NC	NC	NC	NC
Nitrate (as N)	mg/L	<0.02	<0.02	0.03	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	0.36	0.01	0.36	0.031	0.01	0.042	0.063
Nitrate + Nitrite (as N)	mg/L	-	-	-	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	0.38	0.05	0.38	0.09	0.05	0.05	0.25
Nitrite (as N)	mg/L	<0.01	<0.01	<0.01	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.015	0.005	0.015	0.005	0.005	0.005	0.005
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-	<0.010	-	-	-	-	-	0.0015	0.005	0.0018	0.0015	0.0015	0.0031
pH, lab	S.U.	7.77	7.66	6.82	7.85	-	7.71	7.97	8.06	8.04	7.96	8.10	8.08	7.85	7.84	7.83	7.74	6.82	8.43	7.75	7.85	7.68	7.47
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	359	40.39	0.56	0.88	215.81
Phosphorus, Total	mg/L	<0.001	0.002	0.001	0.0041	-	0.0071	0.012	0.0069	0.0077	0.0049	0.0041	0.0029	0.0038	0.0049	0.0075	0.0099	0.0005	0.165	0.0085	0.0055	0.0071	0.0115
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0015	0.0045	0.0019	0.0015	0.0015	0.0038
Radium-226	Bq/L	-	-	-	-	-	-	-	<0.010	-	-	-	-	-	-	-	-	0.005	0.005	NC	NC	NC	NC
Sulfate	mg/L	2.6	2.5	2.2	3.5	-	2.6	3.5	3.1	1.7	3.5	3.9	3.8	3.3	3.8	4.7	4.1	0.96	4.7	2.15	1.88	2.48	3.93
Total Dissolved Solids	mg/L	270	245	125	125	-	50	125	145	170	155	175	185	175	150	95	195	50	3540	276	236.5	257	285.6
Total Kjeldahl Nitrogen	mg/L	<1	1	<1	0.43	-	0.23	0.35	0.40	0.35	0.34	0.32	0.38	0.45	0.35	0.37	0.54	0.02	3.8	0.63297	0.433	0.5475	1.8955
Total Organic Carbon	mg/L	16.8	8.1	11	12	-	6.2	12	13	13	11	12	11	11	11	9.5	10	2.3	17.7	11.13	11.15	12.38	14.05
Total Suspended Solids	mg/L	<1	<0.67	1.3	2	-	5	9	2	2	1	1	3	2	1	4	2	0.335	9	1.55	1	1.5	3.4
Turbidity, Lab	NTU	1.3	1.1	1.9	0.9	-	1.4	3.7	0.7	1.1	0.5	0.7	1.2	1.5	1.8	5.0	1.3	0.24	5	1.06	0.78	1.27	2.39
Metals, Dissolved																							
Aluminum	µg/L	2	2	3	2.4	-	1.7	12.2	8.2	7	6.4	13.4	3	3.1	2.8	3.6	2.4	0.5	13.4	3	2.2	3.6	8.2
Antimony	µg/L	<0.1	<0.1	0.1	<0.1	-	0.2	<0.1	<0.1	0.1	0.2	0.1	<0.1	0.1	<0.1	0.1	0.7	0.05	0.7	0.07	0.05	0.05	0.11
Arsenic	µg/L	6.5	4.3	3.7	3.4	-	2.5	3.7	6.9	7.1	8.2	8.1	7.2	3.4	3.5	2.7	3.3	0.68	11.3	5.62	5.64	6.84	9.76
Barium	µg/L	11.4	10.7	9.5	10.3	-	6.9	9.4	13.3	13.4	12.5	12.3	12.3	14.0	14.9	11.2	12.9	2.23	14.9	9.16	8.9	10.7	13.32
Beryllium	µg/L	<0.02	<0.02	<0.02	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	0.05	0.03	0.02	0.05	0.05
Bismuth	µg/L	<0.05	<0.05	<0.05	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.025	0.05	0.03	0.025	0.025	0.05
Boron	µg/L	<2	<2	<2	<2	5	-	3	4	5	5	13	6	5	4	4	4	4	4	1	13	4.1	5
Cadmium	µg/L	<0.005	0.01	0.007	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0025	0.0103	0.004	0.0025	0.005	0.01
Calcium	mg/L	57.9	59.2	-	39.8	-	25.2	-	43.8	42.7	49.0	47.4	48.9	41.4	43.2	37.2	47.5	12.7	64.2	47.0714	47.55	52.35	58.75
Cerium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC
Cesium	µg/L	<0.01	<0.01	<0.01	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.03	0.005	0.03	0.007	0.005	0.005	0.01
Chromium	µg/L	0.3	0.4	0.6	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.05	1.9	0.293793	0.25	0.3	0.815
Chromium (Hexavalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	0.5	0.5	0.5	0.5
Cobalt	µg/L	<0.1	<0.1	<0.1	<0.05	-	<0.05	0.07	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.06	0.06	0.37	0.025	0.37	0.06	0.05	0.05	0.1
Copper	µg/L	0.8	1.3	0.7	2.3	-	0.4	0.9	1	1.2	1.8	2.8	0.7	1.1	0.8	0.6	0.8	0.1	2.8	0.55948	0.265	0.8	1.6725
Europium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC

Sample Location																							
Sample Date		**8-Nov-22**	**9-Jan-23**	**13-Feb-23**	**8-Mar-23**	**15-Mar-23**	**11-Apr-23**	**31-May-23**	**29-Jun-23**	**10-Jul-23**	**10-Aug-23**	**18-Sep-23**	**17-Oct-23**	**19-Dec-23**	**11-Jan-24**	**11-Feb-24**	**10-Mar-24**						
Sample ID		**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**						
Sampling Company		**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**STANTEC**	**STANTEC**	**STANTEC**	**GGM**	**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**						
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**						
Laboratory Work Order		**C369594**	**C376074**	**C3A4623**	**C3F9817**	**C3J6640**	**C3K7615**	**C3O7461**	**C3T1094**	**C3W7540**	**C3BO809**	**C413312**	**C443566**	**C473326**									
Laboratory Sample ID	**Units**	**482783**	**487939**	**490785**	**1851310**	**VGN752**	**VHW776**	**VNY232**	**VZO638**	**WHF370**	**WJL689**	**WRX100**	**XBA939**	**XIV843**	**XYM839**	**YCT683**	**YJD538**	**YPH124**	**Minimum**	**Maximum**	**Mean**	**Median**	**75th**	**95th**
	1824046	**1841531**	**1851310**																				
Gallium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC
Iron	µg/L	80	130	10	33	-	19	49	32	29	37	36	22	47	55	45	45	5	370	50.4	35	60	134.8	
Lanthanum	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC
Lead	µg/L	<0.05	<0.05	0.06	0.05	-	<0.05	0.06	<0.05	<0.05	0.14	<0.05	<0.05	<0.05	<0.05	0.09	<0.05	0.025	0.14	0.034	0.025	0.025	0.081	
Lithium	µg/L	1	<1	<1	0.7	-	<0.5	0.6	0.7	0.8	0.9	0.9	0.8	0.8	0.7	0.6	1	0.25	1	0.6	0.5	0.5	1	
Magnesium	mg/L	10.9	11.3	-	7.02	-	4.61	-	6.84	6.80	7.96	7.74	8.03	6.49	7.06	6.25	8.71	2.05	12.6	8.82821	9.025	9.955	11.6	
Manganese	µg/L	5.8	92.1	14.5	15.1	-	22.2	12.3	3.7	2.1	1.7	9.1	22.7	11.1	14	25.4	23.2	0.8	363	43.58	13.75	48.82	168.9	
Mercury	µg/L	-	<0.1	-	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0025	0.05	0.0057	0.005	0.005	0.005	
Molybdenum	µg/L	0.19	0.19	0.18	0.23	-	0.41	0.26	0.37	0.43	0.48	0.39	0.4	0.25	0.25	0.3	0.32	0.025	0.48	0.175	0.126	0.225	0.402	
Nickel	µg/L	0.6	<0.5	0.6	0.4	-	0.3	0.5	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.4	3	0.25	3	0.41	0.25	0.5	0.73	
Niobium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC	
Phosphorus	µg/L	<50	<50	<50	<5	-	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	2.5	25	19.5	25	25	25	
Potassium	mg/L	0.7	0.64	-	0.890	-	0.577	-	1.09	1.06	1.06	1.13	1.16	0.95	0.98	0.82	1.29	0.112	1.29	0.592	0.52	0.645	1.1	
Rhodium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC	
Rubidium	µg/L	2	1.7	1.8	1.83	-	1.21	1.61	2.25	2.52	2.38	2.83	2.78	2.37	2.18	1.76	2.55	0.31	2.83	1.54	1.4	1.79	2.52	
Scandium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC	
Selenium	µg/L	<0.05	0.36	<0.05	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.025	0.36	0.074	0.054	0.1	0.191	
Silicon	µg/L	3,410	4,010	1,960	2,160	-	1,500	2,130	1,890	1,790	1,370	1,220	1,280	2,760	3,090	2,580	3,300	703	5140	2943.2	2875	3640	4327.5	
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.005	0.025	0.006	0.005	0.005	0.005	
Sodium	mg/L	21.4	19.1	-	1.10	-	1.04	-	1.97	1.86	3.65	3.26	3.99	0.94	0.89	1.03	1.63	0.89	38	18.81393	22.1	23.325	28.075	
Strontium	µg/L	51.3	49.1	35	38.4	-	26.4	28.1	34.4	43.1	49.3	52.2	52.2	39.6	40.5	35	48.3	12.1	62.1	47.4397	49.15	53.4	58.51	
Sulfur	µg/L	2,100	1,100	1,100	-	-	-	-	-	-	-	-	-	-	-	-	-	250	2200	664.6	580	742.5	1775	
Tellurium	µg/L	<0.2	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	0.1	0.09	0.1	0.1	0.1	
Thallium	µg/L	<0.01	<0.01	<0.01	<0.005	-	<0.005	0.006	0.008	0.007	0.006	0.007	0.005	<0.005	<0.005	<0.005	<0.005	0.0025	0.02	0.005	0.005	0.005	0.007	
Thorium	µg/L	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	0.05	0.05	0.05	0.05	0.05	
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.05	0.43	0.06	0.05	0.05	0.12	
Titanium	µg/L	0.7	0.7	0.4	<0.5	-	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.15	1.1	0.32	0.15	0.25	1	
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	0.1	0.05	0.05	0.05	0.05	
Uranium	µg/L	0.1	0.08	0.13	0.14	-	0.06	0.2	0.19	0.22	0.25	0.27	0.29	0.23	0.21	0.22	0.31	0.019	0.31	0.099	0.068	0.11	0.253	
Vanadium	µg/L	<0.5	<0.5	<0.5	0.18	-	0.12	0.57	0.33	0.33	0.29	0.24	0.23	0.21	0.22	0.21	0.18	0.12	0.57	0.25	0.25	0.25	0.3	
Yttrium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC	
Zinc	µg/L	1	3	3	3.1	-	<0.5	1.4	3.3	3.9	1.8	2.9	2	4.8	4.7	3.3	5.9	0.25	5.9	1.8	1.6	2.7	4.4	
Zirconium	µg/L	<0.2	0.5	0.2	<0.1	-	0.2	0.2	0.1	0.1	0.2	0.2	0.2	<0.1	<0.1	0.1	<0.1	0.05	0.5	0.127	0.1	0.15	0.201	
Metals, Total																								
Aluminum	µg/L	5	4	59	24.4	-	67.7	129	22	33.1	13.1	19.6	33.3	34.2	24.3	116	32.4	1.5	129	15	5	13.4	60.3	
Antimony	µg/L	<0.1	<0.1	0.1	<0.1	-	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.2	0.7	0.05	0.7	0.07	0.05	0.05	0.2	
Arsenic	µg/L	6.7	4.3	3.7	3.5	-	2.0	4	7.3	7.5	8	7.8	7.9	3.9	3.7	3.1	3.5	0.63	11.6	5.84	6.06	7.42	8.72	
Barium	µg/L	11.4	9.7	10.7	11.0	-	6.3	11.6	13.8	14	12.9	12.2	12.6	14.2	15.1	12.2	13.3	1.96	15.1	9.41	9.02	11.15	13.83	
Beryllium	µg/L	<0.02	<0.02	<0.02	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.01	0.05	0.03	0.02	0.05	0.05	
Bismuth	µg/L	<0.05	<0.05	<0.05	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.025	0.074	0.031	0.025	0.025	0.05	
Boron	µg/L	<2	<2	<2	4	-	2	4	4	5	5	5	5	4	4	4	4	1	5	3.9	5	5	5	
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	-	0.009	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	0.0025	0.0221	0.004	0.0025	0.0025	0.01	
Calcium	mg/L	58.6	60.4	-	42.4	-	21.3	-	42.9	41.4	47.1	46.4	48.4	40.2	42.9	39.5	47.7	9.24	69.4	47.8	48.15	52.68	60.78	
Cerium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC	
Cesium	µg/L	<0.01	<0.01	<0.01	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.03	0.005	0.03	0.007	0.005	0.005	0.011	
Chromium	µg/L	0.3	0.4	0.8	<0.5	-	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.05	0.8	0.24	0.22	0.25	0.6	
Chromium (Trivalent)	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	1.5	0.6	0.5	0.5	1	
Cobalt	µg/L	0.1	0.2	0.1	<0.05	-	0.08	0.19	0.05	0.05	<0.05	<0.05	0.07	0.09	0.08	0.14	0.38	0.025	0.38	0.08	0.05	0.1	0.2	
Copper	µg/L	0.7	3.7	1	0.6	-	0.7	1.3	1	1.1	1.1	0.9	0.8	1.5	0.9	1	0.7	0.25	3.7	0.59	0.25	0.8	1.33	
Europium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC	
Gallium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC	
Iron	µg/L	150	270	190	75	-	94	246	80	87	58	48	91	112	101	200	101	27	420	116.1	90.5	177.5	246.4	
Lanthanum	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC	
Lead	µg/L	<0.05	<0.05	0.11	0.11	-	0.25	0.23	<0.05	0.06	<0.05	<0.05	<0.05	0.07	0.36	0.58	0.06	0.025	0.58	0.061	0.025	0.045	0.246	
Lithium	µg/L	1	<1	1	0.8	-	<0.5	0.7	0.7	0.8	0.8	0.9	0.9	0.8	0.8	0.8	1	0.25	1.3	0.6	0.5	0.8	1	
Magnesium	mg/L	10.6	10.4	-	7.10	-	3.74	-	6.45	6.60	7.98	7.81	8.25	6.94	6.85	6.67	8.61	1.3	14	8.93	9.2	10.01	11.65	
Manganese	µg/L	31.4	97.9	18.8	18.0	-	23.0	34.7	19.7	11.7	10.6	13.7	41.9	13.6	16.2	31	23.9	2.46	398	58.12	29.5	68.2	186.65	
Mercury	µg/L	0.0006	0.0008	0.001	0.00139	0.00122	0.00110	0.00147	0.00197	0.00169	0.00100	<0.01	0.00172	0.00132	0.00142	0.00127	0.00108	0.00036	0.005	0.00128	0.00105	0.00152	0.00208	
Molybdenum	µg/L	0.24	0.25	0.24	0.23	-	0.12	0.23	0.36	0.38	0.44	0.44	0.41	0.24	0.24	0.28	0.3	0.025	0.44	0.178	0.133	0.24	0.384	
Nickel	µg/L	<0.5	<0.5	<0.5	0.4	-	0.3	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	2.7	0.25	2.7	0.39	0.25	0.38	0.71	
Niobium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC	
Phosphorus	µg/L	<50	<50	<50	7	-	7	13	7	8	7	<5	<5	5	<5	7	<5	2.5	25	19.9	25	25	25	
Potassium	mg/L	0.76	0.6	-	0.884	-	0.475	-	1.03	1.06	1.10	1.15	1.18	0.97	0.98	0.89	1.29	0.079	1.29	0.594	0.506	0.653	1.112	
Rhodium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC	
Rubidium	µg/L	1.9	1.7	2	1.86	-	1.03	1.97	2.37	2.62	2.57	2.77	2.81	2.37	2.28	1.99	2.56	0.24	2.81	1.57	1.42	1.89	2.58	

Sample Location																							
Sample Date		**8-Nov-22**	**9-Jan-23**	**13-Feb-23**	**8-Mar-23**	**15-Mar-23**	**11-Apr-23**	**31-May-23**	**29-Jun-23**	**10-Jul-23**	**10-Aug-23**	**18-Sep-23**	**17-Oct-23**	**19-Dec-23**	**11-Jan-24**	**11-Feb-24**	**10-Mar-24**						
Sample ID		**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**	**39**						
Sampling Company		**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**STANTEC**	**STANTEC**	**STANTEC**	**GGM**	**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**						
Laboratory		**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**	**BV**						
Laboratory Work Order		**TESTMARK**	**TESTMARK**	**TESTMARK**	**C369594**	**C376074**	**C3A4623**	**C3F9817**	**C3J6640**	**C3K7615**	**C3O7461**	**C3T1094**	**C3W7540**	**C3BO809**	**C413312**	**C443566**	**C473326**						
Laboratory Sample ID	**Units**	**482783**	**487939**	**490785**	**VGN752**	**VHW776**	**VNY232**	**VZO638**	**WHF370**	**WJL689**	**WRX100**	**XBA939**	**XIV843**	**XYM839**	**YCT683**	**YJD538**	**YPH124**	**Minimum**	**Maximum**	**Mean**	**Median**	**75th**	**95th**
Scandium	µg/L	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	NC	NC	NC	NC
Selenium	µg/L	0.07	0.9	<0.05	0.07	-	<0.05	0.06	0.07	0.08	0.06	0.07	0.06	0.07	0.08	0.07	0.09	0.025	0.9	0.091	0.056	0.07	0.346
Silicon	µg/L	3,710	3,880	2,450	2,350	-	1,320	2,180	2,040	1,700	1,410	1,120	1,410	2,720	3,040	2,960	3,470	459	5170	3021	2970	3755	4477.5
Silver	µg/L	0.06	0.06	0.05	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.005	0.06	0.009	0.005	0.005	0.051
Sodium	mg/L	21.1	16.6	-	1.14	-	0.861	-	1.94	1.87	2.37	3.37	3.97	0.96	0.90	1.15	1.57	0.861	35	19.166	22.6	24.825	29.55
Strontium	µg/L	49.2	55.6	38.2	39.2	-	20.4	29.7	37.4	42.4	48.5	52.2	52.3	39.4	40.8	36.9	47.6	8.97	65.3	49.08	51.85	55.6	61.42
Sulfur	µg/L	1,500	1,500	2,400	-	-	-	-	-	-	-	-	-	-	-	-	-	250	2800	772	600	777.5	2025
Tellurium	µg/L	<0.2	<0.2	<0.2	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	0.1	0.09	0.1	0.1	0.1
Thallium	µg/L	<0.01	<0.01	<0.01	<0.005	-	<0.005	0.009	0.008	0.008	0.007	0.007	0.006	0.005	0.005	<0.005	<0.005	0.0025	0.05	0.006	0.005	0.005	0.008
Thorium	µg/L	<0.1	<0.1	<0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	0.05	0.05	0.05	0.05	0.05	0.05
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	0.65	0.08	0.05	0.05	0.3
Titanium	µg/L	1	1	2.9	1.7	-	2.3	7.8	0.9	2.1	0.5	0.9	2.1	1.5	1.5	5.6	2.1	0.15	7.8	0.9	0.15	1.08	2.81
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.05	0.05	0.05	0.05	0.05	0.05
Uranium	µg/L	0.13	0.12	0.16	0.15	-	0.07	0.21	0.19	0.22	0.24	0.26	0.29	0.22	0.21	0.23	0.29	0.005	0.29	0.101	0.071	0.128	0.243
Vanadium	µg/L	<0.5	<0.5	<0.5	0.22	-	0.20	0.82	0.37	0.41	0.31	0.27	0.34	0.31	0.28	0.43	0.26	0.2	0.82	0.27	0.25	0.25	0.38
Yttrium	µg/L	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.5	0.5	NC	NC	NC	NC
Zinc	µg/L	1	2	2	3.0	-	1.7	2.7	4	4.8	3.7	4.2	2.4	5.1	5.2	4.4	4.6	0.5	17.5	2.5	1.5	3	5.2
Zirconium	µg/L	<0.2	0.3	0.4	0.1	-	0.1	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.3	0.06	0.4	0.147	0.1	0.188	0.305

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID	Units	Count	Detect	ND
Field Parameters				
Depth, Field	m	8	8	0
Dissolved Oxygen, Field	mg/L	26	26	0
Electrical Conductivity, Field	µS/cm	27	27	0
pH, Field	S.U.	58	58	0
Temperature, Field	deg C	58	58	0
Turbidity, Field	NTU	3	3	0
General Chemistry				
Acidity as CaCO3	mg/L	44	25	19
Alkalinity, Bicarbonate (as CaCO3)	mg/L	33	33	0
Alkalinity, Carbonate (as CaCO3)	mg/L	33	10	23
Alkalinity, Hydroxide (as CaCO3)	mg/L	33	13	20
Alkalinity, Total (as CaCO3)	mg/L	58	58	0
Ammonia	mg/L	2	1	1
Ammonia (as N)	mg/L	58	38	20
Ammonia, Un-ionized (As N)	mg/L	31	0	31
Anion Sum	meq/L	1	1	0
Biochemical Oxygen Demand (BOD)	mg/L	12	0	12
Cation Sum	meq/L	1	1	0
Chemical Oxygen Demand	mg/L	1	1	0
Chloride	mg/L	34	31	3
Chlorophyll a	µg/L	15	13	2
Color, True	TCU	58	58	0
Cyanide	mg/L	43	12	31
Cyanide (Free)	mg/L	44	8	36
Cyanide (Weak Acid Dissociable)	mg/L	12	0	12
Dissolved Organic Carbon (DOC)	mg/L	44	44	0
Electrical Conductivity, Lab	µS/cm	58	58	0
Fluoride	mg/L	34	13	21
Hardness (as CaCO3)	mg/L	52	52	0
Ion Balance	%	1	1	0
Nitrate (as N)	mg/L	58	12	46
Nitrate + Nitrite (as N)	mg/L	12	2	10
Nitrite (as N)	mg/L	58	1	57
Oil and Grease, Total	mg/L	11	0	11
Orthophosphate (as P)	mg/L	12	0	12
pH, lab	S.U.	58	58	0
Phaeophytin A	µg/L	9	7	2
Phosphorus, Total	mg/L	58	51	7
Phosphorus, Total (Dissolved)	mg/L	11	2	9
Radium-226	Bq/L	1	0	1
Sulfate	mg/L	58	58	0
Total Dissolved Solids	mg/L	58	58	0
Total Kjeldahl Nitrogen	mg/L	58	52	6
Total Organic Carbon	mg/L	58	58	0
Total Suspended Solids	mg/L	53	20	33
Turbidity, Lab	NTU	58	58	0
Metals, Dissolved				
Aluminum	µg/L	58	44	14
Antimony	µg/L	58	9	49
Arsenic	µg/L	58	58	0
Barium	µg/L	58	58	0
Beryllium	µg/L	58	0	58
Bismuth	µg/L	58	0	58
Boron	µg/L	58	12	46
Cadmium	µg/L	58	9	49
Calcium	mg/L	56	56	0
Cerium	µg/L	1	0	1
Cesium	µg/L	58	2	56
Chromium	µg/L	58	30	28
Chromium (Hexavalent)	µg/L	11	0	11
Cobalt	µg/L	58	14	44
Copper	µg/L	58	36	22
Europium	µg/L	1	0	1

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID	Units	Count	Detect	ND
Gallium	µg/L	1	0	1
Iron	µg/L	58	51	7
Lanthanum	µg/L	1	0	1
Lead	µg/L	58	10	48
Lithium	µg/L	58	14	44
Magnesium	mg/L	56	56	0
Manganese	µg/L	58	58	0
Mercury	µg/L	24	0	24
Molybdenum	µg/L	58	57	1
Nickel	µg/L	58	20	38
Niobium	µg/L	1	0	1
Phosphorus	µg/L	58	0	58
Potassium	mg/L	56	56	0
Rhodium	µg/L	1	0	1
Rubidium	µg/L	58	58	0
Scandium	µg/L	1	0	1
Selenium	µg/L	58	23	35
Silicon	µg/L	58	58	0
Silver	µg/L	58	0	58
Sodium	mg/L	56	56	0
Strontium	µg/L	58	58	0
Sulfur	µg/L	46	33	13
Tellurium	µg/L	58	0	58
Thallium	µg/L	58	7	51
Thorium	µg/L	46	0	46
Tin	µg/L	58	7	51
Titanium	µg/L	58	14	44
Tungsten	µg/L	58	1	57
Uranium	µg/L	58	58	0
Vanadium	µg/L	58	12	46
Yttrium	µg/L	1	0	1
Zinc	µg/L	58	40	18
Zirconium	µg/L	58	25	33
Metals, Total				
Aluminum	µg/L	58	51	7
Antimony	µg/L	58	8	50
Arsenic	µg/L	58	58	0
Barium	µg/L	58	58	0
Beryllium	µg/L	58	1	57
Bismuth	µg/L	58	1	57
Boron	µg/L	58	12	46
Cadmium	µg/L	58	13	45
Calcium	mg/L	56	56	0
Cerium	µg/L	1	0	1
Cesium	µg/L	58	3	55
Chromium	µg/L	58	34	24
Chromium (Trivalent)	µg/L	11	1	10
Cobalt	µg/L	58	22	36
Copper	µg/L	58	26	32
Europium	µg/L	1	0	1
Gallium	µg/L	1	0	1
Iron	µg/L	58	58	0
Lanthanum	µg/L	1	0	1
Lead	µg/L	58	15	43
Lithium	µg/L	58	19	39
Magnesium	mg/L	56	56	0
Manganese	µg/L	58	58	0
Mercury	µg/L	40	39	1
Molybdenum	µg/L	58	57	1
Nickel	µg/L	58	16	42
Niobium	µg/L	1	0	1
Phosphorus	µg/L	55	8	47
Potassium	mg/L	56	56	0
Rhodium	µg/L	1	0	1
Rubidium	µg/L	58	58	0

Sample Location Sample Date Sample ID Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID	Units	Count	Detect	ND
Scandium	µg/L	1	1	0
Selenium	µg/L	58	35	23
Silicon	µg/L	58	58	0
Silver	µg/L	58	4	54
Sodium	mg/L	56	56	0
Strontium	µg/L	58	58	0
Sulfur	µg/L	46	36	10
Tellurium	µg/L	58	0	58
Thallium	µg/L	58	9	49
Thorium	µg/L	46	0	46
Tin	µg/L	58	8	50
Titanium	µg/L	58	28	30
Tungsten	µg/L	58	0	58
Uranium	µg/L	58	57	1
Vanadium	µg/L	58	12	46
Yttrium	µg/L	1	0	1
Zinc	µg/L	58	28	30
Zirconium	µg/L	58	28	30

Table A.3 Water Quality Data at Station 52, March 2018 - March 2024

Sample Location																						
Sample Date		22-Mar-18	29-May-18	28-Aug-18	8-Nov-18	15-Feb-19	29-May-19	20-Aug-19	23-Mar-21	4-May-21	10-Jun-21	12-Jul-21	9-Aug-21	8-Sep-21	21-Oct-21	16-Nov-21	13-Jan-22	9-Feb-22	9-Mar-22	6-Apr-22	9-May-22	15-Jun-22	14-Jul-22
Sample ID		52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	STANTEC	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS	ALS	ALS	ALS	ALS	ALS	ALS	ALS	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK
Laboratory Work Order		L2071720	L2103140	L2156554	L2195000	L2233660	L2283252	L2334005	L2570173	L2584294	L2600666	L2613514	L2624832	L2637512	L2654721	L2663658	452993	454983	457039	459292	462299	466598	470645
Laboratory Sample ID	Units	L2071720-1	L2103140-1	L2156554-1	L2195000-1	L2233660-3	L2283252-1	L2334005-2	L2570173-6	L2584294-1	L2600666-4	L2613514-14	L2624832-1	L2637512-1	L2654721-2	L2663658-1	1721241	1728240	1735006	1742235	1752060	1767101	1777716
Field Parameters																							
Dissolved Oxygen, Field	mg/L	3.68	8.02	-	13.88	10.19	9.95	6.86	-	-	-	-	-	8.67	11.12	12.44	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	122	168	184	181	140	152	187	-	-	-	-	-	207.7	187.5	207.0	-	-	-	-	-	-	-
pH, Field	S.U.	6.37	7.54	7.23	8.09	8.06	7.88	6.9	7.84	6.80	7.68	7.97	8.17	7.84	7.69	8.09	7.68	7.13	7.66	7.43	7.24	8.11	7.66
Temperature, Field	deg C	0.52	18.48	18.84	0.73	0.18	12.01	18.93	2.2	5.3	21.3	23.5	20.1	15.9	6.9	3.1	0.4	1.2	0.2	1.1	5.1	21.7	23.7
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-0.10	2.27	1.10	-	-	-	-	-	-	-
General Chemistry																							
Acidity as CaCO3	mg/L	-	-	-	-	-	-	-	3.4	2.0	2.4	3.1	<2.0	<2.0	2.5	2.5	3	3	9	9	6	5	8
Alkalinity, Bicarbonate (as CaCO3)	mg/L	-	-	-	-	-	-	-	112	85.6	94.8	98.5	97.4	95.8	105	108	109	109	109	111	71	81	81
Alkalinity, Carbonate (as CaCO3)	mg/L	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1	<1	<1	<1	<1	<1	<1
Alkalinity, Hydroxide (as CaCO3)	mg/L	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	0.0112	0.0141	0.00661	0.00956	0.00417	0.00677	0.00381
Alkalinity, Total (as CaCO3)	mg/L	108	89.1	98.6	99.3	105	82.9	105	112	85.6	94.8	98.5	97.4	95.8	105	108	110	110	109	112	71	81	81
Ammonia	mg/L	-	-	-	-	-	-	-	0.000166	0.000125	-	0.00179	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	0.060	0.111	0.053	0.035	<0.020	0.050	<0.020	0.020	0.128	0.0274	0.032	0.0111	0.0279	0.0422	0.0710	0.14	0.04	<0.01	0.05	0.31	0.01	<0.01
Ammonia, Un-ionized (As N)	mg/L	-	-	-	-	-	-	-	-	-	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Biochemical Oxygen Demand (BOD)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.3	1.9	<0.5	1
Chemical Oxygen Demand	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	30	30	30
Chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.8	0.7	0.5	0.5	0.4
Chlorophyll a	µg/L	-	-	0.35	-	-	1.97	0.60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Color, True	TCU	32.9	38.2	27.4	24.9	25.4	38.9	23.5	19.8	38.7	30.8	25.8	21.5	21.6	22.4	18.9	18.5	16.9	17.3	22.2	50.1	45.9	114
Cyanide	mg/L	-	-	-	-	-	-	-	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.002	0.004	0.003	0.005	<0.002	0.003	<0.002
Cyanide (Free)	mg/L	-	-	-	-	-	-	-	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	12.4	12.0	13.1	12.7	10.7	14.7 DTC	11.6	10.1	8.6	9.9	9	10.7	14	11.8	11.4
Electrical Conductivity, Lab	µS/cm	204	167	188	181	198	165	187	210	164	171	176	180	182	194	197	214	212	206	222	145	159	150
Fluoride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.05	<0.05	<0.05	<0.05	<0.05
Hardness (as CaCO3)	mg/L	110	89.8	107	99.9	102	88.8	99.4	111	92.2	90.6	89.8	90.7	88.5	99.9	103	112	115	131	119	79.6	79	85.1
Mineral Oil and Grease	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.139	0.054	0.026	0.023	0.181	0.053	0.417	0.244	0.117	0.037	0.028	<0.020	<0.020	0.025	0.048	0.13	0.23	0.28	0.26	0.2	0.04	<0.02
Nitrate + Nitrite (as N)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	0.020	<0.010	0.034	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Oil and Grease, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH, lab	S.U.	7.66	7.64	7.83	7.98	7.79	7.77	8.17	7.76	7.75	7.97	8.23	8.11	8.10	7.84	8.15	7.82	7.92	7.59	7.75	7.39	7.6	7.35
Phaeophytin A	µg/L	-	-	0.57	-	-	-	0.97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.002	<0.002	<0.002	<0.002
Phosphorus, Total	mg/L	0.0049	0.0016	0.0069	0.0062	0.0047	0.0046	0.0084	0.0062	0.0129	0.0097	0.0189	0.0120	0.0089	0.0096	0.0088	-	0.008	0.003	0.004	<0.001	0.005	0.01
Sulfate	mg/L	1.29	1.12	1.13	2.52	1.46	0.67	7.09	1.35	1.11	1.22	1.71	1.30	1.40	1.49	1.60	2.3	2.2	2.5	2.4	1.6	1.5	1.4
Total Dissolved Solids	mg/L	134	109	110	126	123	122	120	132	121	107	123	126	114	119	117	115	140	135	140	120	125	105
Total Kjeldahl Nitrogen	mg/L	0.41	0.42	0.33	0.42	0.42	0.21	0.35	0.560	0.610	0.530	0.650	0.738	0.505	0.388	0.483	0.52	0.5	0.27	0.31	0.56	0.66	0.64
Total Organic Carbon	mg/L	<1.0	12.9	12.1	11.2	11.6	9.88	11.6	12.3	12.0	14.1	14.1	11.4	11.3	12.0	11.3	9.1	9.5	9	10.2	11.5	12.2	11.5
Total Suspended Solids	mg/L	-	-	-	3.5	<2.0	<2.0	<2.0	<3.0	<3.0	<3.0	6.2	<3.0	<3.0	<3.0	<3.0	<4	6	2	1	<0.67	2.5	2.7
Turbidity, Lab	NTU	0.59	0.72	0.74	1.06	0.67	0.48	0.63	0.36	1.01	1.20	2.45	1.54	0.95	1.39	0.78	1	0.9	0.6	0.4	0.9	0.8	1.4
Metals, Dissolved																							
Aluminum	µg/L	3.6	9.4	5.8	6.1	2.8	12.3	5.2	<5	14	6.2	8	8.2	8	4.3	2.5	3	2	2	3	28	10	9
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Arsenic	µg/L	2.11	2.45	3.96	2.88	2.59	2.01	4.21	2.37	2	3.36	4.31	4.17	3.87	4.25	3.39	3.3	3.1	2.9	2.9	2.1	2.9	3.7
Barium	µg/L	12.1	9.51	11.7	10.8	12.5	8.82	12.1	12.5	9.73	10.7	12	11.8	11.7	11.8	11.4	12.5	13.7	14.1	15.4	8.5	19.6	10
Beryllium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<2	<2	<2	<2
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	0.006
Calcium	mg/L	33.2	27.1	32.6	30.3	30.9	27.4	30.1	33.5	27.6	27.3	26.9	27.7	26.7	30.5	31.6	33.9	34.5	39.5	35.5	21.9	25.8	26.4
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	0.28	0.17	0.38 XH	0.17	0.1	0.19	0.28	<0.5	0.23	0.11	<0.1	0.1	<0.1	<0.1	0.11	<0.1	0.1	0.4	0.2	0.5	0.3	0.5
Cobalt	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1
Copper	µg/L	0.37	0.49	0.39	0.37	0.36	0.44	0.36	0.5	2.92 RV	0.53	0.51	0.3	0.83	0.72	0.7	<0.2	1.1	0.4	1.8	1.4	2.2	1.9
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	59	60	66	37	51	55	62	30	59	55	37	48	45	81	61	230	<10	<10	<10	40	40	300
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.074	<0.05	<0.05	<0.05	0.12	<0.05	<0.05	<0.05
Lithium	µg/L	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Magnesium	mg/L	6.60	5.39	6.20	5.88	6.07	4.98	5.88	6.58	5.65	5.42	5.47	5.20	5.33	5.78	5.71	6.71	6.08	7.01	6.6	4.63	4.39	4.87

Sample Location																						
Sample Date		**22-Mar-18**	**29-May-18**	**28-Aug-18**	**8-Nov-18**	**15-Feb-19**	**29-May-19**	**20-Aug-19**	**23-Mar-21**	**4-May-21**	**10-Jun-21**	**12-Jul-21**	**9-Aug-21**	**8-Sep-21**	**21-Oct-21**	**16-Nov-21**	**13-Jan-22**	**9-Feb-22**	**9-Mar-22**	**6-Apr-22**	**9-May-22**	**15-Jun-22**	**14-Jul-22**
Sample ID		**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**
Sampling Company		**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS**	**ALS**	**ALS**	**ALS**	**ALS**	**ALS**	**ALS**	**ALS**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**
Laboratory Work Order		**L2071720**	**L2103140**	**L2156554**	**L2195000**	**L2233660**	**L2283252**	**L2334005**	**L2570173**	**L2584294**	**L2600666**	**L2613514**	**L2624832**	**L2637512**	**L2654721**	**L2663658**	**452993**	**454983**	**457039**	**459292**	**462299**	**466598**	**470645**
Laboratory Sample ID	**Units**	**L2071720-1**	**L2103140-1**	**L2156554-1**	**L2195000-1**	**L2233660-3**	**L2283252-1**	**L2334005-2**	**L2570173-6**	**L2584294-1**	**L2600666-4**	**L2613514-14**	**L2624832-1**	**L2637512-1**	**L2654721-2**	**L2663658-1**	**1721241**	**1728240**	**1735006**	**1742235**	**1752060**	**1767101**	**1777716**
Manganese	µg/L	8.59	15.2	18.6	3.02	8.33	12.4	24.6	5.38	22.3	12.4	5.29	14.3	7.91	4.57	8.52	8.2	6.6	1.2	6	9	6.4	3.3
Mercury	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum	µg/L	0.13	0.11	0.132	0.126	0.127	0.096	0.137	0.145	0.11	0.116	0.156	0.147	0.157	0.175	0.204	0.11	0.18	0.17	0.17	0.12	0.12	0.14
Nickel	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.6	0.7	1
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<30	<50	<50	<30	<30	<30	<30	<50	<50	<50	<50	<50	<50	<50
Potassium	mg/L	0.619	0.584	0.599	0.570	0.667	0.651	0.591	0.733	0.572	0.656	0.597	0.433	0.571	0.749	0.730	0.8	0.75	0.81	0.75	0.59	0.67	0.68
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.31	1.2	1.46	1.18	1.35	1.37	1.52	1.69	1.31	1.31	1.49	1.12	1.3	1.76	1.56	1.7	1.8	1.9	1.8	1.3	1.5	1.5
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.05	0.075	<0.05	0.055	0.052	<0.05	0.063	0.075	<0.05	0.057	0.081	0.078	0.063	0.064	0.053	0.06	0.16	<0.05	<0.05	<0.05	<0.05	<0.05
Silicon	µg/L	2,460	2,120	2,300	2,390	2,610	2,050	2,380	2,680	2,250	1,720	2,360	2,920	2,640	2,850	3,010	3,620	3,470	4,230	4,170	2,290	1,780	1,660
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	0.727	0.649	0.689	0.675	0.748	0.608	0.647	0.82	0.784	0.765	0.692	0.653	0.681	0.745	0.751	0.78	0.7	0.83	0.81	0.54	0.53	0.72
Strontium	µg/L	30.9	25.7	31.6	29.5	29.4	26.4	33.6	32.5	27.2	29.1	30	29	29.2	30.5	30.2	31	31.1	33.5	33.5	19.6	23.1	22.8
Sulfur	µg/L	600	<500	<500	<500	<500	590	<500	640	770	<500	<500	<500	<500	<500	<500	<500	<500	1,200	1,700	800	<500	1,300
Tellurium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.3
Titanium	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	0.9	0.9	0.7	0.8	0.8	0.6	0.6
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.128	0.092	0.128	0.123	0.129	0.096	0.12	0.138	0.093	0.099	0.123	0.151	0.184	0.137	0.13	0.13	0.13	0.15	0.14	0.08	0.07	0.09
Vanadium	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	1.8	<1	<1	<1	<1	1.1	<1	<1	3	<1	<1	<1	1.5	<1	<1	<1	<1	2	1	2	1	1
Zirconium	µg/L	0.067	0.077	<0.06	<0.06	<0.06	0.071	<0.06	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Metals, Total																							
Aluminum	µg/L	5.4	9.8	6.4	10.1	4.9	16.3	11	9.4	15.7	13.6	71.7	43.3	16.7	42.4	11.9	8	14	8	6	36	21	18
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	2.44	2.58	4.15	3.27	2.81	2.07	4.39	2.48	2.14	3.33	5.46	5.17	4.22	5.69	4.18	3	3.2	2.9	2.7	2.1	2.3	3.3
Barium	µg/L	12.6	9.72	11.4	10.8	12.6	9.25	11.8	12.4	8.69	10.9	13.6	13.3	12.3	12.6	11.9	12.7	14.1	14.1	14	8.9	9.4	10.5
Beryllium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bismuth	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Boron	µg/L	<10	<10	<10	<10	<10	<10	<10	18	<10	<10	<10	<10	<10	<10	<10	<2	<2	<2	<2	<2	<2	<2
Cadmium	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	<0.005	0.007	0.008	<0.005
Calcium	mg/L	33.2	27.6	30.9	29.5	33.7	28.6	31.2	35.1	26.3	28.1	28.7	29.5	28.0	31.3	34.1	35	35.6	40.5	36.2	22.9	26.4	27.1
Cerium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.015	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	µg/L	0.13	0.22	0.17	0.21	0.12	0.16	0.36	<0.5	0.2	0.16	0.46	0.32	0.13	0.31	0.17	0.2	0.4	0.2	0.2	0.5	0.8	0.6
Cobalt	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1
Copper	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.54	0.62	0.53	<0.5	<0.5	0.79	0.4	0.4	0.6	0.4	0.7	1	1
Europium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	89	65	91	78	68	97	99	60	92	100	351	231	87	290	152	280	150	110	70	130	180	140
Lanthanum	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.082	0.066	<0.05	0.135	1.22	0.11	<0.05	<0.05	0.08	0.07	0.1	<0.05
Lithium	µg/L	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	1.1	1.3	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
Magnesium	mg/L	6.38	5.38	5.85	5.73	6.37	5.33	6.41	6.3	5.33	5.50	5.94	5.71	5.71	5.70	5.98	6.45	7.03	7.32	6.61	4.67	4.94	4.88
Manganese	µg/L	11.1	14.6	23	7.81	9.47	18.8	33.6	13.6	23.5	23.3	94.4	55.6	19.7	25.3	13.6	10.3	17.4	8.8	8.4	9.7	17.1	21.1
Mercury	µg/L	0.00089	0.00211	0.00054	0.00079	0.00065	0.00218	0.00063	0.00055	0.00149	0.00125	0.00264	0.00087	0.00063	0.00050	0.00048	0.0003	0.0009	0.0005	0.0006	<0.00001	0.001	0.001
Molybdenum	µg/L	0.137	0.128	0.13	0.146	0.134	0.076	0.12	0.164	0.092	0.108	0.155	0.14	0.184	0.16	0.151	0.16	0.15	0.17	0.2	0.1	0.17	0.17
Nickel	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	0.7
Niobium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<50	<50	<50	<50	<50	<50	<50	<50	<30	<50	<50	<30	<30	<30	<30	-	<50	<50	<50	<50	<50	<50
Potassium	mg/L	0.638	0.569	0.566	0.602	0.692	0.607	0.629	0.732	0.548	0.676	0.582	0.460	0.576	0.702	0.760	0.77	0.84	0.85	0.73	0.6	0.68	0.68
Rhodium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.34	1.1	1.4	1.29	1.41	1.23	1.51	1.58	1.2	1.4	1.38	1.21	1.3	1.73	1.6	1.8	1.8	1.9	1.8	1.3	1.4	1.5
Scandium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	0.064	0.07	0.086	0.06	0.063	<0.05	0.068	0.071	0.053	0.086	0.081	0.084	0.092	0.09	0.083	<0.05	0.14	0.19	<0.05	<0.05	0.1	<0.05
Silicon	µg/L	2,470	2,140	2,350	2,380	2,620	2,020	2,370	2,490	2,240	1,740	2,490	2,950	2,570	3,060	3,250	3,540	4,130	4,400	4,210	2,650	2,180	2,010
Silver	µg/L	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05
Sodium	mg/L	0.753	0.608	0.636	0.644	0.755	0.613	0.725	4.02	0.602	0.709	0.687	0.742	0.734	0.709	0.826	0.77	0.81	0.88	0.75	0.54	0.58	0.58
Strontium	µg/L	31	27.6	32.7	29.7	31.3	26.5	33.1	34.1	24.3	28.6	31	30.7	30.2	30.2	32.3	31.2	31.9	34.3	32.5	20	22	22.7
Sulfur	µg/L	620	<500	<500	550	<500	<500	<500	1,500	640	570	<500	<500	550	<500	790	<500	1,000	1,500	1,400	1,200	3,500	1,600

Sample Location																						
Sample Date		**22-Mar-18**	**29-May-18**	**28-Aug-18**	**8-Nov-18**	**15-Feb-19**	**29-May-19**	**20-Aug-19**	**23-Mar-21**	**4-May-21**	**10-Jun-21**	**12-Jul-21**	**9-Aug-21**	**8-Sep-21**	**21-Oct-21**	**16-Nov-21**	**13-Jan-22**	**9-Feb-22**	**9-Mar-22**	**6-Apr-22**	**9-May-22**	**15-Jun-22**	**14-Jul-22**
Sample ID		**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**	**52**
Sampling Company		**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**STANTEC**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS**	**ALS**	**ALS**	**ALS**	**ALS**	**ALS**	**ALS**	**ALS**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**	**TESTMARK**
Laboratory Work Order		**L2071720**	**L2103140**	**L2156554**	**L2195000**	**L2233660**	**L2283252**	**L2334005**	**L2570173**	**L2584294**	**L2600666**	**L2613514**	**L2624832**	**L2637512**	**L2654721**	**L2663658**	**452993**	**454983**	**457039**	**459292**	**462299**	**466598**	**470645**
Laboratory Sample ID	**Units**	**L2071720-1**	**L2103140-1**	**L2156554-1**	**L2195000-1**	**L2233660-3**	**L2283252-1**	**L2334005-2**	**L2570173-6**	**L2584294-1**	**L2600666-4**	**L2613514-14**	**L2624832-1**	**L2637512-1**	**L2654721-2**	**L2663658-1**	**1721241**	**1728240**	**1735006**	**1742235**	**1752060**	**1767101**	**1777716**
Tellurium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thorium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Tin	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.12	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.2
Titanium	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	2.27	1.08	0.39	1.56	0.53	1.2	1.6	1.1	1	1.6	1	1.1
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.136	0.092	0.138	0.13	0.135	0.073	0.14	0.138	0.079	0.098	0.144	0.155	0.201	0.145	0.135	0.15	0.14	0.15	0.15	0.08	0.09	0.1
Vanadium	µg/L	<0.5	<0.5	0.53	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.71	0.73	0.63	0.61	0.85	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Yttrium	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	<3	6.6	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<1	<1	<1	<1	<1	<1	<1
Zirconium	µg/L	0.062	0.07	<0.06	0.078	<0.06	<0.06	<0.06	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2

Sample Location		52																		
Sample Date		10-Aug-22	12-Sep-22	26-Oct-22	9-Nov-22	13-Dec-22	11-Jan-23	16-Feb-23	14-Mar-23	11-Apr-23	9-May-23	22-Jun-23	22-Jun-23	12-Jul-23	16-Aug-23	26-Sep-23	25-Oct-23	7-Nov-23	6-Dec-23	11-Jan-24	13-Feb-24
Sample ID		52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	GGM	GGM	GGM	GGM
Laboratory		TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV
Laboratory Work Order		473345	476573	481427	482918	486093	488304	491089	C375955	C3A4623	C3D3660	C3I7565	C3J6640	C3K9170	C3P1170	C3U0580	C3X7650	C3Z3957	C3BB280	C413312	C448115
Laboratory Sample ID	Units	1787507	1798957	1818973	1824564	1835471	1842637	1852178	VHW149	VNY231	VTX939	WFI374	WHF373	WJU091	WSQ526	XDC460	XLA034	XOL812	XVQ115	YCT686	YKB045
Field Parameters																					
Dissolved Oxygen, Field	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Field	µS/cm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
pH, Field	S.U.	8.06	7.94	7.92	7.64	6.51	7.62	7.61	7.64	7.54	4.1	7.73	7.41	7.70	7.91	7.90	7.64	7.60	7.70	7.15	7.57
Temperature, Field	deg C	22	19.2	7.5	3.6	0.6	0.5	0.2	0.5	1.7	7.11	24.7	24.7	17.1	18.2	15.7	6.1	2.8	1.2	0.7	0.9
Turbidity, Field	NTU	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry																					
Acidity as CaCO3	mg/L	10	3	9	9	7	9	13	<5.0	<5.0	5.4	<5.0	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	85	87	85	86	106	69	102	110	100	77	82	-	80	86	88	91	98	100	99	97
Alkalinity, Carbonate (as CaCO3)	mg/L	<1	<1	<1	<1	<1	<1	<1	<1.0	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	0.00725	0.0135	0.00538	0.00833	0.00502	0.00152	0.00276	<1.0	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total (as CaCO3)	mg/L	85	87	85	86	106	216	102	110	100	77	83	-	80	86	89	92	99	100	99	98
Ammonia	mg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ammonia (as N)	mg/L	<0.01	<0.01	0.03	<0.01	0.02	0.07	<0.01	<0.050	0.074	0.065	<0.050	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.14
Ammonia, Un-ionized (As N)	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.0004	<0.0004	<0.0004	<0.0015	-	<0.00079	<0.0014	<0.0011	<0.0004	<0.0004	<0.0004	<0.0004	0.0005
Biochemical Oxygen Demand (BOD)	mg/L	1.1	1.2	2.4	<1	1.4	<0.5	1.6	<2	<2	<2	<2	-	<2	<2	<2	<2	<2	<2	<2	<2
Chemical Oxygen Demand	mg/L	38	38	26	30	30	34	42	32	31	37	35	-	33	30	31	22	30	30	28	26
Chloride	mg/L	0.5	0.6	0.5	0.6	0.5	0.5	0.5	1.1	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorophyll a	µg/L	-	-	1.9	-	-	-	-	-	-	-	-	3.8 VV	-	-	-	-	-	-	-	-
Color, True	TCU	39.7	30.6	26.4	25.9	23.8	23.1	20.6	20	21	59	44	-	35	27	24	20	23	23	23	21
Cyanide	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00074	<0.00050 CYN	0.00060 CYN	<0.00050 CYN	-	<0.00050 CYN	<0.00050	<0.00050 CYN	0.00066	0.00073	<0.00050	0.00072	<0.00050
Cyanide (Free)	mg/L	<0.001	<0.001	<0.001	0.003	0.002	<0.001	<0.001	0.0041	0.0029 ICB	0.0034 ICB	0.0032 ICB	-	0.0076 ICB	<0.002 ICB	0.0028 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB
Dissolved Organic Carbon (DOC)	mg/L	12.4	13.7	10.7	10.3	11.2	10.3	10.5	11	11	14	12	-	11	11	10	10	10	10	10	9.8
Electrical Conductivity, Lab	µS/cm	170	184	184	184	190	369	187	207	205	154	167	-	164	169	177	183	192	195	202	202
Fluoride	mg/L	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Hardness (as CaCO3)	mg/L	90.9	89.9	94.2	94.3	101	114	111	120	110	83	88	-	90	91	100	100	110	100	120	110
Mineral Oil and Grease	mg/L	-	-	-	-	-	-	-	0.50	<0.50	<0.50	<0.50	-	<0.50	<0.50	<0.50	1.6	<0.50	<0.50	<0.50	<0.50
Nitrate (as N)	mg/L	<0.02	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.10	0.14	0.16	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	0.16
Nitrate + Nitrite (as N)	mg/L	-	-	-	-	-	-	-	<0.10	0.14	0.16	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.15	0.16
Nitrite (as N)	mg/L	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	0.01	<0.010	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	<1	<1	1	<1	<1	<1	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Orthophosphate (as P)	mg/L	-	-	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH, lab	S.U.	7.63	7.9	7.5	7.69	7.47	8.03	7.21	7.90	7.92	7.62	7.88	-	7.89	7.76	7.96	7.72	7.89	7.79	7.79	7.84
Phaeophytin A	µg/L	-	-	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphate	mg/L	<0.002	0.009	0.021	0.02	0.071	0.018	0.029	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.041	0.009	0.006	<0.001	0.024	<0.001	<0.001	0.0036	0.0075	0.0048	0.0021	-	0.0074	0.0038	0.0053	0.0045	0.0046	0.0035	0.0031	0.0029
Sulfate	mg/L	1.4	2.4	1.8	1.5	1.6	1.8	1.5	2.8	4.1	4.4	3.0	-	3.0	2.7	2.6	2.9	2.6	2.8	3.2	2.9
Total Dissolved Solids	mg/L	165	160	70	140	155	135	110	120	60	130	90	-	95	105	100	60	100	125	80	125
Total Kjeldahl Nitrogen	mg/L	<0.04	<1	<1	<1	<1	<1	<1	0.32	0.41	0.43	0.43	-	0.51	0.39	0.46	0.37	0.43	0.38	0.31	0.33
Total Organic Carbon	mg/L	7.4	13.7	11	10.5	10.3	9.9	10.3	11	11	15	13	-	12	11	11	9.8	11	11	11	10
Total Suspended Solids	mg/L	<2	3.7	<1	1.5	4	2	<1.3	2	<1	<1	2	-	2	1	2	1	2	<1	<1	<1
Turbidity, Lab	NTU	1	0.7	1.6	0.9	0.6	0.7	0.5	0.3	0.3	0.5	0.7	-	0.7	0.6	0.6	0.5	0.7	0.4	0.5	0.5
Metals, Dissolved																					
Aluminum	µg/L	7	7	5	3	2	1	2	21.6	2.5	28.5	8.6	-	10.7	8.5	8.3	3.7	2.3	2.0	3.5	1.8
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	4.7	4.5	4	3.8	3.9	3.3	2.9	2.6	2.4	2.2	3.8	-	3.5	4	4.4	5.3	3.5	3.6	3.1	2.4
Barium	µg/L	10.5	11.8	11.7	11.7	12.2	11.3	12.3	12.2	12.1	9.2	10.1	-	12.7	11	12.8	10.8	11.8	10.9	12.8	11.8
Beryllium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bismuth	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	µg/L	<2	<2	<2	<2	<2	<2	<2	6	4	6	4	-	5	4	5	5	5	12	4	5
Cadmium	µg/L	0.009	0.009	0.009	<0.005	0.01	0.006	0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Calcium	mg/L	29.3	27.3	31	30.4	33.3	31.9	-	38.0	32.4	25.4	27.1	-	27.4	28.1	31.9	32.2	33.1	31.2	36.7	34.0
Cerium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chromium	µg/L	0.8	0.7	0.3	0.4	0.5	0.7	0.6	<0.5	<0.5	<0.5	<0.5	-	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05
Copper	µg/L	2.5	1	0.5	0.5	1.5	3.8	1.7	0.8	0.5	0.9	0.4	-	6.8	0.4	1	2.2	0.5	1.7	0.4	0.8
Europium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	100	60	100	110	10	70	80	27	34	72	43	-	53	45	34	85	105	80.0	61	41
Lanthanum	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	0.16	0.08	<0.05	<0.05	0.27	<0.05	0.29	0.19	<0.05	0.13	<0.05	-	0.48	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	<1	<1	<1	1	<1	<1	<1	0.7	0.6	0.5	0.6	-	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7
Magnesium	mg/L	5.24	5.42	5.66	5.63	6.23	5.51	-	6.53	6.00	4.79	4.99	-	5.16	5.14	5.56	5.57	5.61	5.66	6.38	6.25

Sample Location		52																		
Sample Date		10-Aug-22	12-Sep-22	26-Oct-22	9-Nov-22	13-Dec-22	11-Jan-23	16-Feb-23	14-Mar-23	11-Apr-23	9-May-23	22-Jun-23	22-Jun-23	12-Jul-23	16-Aug-23	26-Sep-23	25-Oct-23	7-Nov-23	6-Dec-23	11-Jan-24	13-Feb-24
Sample ID		52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	GGM	GGM	GGM	GGM
Laboratory		TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV
Laboratory Work Order		473345	476573	481427	482918	486093	488304	491089	C375955	C3A4623	C3D3660	C3I7565	C3J6640	C3K9170	C3P1170	C3U0580	C3X7650	C3Z3957	C3BB280	C413312	C448115
Laboratory Sample ID	Units	1787507	1798957	1818973	1824564	1835471	1842637	1852178	VHW149	VNY231	VTX939	WFI374	WHF373	WJU091	WSQ526	XDC460	XLA034	XOL812	XVQ115	YCT686	YKB045
Manganese	µg/L	4.2	3	3.4	3.2	2.9	2.8	3.1	4.3	10.3	10.1	8.9	-	6	5.2	5.5	4.7	11.6	13.8	6.3	4.8
Mercury	µg/L	-	-	-	-	-	-	<0.1	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum	µg/L	0.12	0.17	0.16	0.13	0.48	0.19	0.15	0.16	0.24	0.08	0.1	-	0.11	0.12	0.13	0.15	0.13	0.41	0.14	0.13
Nickel	µg/L	1.1	0.8	0.7	0.6	0.9	0.8	0.9	0.2	0.3	0.3	0.3	-	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.2
Niobium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	<50	<50	<50	<50	<50	<50	70	<5	<5	<5	5	-	<5	<5	<5	<5	<5	<5	<5	<5
Potassium	mg/L	0.67	0.67	0.74	0.72	0.8	0.71	-	0.788	0.731	0.54	0.59	-	0.60	0.53	0.61	0.67	0.70	0.67	0.78	0.74
Rhodium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.5	1.6	1.7	1.7	1.7	1.6	1.6	1.49	1.53	1.2	1.39	-	1.34	1.26	1.27	1.39	1.55	1.47	1.66	1.49
Scandium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	0.22	<0.05	<0.2	<0.2	<0.2	<0.2	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Silicon	µg/L	1,690	1,950	1,470	1,370	1,250	1,310	1,570	2,120	2,080	2,350	1,910	-	2,120	2,360	2,160	2,430	2,770	2,610	3,450	3,170
Silver	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	0.66	0.62	0.69	0.74	0.95	0.74	-	0.842	0.749	0.64	0.66	-	0.67	0.67	0.72	0.93	0.91	0.77	0.79	0.81
Strontium	µg/L	22.2	18.9	23.5	25.6	24	26.8	26.9	28.8	31.6	22.3	23.4	-	25.6	26.2	28.6	30.3	27.4	27.8	31.9	29.6
Sulfur	µg/L	2,100	500	900	1,300	2,200	<500	1,300	-	-	-	-	-	-	-	-	-	-	-	-	-
Tellurium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thallium	µg/L	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Thorium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	<0.2	-	-	-	-	-	-	-
Tin	µg/L	0.3	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	0.6	0.6	0.4	0.3	<0.3	0.4	0.6	<0.5	<0.5	0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1
Uranium	µg/L	0.08	0.15	0.11	0.1	0.08	0.13	0.11	0.13	0.13	0.07	0.08	-	0.1	0.13	0.15	0.13	0.11	0.13	0.13	0.12
Vanadium	µg/L	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	0.16	0.16	0.13	0.23	-	0.3	0.39	0.33	0.22	0.21	0.24	0.23	0.15
Yttrium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	3	1	<1	<1	3	2	6	0.9	<0.5	0.9	<0.5	-	3.4	1.2	0.9	1.8	1.2	8.3	0.9	0.7
Zirconium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	-	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Metals, Total																					
Aluminum	µg/L	29	19	12	9	6	6	4	2.5	8.2	34	15.1	-	18.2	12.9	13.6	6.7	4.3	3.0	4.8	2.5
Antimony	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	µg/L	4.2	4	3.8	3.6	3.3	2.9	2.6	2.6	2.4	2.2	4.1	-	3.8	4.2	3.7	3.5	3.8	3.6	3	2.5
Barium	µg/L	10.5	11.8	11.3	11.8	11.6	11.3	11.4	12.6	12.2	9.4	11	-	11	11.2	11.8	11	11.8	11.7	12.2	12
Beryllium	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bismuth	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Boron	µg/L	<2	<2	<2	<2	<2	<2	<2	4	4	3	4	-	4	5	4	3	4	4	4	4
Cadmium	µg/L	0.01	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	0.01	<0.005	<0.005	<0.005	<0.005	<0.005
Calcium	mg/L	26.6	29.2	30	30.2	33.1	34	-	35.3	35.0	27.0	27.9	-	28.5	29.5	30.0	30.3	33.0	32.8	33.8	33.3
Cerium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Cesium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chromium	µg/L	0.7	0.4	0.5	0.4	0.4	0.3	0.5	<0.5	<0.5	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cobalt	µg/L	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Copper	µg/L	0.7	0.9	0.5	0.6	0.4	2.4	0.5	0.4	0.4	0.5	0.5	-	0.5	0.5	1.5	0.3	0.3	0.4	0.4	0.4
Europium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Gallium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Iron	µg/L	160	140	180	150	130	80	130	41	51	102	93	-	104	75	85	125	157	104	79	63
Lanthanum	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Lead	µg/L	0.06	0.13	0.07	0.05	<0.05	0.05	<0.05	0.06	<0.05	<0.05	<0.05	-	0.05	0.11	0.07	<0.05	<0.05	<0.05	<0.05	<0.05
Lithium	µg/L	<1	<1	<1	1	<1	<1	<1	0.7	0.7	<0.5	0.6	-	0.6	0.6	0.7	0.6	0.6	0.7	0.6	0.6
Magnesium	mg/L	4.92	5.82	5.42	5.45	6.15	6.27	-	6.08	6.32	5.00	5.10	-	4.98	5.47	5.45	5.35	5.75	5.79	5.90	6.27
Manganese	µg/L	16.2	17.6	9.2	7.7	7.5	6.2	4.6	5.8	12.4	13.4	35.8	-	35.2	16.3	16.9	9.7	17.2	11.4	9.1	6.3
Mercury	µg/L	0.0009	0.001	0.001	0.0007	0.0008	0.001	0.001	0.00083	0.00084	0.00425	0.00183	-	0.00094	0.00107	0.00138	0.00105	0.00190	0.00123	0.00386 MS	0.00079
Molybdenum	µg/L	0.09	0.15	0.2	0.18	0.07	0.17	0.16	0.19	0.13	0.08	0.12	-	0.1	0.13	0.13	0.13	0.13	0.14	0.14	0.14
Nickel	µg/L	0.7	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.2	0.3	0.3	0.3	-	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.2
Niobium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus	µg/L	-	<50	<50	<50	<50	<50	<50	<5	<5	<5	8	-	8	<5	<5	<5	<5	<5	<5	<5
Potassium	mg/L	0.61	0.7	0.74	0.73	0.77	0.77	-	0.726	0.728	0.57	0.65	-	0.59	0.60	0.68	0.64	0.69	0.71	0.74	0.75
Rhodium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubidium	µg/L	1.6	1.6	1.7	1.7	1.6	1.6	1.6	1.55	1.54	1.18	1.43	-	1.35	1.31	1.42	1.41	1.58	1.58	1.61	1.51
Scandium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium	µg/L	<0.05	0.23	0.28	0.1	0.06	0.13	0.06	0.07	0.07	0.06	0.07	-	0.06	0.07	0.06	0.06	0.06	0.07	0.07	0.06
Silicon	µg/L	1,840	3,840	1,580	1,430	1,320	1,520	1,580	1,930	2,260	2,320	1,950	-	2,120	2,520	2,100	2,320	2,760	2,840	3,140	3,160
Silver	µg/L	0.07	0.05	0.05	0.06	0.04	0.04	0.07	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Sodium	mg/L	0.6	0.66	0.67	0.72	0.75	0.77	-	0.755	0.812	0.67	0.63	-	0.65	0.69	0.76	0.66	0.73	0.72	0.73	0.78
Strontium	µg/L	21.1	19.7	22.9	24.4	23.3	27.4	26.2	29.6	29.9	21.2	25.1	-	24.3	26.2	27	27.7	28.2	29.6	30.7	29.9
Sulfur	µg/L	1,500	1,000	900	900	2,500	600	1,400	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Location		52																		
Sample Date		10-Aug-22	12-Sep-22	26-Oct-22	9-Nov-22	13-Dec-22	11-Jan-23	16-Feb-23	14-Mar-23	11-Apr-23	9-May-23	22-Jun-23	22-Jun-23	12-Jul-23	16-Aug-23	26-Sep-23	25-Oct-23	7-Nov-23	6-Dec-23	11-Jan-24	13-Feb-24
Sample ID		52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52	52
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	GGM	GGM	GGM	GGM
Laboratory		TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	TESTMARK	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV
Laboratory Work Order		473345	476573	481427	482918	486093	488304	491089	C375955	C3A4623	C3D3660	C3I7565	C3J6640	C3K9170	C3P1170	C3U0580	C3X7650	C3Z3957	C3BB280	C413312	C448115
Laboratory Sample ID	Units	1787507	1798957	1818973	1824564	1835471	1842637	1852178	VHW149	VNY231	VTX939	WFI374	WHF373	WJU091	WSQ526	XDC460	XLA034	XOL812	XVQ115	YCT686	YKB045
Tellurium	µg/L	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thallium	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.005	<0.005	<0.005	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Thorium	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	-	-	-	-	<0.2	-	-	-	-	-	-	-
Tin	µg/L	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Titanium	µg/L	1	1.3	0.8	0.5	0.5	0.6	0.4	<0.5	<0.5	0.7	0.6	-	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tungsten	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Uranium	µg/L	0.09	0.15	0.11	0.12	0.11	0.12	0.13	0.12	0.13	0.07	0.08	-	0.09	0.14	0.15	0.14	0.12	0.12	0.12	0.11
Vanadium	µg/L	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.16	0.17	0.15	0.27	-	0.36	0.46	0.39	0.29	0.25	0.22	0.19	0.18
Yttrium	µg/L	-	-	-	-	-	-	<1	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc	µg/L	2	<1	<1	<1	<1	1	<1	<0.5	<0.5	0.6	0.6	-	0.6	<0.5	2.7	0.6	0.5	<0.5	0.5	<0.5
Zirconium	µg/L	0.3	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.1	<0.1	<0.1	<0.1	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Sample Location											
Sample Date		6-Mar-24									
Sample ID		52									
Sampling Company		GGM									
Laboratory		BV									
Laboratory Work Order		C470075									
Laboratory Sample ID	Units	YOP543	Minimum	Maximum	Mean	Median	75th	95th	Count	Detect	ND
Field Parameters											
Dissolved Oxygen, Field	mg/L	-	3.68	13.88	9.42	9.95	11.12	13.3	9	9	0
Electrical Conductivity, Field	µS/cm	-	122	207.7	173.6	182.5	187.4	207.4	10	10	0
pH, Field	S.U.	7.41	4.1	8.17	5.72	7.66	7.42	6.53	43	43	0
Temperature, Field	deg C	1.00	0.18	24.7	9.24	5.3	18.66	23.68	43	43	0
Turbidity, Field	NTU	-	-0.1	2.27	1.09	1.1	1.68	2.15	3	3	0
General Chemistry											
Acidity as CaCO3	mg/L	<5.0	1	13	4.5	2.5	6.5	9.3	35	21	14
Alkalinity, Bicarbonate (as CaCO3)	mg/L	100	69	112	94.2	97	103.5	110.3	35	35	0
Alkalinity, Carbonate (as CaCO3)	mg/L	<1.0	0.5	1	0.6	0.5	0.5	1	35	0	35
Alkalinity, Hydroxide (as CaCO3)	mg/L	<1.0	0.00152	1	0.41714	0.5	0.5	1	35	14	21
Alkalinity, Total (as CaCO3)	mg/L	100	71	216	98.5	98.6	105	111.9	42	42	0
Ammonia	mg/L	-	0.000125	0.00179	0.000694	0.000166	0.000978	0.001628	3	3	0
Ammonia (as N)	mg/L	<0.050	0.005	0.31	0.0457	0.025	0.0522	0.1394	42	24	18
Ammonia, Un-ionized (As N)	mg/L	<0.0004	0.0002	0.005	0.00136	0.001	0.001	0.005	32	1	31
Biochemical Oxygen Demand (BOD)	mg/L	<2	0.25	2.4	1.1	1	1.1	1.9	24	8	16
Chemical Oxygen Demand	mg/L	28	22	42	31	30	33.2	38	24	24	0
Chloride	mg/L	<1.0	0.4	1.1	0.5	0.5	0.5	0.8	25	13	12
Chlorophyll a	µg/L	-	0.35	3.8	1.724	1.9	1.97	3.434	5	5	0
Color, True	TCU	20	16.9	114	29.7	23.9	32.4	49.9	42	42	0
Cyanide	mg/L	<0.00050	0.00025	0.005	0.0010985714	0.001	0.001	0.0033	35	9	26
Cyanide (Free)	mg/L	<0.002 ICB	0.0005	0.0076	0.00144286	0.001	0.001	0.00361	35	9	26
Dissolved Organic Carbon (DOC)	mg/L	9.5	8.6	14.7	11.17429	11	12	14	35	35	0
Electrical Conductivity, Lab	µS/cm	206	145	369	189.6	185.5	202	213.9	42	42	0
Fluoride	mg/L	<0.10	0.025	0.06	0.04	0.05	0.05	0.05	25	1	24
Hardness (as CaCO3)	mg/L	110	79	131	100.3	100	110	120	42	42	0
Mineral Oil and Grease	mg/L	<0.50	0.25	1.6	0.37	0.25	0.25	0.94	13	2	11
Nitrate (as N)	mg/L	0.14	0.01	0.417	0.09	0.05	0.14	0.259	42	24	18
Nitrate + Nitrite (as N)	mg/L	0.14	0.05	0.16	0.09	0.05	0.14	0.16	13	5	8
Nitrite (as N)	mg/L	<0.010	0.005	0.034	0.007	0.005	0.005	0.019	42	3	39
Oil and Grease, Total	mg/L	-	0.5	2	0.9	1	1	1.5	11	6	5
Orthophosphate (as P)	mg/L	<0.010	0.005	0.005	0.005	0.005	0.005	0.005	13	0	13
pH, lab	S.U.	7.77	7.21	8.23	7.74	7.79	7.67	7.39	42	42	0
Phaeophytin A	µg/L	-	0.57	1.2	0.91	0.97	1.08	1.18	3	3	0
Phosphate	mg/L	-	0.001	0.071	0.016	0.009	0.02	0.05	11	6	5
Phosphorus, Total	mg/L	0.0025	0.0005	0.041	0.0071	0.005	0.0088	0.0189	41	37	4
Sulfate	mg/L	2.3	0.67	7.09	2.18	1.8	2.68	4.05	42	42	0
Total Dissolved Solids	mg/L	190	60	190	119	120.5	131.5	159.7	42	42	0
Total Kjeldahl Nitrogen	mg/L	0.34	0.02	0.738	0.443	0.43	0.504	0.65	42	35	7
Total Organic Carbon	mg/L	10	0.5	15	10.98	11	12	14.08	42	41	1
Total Suspended Solids	mg/L	<1	0.335	6.2	1.75	1.5	2	4.2	39	18	21
Turbidity, Lab	NTU	0.2	0.2	2.45	0.79	0.7	0.94	1.53	42	42	0
Metals, Dissolved											
Aluminum	µg/L	1.6	1	28.5	6.8	5.1	8.4	21.2	42	41	1
Antimony	µg/L	<0.1	0.05	0.1	0.1	0	0	0	42	1	41
Arsenic	µg/L	2.4	2	5.3	3.31	3.33	3.94	4.49	42	42	0
Barium	µg/L	12.2	8.5	19.6	11.78	11.8	12.28	14.08	42	42	0
Beryllium	µg/L	<0.05	0.01	0.05	0.02	0.02	0.02	0.05	42	0	42
Bismuth	µg/L	<0.1	0.025	0.05	0.03	0.02	0.05	0.05	42	0	42
Boron	µg/L	4	1	12	3.8	5	5	5.9	42	13	29
Cadmium	µg/L	<0.01	0.0025	0.01	0.004	0.004	0.005	0.009	42	8	34
Calcium	mg/L	34.4	21.9	39.5	30.6	30.9	33.2	36.7	41	41	0
Cerium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Cesium	µg/L	<0.02	0.005	0.012	0.007	0.005	0.01	0.01	42	1	41
Chromium	µg/L	<0.5	0.05	0.8	0.29452	0.25	0.36	0.7	42	25	17
Cobalt	µg/L	<0.05	0.025	0.1	0.04	0.05	0.05	0.05	42	2	40
Copper	µg/L	0.4	0.1	6.8	1.11881	0.615	1.475	2.899	42	41	1
Europium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Gallium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Iron	µg/L	37	5	300	63.8	55	71.5	109.7	42	39	3
Lanthanum	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Lead	µg/L	<0.05	0.025	0.48	0.062	0.025	0.025	0.266	42	9	33
Lithium	µg/L	0.7	0.5	1	0.6	0.5	0.6	0.7	42	15	27
Magnesium	mg/L	6.01	4.39	7.01	5.7	5.65	6.08	6.6	41	41	0

Sample Location											
Sample Date		**6-Mar-24**									
Sample ID		**52**									
Sampling Company		**GGM**									
Laboratory		**BV**									
Laboratory Work Order		**C470075**									
Laboratory Sample ID	**Units**	**YOP543**	**Minimum**	**Maximum**	**Mean**	**Median**	**75th**	**95th**	**Count**	**Detect**	**ND**
Manganese	µg/L	3.3	1.2	24.6	7.85	6.15	9.82	18.43	42	42	0
Mercury	µg/L	<0.01	0.005	0.05	0.01	0	0	0.02	14	0	14
Molybdenum	µg/L	0.15	0.08	0.48	0.155	0.138	0.16	0.238	42	42	0
Nickel	µg/L	23.2	0.2	23.2	0.9	0.2	0.6	1	42	24	18
Niobium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Phosphorus	µg/L	<5	2.5	70	18	25	25	25	42	2	40
Potassium	mg/L	0.74	0.433	0.81	0.668	0.67	0.74	0.8	41	41	0
Rhodium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Rubidium	µg/L	1.59	1.12	1.9	1.49	1.5	1.6	1.8	42	42	0
Scandium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Selenium	µg/L	<0.2	0.025	0.22	0.067	0.063	0.1	0.1	42	14	28
Silicon	µg/L	3,230	1250	4230	2412.6	2355	2747.5	3612.5	42	42	0
Silver	µg/L	<0.01	0.005	0.025	0.01	0	0	0	42	0	42
Sodium	mg/L	0.74	0.53	0.95	0.728	0.727	0.78	0.91	41	41	0
Strontium	µg/L	31.3	18.9	33.6	27.9	28.9	30.8	33.4	42	42	0
Sulfur	µg/L	-	250	2200	677.6	250	900	1940	29	14	15
Tellurium	µg/L	<0.1	0.05	0.1	0.1	0.1	0.1	0.1	42	0	42
Thallium	µg/L	<0.005	0.0025	0.03	0.005	0.005	0.005	0.005	42	2	40
Thorium	µg/L	-	0.05	0.1	0.1	0	0	0	30	0	30
Tin	µg/L	<0.1	0.05	0.3	0.1	0	0	0.1	42	4	38
Titanium	µg/L	<0.5	0.15	0.9	0.3	0.2	0.5	0.8	42	14	28
Tungsten	µg/L	<0.1	0.05	0.4	0.1	0	0	0	42	1	41
Uranium	µg/L	0.13	0.07	0.184	0.118	0.128	0.13	0.15	42	42	0
Vanadium	µg/L	0.15	0.13	0.6	0.25	0.25	0.25	0.33	42	14	28
Yttrium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Zinc	µg/L	7.4	0.25	8.3	1.5	0.9	1.8	5.9	42	25	17
Zirconium	µg/L	<0.1	0.03	0.1	0.077	0.1	0.1	0.1	42	4	38
Metals, Total											
Aluminum	µg/L	2.1	2.1	71.7	14.6	10.6	16.6	42.1	42	42	0
Antimony	µg/L	<0.1	0.05	0.11	0.05	0.05	0.05	0.05	42	1	41
Arsenic	µg/L	2.5	2.07	5.69	3.34	3.28	3.95	5.13	42	42	0
Barium	µg/L	12.4	8.69	14.1	11.61	11.8	12.4	13.98	42	42	0
Beryllium	µg/L	<0.05	0.01	0.05	0.02	0.02	0.02	0.05	42	0	42
Bismuth	µg/L	<0.1	0.025	0.05	0.03	0.02	0.05	0.05	42	0	42
Boron	µg/L	4	1	18	3.6	4	5	5	42	14	28
Cadmium	µg/L	<0.005	0.0025	0.01	0.003	0.002	0.002	0.008	42	6	36
Calcium	mg/L	34.4	22.9	40.5	31.1	30.3	33.8	35.6	41	41	0
Cerium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Cesium	µg/L	<0.02	0.005	0.015	0.007	0.005	0.01	0.01	42	2	40
Chromium	µg/L	<0.5	0.12	0.8	0.3	0.25	0.39	0.59	42	28	14
Cobalt	µg/L	<0.05	0.025	0.1	0.05	0.05	0.05	0.1	42	3	39
Copper	µg/L	0.4	0.25	2.4	0.53	0.4	0.58	1	42	31	11
Europium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Gallium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Iron	µg/L	53	41	351	121.7	101	147.5	277.5	42	42	0
Lanthanum	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Lead	µg/L	<0.05	0.025	1.22	0.075	0.025	0.069	0.129	42	17	25
Lithium	µg/L	0.7	0.25	1.3	0.6	0.5	0.6	1	42	17	25
Magnesium	mg/L	6.31	4.67	7.32	5.79	5.75	6.27	6.61	41	41	0
Manganese	µg/L	5.7	4.6	94.4	17.72	13.6	19.48	35.77	42	42	0
Mercury	µg/L	0.00067	5E-06	0.00425	0.00113202	0.0009	0.00119	0.002617	42	41	1
Molybdenum	µg/L	0.15	0.07	0.2	0.14	0.14	0.16	0.19	42	42	0
Nickel	µg/L	3	0.2	3	0.4	0.2	0.3	0.7	42	17	25
Niobium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Phosphorus	µg/L	<5	2.5	25	16.7	25	25	25	40	2	38
Potassium	mg/L	0.76	0.46	0.85	0.674	0.68	0.732	0.77	41	41	0
Rhodium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Rubidium	µg/L	1.61	1.1	1.9	1.49	1.51	1.6	1.8	42	42	0
Scandium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Selenium	µg/L	0.07	0.025	0.28	0.08	0.07	0.085	0.187	42	36	6
Silicon	µg/L	3,260	1320	4400	2525	2375	2922.5	4115.5	42	42	0
Silver	µg/L	<0.01	0.005	0.07	0.015	0.005	0.005	0.059	42	9	33
Sodium	mg/L	0.92	0.54	4.02	0.789	0.72	0.755	0.88	41	41	0
Strontium	µg/L	31	19.7	34.3	27.9	29.1	31	33.1	42	42	0
Sulfur	µg/L	-	250	3500	912.8	640	1400	2140	29	20	9

Sample Location											
Sample Date		**6-Mar-24**									
Sample ID		**52**									
Sampling Company		**GGM**									
Laboratory		**BV**									
Laboratory Work Order		**C470075**									
Laboratory Sample ID	**Units**	**YOP543**	**Minimum**	**Maximum**	**Mean**	**Median**	**75th**	**95th**	**Count**	**Detect**	**ND**
Tellurium	µg/L	<0.1	0.05	0.1	0.1	0.1	0.1	0.1	42	0	42
Thallium	µg/L	<0.005	0.0025	0.005	0.004	0.005	0.005	0.005	42	0	42
Thorium	µg/L	-	0.05	0.1	0.1	0	0	0	30	0	30
Tin	µg/L	<0.1	0.05	0.2	0.06	0.05	0.05	0.2	42	4	38
Titanium	µg/L	<0.5	0.15	2.27	0.61	0.4	1	1.6	42	22	20
Tungsten	µg/L	<0.1	0.05	0.05	0	0	0	0	42	0	42
Uranium	µg/L	0.13	0.07	0.201	0.123	0.13	0.14	0.15	42	42	0
Vanadium	µg/L	0.17	0.15	0.85	0.32	0.25	0.28	0.71	42	20	22
Yttrium	µg/L	-	0.5	0.5	NC	NC	NC	NC	1	0	1
Zinc	µg/L	0.6	0.25	6.6	1.1	0.6	1.5	2	42	11	31
Zirconium	µg/L	<0.1	0.03	0.3	0.08	0.1	0.1	0.1	42	4	38

Table A.4 Water Quality Data at Station 19, October 2013 - February 2017

Sample Location																						
Sample Date		2-Oct-13	24-Oct-13	30-Jan-14	27-Mar-14	28-May-14	23-Jul-14	28-Aug-14	1-Oct-14	23-Jan-15	24-Feb-15	26-Mar-15	16-Jun-15	10-Jul-15	13-Aug-15	14-Sep-15	26-Jan-16	26-Jan-16	11-Mar-16	11-Mar-16	11-Mar-16	11-Mar-16	23-Mar-16
Sample ID		GL	19	19	19	19	19	19	19	19	19	19	19	19	19	19	#19	#19	19-0.8	19-3.4	19-6.1	19-8.8	#19
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM
Laboratory Work Order		L1373584	L1383095	L1417770	L1437689	L1462649	L1492279	L1510316	L1527397	L1570675	L1581473	L1592627	L1628846	L1640839	L1657992	L1673021	L1727269	L1727269	L1744063	L1744063	L1744063	L1744063	L1748610
Laboratory Sample ID	Units	L1373584-6	L1383095-1	L1417770-3	L1437689-6	L1462649-4	L1492279-9	L1510316-20	L1527397-2	L1570675-5	L1581473-5	L1592627-1	L1628846-6	L1640839-3	L1657992-3	L1673021-3	L1727269-1	L1727269-3	L1744063-10	L1744063-11	L1744063-12	L1744063-13	L1748610-1
Field Parameters																							
Depth, Field	m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Oxygen, Field	mg/L	-	11.58	9.98	8.48	10.46	10.09	7.94	10.06	13.05	11.02	11.16	8.95	-	9.76	-	10.43	-	10.54	9.68	7.18	5.92	-
Electrical Conductivity, Field	µS/cm	-	171	129	141	159	133	146	124	170	192	108	148	-	166	-	234.5	-	215	224	237	244	-
pH, Field	S.U.	-	7.92	7.53	7.42	8.29	8.44	7.97	8.02	7.90	7.91	7.37	8.09	-	7.41	-	7.7	-	7.21	7.13	7.63	7.01	7.42
Temperature, Field	deg C	-	5.95	2.4	0.80	16.40	18.53	19.74	11.64	2.84	2.26	1.38	17.72	-	17.81	-	3.3	-	-	-	-	-	4.1
General Chemistry																							
Acidity as CaCO3	mg/L	2.0	3.0	<1.0	2.4	3.7	<2.0	3.0	<2.0	3.2	3.6	4.3	2.4	<2.0	<2.0	<2.0	-	3.1	2.8	3.2	3.5	3.9	3.5
Alkalinity, Total (as CaCO3)	mg/L	91.3	91.7	106	101	79.1	76.7	83.1	84.2	95.8	96.5	92.7	84.3	87.2	89.7	95.7	-	105	106	108	113	119	108
Ammonia (as N)	mg/L	<0.020	<0.020	0.048	<0.020	<0.020	<0.020	<0.020	0.123	1.26	1.26	0.236	0.125	1.88	1.49	<0.020	0.050	-	0.051	0.119	0.089	0.140	0.226
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	5.6	<2.0	<2.0	<2.0	<2.0	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	0.27	0.27	1.04	0.40	0.60	0.24	0.31	0.25	0.37	0.32	0.40	0.26	0.24	0.25	0.26	-	0.55	0.34	0.34	0.36	0.37	0.61
Chlorophyll a	µg/L	-	-	-	-	1.40	4.21	2.41	2.66	0.28	0.26	0.27	1.77	2.15	2.24	3.04	-	1.87	0.46	0.10	0.13	0.32	0.35
Color, True	TCU	30.8	29.9	42.1	38.1	51.2	53.9	39.2	34.2	46.0	44.2	40.0	37.4	35.6	27.7	24.0	-	24.6	25.1	26.2	28.3	31.5	22.1
Cyanide	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide (Free)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	-	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	12.2	13.5	15.6	15.5	12.9	14.4	32.2 XH	11.7	14.7	14.5	15.0	12.0	10.7	9.6	11.2	11.7	-	12.4	12.8	12.8	12.9	11.9
Electrical Conductivity, Lab	µS/cm	166	172	200	182	145	146	159	161	187	187	176	125	170	166	171	-	203	200	204	216	226	193
Fluoride	mg/L	0.039	0.035	0.038	0.044	0.035	<0.030	0.030 AI	<0.030	0.027	0.030	0.022	0.034	0.021	<0.020	0.022	-	0.025	0.033	0.033	0.034	0.033	0.034
Hardness (as CaCO3)	mg/L	89.4	93.3	120	119	73.0	77.1	85.1	93.4	101	102	103	77.0	80.5	89.6	92.6	112	-	106	109	114	122	115
Ion Balance	%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	<0.030	<0.030	<0.030	0.115	0.068	<0.030	<0.030	<0.030	0.101	0.105	0.136	<0.020	<0.020	<0.020	<0.020	-	0.043	0.074	0.098	0.133	0.111	0.100
Nitrite (as N)	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	<2.0	<2.0	<2.0	<2.0	<2.0
Orthophosphate (as P)	mg/L	-	-	-	-	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	-	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
pH, lab	S.U.	8.17	8.01	7.80	7.59	7.88	7.88	7.75	8.04	7.75	7.74	7.56	8.00	8.27	8.12	7.75	-	7.82	7.65	7.59	7.50	7.46	7.74
Phaeophytin A	µg/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phosphorus, Total	mg/L	0.0103	0.0066	0.0054	0.0038	0.0092	0.0188	0.0055	<0.0010	-	-	-	-	-	-	-	0.0032	-	0.0038	0.0043	0.0041	0.0042	0.0047
Phosphorus, Total (Dissolved)	mg/L	-	-	-	-	<0.0030	<0.0030	0.0075	-	-	<0.0030	<0.0060 DM	<0.0030	<0.0030	<0.0060 DM	<0.0030	<0.0030	-	<0.0030	0.0046	<0.0030	0.0046	<0.0030
Radium-226	Bq/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	1.67	1.68	1.57	1.79	1.48	1.24	1.41	1.39	1.66	1.53	1.58	1.18	1.17	1.39	1.40	-	1.59	1.80	1.67	1.67	1.66	1.74
Total Dissolved Solids	mg/L	109	100	123	129	100	114	107	112	99	135	109	113	114	107	115	-	115	126	129	138	140	129
Total Kjeldahl Nitrogen	mg/L	-	-	-	-	0.557	0.601	0.62	0.57	1.92	2.13	0.84	0.44	1.71	1.89	0.43	0.49	-	0.42	0.48	0.51	0.56	0.64
Total Organic Carbon	mg/L	13.2	13.5	14.6	15.1	13.2	15.1	14.0 XH	13.2	14.8	13.8	14.4	11.8	10.7	9.5	11.2	11.6	-	11.9	12.2	12.2	12.2	11.7
Total Suspended Solids	mg/L	<2.0	2.3	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Turbidity, Lab	NTU	-	-	-	-	0.81	1.12	0.89	1.15	1.76	0.25	0.40	0.88	0.74	0.86	1.20	-	0.41	0.19	0.23	0.63	2.56	0.30
Metals, Dissolved																							
Aluminum	µg/L	11.1	3.5	<5.0	13.3	27.4	28.5	<5.0	<5.0	<5.0	6.2	<5.0	8.9	6	4.8	4.4	2.4	-	<20.0 IF	3	3.4	3.9	2.8
Antimony	µg/L	<0.10	0.13	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.10	<0.10	<0.10	<0.10	<0.10	-	<1.0 IF	<0.10	<0.10	<0.10	<0.10
Arsenic	µg/L	4.54	3.53	3.6	2.7	2.2	3.4	4.2	3.8	2.7	2.6	2.4	2.44	2.84	3.74	4.27	3.01	-	2.2	2.25	2.29	2.3	2.48
Barium	µg/L	12.2	10.5	13	13	<10.0	10	<10.0	12	12	13	13	9.1	9.19	10.9	11.6	14.4	-	12.6	12.5	13.7	14	13.2
Beryllium	µg/L	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<1.0 DM	-	<1.0 IF	<0.10	<0.10	<0.10	<0.10
Bismuth	µg/L	<0.050	<0.050	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.050	<0.050	<0.050	<0.050	<0.050	-	<0.50 IF	<0.050	<0.050	<0.050	<0.050
Boron	µg/L	<10.0	<10.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	-	<100 IF	<10.0	<10.0	<10.0	<10.0
Cadmium	µg/L	<0.010	<0.010	<0.017	<0.017	0.026	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-	<0.050 IF	<0.0050	<0.0050	<0.0050	0.0209
Calcium	mg/L	27.9	29.8	37.0	36.6	25.0	23.2	26.1	28.9	31.0	31.0	31.8	25.8	24.7	27.4	27.9	33.7	-	32.8	33.2	34.9	37.3	35.1
Cesium	µg/L	<0.10	<0.10	-	-	-	-	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.10 IF	<0.010	<0.010	<0.010	<0.010
Chromium	µg/L	0.13	0.12	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.17	0.19	0.18	<0.10	0.15	-	<1.0 IF	<0.10	<0.10	<0.10	0.12
Chromium (Hexavalent)	µg/L	-	-	-	-	<10.0	<10.0	<10.0	<10	<10	<10	<10	<10	<10	<10	<10	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0
Cobalt	µg/L	<0.10	<0.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	-	<1.0 IF	<0.10	<0.10	<0.10	<0.10
Copper	µg/L	0.76	0.42	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.97	0.67	0.47	0.39	0.5	-	<2.0 IF	0.38	0.61	0.39	0.58
Iron	µg/L	113	45	<20.0	<20.0	80	68	39	109	52	51	52	40	26	22	27	19	-	<100 IF	28	64	101	18
Lead	µg/L	0.066	<0.050	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.050	<0.050	<0.050	<0.050	<0.050	-	<0.50 IF	<0.050	<0.050	<0.050	<0.050
Lithium	µg/L	<5.0	<5.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<1.0	<1.0	<1.0	<1.0	<10.0 DM	-	<10.0 IF	<1.0	<1.0	<1.0	<1.0
Magnesium	mg/L	4.78	4.61	6.64	6.76	5.00	4.64	4.87	5.13	5.63	6.04	5.82	4.69	4.59	5.15	5.58	6.82	-	5.81	6.25	6.54	6.98	6.69
Manganese	µg/L	17.8	1.2	1.7	3.1	18.6	<1.0	1.4	<1.0	<1.0	<1.0	1.9	1.92	1.09	1.07	4.77	0.82	-	1.4	2.01	20.3	77.6	2.12
Mercury	µg/L	<0.010	<0.10	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-	0.194	0.259 XH	0.0221	0.028	<0.0050
Molybdenum	µg/L	0.138	0.139	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.118	0.089	0.119	0.134	0.143	-	<0.50 IF	0.175	0.149	0.149	0.152
Nickel	µg/L	0.28	0.29	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	-	<5.0 IF	<0.50	<0.50	<0.50	<0.50
Phosphorus	µg/L	<300	<300	-	-	-	-	-	<3	<3	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-	<500 IF	<50.0	<50.0	<50.0	<50.0
Potassium	mg/L	0.644	0.653	0.77	0.80	0.68	0.62	0.58	0.66	0.68	0.73	0.78	0.570	0.592	0.603	0.630	0.753	-	0.67	0.670	0.696	0.726	0.801

Sample Location																							
Sample Date		**2-Oct-13**	**24-Oct-13**	**30-Jan-14**	**27-Mar-14**	**28-May-14**	**23-Jul-14**	**28-Aug-14**	**1-Oct-14**	**23-Jan-15**	**24-Feb-15**	**26-Mar-15**	**16-Jun-15**	**10-Jul-15**	**13-Aug-15**	**14-Sep-15**	**26-Jan-16**	**26-Jan-16**	**11-Mar-16**	**11-Mar-16**	**11-Mar-16**	**11-Mar-16**	**23-Mar-16**
Sample ID		**GL**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**#19**	**#19**	**19-0.8**	**19-3.4**	**19-6.1**	**19-8.8**	**#19**
Sampling Company		**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**	**GGM**
Laboratory		**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**	**ALS-EDM**
Laboratory Work Order		**L1373584**	**L1383095**	**L1417770**	**L1437689**	**L1462649**	**L1492279**	**L1510316**	**L1527397**	**L1570675**	**L1581473**	**L1592627**	**L1628846**	**L1640839**	**L1657992**	**L1673021**	**L1727269**	**L1727269**	**L1744063**	**L1744063**	**L1744063**	**L1744063**	**L1748610**
Laboratory Sample ID	**Units**	**L1373584-6**	**L1383095-1**	**L1417770-3**	**L1437689-6**	**L1462649-4**	**L1492279-9**	**L1510316-20**	**L1527397-2**	**L1570675-5**	**L1581473-5**	**L1592627-1**	**L1628846-6**	**L1640839-3**	**L1657992-3**	**L1673021-3**	**L1727269-1**	**L1727269-3**	**L1744063-10**	**L1744063-11**	**L1744063-12**	**L1744063-13**	**L1748610-1**
Rubidium	µg/L	1.5	1.4	-	-	-	-	-	-	-	-	-	1.18	1.29	1.4	1.42	1.61	-	<2.0 IF	1.49	1.57	1.6	1.67
Selenium	µg/L	<0.10	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.052	<0.050	0.069	0.057	0.067	-	<0.50 IF	0.079	0.072	0.062	0.059
Silicon	µg/L	1,830	1,650	-	-	-	-	-	-	-	-	-	1,530	1,370	1,740	2,090	1,930	-	2,160	2,270	2,880	3,190	2,250
Silver	µg/L	<0.010	<0.010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.10 IF	<0.010	<0.010	<0.010	<0.010
Sodium	mg/L	0.564	0.663	1.56 XH	0.79	0.48	0.57	0.59	0.61	0.73	0.72	0.77	0.614	0.590	0.589	0.613	0.880	-	0.73	0.724	0.765	0.782	0.851
Strontium	µg/L	28.5	27.3	31.3	32.1	22.1	23	26.9	26.7	27.3	29.2	30	22.9	24	26.2	24.4	28.8	-	31.6	31.8	32.5	35.7	33.9
Sulfur	µg/L	-	-	-	-	-	-	-	-	-	-	-	570	<500	<500	570	680	-	<5,000 IF	560	650	650	580
Tellurium	µg/L	<0.60	<0.60	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	-	<2.0 IF	<0.20	<0.20	<0.20	<0.20
Thallium	µg/L	<0.050	<0.050	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.10 IF	<0.010	<0.010	<0.010	<0.010
Thorium	µg/L	-	-	-	-	-	-	-	-	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	-	<1.0 IF	<0.10	<0.10	<0.10	<0.10
Tin	µg/L	<0.10	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	-	<1.0 IF	<0.10	<0.10	<0.10	<0.10
Titanium	µg/L	<0.30	<0.30	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.30	<0.30	<0.30	<0.30	<0.30	-	<3.0 IF	<0.30	<0.30	<0.30	<0.30
Tungsten	µg/L	-	-	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<0.10	<0.10	<0.10	<0.10	<0.10	-	<1.0 IF	<0.10	0.14	<0.10	<0.10
Uranium	µg/L	0.104	0.106	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.082	0.085	0.098	0.122	0.149	-	0.15	0.14	0.139	0.139	0.138
Vanadium	µg/L	0.36	0.27	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	-	<5.0 IF	<0.50	<0.50	<0.50	<0.50
Zinc	µg/L	<5.0	8.8	4.7	<3.0	3.4	3.9	<3.0	<3.0	<3.0	<3.0	8.4	1.7	1.2	1.4	<1.0	1.1	-	<10.0 IF	<1.0	6.2	1.2	2.6
Zirconium	µg/L	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.30	<0.30	<0.30	<0.30	<0.30	-	<3.0 IF	<0.30	<0.30	<0.30	<0.30
Metals, Total																							
Aluminum	µg/L	16.9	11.2	10.8	13	27.2	31.3	9.3	9.4	7	6.8	8.7	13.2	9.2	11.4	12	5.4	-	3.7	4.2	5.1	6.4	5.7
Antimony	µg/L	<0.10	<0.10	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.60	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	µg/L	4.52	3.73	2.9	2.7	2.1	3.4	4.1	4.6	2.8	2.7	2.7	2.64	3.19	3.78	4.37	2.96	-	2.41	2.22	2.28	2.75	2.36
Barium	µg/L	11.1	11.5	13	13	<10.0	10	10	12	12	12	13	9.4	9.75	11	12	13.8	-	13.1	13.1	14.1	15.6	13
Beryllium	µg/L	<0.50	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10
Bismuth	µg/L	<0.050	<0.050	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.050	<0.050	<0.050	<0.050	<0.050	-	<0.050	<0.050	<0.050	<0.050	<0.050
Boron	µg/L	<10.0	<10.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<10.0	<10.0	<10.0	<10.0	<10.0	-	<10.0	<10.0	<10.0	<10.0	<10.0
Cadmium	µg/L	<0.010	<0.010	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-	<0.0050	<0.0050	<0.0050	<0.0050	0.0191
Calcium	mg/L	27.9	28.3	35.3	35.6	21.9	22.8	22.0	27.0	30.1	29.4	31.0	23.8	26.8	28.1	28.0	32.0	-	31.7	31.5	35.0	37.1	33.6
Cesium	µg/L	<0.10	<0.10	-	-	-	-	-	-	-	-	-	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	0.011	<0.010
Chromium	µg/L	0.11	0.15	<1.0	<1.0	<1.0	4.8	<1.0	<1.0	<1.0	<1.0	<1.0	0.22	<0.10	0.19	0.15	0.13	-	0.13	<0.10	0.13	0.11	0.15
Chromium (Trivalent)	µg/L	-	-	-	-	<1.0	4.8	<1.0	<1	<1	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0
Cobalt	µg/L	<0.10	<0.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10
Copper	µg/L	0.76	0.48	<1.0	<1.0	<1.0	2	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	0.54	0.5	<0.50	0.51	-	<0.50	<0.50	<0.50	<0.50	0.55
Iron	µg/L	155	130	61	60	121	453	97	212	79	63	68	59	49	67	97	34	-	34	40	104	221	31
Lead	µg/L	0.06	0.082	<1.0	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<0.050	<0.050	<0.050	<0.050	<0.050	-	<0.050	<0.050	<0.050	<0.050	<0.050
Lithium	µg/L	<5.0	<5.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<1.0	<1.0	<1.0	1.1	<1.0	-	<1.0	<1.0	<1.0	<1.0	<1.0
Magnesium	mg/L	5.19	4.51	6.11	6.51	4.45	4.56	4.26	5.19	5.62	5.66	5.85	4.26	5.15	5.35	5.28	6.68	-	6.45	6.41	6.76	6.92	6.28
Manganese	µg/L	18.3	14.7	5.1	6.2	23.7	19.7	16.6	17.4	3.6	2.3	3.5	8.27	11.1	14	28.8	2.46	-	2.59	5.57	46.1	128	2.46
Mercury	µg/L	<0.010	<0.10	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	-	1.36	0.144 XH	0.0861	0.143	<0.0050
Molybdenum	µg/L	0.139	0.14	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.075	0.08	0.13	0.174	0.15	-	0.159	0.151	0.147	0.152	0.156
Nickel	µg/L	0.28	0.3	<2.0	<2.0	<2.0	2.6	<2.0	<2.0	<2.0	<2.0	<2.0	<0.50	<0.50	<0.50	<0.50	<0.50	-	<0.50	<0.50	<0.50	<0.50	<0.50
Phosphorus	µg/L	<300	<300	-	-	-	-	-	-	-	-	-	<50.0	<50.0	<50.0	<50.0	<50.0	-	<50.0	<50.0	<50.0	<50.0	<50.0
Potassium	mg/L	0.629	0.627	0.70	0.72	0.60	0.62	0.66	0.65	0.71	0.70	0.74	0.555	0.613	0.632	0.636	0.753	-	0.712	0.694	0.721	0.744	0.757
Rubidium	µg/L	1.5	1.5	-	-	-	-	-	-	-	-	-	1.13	1.37	1.36	1.43	1.65	-	1.53	1.43	1.49	1.63	1.56
Selenium	µg/L	<0.10	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.066	0.064	0.065	0.063	0.065	-	0.068	0.075	0.077	0.057	0.086
Silicon	µg/L	1,860	1,450	-	-	-	-	-	-	-	-	-	1,490	1,390	1,760	2,020	2,040	-	2,330	2,450	2,890	3,240	2,390
Silver	µg/L	<0.010	<0.010	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010	<0.010	<0.010	<0.010	<0.010
Sodium	mg/L	0.689	0.676	0.86 XH	0.75	0.55	0.57	0.57	0.63	0.77	0.69	0.75	0.561	0.601	0.657	0.658	0.868	-	0.747	0.737	0.766	0.781	0.839
Strontium	µg/L	25.3	26.4	30.9	32	21	23.8	23.8	25.2	28.8	28.2	29.5	20.9	24.8	25.9	28.6	30.6	-	30	30.5	33.7	35.3	32.2
Sulfur	µg/L	-	-	-	-	-	-	-	-	-	-	-	560	<500	560	580	760	-	760	770	680	580	740
Tellurium	µg/L	<0.60	<0.60	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	-	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	µg/L	<0.050	<0.050	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.010	<0.010	<0.010	<0.010	<0.010	-	<0.010	0.021	<0.010	<0.010	<0.010
Thorium	µg/L	-	-	-	-	-	-	-	-	-	-	-	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10
Tin	µg/L	<0.10	<0.10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	<0.10	<0.10	<0.10	<0.10	0.16	-	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	µg/L	0.5	0.45	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<0.30	<0.30	<0.30	<0.30	<0.30	-	<0.30	<0.30	<0.30	<0.30	<0.30
Tungsten	µg/L	-	-	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10
Uranium	µg/L	0.104	0.108	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.08	0.087	0.11	0.14	0.159	-	0.151	0.142	0.139	0.141	0.15
Vanadium	µg/L	0.82	0.39	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.50	<0.50	<0.50	<0.50	<0.50	-	<0.50	<0.50	<0.50	<0.50	<0.50
Zinc	µg/L	<5.0	<5.0	<3.0	<3.0	<3.0	3.2	<3.0	<3.0	<3.0	<3.0	3.7	<3.0	<3.0	5.6	<3.0	<3.0	-	<3.0	<3.0	<3.0	<3.0	<3.0
Zirconium	µg/L	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.30	<0.30	<0.30	<0.30	<0.30	-	<0.30	<0.30	<0.30	<0.30	<0.30

Sample Location						19																
Sample Date		13-Apr-16	13-Apr-16	13-Apr-16	13-Apr-16	29-May-16	29-May-16	29-May-16	29-May-16	30-Jun-16	30-Jun-16	30-Jun-16	30-Jun-16	28-Jul-16	28-Jul-16	28-Jul-16	28-Jul-16	15-Aug-16	15-Aug-16	15-Aug-16	15-Aug-16	22-Sep-16
Sample ID		19 (1)	19 (2)	19 (3)	19 (4)	19(1)	19(2)	19(3)	19(4)	19A	19B	19C	19D	19A	19B	19C	19D	19A	19B	19C	19D	19A
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM
Laboratory Work Order		L1755863	L1755863	L1755863	L1755863	L1775554	L1775554	L1775554	L1775554	L1792262	L1792262	L1792262	L1792262	L1806216	L1806216	L1806216	L1806216	L1814349	L1814349	L1814349	L1814349	L1833630
Laboratory Sample ID	Units	L1755863-1	L1755863-2	L1755863-3	L1755863-4	L1775554-15	L1775554-16	L1775554-17	L1775554-18	L1792262-11	L1792262-12	L1792262-13	L1792262-14	L1806216-5	L1806216-6	L1806216-7	L1806216-8	L1814349-11	L1814349-12	L1814349-13	L1814349-14	L1833630-1
Field Parameters																						
Depth, Field	m	-	-	-	-	-	-	-	-	1	3	5	8	1	4	7	9	0.5	3	6	8	0.5
Dissolved Oxygen, Field	mg/L	8.11	7.93	6.15	8.35	12.63	12.06	12	11.88	10.28	9.71	8.31	0.15	7.56	6.72	3.21	0.12	7.97	7.42	-	-	8.81
Electrical Conductivity, Field	µS/cm	180.9	182.0	191.9	192.0	140	142	141	139	164.3	164.3	166.6	85.9	194	195	196	231	184	119	-	-	183
pH, Field	S.U.	7.33	7.37	7.29	7.13	7.2	7.4	7.46	7.41	8.15	8.17	7.86	7.26	8.19	8.18	7.33	7.12	8.3	8.18	-	-	7.62
Temperature, Field	deg C	3.6	4.1	4.5	4.3	16.6	16.54	16.23	15.74	20.2	20.1	18.1	12.4	22.6	22.1	18.1	11.8	20.18	19.78	-	-	15.68
General Chemistry																						
Acidity as CaCO3	mg/L	4.6	5.0	5.5	7.2	<2.0	<2.0	<2.0	3.0	<2.0	<2.0	<2.0	5.0	<2.0	<2.0	2.3	4.6	<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	105	107	111	112	95.2	96.0	96.0	96.6	91.9	90.7	90.7	99.2	93.5	95.9	94.3	103	97.9	97.3	97.0	99.3	106
Ammonia (as N)	mg/L	0.388	0.048	0.038	0.084	0.026	1.20	0.285	0.279	0.033	0.191	0.105	0.218	0.269	2.97 RV	0.290	1.79 RV	2.14	0.983	0.325	0.324	0.301
Anion Sum	meq/L	-	-	-	-	1.95	1.97	1.96	1.97	-	-	-	-	-	-	-	-	-	-	-	-	-
Biochemical Oxygen Demand (BOD)	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Cation Sum	meq/L	-	-	-	-	2.05	2.09	2.19	2.15	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	0.37	0.35	0.36	0.36	0.36	0.49	0.33	0.31	0.29	0.30	0.27	0.32	0.29	0.28	0.26	0.29	0.28	0.35	0.28	0.26	0.29
Chlorophyll a	µg/L	1.94	0.69	0.43	0.21	1.88	1.73	2.57	4.68	4.27	4.37	3.65	0.80	-	-	-	-	4.06	5.57	3.51	4.21	2.72
Color, True	TCU	23.9	24.7	24.6	26.3	19.8	20.0	20.0	20.7	26.9	26.8	26.9	28.4	25.0	24.8	26.2	44.3	22.4	22.2	22.8	23.2	21.7
Cyanide	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide (Free)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide (Weak Acid Dissociable)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	11.6	12.7	12.0	12.2	8.9	9.0	8.9	8.6	10.5	10.5	10.4	9.2	11.9	11.8	12.0	11.5	11.8	11.9	11.7	11.9	10.1
Electrical Conductivity, Lab	µS/cm	206	211	216	224	183	184	184	187	170	169	171	181	177	173	175	188	186	188	188	188	190
Fluoride	mg/L	0.032	0.034	0.034	0.034	0.027	0.029	0.027	0.026	0.029	0.029	0.025	0.029	0.028	0.030	0.026	0.026	0.028	0.025	0.028	0.026	0.037
Hardness (as CaCO3)	mg/L	107	111	116	117	100	102	107	105	97.3	92.7	95.5	97.5	99.1	100	101	106	96.4	101	96.3	91.3	100
Ion Balance	%	-	-	-	-	2.5	2.8	5.5	4.4	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.107	0.102	0.107	0.158	<0.020	<0.020	<0.020	0.028	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Oil and Grease, Total	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Orthophosphate (as P)	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
pH, lab	S.U.	7.74	7.70	7.67	7.57	8.20	8.19	8.18	7.92	8.23	8.26	8.22	7.69	8.19	8.25	7.87	7.67	8.04	8.01	7.96	8.00	7.99
Phaeophytin A	µg/L	-	-	-	-	0.68	0.70	0.75	1.48	0.97	1.06	0.85	0.68	-	-	-	-	0.87	1.13	0.99	1.28	0.56
Phosphorus, Total	mg/L	0.0070	0.0074	0.0054	0.0032	0.0057	0.0059	0.0076	0.0120	0.0099	0.0072	0.0060	0.0076	0.0085	0.0082	0.0115	0.0121	0.0087	0.0132	0.0149	0.0142	0.0107
Phosphorus, Total (Dissolved)	mg/L	<0.0030	0.0034	<0.0030	<0.0030	<0.0030	0.0034	0.0067	0.0049	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0033	0.0038	<0.0030	<0.0030	<0.0030
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	1.63	1.59	1.59	1.54	1.53	1.75	1.57	1.41	1.32	1.30	1.15	1.32	1.66	1.19	1.95	1.70	1.33	1.29	1.59	1.32	1.20
Total Dissolved Solids	mg/L	124	132	143	141	120	103	115	120	104	86	110	110	120	102	104	115	125	124	124	115	124
Total Kjeldahl Nitrogen	mg/L	0.76	0.39	0.36	0.36 RV	0.33	1.49	0.56	0.64	0.41	0.47	0.41	0.51	0.59	2.45	0.64	1.96	2.41	1.33	0.74	0.75	0.71
Total Organic Carbon	mg/L	12.0	12.0	11.8	12.9	9.5	9.0	8.6	9.0	10.5	10.4	10.3	9.4	11.0	11.3	11.4	10.7	11.7	11.8	12.2	11.8	10.7
Total Suspended Solids	mg/L	2.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	17.0	2.5	2.6	2.0	<2.0	<2.0	2.2	<2.0	4.1	<2.0	<2.0	<2.0	6.0	<2.0
Turbidity, Lab	NTU	0.36	0.35	0.55	0.50	0.70	0.71	0.71	4.79	0.85	0.83	1.18	1.31	0.97	1.10	1.37	3.95	1.56	1.35	1.57	2.84	1.21
Metals, Dissolved																						
Aluminum	µg/L	2.4	2.3	2.5	3.3	4.1	5.2	3.5	3.2	6.1	5.1	4.9	3.3	5.7	7.1	4.1	5.7	4.1	9.3	3.8	3.8	<2.0
Antimony	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	µg/L	2.28	2.33	2.16	2.11	1.91	1.91	1.85	1.97	2.54	2.44	2.59	3.66	3.29	3.28	3.28	8.16	4.13	4.51	4.23	4.21	4.5
Barium	µg/L	12.2	12.5	12.4	13.3	10.4	10.5	10.2	11.1	10.7	10.3	10.1	12.7	11.1	11.1	11.8	13.4	11.2	11.5	12.2	12.3	12.2
Beryllium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Bismuth	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Boron	µg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Cadmium	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium	mg/L	33.0	34.7	36.2	36.1	30.6	31.4	33.7	32.4	29.8	28.3	29.6	30.2	30.2	30.9	31.1	32.6	29.2	31.1	29.5	27.5	30.5
Cesium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Chromium	µg/L	0.21	0.15	<0.10	0.2	0.12	0.12	<0.10	<0.10	0.29	0.34	0.39	0.35	4.56 XH	4.16 XH	5.34 XH	5.64 XH	<0.10	<0.10	0.37 XH	0.1	<0.10
Chromium (Hexavalent)	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cobalt	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Copper	µg/L	0.4	0.38	0.37	0.35	0.35	0.34	0.35	0.36	0.58	0.4	0.38	0.3	0.49	0.47	0.48	0.52	0.38	0.41	0.37	0.37	0.37
Iron	µg/L	18	20	25	40	12	13	12	34	22	19	22	308	14	16	53	617	16	80 XH	18	18	33
Lead	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Lithium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Magnesium	mg/L	5.96	5.97	6.19	6.48	5.74	5.71	5.62	5.92	5.54	5.32	5.23	5.38	5.77	5.55	5.78	5.95	5.71	5.72	5.49	5.47	5.81
Manganese	µg/L	1.6	1.35	2.51	3.96	2.04	1.98	0.54	16.7	1.08	0.83	1.99	149	0.39	0.31	1.7	202	0.27	24.4 XH	0.44	0.5	0.28
Mercury	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Molybdenum	µg/L	0.149	0.168	0.158	0.144	0.135	0.135	0.142	0.131	0.132	0.125	0.124	0.116	0.143	0.154	0.153	0.137	0.152	0.152	0.194	0.159	0.146
Nickel	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Phosphorus	µg/L	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Potassium	mg/L	0.655	0.674	0.674	0.696	0.643	0.639	0.625	0.647	0.607	0.593	0.587	0.606	0.641	0.608	0.631	0.636	0.610	0.610	0.634	0.626	0.668

Sample Location						19																
Sample Date		13-Apr-16	13-Apr-16	13-Apr-16	13-Apr-16	29-May-16	29-May-16	29-May-16	29-May-16	30-Jun-16	30-Jun-16	30-Jun-16	30-Jun-16	28-Jul-16	28-Jul-16	28-Jul-16	28-Jul-16	15-Aug-16	15-Aug-16	15-Aug-16	15-Aug-16	22-Sep-16
Sample ID		19 (1)	19 (2)	19 (3)	19 (4)	19(1)	19(2)	19(3)	19(4)	19A	19B	19C	19D	19A	19B	19C	19D	19A	19B	19C	19D	19A
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM
Laboratory Work Order		L1755863	L1755863	L1755863	L1755863	L1775554	L1775554	L1775554	L1775554	L1792262	L1792262	L1792262	L1792262	L1806216	L1806216	L1806216	L1806216	L1814349	L1814349	L1814349	L1814349	L1833630
Laboratory Sample ID	Units	L1755863-1	L1755863-2	L1755863-3	L1755863-4	L1775554-15	L1775554-16	L1775554-17	L1775554-18	L1792262-11	L1792262-12	L1792262-13	L1792262-14	L1806216-5	L1806216-6	L1806216-7	L1806216-8	L1814349-11	L1814349-12	L1814349-13	L1814349-14	L1833630-1
Rubidium	µg/L	1.37	1.42	1.42	1.57	1.21	1.25	1.13	1.22	1.25	1.25	1.23	1.28	1.33	1.4	1.37	1.45	1.46	1.49	1.44	1.43	1.39
Selenium	µg/L	0.059	0.078	0.071	0.075	0.064	0.051	0.052	0.057	0.053	<0.050	<0.050	<0.050	0.063	0.051	0.063	0.062	0.073	0.069	0.062	0.064	0.072
Silicon	µg/L	2,010	2,070	2,300	2,700	1,700	1,700	1,700	2,110	1,370	1,330	1,370	2,850	1,580	1,570	1,840	2,500	1,910	1,940	1,880	1,830	2,180
Silver	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Sodium	mg/L	0.703	0.704	0.724	0.735	0.691	0.681	0.682	0.699	0.639	0.631	0.618	0.630	1.05 XH	0.996 XH	1.52 XH	1.52 XH	0.625	0.632	0.616	0.619	0.678
Strontium	µg/L	30.3	32.3	32.5	32.6	28.6	28.3	29.4	29.9	27.3	25.9	27.1	26.1	28.1	28.8	29.2	30.3	29.5	30.8	28.6	29.1	28.1
Sulfur	µg/L	570	590	530	570	540	590	540	590	<500	630	580	540	<500	620	<500	500	<500	<500	<500	<500	<500
Tellurium	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Thorium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tin	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Tungsten	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Uranium	µg/L	0.141	0.146	0.147	0.142	0.137	0.137	0.134	0.132	0.111	0.112	0.109	0.106	0.121	0.122	0.118	0.117	0.128	0.126	0.121	0.122	0.138
Vanadium	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Zinc	µg/L	1.2	1.1	1.1	<1.0	1.5	1.6	1.1	<1.0	4	3.6	2.3	2.5	<1.0	6.5	2.4	1.5	<1.0	<1.0	<1.0	<1.0	1.2
Zirconium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Metals, Total																						
Aluminum	µg/L	4.6	3.9	5	4.3	9.7	8.4	9.4	19.4	11.6	11.1	12.9	9.9	11.5	11	11.7	11.5	9	4.9	25	18.4	8.4
Antimony	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Arsenic	µg/L	2.18	2.3	2.17	2.14	1.93	1.9	1.95	2.37	2.69	2.7	2.78	4.08	3.53	3.63	4.02	9.89	4.43	4.18	4.73	4.72	4.85
Barium	µg/L	12.6	12.8	12.6	13.3	9.88	9.87	9.91	10.6	11.3	11.2	11.1	13.5	11.8	11.6	11.9	14	11.8	11.8	12.3	12.1	12.4
Beryllium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Bismuth	µg/L	0.242	<0.050	<0.050	0.062	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Boron	µg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Cadmium	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0094	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Calcium	mg/L	34.3	36.3	36.5	36.6	31.3	30.3	32.0	31.3	28.9	28.8	27.7	30.8	32.4	32.0	32.7	31.9	27.9	29.1	28.9	27.9	28.5
Cesium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.011	0.01	<0.010
Chromium	µg/L	0.26	0.13	0.19	0.15	0.17	0.13	0.15	0.13	0.24	0.24	0.29	0.33	0.11	0.11	0.12	0.13	0.12	0.18	0.15	0.13	<0.10
Chromium (Trivalent)	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cobalt	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Copper	µg/L	0.56	<0.50	<0.50	<0.50	0.54	<0.50	<0.50	0.55	0.51	0.55	<0.50	0.52	0.54	0.55	0.51	<0.50	<0.50	<0.50	0.51	0.56	<0.50
Iron	µg/L	41	37	50	84	48	42	48	145	54	51	69	394	55	61	153	886	76	16	138	123	136
Lead	µg/L	<0.050	0.102	0.051	<0.050	<0.050	<0.050	<0.050	0.054	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.084	0.052	<0.050	<0.050	0.108	0.09	<0.050
Lithium	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Magnesium	mg/L	6.11	6.33	6.76	6.71	5.69	5.37	5.76	5.80	5.77	5.53	5.47	5.83	5.41	5.47	5.61	6.14	5.37	5.55	5.53	5.39	5.68
Manganese	µg/L	3.88	3.62	6.44	13.2	8.54	8.78	8.58	35	11.1	11	16.1	148	14.1	15.6	34.5	228	23.1	0.31	30.1	32.9	27.1
Mercury	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Molybdenum	µg/L	0.167	0.171	0.158	0.157	0.151	0.135	0.139	0.132	0.134	0.134	0.131	0.138	0.139	0.148	0.144	0.151	0.163	0.159	0.164	0.166	0.159
Nickel	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Phosphorus	µg/L	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
Potassium	mg/L	0.689	0.703	0.694	0.711	0.653	0.654	0.661	0.690	0.604	0.600	0.591	0.623	0.611	0.610	0.611	0.669	0.623	0.637	0.645	0.632	0.610
Rubidium	µg/L	1.44	1.54	1.44	1.53	1.19	1.24	1.25	1.32	1.34	1.34	1.36	1.43	1.36	1.37	1.42	1.42	1.49	1.46	1.49	1.47	1.42
Selenium	µg/L	0.078	0.079	0.052	0.056	0.054	0.062	0.063	0.06	0.076	0.069	0.071	0.06	0.078	0.067	0.08	0.068	0.071	0.059	0.089	0.092	0.083
Silicon	µg/L	2,200	2,460	2,500	3,030	1,660	1,670	1,790	2,060	1,360	1,300	1,380	2,650	1,560	1,570	1,820	2,620	1,810	1,800	1,880	1,860	2,030
Silver	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Sodium	mg/L	0.716	0.741	0.745	0.742	0.625	0.621	0.643	0.645	0.664	0.620	0.619	0.652	0.663	0.669	0.649	0.703	0.628	0.640	0.644	0.644	0.661
Strontium	µg/L	33.5	34.5	34.2	35.1	28	28.2	28.5	28	27.1	27.6	26.4	29.7	27.2	28.5	28.1	30.5	31.2	29.7	31.1	29.9	29.1
Sulfur	µg/L	640	660	690	650	<500	<500	<500	<500	<500	<500	<500	<500	<500	640	<500	<500	<500	<500	500	<500	<500
Tellurium	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Thorium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Tin	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Titanium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.73	<0.30	<0.30	0.3	<0.30	0.33	<0.30	0.33	0.4	<0.30	<0.30	0.78	0.69	<0.30
Tungsten	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Uranium	µg/L	0.154	0.163	0.158	0.158	0.14	0.137	0.141	0.14	0.126	0.123	0.118	0.131	0.125	0.123	0.119	0.125	0.129	0.128	0.13	0.129	0.145
Vanadium	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.53	0.51	0.56	0.56	<0.50	<0.50	<0.50	0.65	<0.50	<0.50	<0.50	<0.50	<0.50
Zinc	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Zirconium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30

Sample Location																				
Sample Date		22-Sep-16	22-Sep-16	22-Sep-16	31-Oct-16	31-Oct-16	31-Oct-16	31-Oct-16	13-Feb-17	13-Feb-17	13-Feb-17									
Sample ID		19B	19C	19D	19A	19B	19C	19D	19-0M	19-4M	19-8M									
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM									
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM									
Laboratory Work Order		L1833630	L1833630	L1833630	L1851841	L1851841	L1851841	L1851841	L1890236	L1890236	L1890236									
Laboratory Sample ID	Units	L1833630-2	L1833630-3	L1833630-4	L1851841-1	L1851841-2	L1851841-3	L1851841-4	L1890236-1	L1890236-2	L1890236-3	Minimum	Maximum	Mean	Median	75th	95th	Count	Detect	ND
Field Parameters																				
Depth, Field	m	2.5	5.5	8.5	-	2.25	4	6.6	0	4	8	0	9	4.42	4	6.9	8.48	22	22	0
Dissolved Oxygen, Field	mg/L	8.71	8.5	8.31	12.85	11.92	11.81	10.86	9.7	7.33	4	0.12	13.05	8.91	9.32	10.78	12.49	46	46	0
Electrical Conductivity, Field	µS/cm	183	183	184	188	188	187	189	214.4	220	233.8	85.9	244	176.2	183	193.5	234.3	46	46	0
pH, Field	S.U.	8.08	8.06	7.98	6.84	7.31	7.52	7.84	6.84	7.19	7	6.84	8.44	7.43	7.52	7.3	7	47	47	0
Temperature, Field	deg C	15.7	15.43	15.36	5.61	5.61	5.61	6.04	2.5	3.5	4.1	0.8	22.6	11.33	12.4	17.76	20.2	43	43	0
General Chemistry																				
Acidity as CaCO3	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	4.2	5.0	9.1	0.5	9.1	2.5	1.5	3.5	5.2	52	26	26
Alkalinity, Total (as CaCO3)	mg/L	99.5	105	105	111	106	109	109	116	116	123	76.7	123	99.8	98.6	106.2	116	52	52	0
Ammonia (as N)	mg/L	0.352	0.030	0.152	0.15	0.163	0.110	0.035	0.029	<0.020	0.049	0.01	2.97	0.39488	0.1325	0.30675	1.8305	52	44	8
Anion Sum	meq/L	-	-	-	-	-	-	-	-	-	-	1.95	1.97	1.96	1.96	1.97	1.97	4	4	0
Biochemical Oxygen Demand (BOD)	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	1	5.6	1.1	1	1	1	52	1	51
Cation Sum	meq/L	-	-	-	-	-	-	-	-	-	-	2.05	2.19	2.12	2.12	2.16	2.18	4	4	0
Chloride	mg/L	0.29	0.48	0.29	0.28	0.26	0.28	0.27	0.33	0.33	0.34	0.24	1.04	0.34	0.31	0.36	0.57	52	52	0
Chlorophyll a	µg/L	4.31	6.14	2.70	5.01	3.00	4.00	3.38	0.31	0.18	0.30	0.1	6.14	2.28	2.2	3.74	4.96	44	44	0
Color, True	TCU	22.5	22.8	26.6	16.1	17.2	15.9	16.2	18.1	16.9	18.7	15.9	53.9	27.8	25	31	45.1	52	52	0
Cyanide	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.001	0.001	0.001	0.001	0.001	0.001	52	0	52
Cyanide (Free)	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	52	0	52
Cyanide (Weak Acid Dissociable)	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.001	0.001	0.001	0.001	0.001	0.001	52	0	52
Dissolved Organic Carbon (DOC)	mg/L	10.3	10.6	10.0	9.9	10.3	9.9	10.1	10.4	10.5	9.7	8.6	32.2	11.9423	11.7	12.475	15.225	52	52	0
Electrical Conductivity, Lab	µS/cm	189	189	190	198	197	198	198	205	204	217	125	226	186.1	187.5	198.5	216.4	52	52	0
Fluoride	mg/L	0.028	0.026	0.030	0.025	0.020	0.021	<0.020	0.027	0.026	0.026	0.01	0.044	0.028019	0.028	0.033	0.03745	52	48	4
Hardness (as CaCO3)	mg/L	99.1	102	98.3	104	102	105	107	112	116	121	73	122	101.5	101.5	107.5	119.4	52	52	0
Ion Balance	%	-	-	-	-	-	-	-	-	-	-	2.5	5.5	3.8	3.6	4.7	5.3	4	4	0
Nitrate (as N)	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.058	0.124	0.129	0.01	0.158	0.043	0.01	0.098	0.131	52	19	33
Nitrite (as N)	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.005	0.01	0.006	0.005	0.005	0.01	52	0	52
Oil and Grease, Total	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	1	1	1	1	1	1	52	0	52
Orthophosphate (as P)	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0033	<0.0030	<0.0030	0.0015	0.0033	0.0015	0.0015	0.0015	0.0015	48	1	47
pH, lab	S.U.	7.98	7.90	7.88	8.07	7.94	7.93	7.93	7.74	7.66	7.48	7.46	8.27	7.83	7.89	7.73	7.53	52	52	0
Phaeophytin A	µg/L	0.84	1.24	0.70	1.47	1.17	1.31	1.26	0.19	0.15	0.36	0.15	1.48	0.9	0.87	1.2	1.45	23	23	0
Phosphorus, Total	mg/L	0.0156	0.0102	0.0128	0.0178	0.0147	0.0186	0.0146	0.0050	0.0070	0.0093	0.0005	0.0188	0.0088	0.0076	0.012	0.0174	45	44	1
Phosphorus, Total (Dissolved)	mg/L	0.0035	<0.0030	<0.0030	<0.0030	0.0045	0.0081	0.0110	<0.0030	<0.0030	<0.0030	0.0015	0.011	0.00264783	0.0015	0.003375	0.0073	46	13	33
Radium-226	Bq/L	-	-	-	-	-	-	-	-	-	-	0.005	0.005	0.005	0.005	0.005	0.005	8	0	8
Sulfate	mg/L	2.24	2.05	1.47	1.70	2.48	2.37	2.55	2.70	2.52	2.57	1.15	2.7	1.65	1.59	1.71	2.53	52	52	0
Total Dissolved Solids	mg/L	127	128	123	108	124	126	97	120	111	144	86	144	117.9	117.5	126	140.4	52	52	0
Total Kjeldahl Nitrogen	mg/L	0.79	0.44	0.50	0.51	0.41	0.42	0.43	0.32	0.36	0.38	0.32	2.45	0.78412	0.5585	0.7525	2.0705	48	48	0
Total Organic Carbon	mg/L	10.5	10.7	10.6	10.3	10.1	11.9	10.2	10.0	10.1	10.0	8.6	15.1	11.5827	11.65	12.2	14.69	52	52	0
Total Suspended Solids	mg/L	<2.0	7.0	2.5	7.7	<2.0	2.2	2.0	<2.0	<2.0	6.1	1	17	2	1	2	6.5	52	15	37
Turbidity, Lab	NTU	1.23	1.40	1.87	1.97	1.26	1.38	1.66	0.45	0.44	1.94	0.19	4.79	1.18	1.04	1.38	2.74	48	48	0
Metals, Dissolved																				
Aluminum	µg/L	2.1	2.3	2.1	<2	<2	<2	<2	<2	<2	<2	1	28.5	4.925	3.45	5.325	12.09	52	38	14
Antimony	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	0.5	0.10346	0.05	0.05	0.3	52	1	51
Arsenic	µg/L	4.5	4.59	4.58	3.12	3.04	3.1	3.15	2.51	2.24	2.03	1.85	8.16	3.15	2.92	3.76	4.56	52	52	0
Barium	µg/L	12.3	12.6	12.7	11.6	11.9	11.9	12.6	13.4	13.7	14.5	5	14.5	11.74	12.2	12.77	13.84	52	50	2
Beryllium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	0.5	0.15288	0.05	0.1	0.5	52	0	52
Bismuth	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.05	<0.05	<0.05	0.025	0.5	0.111538	0.025	0.025	0.5	52	0	52
Boron	µg/L	<10.0	<10.0	<10.0	<10	<10	<10	<10	<10	<10	<10	5	50	9.3	5	5	25	52	0	52
Cadmium	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.005	<0.005	<0.005	0.0025	0.026	0.0047577	0.0025	0.003125	0.01408	52	2	50
Calcium	mg/L	30.0	30.9	29.9	31.5	30.8	31.8	31.9	33.8	35.3	36.7	23.2	37.3	31.2	31	33.3	36.6	52	52	0
Cesium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	0.005	0.05	0.00814	0.005	0.005	0.0455	43	0	43
Chromium	µg/L	<0.10	<0.10	0.13	0.12	<0.10	0.57 XH	<0.10	<0.1	<0.1	0.14	0.05	5.64	0.59346	0.15	0.5	4.34	52	27	25
Chromium (Hexavalent)	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.5	5	1.5	0.5	0.5	5	48	0	48
Cobalt	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	0.5	0.09327	0.05	0.05	0.25	52	0	52
Copper	µg/L	0.31	0.36	0.34	4.74 XH	0.33	0.29	0.28	0.42	0.36	0.31	0.28	4.74	0.55385	0.405	0.5	0.868	52	42	10
Iron	µg/L	31	35	61	11	12	13	10	<10	13	46	5	617	51.4	26.5	51.2	110.8	52	48	4
Lead	µg/L	<0.050	<0.050	<0.050	0.21 XH	<0.050	<0.050	<0.050	<0.05	<0.05	<0.05	0.025	0.5	0.115885	0.025	0.025	0.5	52	2	50
Lithium	µg/L	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	0.5	25	4.99038	0.5	1	25	52	0	52
Magnesium	mg/L	5.87	6.09	5.73	6.23	6.09	6.23	6.53	6.58	6.74	7.07	4.59	7.07	5.82	5.8	6.23	6.79	52	52	0
Manganese	µg/L	0.33	0.34	4.51	0.58	0.58	0.68	0.61	0.5	0.66	24	0.27	202	11.6819	1.375	2.6575	48.34	52	48	4
Mercury	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.005	<0.005	<0.005	0.0025	0.259	0.013377	0.0025	0.005	0.0379	52	4	48
Molybdenum	µg/L	0.141	0.151	0.162	0.143	0.151	0.167	0.158	0.229	0.166	0.177	0.089	0.5	0.210558	0.1515	0.1755	0.5	52	42	10
Nickel	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	0.25	2.5	0.42442	0.25	0.25	1	52	2	50
Phosphorus	µg/L	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50	<50	<50	1.5	250	34.5	25	25	125	45	0	45
Potassium	mg/L	0.663	0.627	0.663	0.620	0.625	0.621	0.654	0.702	0.698	0.724	0.57	0.801	0.658	0.646	0.68	0.774	52	52	0

Sample Location																				
Sample Date		22-Sep-16	22-Sep-16	22-Sep-16	31-Oct-16	31-Oct-16	31-Oct-16	31-Oct-16	13-Feb-17	13-Feb-17	13-Feb-17									
Sample ID		19B	19C	19D	19A	19B	19C	19D	19-0M	19-4M	19-8M									
Sampling Company		GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM									
Laboratory		ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM	ALS-EDM									
Laboratory Work Order		L1833630	L1833630	L1833630	L1851841	L1851841	L1851841	L1851841	L1890236	L1890236	L1890236									
Laboratory Sample ID	Units	L1833630-2	L1833630-3	L1833630-4	L1851841-1	L1851841-2	L1851841-3	L1851841-4	L1890236-1	L1890236-2	L1890236-3	Minimum	Maximum	Mean	Median	75th	95th	Count	Detect	ND
Rubidium	µg/L	1.45	1.49	1.48	1.42	1.34	1.36	1.41	1.41	1.48	1.62	1	1.67	1.39419	1.41	1.48	1.609	43	42	1
Selenium	µg/L	0.066	0.065	0.072	0.064	0.092	0.073	0.077	0.091	0.076	0.072	0.025	0.5	0.141423	0.068	0.07825	0.5	52	36	16
Silicon	µg/L	2,160	2,290	2,270	1,860	1,840	1,850	1,840	1,950	2,160	2,680	1330	3190	2005.3	1930	2215	2835	43	43	0
Silver	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	0.005	0.05	0.013654	0.005	0.005	0.05	52	0	52
Sodium	mg/L	0.682	0.676	0.661	0.698	0.690	0.696	0.730	0.815	0.789	0.789	0.48	1.56	0.746231	0.6935	0.76625	1.2615	52	52	0
Strontium	µg/L	27.6	29.4	28.1	29.7	29.4	29.3	29.9	31.5	33	34.3	22.1	35.7	29.1	29.2	30.9	33.4	52	52	0
Sulfur	µg/L	<500	<500	540	<500	<500	<500	<500	730	640	<500	250	2500	495.4	540	590	680	41	23	18
Tellurium	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	0.1	1	0.19423	0.1	0.1	0.5	52	0	52
Thallium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	0.005	0.15	0.031731	0.005	0.005	0.15	52	0	52
Thorium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	0.5	0.06098	0.05	0.05	0.05	41	0	41
Tin	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	0.5	0.13654	0.05	0.05	0.5	52	0	52
Titanium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.3	<0.3	<0.3	0.15	1.5	0.32308	0.15	0.15	1	52	0	52
Tungsten	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	5	0.9518	0.05	0.05	5	50	1	49
Uranium	µg/L	0.138	0.132	0.137	0.153	0.15	0.154	0.15	0.157	0.16	0.16	0.082	2.5	0.541	0.138	0.153	2.5	52	43	9
Vanadium	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	0.25	2.5	0.33904	0.25	0.25	0.5	52	2	50
Zinc	µg/L	<1.0	<1.0	1.1	3	<1	<1	<1	2.8	<1	1.4	0.5	8.8	2.05769	1.45	2.525	6.335	52	30	22
Zirconium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.3	<0.3	<0.3	0.15	2.5	0.32692	0.15	0.15	0.95	52	0	52
Metals, Total																				
Aluminum	µg/L	7.7	7.7	9.8	7.8	8.2	9.2	9.1	5.4	3.8	13.2	3.7	31.3	10.2	9.2	11.5	21.9	52	52	0
Antimony	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	0.3	0.09	0.05	0.05	0.3	52	0	52
Arsenic	µg/L	4.86	4.87	5.23	3.52	3.6	3.68	3.9	2.66	2.33	2.59	1.9	9.89	3.38	2.93	4.08	4.86	52	52	0
Barium	µg/L	12.4	12.4	16.7	12.2	12.1	12.3	12.6	13	13.4	15	5	16.7	12.08	12.15	13	14.5	52	51	1
Beryllium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	0.5	0.14	0.05	0.05	0.5	52	0	52
Bismuth	µg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.05	<0.05	<0.05	0.025	0.5	0.112	0.025	0.025	0.5	52	2	50
Boron	µg/L	<10.0	<10.0	<10.0	<10	<10	<10	<10	<10	<10	<10	5	25	8.5	5	5	25	52	0	52
Cadmium	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.005	<0.005	<0.005	0.0025	0.0191	0.0041	0.0025	0.0031	0.0085	52	2	50
Calcium	mg/L	29.0	29.3	29.1	31.7	32.6	30.6	31.8	33.5	34.2	37.3	21.9	37.3	30.7	30.9	32.6	36.5	52	52	0
Cesium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	0.005	0.05	0.007	0.005	0.005	0.011	43	3	40
Chromium	µg/L	<0.10	0.11	<0.10	<0.10	0.11	0.11	0.12	<0.1	0.12	0.16	0.05	4.8	0.28	0.14	0.24	0.5	52	37	15
Chromium (Trivalent)	µg/L	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	0.5	4.8	0.6	0.5	0.5	0.5	47	1	46
Cobalt	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	0.25	0.08	0.05	0.05	0.25	52	0	52
Copper	µg/L	<0.50	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	0.8	0.25	2	0.44	0.5	0.52	0.78	52	20	32
Iron	µg/L	133	140	213	89	91	88	94	31	35	172	16	886	115.9	77.5	133.8	298.8	52	52	0
Lead	µg/L	<0.050	0.052	<0.050	<0.050	0.065	<0.050	0.081	<0.05	<0.05	0.064	0.025	1.2	0.133	0.025	0.082	0.5	52	14	38
Lithium	µg/L	<1.0	<1.0	<1.0	<1	<1	<1	<1	<1	<1	<1	0.5	25	4.8	0.5	0.5	25	52	1	51
Magnesium	mg/L	5.62	5.60	5.70	5.76	5.80	5.93	6.08	6.47	6.38	7.05	4.26	7.05	5.75	5.7	6.18	6.76	52	52	0
Manganese	µg/L	26.8	28	42.3	12.2	12.2	12.8	13.4	3.33	5.12	65.1	0.31	228	24.65	13.3	26.88	93.4	52	52	0
Mercury	µg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.005	<0.005	<0.005	0.0025	1.36	0.037031	0.0025	0.005	0.111705	52	4	48
Molybdenum	µg/L	0.155	0.166	0.153	0.164	0.172	0.183	0.176	0.199	0.192	0.211	0.075	0.5	0.213	0.158	0.178	0.5	52	43	9
Nickel	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	0.25	2.6	0.41	0.25	0.25	1	52	3	49
Phosphorus	µg/L	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50	<50	<50	25	150	30.8	25	25	25	43	0	43
Potassium	mg/L	0.597	0.619	0.613	0.627	0.627	0.640	0.656	0.708	0.672	0.729	0.555	0.757	0.657	0.648	0.7	0.742	52	52	0
Rubidium	µg/L	1.4	1.41	1.48	1.29	1.36	1.43	1.5	1.44	1.47	1.52	1.13	1.65	1.42	1.43	1.49	1.56	43	43	0
Selenium	µg/L	0.064	0.072	0.062	0.062	0.073	0.083	0.08	0.081	0.082	0.051	0.05	0.5	0.144	0.072	0.083	0.5	52	41	11
Silicon	µg/L	2,040	2,110	2,270	1,910	1,910	1,810	1,830	1,930	2,080	2,660	1300	3240	2020.2	1910	2300	2867	43	43	0
Silver	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	0.005	0.05	0.013	0.005	0.005	0.05	52	0	52
Sodium	mg/L	0.658	0.667	0.674	0.691	0.687	0.696	0.708	0.856	0.821	0.838	0.55	0.868	0.69135	0.6715	0.74275	0.84665	52	52	0
Strontium	µg/L	29.3	29.4	30.3	29.8	30.6	30.6	32.7	34	33.5	36.3	20.9	36.3	29.4	29.6	31.1	34.8	52	52	0
Sulfur	µg/L	<500	<500	<500	530	<500	<500	550	750	570	590	250	770	439.3	250	640	760	41	20	21
Tellurium	µg/L	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	0.1	0.5	0.18	0.1	0.1	0.5	52	0	52
Thallium	µg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.01	<0.01	<0.01	0.005	0.15	0.031	0.005	0.005	0.15	52	1	51
Thorium	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	0.05	0.05	0.05	0.05	0.05	41	0	41
Tin	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	1.1	0.14	0.05	0.05	0.5	52	2	50
Titanium	µg/L	<0.30	<0.30	0.32	<0.30	<0.30	<0.30	<0.30	<0.3	<0.3	0.45	0.15	1	0.37	0.15	0.46	1	52	11	41
Tungsten	µg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.1	<0.1	<0.1	0.05	5	0.94	0.05	0.05	5	50	0	50
Uranium	µg/L	0.148	0.156	0.149	0.166	0.172	0.165	0.172	0.172	0.168	0.178	0.08	2.5	0.548	0.146	0.169	2.5	52	43	9
Vanadium	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.5	<0.5	<0.5	0.25	0.82	0.34	0.25	0.5	0.56	52	7	45
Zinc	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	3.8	<3	3.7	1.5	5.6	1.8	1.5	1.5	3.7	52	5	47
Zirconium	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	0.39	<0.3	<0.3	0.15	2.5	0.31	0.15	0.15	0.5	52	1	51

Table A5
Summary of Groundwater Analytical Results
GFC Diversion Temporary Bypass
Greenstone Gold Mine LP Inc

Sample Location			TBBH4		TBBH5		TBBH8		TBBH12		TBBH14	
Sample Date			12-Dec-23	9-Jan-24	12-Dec-23	9-Jan-24	14-Dec-23	9-Jan-24	14-Dec-23	9-Jan-24	13-Dec-23	9-Jan-24
Sample ID			TBBH4	TBBH-4	TBBH5	TBBH-5	TBBH8	TBBH-8	TBBH12	TBBH-12	TBBH14	TBBH-14
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	BV	BV	BV	BV	BV	BV	BV	BV
Laboratory Work Order			C3BJ185	C409388	C3BJ182	C409388	C3BJ501	C409388	C3BJ501	C409388	C3BJ440	C409388
Laboratory Sample ID	Units	PWQO	XXG947	YBX197	XXG939	YBX196	XXJ237	YBX198	XXJ238	YBX195	XXI752	YBX194
Field Parameters												
pH, Field	S.U.	6.5-8.5[A]	6.73	7.23	7.31	7.07	6.64	6.54	7.74	7.58	-	7.64
Temperature, Field	deg C	30_{s6}[A]	2.1	2.2	2.9	3.5	4.2	1.4	8.0	0.1	-	3.1
General Chemistry												
Acidity	mg/L	n/v	22	16	16	9.0	59	140	<5.0	<5.0	10	6.4
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	390	420	270	260	680	1,200	140	170	220	240
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	2.1	2.3	1.5	1.3	1.5	1.8	1.0	1.1	1.6	1.8
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total (as CaCO3)	mg/L	$_{s16}$[A]	390	420	270	260	680	1,200	150	170	220	240
Ammonia (as N)	mg/L	n/v	0.62	0.54	0.20	0.20	<0.050	0.088	<0.050	<0.050	<0.050	<0.050
Chloride	mg/L	n/v	3.6	<1.0	4.1	<1.0	4.5	7.4	<1.0	<1.0	16	22
Cyanide (Free)	µg/L	5[A]	<2.0 ICB	<2.0 ICB	<2.0 ICB	<2.0 ICB	<2.0 ICB	<2.0 ICB	<2.0 ICB	<2.0 ICB	<2.0 ICB	<2.0 ICB
Cyanide (Strong Acid Dissociable)	mg/L	n/v	<0.00050	<0.00050	<0.00050	0.00067	<0.00050	0.00073	<0.00050	<0.00050	0.00060	<0.00050
Electrical Conductivity, Lab	µS/cm	n/v	702	694.268	472	457	1,430	2,520	285	303	477	487
Fluoride	mg/L	n/v	0.24	0.12	<0.10	<0.10	0.10	0.11	0.28	<0.10	<0.10	0.13
Hardness (as CaCO3)	mg/L	n/v	380	370	260	250	800	1,600	200	210	250	240
Nitrate (as N)	mg/L	n/v	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.28	0.29	<0.10	<0.10
Nitrate + Nitrite (as N)	mg/L	n/v	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.28	0.29	<0.10	<0.10
Nitrite (as N)	mg/L	n/v	<0.010	<0.010	0.011	<0.010	<0.010	0.012	<0.010	<0.010	<0.010	<0.010
pH, lab	S.U.	6.5-8.5[A]	7.76	7.77	7.77	7.74	7.38	7.19	7.87	7.83	7.89	7.90
Phosphorus, Total	mg/L	0.03_{s4}[C]	**1.4 DB[C]**	**0.38[C]**	**1.5 DB[C]**	**1.0 DB[C]**	**0.38[C]**	**0.45 DB[C]**	**1.2[C]**	**0.11[C]**	**0.065[C]**	**0.39[C]**
Sulfate	mg/L	n/v	1.3	1.6	1.8	4.1	2.8	3.7	3.3	3.4	1.8	2.7
Total Dissolved Solids	mg/L	n/v	400	480	300	325	1,250	2,910	190	470	210	265
Total Kjeldahl Nitrogen	mg/L	n/v	1.2	1.4	1.4	1.1	0.79	2.3	0.51	<0.50 DB	0.21	0.12
Total Suspended Solids	mg/L	n/v	4,100	5,500	73,000	25,000	210,000	240,000	150,000	66,000	180	1,700
Turbidity, Lab	NTU	n/v	120	180	190	1,000	15	87	24	140	8.7	41
Metals, Dissolved												
Aluminum	µg/L	n/v	5.6	3.3	56.8	76	10.8	26	12.6	7.3	3.6	3.4
Antimony	µg/L	20[C]	<0.5	0.4	<0.5	0.2	<0.5	<1	<0.5	<0.1	0.1	<0.1
Arsenic	µg/L	100[A] 5[C]	**8.2[C]**	2.8	**5.3[C]**	**9.2[C]**	**15.6[C]**	**31[C]**	0.8	0.7	0.7	0.7
Barium	µg/L	n/v	52	45.1	12	12.3	77	218	8	7.2	8.8	9.5
Beryllium	µg/L	$1,100_{s3}$[A]	<0.25	<0.05	<0.25	<0.05	<0.25	<0.5	<0.25	<0.05	<0.05	<0.05
Bismuth	µg/L	n/v	<0.5	<0.1	<0.5	<0.1	<0.5	<1	<0.5	<0.1	<0.1	<0.1
Boron	µg/L	200_a[C]	9	9	8	6	22	30	8	7	10	10
Cadmium	µg/L	0.2[A] 0.5_{s12}[C]	<0.05	<0.01	<0.05	<0.01	<0.05	<0.1	<0.05	<0.01	0.01	<0.01
Calcium	mg/L	n/v	115	106	85.6	77.8	244	477	63.6	63.7	73.6	69.6
Cesium	µg/L	n/v	<0.1	<0.02	<0.1	<0.02	<0.1	<0.2	<0.1	<0.02	<0.02	<0.02
Chromium	µg/L	n/v	<2.5	0.7	<2.5	0.9	<2.5	<5	<2.5	<0.5	<0.5	<0.5
Cobalt	µg/L	0.9[C]	<0.25	0.17	<0.25	0.15	**7.56[C]**	**16.5[C]**	0.29	0.09	0.38	0.43
Copper	µg/L	5[A] 5_{s13}[C]	<0.5	0.4	<0.5	0.3	1.4	**6[AC]**	1.6	0.6	2.1	**5.1[AC]**
Iron	µg/L	300[A]	**3,120[A]**	**1,020[A]**	**989[A]**	**1,710[A]**	**5,820[A]**	**25,900[A]**	<25	12	<5	<5
Lead	µg/L	25_{s14}[A] 5_{s15}[C]	<0.25	<0.05	<0.25	0.07	<0.25	<0.5	<0.25	<0.05	<0.05	<0.05
Lithium	µg/L	n/v	3.5	3.4	<2.5	0.8	<2.5	<5	<2.5	0.6	0.7	0.8
Magnesium	mg/L	n/v	22.7	25.6	12.2	13.2	47.6	104	10.8	11.5	16.4	16.4
Manganese	µg/L	n/v	114	118	185	202	1,670	3,170	31	5.7	40.7	70.9
Mercury	µg/L	0.2[A]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.10	<0.01	<0.01	<0.01	<0.01
Molybdenum	µg/L	40[C]	3.49	2.34	1.04	0.49	1.9	3.2	0.27	0.07	1	0.88
Nickel	µg/L	25[A]	0.7	0.7	0.7	0.9	4.6	9	0.8	0.3	0.8	1.3
Phosphorus	µg/L	30_{s4}[C]	<25	6	<25	11	<25	**60[C]**	<25	<5	<5	<5
Potassium	mg/L	n/v	1.0	1.14	0.4	0.36	1.3	1.6	1.0	0.76	1.19	1.18
Rubidium	µg/L	n/v	2.2	2.41	1.4	1.15	0.8	0.8	1.9	0.98	0.48	0.41
Selenium	µg/L	100[A]	<1	<0.2	<1	<0.2	<1	<2	<1	<0.2	<0.2	<0.2
Silicon	µg/L	n/v	8,800	7,930	4,080	4,570	9,170	11,400	4,170	4,580	5,290	4,830
Silver	µg/L	0.1[A]	<0.05	<0.01	<0.05	<0.01	<0.05	<0.1	<0.05	<0.01	<0.01	<0.01
Sodium	mg/L	n/v	6.88	5.97	1.02	0.86	34.1	111	1.61	1.50	2.62	3.85
Strontium	µg/L	n/v	127	132	89.1	90	302	602	56.9	58.5	62.5	67.4
Sulfur	µg/L	n/v	800	600	<500	<500	1,200	3,200	1,100	1,000	500	600
Tellurium	µg/L	n/v	<0.5	<0.1	<0.5	<0.1	<0.5	<1	<0.5	<0.1	<0.1	<0.1
Thallium	µg/L	0.3_b[C]	<0.025	<0.005	<0.025	<0.005	<0.025	<0.05	<0.025	0.01	0.013	0.019
Thorium	µg/L	n/v	<1	<0.2	<1	<0.2	<1	<2	<1	<0.2	-	<0.2
Tin	µg/L	n/v	<0.5	0.1	<0.5	<0.1	<0.5	<1	<0.5	<0.1	0.2	0.1
Titanium	µg/L	n/v	<2.5	1	<2.5	2.3	<2.5	<5	<2.5	0.6	<0.5	<0.5
Tungsten	µg/L	30_a[C]	<0.5	<0.1	<0.5	<0.1	<0.5	<1	<0.5	<0.1	<0.1	<0.1
Uranium	µg/L	5_a[C]	2.4	1.78	<0.05	0.05	2.75	**9.6[C]**	0.19	0.15	0.17	0.18
Vanadium	µg/L	6[C]	2.06	1.14	1.3	1.61	1.24	2.4	0.27	0.28	0.27	0.27
Zinc	µg/L	30[A] 20[C]	**977[AC]**	**11,700[AC]**	4.3	**77.1[AC]**	4.1	8	<2.5	1.6	**209[AC]**	**1,070[AC]**
Zirconium	µg/L	4_a[C]	3.6	3	0.7	1.1	3.1	**6[C]**	<0.5	<0.1	0.1	0.1
Metals, Total												
Aluminum	µg/L	n/v	3,710	58,000	5,000	130,000	1,120	-	4,310	42,000	359	3,300
Antimony	µg/L	20[C]	<0.5	<5.0	<0.5	15	<0.5	-	<0.5	<5.0	<0.5	<0.50
Arsenic	µg/L	100[A] 5[C]	**12.8[C]**	**59[C]**	**11.6[C]**	**120[AC]**	**10.7[C]**	-	**10.4[C]**	**120[AC]**	4.6	**43[C]**
Barium	µg/L	n/v	95	420	106	500	193	-	81	350	13	28
Beryllium	µg/L	$1,100_{s3}$[A]	0.34	<4.0	0.61	4.6	<0.25	-	0.38	<4.0	<0.25	<0.40
Bismuth	µg/L	n/v	<0.5	<10	<0.5	<10	<0.5	-	<0.5	<10	<0.5	<1.0
Boron	µg/L	200_a[C]	33	130	53	**230[C]**	23	-	37	<100	11	14
Cadmium	µg/L	0.2[A] 0.5_{s12}[C]	**0.216[A]**	**1.1[AC]**	**0.55[AC]**	**6.6[AC]**	0.094	-	**0.455[A]**	**2.4[AC]**	0.044	<0.090
Calcium	mg/L	n/v	581	2,000	1,230	3,600	352	-	600	1,800	101	140
Cesium	µg/L	n/v	0.3	5.6	0.2	19	<0.1	-	0.2	4.4	<0.1	0.33
Chromium	µg/L	n/v	13.4	180	20.3	820	3.2	-	12.5	120	<2.5	10
Cobalt	µg/L	0.9[C]	**5.36[C]**	**46[C]**	**14.2[C]**	**190[C]**	**7.94[C]**	-	**38.5[C]**	**140[C]**	**1.99[C]**	**5.7[C]**
Copper	µg/L	5[A] 5_{s13}[C]	**19.4[AC]**	**150[AC]**	**18.9[AC]**	**990[AC]**	**9.3[AC]**	-	**49.4[AC]**	**270[AC]**	4.8	**17[AC]**
Iron	µg/L	300[A]	**13,000[A]**	**100,000[A]**	**13,300[A]**	**260,000[A]**	**3,380[A]**	-	**7,170[A]**	**86,000[A]**	**795[A]**	**6,700[A]**
Lead	µg/L	25_{s14}[A] 5_{s15}[C]	**8.7[C]**	**48[AC]**	**13.6[C]**	**150[AC]**	2.86	-	**13.1[C]**	**57[AC]**	1.13	4.3
Lithium	µg/L	n/v	11	100	8.6	260	3.6	-	7.3	60	<2.5	5.8
Magnesium	mg/L	n/v	142	540	129	560	74.0	-	155	250	20.7	34
Manganese	µg/L	n/v	794	3,300	911	4,400	1,890	-	1,690	5,600	95	260
Mercury	µg/L	0.2[A]	<0.1	***<1.5***	***<1.5***	***<1.5***	<0.1	***<1.5***	<0.1	***<1.5***	<0.01	<0.1
Molybdenum	µg/L	40[C]	1.76	<5.0	0.95	11	0.88	-	<0.25	<5.0	0.63	1.1
Nickel	µg/L	25[A]	10.7	**110[A]**	20.9	**430[A]**	7	-	**34[A]**	**200[A]**	2.3	9.0
Phosphorus	µg/L	30_{s4}[C]	**1,420[C]**	-	**708[C]**	-	**325[C]**	-	**1,660[C]**	-	**53[C]**	-
Potassium	µg/L	n/v	-	14	-	17	-	-	-	9.1	-	1.7
Potassium	mg/L	n/v	1.7	-	1.2	-	1.3	-	1.4	-	1.1	-
Rubidium	µg/L	n/v	7.4	96	8.1	180	1.7	-	4.7	63	0.8	4.8
Selenium	µg/L	100[A]	<0.25	<20	<0.25	<20	<0.25	-	<0.25	<20	<0.25	<2.0
Silicon	µg/L	n/v	14,900	97,000	7,360	200,000	9,310	-	8,780	68,000	5,410	10,000
Silver	µg/L	0.1[A]	<0.05	***<0.90***	<0.05	**4.1[A]**	<0.05	-	<0.05	***<0.90***	<0.05	<0.090
Sodium	µg/L	n/v	-	10	-	3.9	-	-	-	4.1	-	3.7
Sodium	mg/L	n/v	7.98	-	1.43	-	33.1	-	2.05	-	2.69	-
Strontium	µg/L	n/v	369	1,200	820	2,300	341	-	329	1,100	72.1	110
Sulfur	µg/L	n/v	1,700	<5,000	5,300	13,000	1,600	21,000	1,600	<5,000	700	600
Tellurium	µg/L	n/v	<0.5	<10	<0.5	<10	<0.5	-	<0.5	<10	<0.5	<1.0
Thallium	µg/L	0.3_b[C]	0.097	**1.1[C]**	0.07	**1.9[C]**	0.049	-	**0.323[C]**	**2.2[C]**	0.025	0.13
Thorium	µg/L	n/v	3	34	<1	25	<1	-	2	<20	-	2.3
Tin	µg/L	n/v	<0.5	<10	<0.5	<10	<0.5	-	1	<10	<0.5	<1.0
Titanium	µg/L	n/v	105	5,600	18.5	9,700	38.6	-	83.7	3,100	23.7	320
Tungsten	µg/L	30_a[C]	<0.5	<10	<0.5	<10	<0.5	-	<0.5	<10	<0.5	<1.0
Uranium	µg/L	5_a[C]	3.23	**11[C]**	0.76	**15[C]**	3.21	-	1.17	3.9	0.21	0.47
Vanadium	µg/L	6[C]	**16.4[C]**	**180[C]**	**20.3[C]**	**440[C]**	4.98	-	**14.6[C]**	**120[C]**	1.5	**10[C]**
Zinc	µg/L	30[A] 20[C]	**1,280[AC]**	**18,000[AC]**	**181[AC]**	**4,600[AC]**	19.2	-	**50.7[AC]**	**270[AC]**	**237[AC]**	**1,300[AC]**
Zirconium	µg/L	4_a[C]	**10.5[C]**	**55[C]**	3.7	**32[C]**	3.7	-	**5[C]**	**37[C]**	0.9	**4.4[C]**

See notes on last page

Table A5
Summary of Groundwater Analytical Results
GFC Diversion Temporary Bypass
Greenstone Gold Mine LP Inc

Notes:

PWQO	Provincial Water Quality Objectives of the Ministry of Environment and Energy (MOEE, 1999)
A	PWQO Table 2
B	PWQO Table 2 - Calculated
C	PWQO Table 2 - Interim
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
a	This Interim PWQO was set for emergency purposes based on the best information readily available. Employ due caution when applying this value.
b	This Interim PWQO is currently under development. The value is subject to change upon publication by MOE.
s3	The PWQO for beryllium is hardness dependent. If hardness <75 mg/L than PWQO is 0.011 mg/L. For hardness > 75 mg/L, PWQO is 1.1 mg/L.
s4	Applies to Phosphorus, total. PWQO is 0.03 mg/L for rivers and streams, 0.02 mg/L for lakes, and 0.01 mg/L for lakes naturally below this value.
s6	Temperature at the edge of a mixing zone shall not exceed natural ambient water temperature by more than 10 deg C. The maximum temperature of the receiving body of water shall not exceed 30 deg C. See PWQO pg 25.
s12	The interim PWQO for cadmium is hardness dependent. If hardness <100 mg/L than PWQO is 0.0001 mg/L. For hardness >100 mg/L, PWQO is 0.0005 mg/L.
s13	The interim PWQO for copper is hardness dependent. If hardness <20 mg/L than PWQO is 0.001 mg/L. For hardness >20 mg/L, PWQO is 0.005 mg/L.
s14	PWQO for lead is alkalinity dependent. For alkalinity <20 mg/L, PWQO is 0.005 mg/L. For alkalinity between 20-40 mg/L, PWQO is 0.01 mg/L. For alkalinity between 40-80 mg/L, PWQO is 0.02 mg/L. For alkalinity >80 mg/L, PWQO is 0.025 mg/L.
s15	Interim PWQO for lead is hardness dependent. For hardness <30 mg/L, interim PWQO is 0.001 mg/L. For hardness between 30-80 mg/L, interim PWQO is 0.003 mg/L. For hardness >80 mg/L, interim PWQO is 0.005 mg/L.
s16	Alkalinity should not be decreased by more than 25% of the natural concentration.
DB	Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
ICB	Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

ATTACHMENT B:
Borehole Logs

Log of Borehole: BH2

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: Nov. 14, 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface		No Monitoring Well Installed										
0		**Organics** Snow covered organics	0.00		SS	1	30	11			68.3			
1		**Silt** Brown silty sand, compact, damp/frozen	1.07		SS	2	90	27			17.4			
2		**Silt, Some Sand** Silt, some sand, brown, very dense, damp			SS	3	80	64			17.1			
2		Pieces of rock	2.29		SS	4	70	95			16.0			
3					SS	5	60	98			15.3			
4														
5		Compact	4.57		SS	6	60	18			16.6			
6														
6		**Sand and Gravel** Brown sand and gravel, trace silt, compact, wet	6.10		SS	7	40	18			7.1			
7			6.71											
7		End of Borehole												
8		Borehole terminated at 6.7 mbgs. At drilling completion, gorundwater was encountered at 6.1 mbgs.												
9														
10														

Contractor: RPM Drilling **Grade Elevation:** 340.731 m

Drilling Method: Solid Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Northing:5500674.653
Easting: 499324.771

Log of Borehole: BH3

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Diversion Channel

Drill Date: November 15, 2023 **Project Manager:** J.B.

Depth (m)	Description	Elevation (m)	Sample Type	Sampler #	Recovery (%)	SPT N-Value
0	Ground Surface	346.00				
0	**Organics** ~ 50 mm, frozen	0.00	SS	1	10	6
1	**Silt** Silt, nil to trace sand, trace rootlets, compact to dense, damp		SS	2	70	27
2		343.71	SS	3	70	36
2	**Sandy Silt** Sandy silt, dense to compact, damp	2.29	SS	4	100	31
3			SS	5	80	23
4		341.43				
4	**Sand** Brown sand, some silt, trace gravel, compact, damp	4.57	SS	6	70	28
5		340.36				
5	End of Borehole	5.64				
6	Borehole terminated at 5.6 mbgs due to auger refusal on probable bedrock. At drilling completion, groundwater was not encountered.					
7						
8						
9						
10						

Monitoring Well Details: No Monitoring Well Installed

Standard Penetration N-Value: 20, 40, 60

Shear Strength: kPa, 100, 200

Water Content (%)

Sample ID

Soil Vapour Concentration (ppm)

Laboratory Analysis

Contractor: RPM Drilling

Grade Elevation: 346.00 m

Drilling Method: Hollow Stem Auger / Split Spoon

Top of Casing Elevation: N/A

Well Casing Size: N/A

Sheet: 1 of 1

Northing: 5500719.692
Easting: 499341.124

Log of Borehole: BH4

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Diversion Channel

Drill Date: November 14, 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20 40 60)	Shear Strength kPa (100 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	340.12											
		Organics Snow covered brown, organcis, very loose, moist / frozen	0.00		SS	1	20	1			776.1			
1		**Peat** Dark brown to black fibrous peat, very loose, wet	338.60		SS	2	30	0			342.0			
			1.52											
2		**Silt** Grey silt, trace to some sand, trace organics, very loose, wet	337.83	Riser	SS	3	20	0			27.2			
			2.29											
		No organics, trace clay, loose to compact			SS	4	50	10			20.9			
3				Bentonite	SS	5	50	14			17.5			hydr.
4			335.55											
		Trace to some clay	4.57	Silica Sand	SS	6	40	11			26.7			
5				Screen										
6				Groundwater level = 1.4 mbgs, as measured on November 18, 2023.	SS	7	50	13			22.2			
7			332.50											
		Clayey Silt Clayey silt, browish grey, WTPL, firm	7.62		SS	8	50	16			22.5			
8														
9					SS	9	50	12			18.9			
			330.37											
10		End of Borehole	9.75											
		Borehole terminated at 9.8 mbgs.												

Contractor: RPM Drilling

Grade Elevation: 340.12 m

Drilling Method: Hollow Stem Auger / Split Spoon

Top of Casing Elevation: 341.21 m

Well Casing Size: 35 mm

Sheet: 1 of 1

Northing: 5500748.171
Easting: 499440.718

Log of Borehole: BH5

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

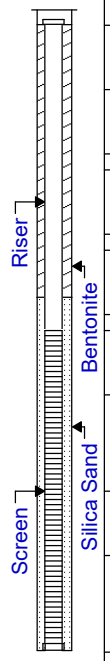
Client: Matrix Solutions Inc.

Location: Goldfield Creek Diversion Channel

Drill Date: November 15, 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Description	Elevation (m)	Sample Type	Sampler #	Recovery (%)	SPT N-Value
0	Ground Surface	340.34				
	Organics Fallen trees, auger to 0.8 mbgs to take first spoon	0.00 / 339.58	AS	1	100	
1	**Silty Sand** Brown silty sand, loose, wet	0.76 / 338.82	SS	2	80	8
	Sand and Gravel Brown sand and gravel Trace silt, trace organics / pieces of wood, loose, wet; soils flowing into augers	1.52	SS	3	10	8
2			SS	4	5	6
3	Very loose	337.29 / 3.05	SS	5	10	1
4						
	No organics or pieces of wood, compact	335.77 / 4.57	SS	6	20	5
5						
6			SS	7	80	16
7						
8		332.14	SS	8	50	15
	Unsampled 8.2 - 19.5 mbgs	8.20	DCPT	9		25
			DCPT	10		20
9			DCPT	11		20
			DCPT	12		32
			DCPT	13		25
10			DCPT	14		23
			DCPT	15		15
			DCPT	16		17



Groundwater level = 1.3 mbgs, as measured on Nov. 18, 2023.

Standard Penetration N-Value: 20 40 60

Shear Strength △ kPa △: 100 200

Water Content (%) | Sample ID | Soil Vapour Concentration (ppm) | Laboratory Analysis

Contractor: RPM Drilling **Grade Elevation:** 340.34 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 2

Northing: 5500724.312
Easting: 499586.898

Log of Borehole: BH5

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Diversion Channel

Drill Date: November 15, 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE					SAMPLE									
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20 40 60)	Shear Strength kPa (100 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
11					DCPT	17		20						
					DCPT	18		22						
					DCPT	19		30						
					DCPT	20		22						
12					DCPT	21		15						
					DCPT	22		22						
					DCPT	23		22						
13					DCPT	24		20						
					DCPT	25		16						
					DCPT	26		24						
14					DCPT	27		26						
					DCPT	28		22						
					DCPT	29		21						
					DCPT	30		26						
15					DCPT	31		24						
					DCPT	32		21						
					DCPT	33		22						
16					DCPT	34		22						
					DCPT	35		23						
					DCPT	36		20						
17					DCPT	37		23						
					DCPT	38		24						
					DCPT	39		24						
					DCPT	40		22						
18					DCPT	41		22						
					DCPT	42		24						
					DCPT	43		32						
19					DCPT	44		28						
					DCPT	45		15						
			320.53											
20		End of Borehole	19.81											
		Borehole terminated at 19.5 mbgs upon DCPT refusal on probable bedrock.												
21														

Contractor: RPM Drilling **Grade Elevation:** 340.34 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 2 of 2

Northing: 5500724.312
Easting: 499586.898

Log of Borehole: BH6

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 16th, Nov. 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	340.30											
		Organics ~ top 76 mm	0.00		AS	1	100				10.8			
			339.54											
1		**Silty Sand and Gravel** Brown silty sand and gravel, damp to moist	0.76		SS	2	30	12			14.3			
2		**Sand and Gravel** Brown sand and gravel, trace to some some silt, compact, wet		No Monitoring Well Installed	SS	3	30	22			9.7			
					SS	4	70	16			11.2			
3					SS	5	100				29.2			
4			335.73											
		Dynamic Cone Penetration Test 4.6 - 5.0 mbgs	4.57		DCPT	6		18						
5			335.27			7		14						
			5.03											
6		End of Borehole												
		Borehole terminated at 5.0 mbgs upon DCPT refusal on probable bedrock. At drilling competion, groundwater was encountered at 0.8 mbgs.												
7														
8														
9														
10														

Contractor: RPM Drilling **Grade Elevation:** 340.3 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Northing: 5500801.038
Easting: 499642.427

Log of Borehole: BH7

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 15th, Nov. 2023 **Project Manager:** J.B.

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
		SUBSURFACE PROFILE			**SAMPLE**									
0		Ground Surface	340.42	No Monitoring Well Installed										
		Organics Brown organics, some silt, some gravel, wood pieces, damp	0.00 / 339.66		AS	1	100							
1		***Sandy Silt*** Grey sandy silt, trace to some gravel, compact, moist	0.76 / 338.90		SS	2	70	20						
2		***Sand*** Brown sand, some gravel, trace to some silt, compact, wet	1.52 / 337.37		SS	3	50	13						
					SS	4	100	18						
3		Silt inclusions	3.05 / 335.85		SS	5	50	23						
4														
5		***Silt*** Silt, some sand, compact, wet; trace clayey sit seass, WTPL	4.57 / 332.19		SS	6	50	17						
6					SS	7	50	15						
7														
8					SS	8	60	19						
		Unsampled 8.2 - 9.6 mbgs	8.23 / 330.82		SS	9		4						
9					SS	10		20						
					SS	11		17						
					SS	12		16						
						13		14						
10		End of Borehole Borehole terminated at 9.6 mbgs upon DCPT refusal on probable bedrock. At drilling completion, groundwater was at 1.5 mbgs.	9.60											

Contractor: RPM Drilling **Grade Elevation:** 340.42 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Northing: 5500801.954
Easting: 499721.264

Log of Borehole: BH8

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 16th, Nov. 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Description	Elevation (m)	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Water Content (%)	Laboratory Analysis
0	Ground Surface	340.86						
	Organics Snow covered organics	0.00 / 340.10	SS	1	50	21	33.1	
1	**Silt** Grey, silt, trace to some sand, trace gravel, compact, damp	0.76 / 339.34	SS	2	60	49	15.1	
	Dense, no gravel, trace organics Moist to wet	1.52 / 338.57	SS	3	80	40	15	
2	Grey sandy silt, compact, wet	2.29 / 337.81	SS	4	70	29	16.6	
3		3.05 / 337.05	SS	5	90	15	17.2	hydr.
	Silt flowing into augers	3.81 / 336.14	SS	6	40	R	16.3	
4	End of Borehole	4.72						
5	Borehole terminated at 4.7 mbgs upon auger refusal on probable bedrock. At drilling completion, groundwater was encountered at 0.8 mbgs.							
6								
7								
8								
9								
10								

Monitoring Well Details: Riser, Bentonite, Silica Sand, Screen

Standard Penetration N-Value: 20, 40, 60

Shear Strength: kPa, 100, 200

Sample ID

Soil Vapour Concentration (ppm)

Contractor: RPM Drilling **Grade Elevation:** 340.86 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Northing: 5500772.654
Easting: 499786.203

Log of Borehole: BH9

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 16th, Nov. 2023 **Project Manager:** J.B.

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
		SUBSURFACE PROFILE			**SAMPLE**									
0		Ground Surface	339.82											
		Sandy Silt Brown sandy silt, some organics, very loose, damp to moist	0.00		SS	1	30	1						
			339.06											
1		No organics, trace fine gravel, loose, wet	0.76		SS	2	80	8						
2			337.53		SS	3	70	7						
		Sand Grey sand, some silt, trace gravel, compact, wet	2.29		SS	4	60	15						
3			336.77											
		Sand and Gravel Brown sand and gravel, compact, wet	3.05		SS	5	30	15						
4			335.25											
		End of Borehole	4.57											
5		No access to water truck. Borehole terminated at 3.7 mbgs. At drilling completion, groundwater was encountered at 0.8 mbgs.												
6														
7														
8														
9														
10														

No Monitoring Well Installed

Contractor: RPM Drilling **Grade Elevation:** 339.82 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Northing: 5500779.091
Easting: 499965.949

Log of Borehole: BH9A

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 16th, Nov. 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE					SAMPLE									
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength △ kPa △ (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface												
		Unsampled 0.0 - 5.5 mbgs	0.00	No Monitoring Well Installed	DCPT	1	0	1						
1					DCPT	2		2						
					DCPT	3		6						
					DCPT	4		6						
2					DCPT	5		9						
					DCPT	6		10						
					DCPT	7		10						
3					DCPT	8		13						
					DCPT	9		10						
					DCPT	10		8						
4					DCPT	11		6						
					DCPT	12		7						
					DCPT	13		8						
					DCPT	14		10						
5					DCPT	15		11						
					DCPT	16		22						
					DCPT	17		43						
					DCPT	18		67						
6		End of Borehole Borehole terminated at 5.5 mbgs due to spoon refusal on probable bedrock.	5.49											
7														
8														
9														
10														

Contractor: RPM Drilling **Grade Elevation:** N/A

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH10

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 17th, Nov. 2023 **Project Manager:** J.B.

Depth (m)	Description	Elevation (m)
0	Ground Surface	339.85
	Organics ~ top 50 mm	0.00 / 339.09
1	**Sand** Brown sand (fine to coarse grained), loose, damp / frozen	0.76 / 338.33
	Brown sand, some silt, loose, moist	1.52 / 337.56
2	Wet Silt seams	2.29 / 336.80
3	**Sandy Silt to Silty Sand** Brown sandy silt to silty fine sand, compact, wet	3.05 / 335.28
4		
5	**Sand** Brown sand, trace to some silt, very loose, wet	4.57 / 333.75
6	Loose	6.10 / 332.23
7		
8	Compact	7.62 / 330.71
9	**Sandy Silt** Brown sandy silt to silty fine sand, compact, wet	9.14 / 329.18
10		
11	Brown sand, some silt, loose, wet	10.67 / 328.57
	End of Borehole	11.28
12	Borehole terminated at 11.3 mbgs. Groundwater was located at 1.5 mbgs.	

Monitoring Well Details: No Monitoring Well Installed

Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength (kPa) (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
SS	1	50	7			18.9			
SS	2	60	9			12.0			
SS	3	60	5			13.5			
SS	4	70	9			14.1			
SS	5	70	12			13.0			
SS	6	60	1			19.9			
SS	7	90	8			14.9			hydr.
SS	8	80	20			15.4			
SS	9	60	9			12.4			
SS	10	/	9			13.0			

Contractor: RPM Drilling **Grade Elevation:** 339.85 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Northing: 5500897.294
Easting: 500161.679

Log of Borehole: BH11

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 17th, Nov. 2023 **Project Manager:** J.B.

Depth (m)	Description	Elevation (m)
0	Ground Surface	341.99
	Organics ~ top 150 mm	0.00 / 341.23
1	**Silty Sand** Reddish-brown silty fine sand, very loose, damp	0.76 / 340.47
	Sand Brown sand, some silt, compact, damp	1.52 / 339.70
2	Trace gravel	2.29
	Sand and Gravel Brown, sand and gravel, trace silt, compact, damp	338.94
3	Moist	3.05 / 338.18
4		3.81 / 337.42
	Gravelly Sand to Sand and Gravel Brown, gravelly sand to sand and gravel, dense, wet	4.57 / 336.50
5	End of Borehole	5.49
6	Borehole terminated at 5.5 mbgs upon auger refusal on probable bedrock. At drilling completion groundwater was located at 4.6 mbgs.	
7		
8		
9		
10		

Monitoring Well Details: No Monitoring Well Installed

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	70	3
SS	2	60	11
SS	3	60	11
SS	4	70	25
SS	5	70	26
SS	6	10	31

Standard Penetration N-Value: 20, 40, 60

Shear Strength △ kPa △: 100, 200

Water Content (%)

Sample ID

Soil Vapour Concentration (ppm)

Laboratory Analysis

Contractor: RPM Drilling **Grade Elevation:** 341.99 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Northing: 5501061.002
Easting: 500365.014

Log of Borehole: BH12

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 17th, Nov. 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	340.51											
		Organics ~ top 50 mm	0.00		SS	1	80	6			12.2			
			339.75											
1		**Silty Sand** Brown to light grey silty sand, loose, damp	0.76		SS	2	100	12			10.3			
		Compact		Bentonite										
2				Riser	SS	3	90	10			15.5			
			338.22											
		Moist	2.29		SS	4	80	14			18.3			
3			337.46											
		Wet	3.05		SS	5	60	13			16.4			hydr.
4														
			335.94											
		Sand Brown sand, some gravel to gravelly, trace silt, compact, wet	4.57	Silica Sand	SS	6	50	16			10.2			
5			335.18	Screen										
		End of Borehole	5.33											
6		Borehole terminated at 5.3 mbgs upon auger refusal on probable bedrock. At drilling completion, groundwater was located at 3.6 mbgs.												
7														
8														
9														
10														

Contractor: RPM Drilling **Grade Elevation:** 340.51 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Northing: 5501188.655
Easting: 500514.986

Log of Borehole: BH13

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 17th, Nov. 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	336.41	No Monitoring Well Installed										
		Organics ~ top 75 mm	0.00		SS	1	30	1						
			335.65											
1		**Sandy Silt** Light grey sandy silt, very loose, damp	0.76		SS	2	80	11						
		Compact	334.89											
2		Moist	1.52		SS	3	70	18						
			334.12											
		Silt Light grey silt, trace sand and gravel, compact, wet	2.29		SS	4	60	12						
3			333.36											
		No gravel	3.05		SS	5	70	10						
4														
			331.84											
		Trace clayey silt seams, WTPL	4.57		SS	6	50	9						
5														
6					SS	7	70	2						
7														
			328.64											
8		End of Borehole	7.77											
		Borehole terminated at 7.8 mbgs upon auger refusal on probable bedrock. At drilling completion groundwater was located at 2.3 mbgs.												
9														
10														

Contractor: RPM Drilling **Grade Elevation:** 336.41 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Northing: 5501345.688
Easting: 500683.293

Log of Borehole: BH14

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 18th, Nov. 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength (kPa, 100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	335.51											
		Organics ~ top 75mm	0.00		SS	1	30	6			10.0			
			334.75											
1		**Silt** Light grey silt, trace to some sand, loose, damp	0.76		SS	2	80	22			14.6			
		Compact, moist												
2					SS	3	70	16			16.6			
			333.23											
		Grey, silt, dense, wet; silty sand lenses	2.29		SS	4	60	36			20.2			
3					SS	5	70	36			13.6			
4														
			330.94											
		Compact; sandy silt to silty sand lenses	4.57		SS	6	50	27			17.4			
5														
			329.42											
6		**Sand** Grey sand, trace silt, compact, wet	6.10		SS	7	70	25			19.8			
			328.81											
		Unsampled 6.7 - 9.6 mbgs	6.71											
7					AS	8	100				15.2			
					DCPT	9		30						
8					DCPT	10		38						
					DCPT	11		39						
					DCPT	12		43						
9					DCPT	13		50						
					DCPT	14		53						
			325.91			15		67						
		End of Borehole	9.60											
10		Borehole terminated at 9.6 mbgs upon auger refusal on probable bedrock. Groundwater was located at 2.8 mbgs.												

Riser

Bentonite

Silica Sand

Screen

Contractor: RPM Drilling **Grade Elevation:** 335.51 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Northing: 5501492.008
Easting: 500860.623

Log of Borehole: BH15

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 18th, Nov. 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	332.78	No Monitoring Well Installed										
		Organics ~ top 150 mm	0.00		SS	1	70	0						
			332.02											
1		**Silt** Brown silt, some sand, trace gravel, very loose, moist to wet	0.76		SS	2	80	16						
		No gravel, compact	331.26											
			1.52		SS	3	70	15						
2		**Sandy Silt to Silty Sand** Brown sandy silt to silty fine sand, compact, wet			SS	4	70	22						
3					SS	5	80	22						
4														
					SS	6	100	18						hydr.
5														
6					SS	7	60	17						
7														
					SS	8	80	11						
8			324.55											
		Unsampled 8.2 - 13 mbgs	8.23											
9														
10														

Contractor: RPM Drilling **Grade Elevation:** 332.78 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 2

Northing: 5501592.758
Easting: 500909.029

Log of Borehole: BH15

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: GFC By-Pass

Drill Date: 18th, Nov. 2023 **Project Manager:** J.B.

SUBSURFACE PROFILE					SAMPLE									
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value □ 20 40 60 □	Shear Strength △ kPa △ 100 200	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
11														
12														
13			319.78											
		End of Borehole	13.00											
14		Borehole terminated at 13.0 mbgs upon DCPT refusal on probable bedrock. Groundwater was located at 0.8 mbgs.												
15														
16														
17														
18														
19														
20														
21														

Contractor: RPM Drilling **Grade Elevation:** 332.78 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 2 of 2

Northing: 5501592.758
Easting: 500909.029

Log of Borehole: BH101

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 9, 2024 **Project Manager:** J.B.

Depth (m)	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value
0	Ground Surface	340.94					
	Organics ~ 50 mm	0.00		SS	1	100	-
	Silt Silt, some sand, brown, damp, loose to compact	340.18 0.76					
1	trace to some gravel, wet, compact			SS	2	60	22
	no gravel	339.42 1.52	Riser / Bentonite	SS	3	50	29
2	very dense, trace sand	338.66 2.29		SS	4	50	>50
3				SS	5	50	>50
	Silty Sand Silty sand, brownish red, compact	337.13 3.81	Screen / Silica Sand	SS	6	40	33
4	trace silt, reddish brown, wet, loose	336.37 4.57		SS	7	20	R
5	End of Borehole Borehole terminated at 4.72 mbgs upon spoon refusal on probable bedrock.		Groundwater level = 1.0 mbgs, as measured on January 18, 2024.				
6							
7							

Standard Penetration N-Value: 20 40 60

Shear Strength △ kPa △: 100 200

Water Content (%) | Sample ID | Soil Vapour Concentration (ppm) | Laboratory Analysis

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 340.94 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH102

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 11, 2024 **Project Manager:** J.B.

SUBSURFACE PROFILE					SAMPLE									
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value □ 20 40 60 □	Shear Strength △ kPa △ 100 200	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	340.88											
		Organics ~ 75 mm	0.00	No MW	SS	1	20	13	□					
		Silt and Organics Silt and organics, some sand, brown, damp, loose to compact	340.12 0.76											
1		End of Borehole												
		Borehole terminated at 0.76 mbgs upon spoon refusal on probable bedrock. At drilling completion, groundwater was not encountered.												
2														
3														
4														
5														
6														
7														

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 340.88 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH102-A

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 12, 2024 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength △ kPa △ (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	343.21											
		Organics ~ 450 mm	0.00											
			342.76											
		Silt Silt, trace sand, trace clay, brown, moist, compact	0.46											
1					SS	1	10	15						
			341.69											
		Wet	1.52											
2					SS	2	50	22						
			340.93											
		Very dense	2.29											
				No Monitoring Well Installed	SS	3	60	55						
3														
					SS	4	60	81						
			339.56											
		End of Borehole	3.66											
4														
		Borehole terminated at 3.66 mbgs upon spoon refusal on probable bedrock. At drilling completion, groundwater was encountered at 1.5 mbgs.												
5														
6														
7														

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 343.21 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH103

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 11, 2024 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength △ kPa △ (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	340.60											
		Organics ~ 50 mm	0.00											
		Sandy Silt Sandy Silt, trace clay, brown, damp, very loose to compact		No Monitoring Well Installed	SS	1	10	1						
1					SS	2	40	23						
		Wet	339.08 / 1.52		SS	3	50	21						
2														
					SS	4	50	15						
3		End of Borehole	337.71 / 2.90											
		Borehole terminated at 2.9 mbgs upon spoon refusal on probable bedrock. At drilling completion, groundwater was encountered at 1.5 mbgs.												
4														
5														
6														
7														

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 340.60 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH104

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 10, 2024 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	340.04											
		Organics ~ 50 mm	0.00		SS	1	10	1						
		Silt and Sand Silt and sand, trace clay, brown, moist, compact	339.28											
1		Wet	0.76		SS	2	60	12						
					SS	3	40	11						
2			337.75											
		Silt Silt, trace sand, trace clay, brown, wet, compact	2.29		SS	4	80	17						
3					SS	5	70	14						
			336.23											
4		Very loose to compact	3.81		SS	6	10	4						
					SS	7	80	17						
5														
6			333.79		SS	8	20	R						
		End of Borehole	6.25											
7		Borehole terminated at 6.2 mbgs upon spoon refusal on probable bedrock. Groundwater was encountered at 0.8 mbgs.												

No Monitoring Well Installed

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 340.04 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH105

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 11, 2024 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength △ kPa △ (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	339.55											
		Organics ~ 50 mm	0.00		SS	1	30	5						
		Sand Sand, trace gravel, trace silt, brown, frozen, loose	338.79											
1			0.76		SS	2	60	14						
		Wet, dense to loose												
2					SS	3	50	18						
					SS	4	50	35						
3					SS	5	50	17						
4														
					SS	6	50	20						
5														
6					SS	7	50	7						
7					SS	8	50	13						

Ice level = 0.1 mbgs, as measured on Jan 18, 2024 *Groundwater frozen*

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 339.55 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A

Log of Borehole: BH105

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 11, 2024 **Project Manager:** J.B.

SUBSURFACE PROFILE					SAMPLE									
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
			331.32			8		13						
		Dynamic Cone Pentration Test (DCPT) Unsampled Soil	8.23		DCPT	1	NA	19						
					DCPT	2	NA	34						
9					DCPT	3	NA	33						
					DCPT	4	NA	34						
					DCPT	5	NA	50						
10					DCPT	6	NA	70						
					DCPT	7	NA	39						
					DCPT	8	NA	32						
11					DCPT	9	NA	28						
					DCPT	10	NA	30						
					DCPT	11	NA	31						
					DCPT	12	NA	42						
12					DCPT	13	NA	39						
					DCPT	14	NA	30						
					DCPT	15	NA	34						
13					DCPT	16	NA	37						
					DCPT	17	NA	29						
					DCPT	18	NA	29						
14					DCPT	19	NA	45						
					DCPT	20	NA	25						
					DCPT	21	NA	29						
					DCPT	22	NA	34						
15					DCPT	23	NA	31						
			324.15		DCPT	24	NA	28						
		End of Borehole Borehole terminated at 15.4 mbgs, due to refusal on probable bedrock.	15.39											

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 339.55 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A

Log of Borehole: BH106

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 10, 2024 **Project Manager:** J.B.

Depth (m)	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value
0	Ground Surface	339.77	No Monitoring Well Installed				
	Organics ~ 50 mm	0.00		SS	1	5	0
1	**Sand** Sand, some silt, brown, wet, very loose			SS	2	10	0
		338.25					
	loose	1.52		SS	3	60	8
2		337.49					
	Silt Silt, trace sand, trace clay, grey, wet, compact	2.29		SS	4	60	11
3				SS	5	60	13
4							
5				SS	6	80	10
6		333.68					
	Silt and Sand Silt and sand, trace clay, brown, wet, compact	6.10		SS	7	90	14
7		332.15					
	Sand Sand, trace gravel, trace silt, brown, wet, compact	7.62		SS	8	100	13
8		331.54		DCPT	1	NA	8
	DCPT Unsampled	8.23		DCPT	2	NA	18
9		330.78		DCPT	3	NA	30
	End of Borehole	8.99					
10	Borehole terminated at 9.0 mbgs upon cone refusal on probable bedrock. Groundwater was encountered at 0.8 mbgs.						

Standard Penetration N-Value: 20, 40, 60

Shear Strength △ kPa △: 100, 200

Water Content (%) | Sample ID | Soil Vapour Concentration (ppm) | Laboratory Analysis

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 339.77 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH107

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 10, 2024 **Project Manager:** J.B.

SUBSURFACE PROFILE					SAMPLE									
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength △ kPa △ (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	341.42											
		Organics ~ 150 mm	0.00		SS	1	25	5						
		No sample recovered												
1					SS	2	0	0						
			339.90											
		Fill Organics, gravel, silt, brown, moist to wet, very loose	1.52		SS	3	5	2						
2					AS	4	100	NA						
			338.98		SS	5	0	7						
		End of Borehole	2.44											
3														
4		Borehole terminated at 2.44 mbgs upon spoon refusal on probable bedrock. At drilling completion, groundwater was encountered at 1.5 mbgs.												
5														
6														
7														

No Monitoring Well Installed

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 341.42 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH108

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 12, 2024 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength △ kPa △ (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	340.40											
		Organics ~ 50 mm	0.00		SS	1	10	1						
1		**No sample recovered**			SS	2	0	3						
			338.87											
		Silt Silt, trace sand, trace clay, grey, moist, compact	1.52		SS	3	40	20						
2			338.11											
		Silt and Sand Silt and sand, trace clay, brown, wet, compact	2.29	No Monitoring Well Installed	SS	4	40	20						
3					SS	5	50	15						
4														
5					SS	6	50	27						
6														
					SS	7	0	10						
7														
		End of Borehole	332.78											
8			7.62											
9														
10		Borehole terminated at 7.6 mbgs due to refusal on probable bedrock. At drilling completion, groundwater was encountered at 2.3 mbgs.												

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 340.40 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH109

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 15, 2024 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength (kPa) (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	338.35											
		Granular Fill Sand and gravel, trace silt, grey, frozen to damp, loose	0.00											
1					SS	1	10	6						
2					SS	2	10	3						
			336.22											
		Organics ~150 mm	2.13											
		Sandy Silt Sandy silt, grey, moist, compact			SS	3	50	16						
3			335.30											
		Wet	3.05		SS	4	60	13						
4														
			333.78											
		Silt Silt, trace sand, grey, wet, compact to loose	4.57		SS	5	75	18						
5														
6					SS	6	100	18						
7														
		Groundwater level = 3.2 mbgs, as measured on Jan 18, 2024.			SS	7	80	9						

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 338.35 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A

Log of Borehole: BH109

Project #: 333163 ***Logged By:*** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 15, 2024 ***Project Manager:*** J.B.

SUBSURFACE PROFILE					SAMPLE									
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength △ kPa △ (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
			330.12			7		9						
		Dynamic Cone Penetration Test (DCPT) Unsampled soil	8.23		DCPT	1	NA	12						
					DCPT	2	NA	22						
9					DCPT	3	NA	28						
					DCPT	4	NA	33						
			328.75		DCPT	5	NA	19						
		End of Borehole	9.60											
10														
		Borehole terminated at 9.6 mbgs, due to refusal on probable bedrock.												
11														
12														
13														
14														
15														

DRAFT

Contractor: RPM Drilling ***Grade Elevation:*** 338.35 m

Drilling Method: Hollow Stem Auger / Split Spoon ***Top of Casing Elevation:*** N/A

Well Casing Size: N/A ***Sheet:*** 2 of 2

Log of Borehole: BH110

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 16, 2024 **Project Manager:** J.B.

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	335.28											
		Organics ~ 300 mm	0.00 334.97											
			0.30											
1		**Sandy Silt** Sandy silt, trace clay, grey, moist, compact to loose			SS	1	10	11						
2					SS	2	10	7						
			332.99											
		Wet	2.29		SS	3	50	14						
3				No Monitoring Well Installed	SS	4	60	6						
4														
5					SS	5	75	8						
6					SS	6	100	7						
7					SS	7	80	10						

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 335.28 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 2

Log of Borehole: BH110

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 16, 2024 **Project Manager:** J.B.

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
			327.05											
		Dynamic Cone Penetration Test (DCPT) Unsampled soil	8.23		DCPT	1	NA	11						
					DCPT	2	NA	15						
9					DCPT	3	NA	20						
					DCPT	4	NA	23						
					DCPT	5	NA	32						
10					DCPT	6	NA	29						
					DCPT	7	NA	34						
					DCPT	8	NA	44						
11					DCPT	9	NA	64						
					DCPT	10	NA	69						
					DCPT	11	NA	43						
					DCPT	12	NA	34						
12					DCPT	13	NA	44						
					DCPT	14	NA	58						
					DCPT	15	NA	64						
13					DCPT	16	NA	133						
			322.02		DCPT	17	NA	146						
		End of Borehole	13.26											
		Borehole terminated at 13.3 mbgs due to refusal on probable bedrock. At drilling completion, groundwater was encountered at 2.3 mbgs.												
14														
15														

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 335.28 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 2 of 2

Log of Borehole: BH111

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 15, 2024 **Project Manager:** J.B.

SUBSURFACE PROFILE | **SAMPLE**

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength △ kPa △ (100, 200)	Water Content (%)	Sample ID	Soil Vapour Concentration (ppm)	Laboratory Analysis
0		Ground Surface	335.83	No Monitoring Well Installed										
		Organics ~ 100 mm	0.00											
1		**Silt** Silt, trace sand, trace gravel, brown, damp, dense			SS	1	30	44						
		No gravel, trace clay, compact, wet	334.30 1.52		SS	2	20	20						
2					SS	3	50	16						
3					SS	4	30	14						
4														
5					SS	5	40	15						
6														
					SS	6	40	15						
7														
		End of Borehole	328.21 7.62											
8		Borehole terminated at 7.6 mbgs due to refusal on probable bedrock. At drilling completion, groundwater was encountered at 1.5 mbgs.												

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 335.83 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH113

Project #: 333163 **Logged By:** M.K.

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek Channel

Drill Date: January 16, 2024 **Project Manager:** J.B.

Depth (m)	Description	Elevation (m)	Sample Type	Sampler #	Recovery (%)	SPT N-Value
0	Ground Surface	334.53				
	Organics ~ 100 mm	0.00				
	Sandy Silt Sandy silt, trace clay, brown, compact, moist	333.77				
1	Wet	0.76	SS	1	50	12
2			SS	2	50	14
3			SS	3	60	15
			SS	4	100	8
4						
5			SS	5	100	19
6	Very loose	328.44				
		6.10	SS	6	30	0
7						
	End of Borehole	326.91				
8	Borehole terminated at 7.6 mbgs due to refusal on probable bedrock. At drilling completion, groundwater was encountered at 0.8 mbgs.	7.62				

Monitoring Well Details: No Monitoring Well Installed

Standard Penetration N-Value: 20, 40, 60

Shear Strength △ kPa △: 100, 200

Water Content (%)

Sample ID

Soil Vapour Concentration (ppm)

Laboratory Analysis

DRAFT

Contractor: RPM Drilling **Grade Elevation:** 334.53 m

Drilling Method: Hollow Stem Auger / Split Spoon **Top of Casing Elevation:** N/A

Well Casing Size: N/A **Sheet:** 1 of 1

Log of Borehole: BH101A

Project #: 333163.000 **Logged By:** AK

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek, 8000 Hwy 11, Greenstone, ON

Drill Date: February 13, 2024 **Project Manager:** MK

SUBSURFACE PROFILE					SAMPLE						
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (20, 40, 60)	Shear Strength kPa (100, 200)	Water Content % (10, 20, 30, 40)
0		Ground Surface	341.05	No Monitoring Well Installed							
		Silty Sand Light brown silty sand, very loose, moist			AS	1	100	1			
			340.29								
1		Very dense, wet; with some organics			SS	2	30	55			
					SS	3	30	100			
			339.22								
2		End of Borehole									
		Borehole terminated at 1.8 mbgs upon auger refusal. At drilling completion, groundwater was encountered at 0.8 mbgs.									
3											
4											

Contractor: RPM Drilling Inc. **Grade Elevation:** 341.05 masl

Drilling Method: Hollow Stem Augers **Top of Casing Elevation:** NA

Well Casing Size: NA **Sheet:** 1 of 1

Log of Borehole: BH112

Project #: 333163.000 **Logged By:** AK

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek, 8000 Hwy 11, Greenstone, ON

Drill Date: February 10, 2024 **Project Manager:** MK

SUBSURFACE PROFILE

Depth (m)	Symbol	Description	Elevation (m)
		Ground Surface	334.37
0		***Topsoil/Peat*** Topsoil/peat	
2			332.08
		Sand Brown sand, some silt, trace gravel, loose	
6			328.27
		Grey, very loose	
7			326.75
		Very dense	326.44
8		End of Borehole	
10		Borehole terminated at 7.9 mbgs upon sampler refusal.	

Monitoring Well Details: Riser, Bentonite, Screen, Silica Sand

Water level = 0.15 mbgs, as measured on Feb. 13, 2024

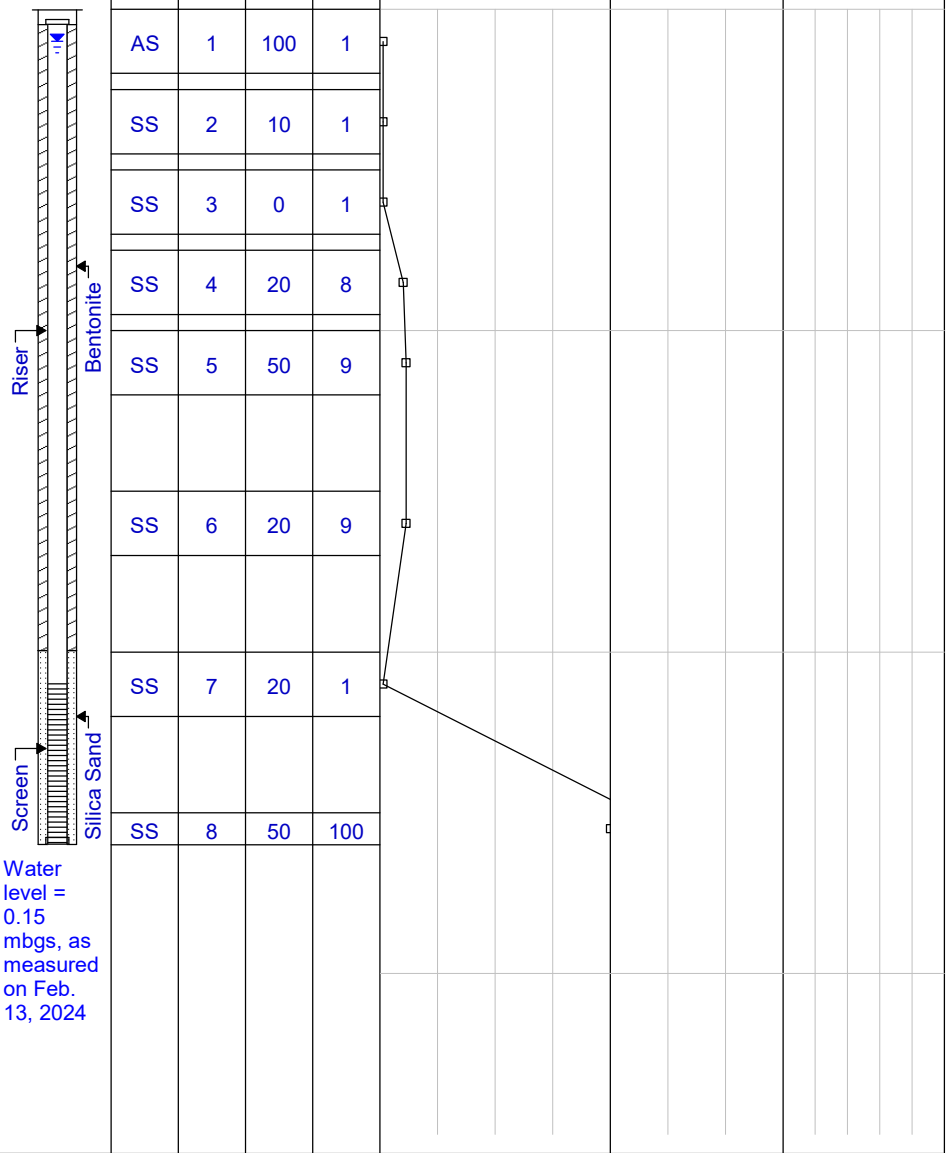
SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
AS	1	100	1
SS	2	10	1
SS	3	0	1
SS	4	20	8
SS	5	50	9
SS	6	20	9
SS	7	20	1
SS	8	50	100

Standard Penetration N-Value: 20, 40, 60

Shear Strength: kPa, 100, 200

Water Content: %, 10, 20, 30, 40



Contractor: RPM Drilling Inc.

Grade Elevation: 334.37 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 335.39 masl

Well Casing Size: 50 mm

Sheet: 1 of 1

Log of Borehole: BH114

Project #: 333163.000 **Logged By:** AK

Project: Geotechnical Investigation

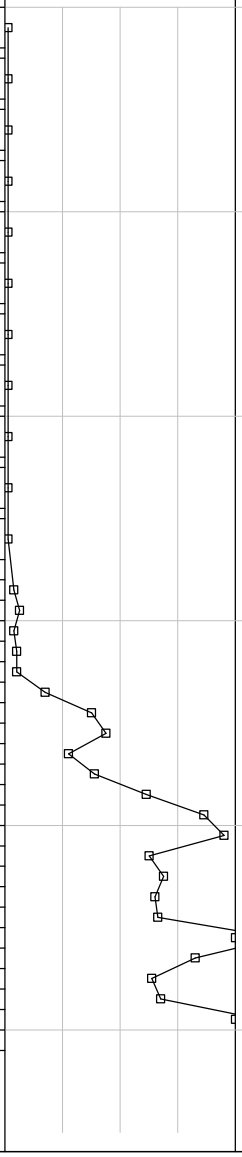
Client: Matrix Solutions Inc.

Location: Goldfield Creek, 8000 Hwy 11, Greenstone, ON

Drill Date: February 13, 2024 **Project Manager:** MK

Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value
0		Ground Surface	334.02					
0		**Ice** Ice - 300 mm			AS	1	10	1
1		**Topsoil/Peat** Topsoil/Peat, very loose, wet			SS	2	0	1
2					SS	3	1	1
3					SS	4	1	1
4					SS	5	1	1
5					SS	6	70	1
6			327.93		SS	7	50	1
6		**Silty Sand** Grey silty sand, very loose, wet	327.16		SS	8	50	1
7		**Sand** Grey sand, very loose, wet			SS	9	100	1
8			325.49		SS	10	10	1
9		**Unsampled** DCP testing continued below this depth			SS	11	10	1
10					DCP	NA	NA	3
11					DCP	NA	NA	5
12					DCP	NA	NA	3
13					DCP	NA	NA	4
14					DCP	NA	NA	4
15			318.48		DCP	NA	NA	14
16		End of Borehole Borehole terminated at 15.5 mbgs. Groundwater was encountered at 0.3 mbgs.			DCP	NA	NA	30
					DCP	NA	NA	35
					DCP	NA	NA	22
					DCP	NA	NA	31
					DCP	NA	NA	49
					DCP	NA	NA	69
					DCP	NA	NA	76
					DCP	NA	NA	50
					DCP	NA	NA	55
					DCP	NA	NA	52
					DCP	NA	NA	53
					DCP	NA	NA	95
					DCP	NA	NA	66
					DCP	NA	NA	51
					DCP	NA	NA	54
					DCP	NA	NA	89
					DCP	NA	NA	>100

No Monitoring Well Installed



Shear Strength kPa
100 200

Water Content %
10 20 30 40

Contractor: RPM Drilling Inc.

Grade Elevation: 334.02 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: NA

Well Casing Size: NA

Sheet: 1 of 1

Log of Borehole: BH115

Project #: 333163.000 **Logged By:** AK

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek, 8000 Hwy 11, Greenstone, ON

Drill Date: February 10, 2024 **Project Manager:** MK

SUBSURFACE PROFILE

Depth (m)	Symbol	Description	Elevation (m)
0		Ground Surface	334.53
		Silty Sand Brown silty sand, moist	333.77
1		***Sand*** Brown to grey sand, compact, wet	333.01
		Very loose	
2			
3			330.72
4		End of Borehole	
5			
6		Borehole terminated at 3.8 mbgs upon sampler refusal.	
7			
8			
9			
10			

Monitoring Well Details: Riser, Bentonite, Screen, Silica Sand

Water level = 0.21, as measured on Feb. 13, 2024

SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
AS	1	100	NA
SS	2	20	14
SS	3	0	4
SS	4	0	1
SS	5	80	1

Standard Penetration N-Value: 20, 40, 60

Shear Strength: kPa, 100, 200

Water Content: %, 10, 20, 30, 40

Contractor: RPM Drilling Inc.

Grade Elevation: 334.53 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 335.51 masl

Well Casing Size: 50 mm

Sheet: 1 of 1

Log of Borehole: BH116

Project #: 333163.000 **Logged By:** AK

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

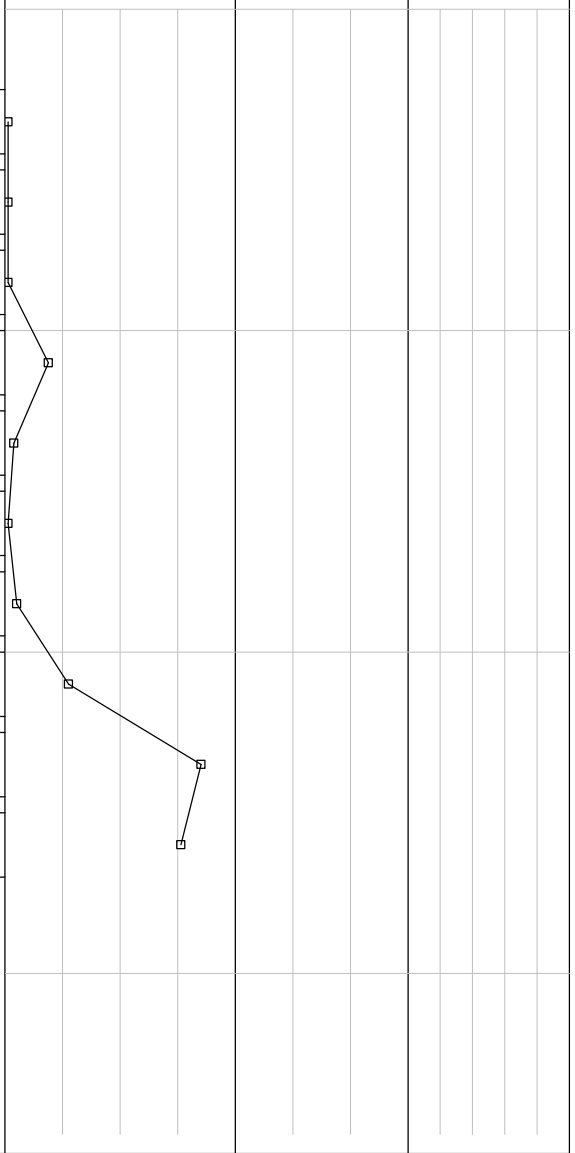
Location: Goldfield Creek, 8000 Hwy 11, Greenstone, ON

Drill Date: February 12, 2024 **Project Manager:** MK

Depth (m)	Description	Elevation (m)
0	Ground Surface	333.51
	Ice ~ 600 mm	332.90
1	***Organics*** Black brown organics	
2		331.22
3	Some sand, wet	330.31
4	***Sand*** Grey sand, trace to some silt, trace gravel	
5		
6		327.41
	Dark brown sand, compact, wet	326.65
7	Very dense	
8		325.28
	End of Borehole	
9	Borehole terminated at 8.2 mbgs upon auger refusal. Groundwater was encountered at 0.61 mbgs.	
10		

Monitoring Well Details: No Monitoring Well Installed

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	20	1
SS	2	5	1
SS	3	20	1
SS	4	40	15
SS	5	15	3
SS	6	20	1
SS	7	30	4
SS	8	40	22
SS	9	20	68
SS	10	20	61



Contractor: RPM Drilling Inc. **Grade Elevation:** 333.51 masl

Drilling Method: Hollow Stem Augers **Top of Casing Elevation:** NA

Well Casing Size: NA **Sheet:** 1 of 1

Log of Borehole: BH117

Project #: 333163.000 **Logged By:** AK

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek, 8000 Hwy 11, Greenstone, ON

Drill Date: February 12, 2024 **Project Manager:** MK

Depth (m)	Description	Elevation (m)	Sample Type	Sampler #	Recovery (%)	SPT N-Value
0	Ground Surface	332.99				
	Ice Ice - 600 mm	332.38				
1	**Silty Sand** Brown silty sand, very loose, wet	331.47	SS	1	5	1
2	**Organics** Black brown organics, some sand, very loose	330.55	SS	2	5	1
			SS	3	40	1
3	**Sand** Grey sand, some silt, very loose, wet	329.94	SS	4	40	1
	Silty Sand Grey silty sand, very loose, wet		SS	5	20	3
4			SS	6	30	1
5			SS	7	30	1
6		326.89				
	Sand Grey sand, compact, wet	326.44	SS	8	60	21
7	End of Borehole					
8	Borehole terminated at 6.6 mbgs in sand. Groundwater was encountered approximately 0.61 mbgs.					
9						
10						

Monitoring Well Details: No Monitoring Well Installed

Standard Penetration N-Value: 20, 40, 60

Shear Strength: kPa, 100, 200

Water Content: %, 10, 20, 30, 40

Contractor: RPM Drilling Inc.

Grade Elevation: 332.99 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: NA

Well Casing Size: NA

Sheet: 1 of 1

Log of Borehole: BH118

Project #: 333163.000 **Logged By:** AK

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek, 8000 Hwy 11, Greenstone, ON

Drill Date: February 12, 2024 **Project Manager:** MK

Depth (m)	Description	Elevation (m)	Sample Type	Sampler #	Recovery (%)	SPT N-Value
0	Ground Surface	332.78				
	Ice Ice - 600 mm	332.17				
1	**Organics** Brown organics, trace sand, very loose, wet		SS	1	20	1
2		330.49	SS	2	5	1
	With some gravel		SS	3	1	1
3		329.73				
	Sand Grey sand, very loose, wet; with organics	329.28	SS	4	10	3
4	Grey sand, some gravel		SS	5	5	1
		328.21				
5	**Gravel** Grey gravel, some sand, very loose	327.45	SS	6	5	3
	Sand Grey sand, some silt, loose	326.84	SS	7	20	8
6	End of Borehole					
7	Borehole terminated at 5.9 mbgs in sand. At termination of borehole, groundwater was encountered at 0.61 mbgs.					
8						
9						
10						

Monitoring Well Details: No Monitoring Well Installed

Standard Penetration N-Value: 20, 40, 60

Shear Strength: kPa 100, 200

Water Content: % 10, 20, 30, 40

Contractor: RPM Drilling Inc.

Grade Elevation: 332.78 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: NA

Well Casing Size: NA

Sheet: 1 of 1

Log of Borehole: BH119

Project #: 333163.000 **Logged By:** AK

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek, 8000 Hwy 11, Greenstone, ON

Drill Date: February 11, 2024 **Project Manager:** MK

SUBSURFACE PROFILE

Depth (m)	Description	Elevation (m)
0	Ground Surface	332.81
	Silty Sand Light-brown / grey silty sand with some cobble, moist	332.05
	Brown-grey silty sand, compact, wet	331.89
1	Black to brown organics, wet	331.59
	Gravel Grey gravel, compact	331.28
	Gravel some sand	
2		330.52
	Grey- brown; with some cobbles	
3		
4		
5		
6		326.71
	Grey-brown gravel, some sand, loose	
7		

Monitoring Well Details: Riser, Bentonite, Screen, Silica Sand

Water level = 0.71 mbgs, as measured on Feb. 13, 2024.

SAMPLE

Sample Type	Sampler #	Recovery (%)	SPT N-Value
SS	1	50	1
SS	2	20	17
SS	3	5	14
SS	4	100	1
SS	5	0	5
SS	6	0	3
SS	7	20	6

Standard Penetration N-Value: 20, 40, 60

Shear Strength: kPa, 100, 200

Water Content: %, 10, 20, 30, 40

Contractor: RPM Drilling Inc.

Grade Elevation: 332.81 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 333.57 masl

Well Casing Size: 50 mm

Log of Borehole: BH119

Project #: 333163.000 **Logged By:** AK

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek, 8000 Hwy 11, Greenstone, ON

Drill Date: February 11, 2024 **Project Manager:** MK

SUBSURFACE PROFILE					SAMPLE						
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (□ 20 40 60 □)	Shear Strength (△ kPa △ 100 200)	Water Content (● % ● 10 20 30 40)
			325.19								
8		**Sand** Grey/brown sand, loose	324.58		SS	8	5	7			
		Unsampled DCP testing continued below this depth			DCP	NA		15			
					DCP	NA		16			
9					DCP	NA		15			
					DCP	NA		13			
					DCP	NA		15			
10					DCP	NA		18			
					DCP	NA		17			
					DCP	NA		12			
					DCP	NA		19			
11					DCP	NA		19			
					DCP	NA		25			
					DCP	NA		33			
12					DCP	NA		40			
					DCP	NA		27			
					DCP	NA		23			
13					DCP	NA		26			
					DCP	NA		26			
					DCP	NA		33			
					DCP	NA		57			
14					DCP	NA		33			
					DCP	NA		31			

Contractor: RPM Drilling Inc.

Grade Elevation: 332.81 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 333.57 masl

Well Casing Size: 50 mm

Sheet: 2 of 3

Log of Borehole: BH119

Project #: 333163.000 **Logged By:** AK

Project: Geotechnical Investigation

Client: Matrix Solutions Inc.

Location: Goldfield Creek, 8000 Hwy 11, Greenstone, ON

Drill Date: February 11, 2024 **Project Manager:** MK

SUBSURFACE PROFILE					SAMPLE						
Depth (m)	Symbol	Description	Elevation (m)	Monitoring Well Details	Sample Type	Sampler #	Recovery (%)	SPT N-Value	Standard Penetration N-Value (□ 20 40 60 □)	Shear Strength (△ kPa △ 100 200)	Water Content (● % ● 10 20 30 40)
15					DCP	NA		33			
					DCP	NA		41			
					DCP	NA		45			
					DCP	NA		48			
16					DCP	NA		58			
					DCP	NA		62			
					DCP	NA		55			
17					DCP	NA		44			
					DCP	NA		53			
					DCP	NA		87			
					DCP	NA		57			
18					DCP	NA		40			
					DCP	NA		54			
					DCP	NA		56			
19					DCP	NA		73			
					DCP	NA		75			
			313.15		DCP	NA		>100			
20		End of Borehole Borehole terminated on probable bedrock due to DCPT refusal.									
21											
22											

Contractor: RPM Drilling Inc.

Grade Elevation: 332.81 masl

Drilling Method: Hollow Stem Augers

Top of Casing Elevation: 333.57 masl

Well Casing Size: 50 mm

Sheet: 3 of 3

Appendix C Groundwater Data

Appendix C.1 Monitoring Summary

Table C-1-1
Groundwater Monitoring Summary
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Project

Monitoring Location	Spring/Summer						Fall						Location
	Level		Total Daily Volume	Sample (General Chemistry, Dissolved Metals)	Sample (BTEX, and PHCs)	Trigger Threshold Monitoring Location	Level		Total Daily Volume	Sample (General Chemistry, Dissolved Metals)	Sample (BTEX, and PHCs)	Trigger Threshold Monitoring Location	
	Manual	Data Logger					Manual	Data Logger					
Monitoring Wells													
BH14-01	X	X				WL	X	X		X		WL	Adjacent to Borrow Area S1 and TMF West Dam
BH23-01	X	X				WL	X	X		X		WL	Adjacent to Borrow Area S1 and TMF West Dam
BH14-01A	X						X						Within Footprint of TMF West Dam
BH14-02	X	X					X	X		X			Adjacent to TMF Northeast Dam
BH14-02A	X	X					X	X		X			Adjacent to TMF Northeast Dam
BH14-03	X*						X*						Within Footprint of TMF Northwest Dam
BH14-04	X*						X*						Within Footprint of TMF Southwest Dam
BH14-05	X*						X*						Within Footprint of TMF Southwest Dam
BH14-08	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
BH14-09	X*						X*						Within Footprint of Open Pit and Historical MacLeod Tailings
BH14-10	X*						X*			X*			Between Overburden Storage Area 1 and Open Pit and within Footprint of Historical MacLeod Tailings
BH14-11	X*						X*						Within Footprint of Open Pit and Historical MacLeod Tailings
BH14-12	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
BH14-15	X			X		WQ	X			X		WQ	Between WRSA D and SW Arm Tributary
BH14-18	X*						X*						Within Footprint of WRSA C
BH14-23	X						X						Within Footprint of WRSA A/C (Contingency)
G1-OB-13	X*						X*						Within Footprint of WRSA B
G2-OB-13	X*						X*						Within Footprint of WRSA C
G4-OB1-13	X						X			X			Within Footprint of Contingency WRSA D and Pond D2
G4-OB2-13	X						X			X			Within Footprint of Contingency WRSA D and Pond D2
G5-OB1-14	X*						X*			X*			Within Footprint of TMF
G5-OB2-14	X*						X*			X*			Within Footprint of TMF
G6-BR-14	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA D and Adjacent to Southwest Arm
G6-OB-14	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA D and Adjacent to Southwest Arm
G7-OB1-14	X	X		X		WL/WQ	X	X		X		WL/WQ	Adjacent TMF Southwest Dam and Lake A-322
G7-OB2-14	X	X		X		WL/WQ	X	X		X		WL/WQ	Adjacent TMF Southwest Dam and Lake A-322
MAC-1	X						X						West of Open Pit
MAC-2	X*						X*						Within Footprint of Open Pit
MAC-3	X*						X*						Within Footprint of Open Pit
MAC-4	X*						X*			X*			South of Open Pit
MAC-5	X*						X*						Within Footprint of Open Pit
MAC-6	X*						X*			X*			Between Open Pit and Ore Stockpile
MAC-7	X*						X*						Within Footprint of WRSA B
MAC-8	X*						X*						Within Footprint of Open Pit
MAC-9	X*						X*						Within Footprint of Open Pit
MW1-BR-14	X	X					X	X					Downgradient of Overburden Storage Area 1
MW1-OB-14	X	X					X	X					Downgradient of Overburden Storage Area 1
MW2-OB-13	X	X				WL	X	X				WL	Downgradient of WRSA A/C (Contingency) and Adjacent to Mosher Lake
MW3-BR-13	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA A and Adjacent to Central Basin
MW3-OB-13	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA A and Adjacent to Central Basin
MW4-OB-13	X	X					X	X		X			Downgradient of WRSA B and Adjacent to Southwest Arm
MW5-OB1-13	X	X					X	X		X			Downgradient of WRSA C and Process Plan
MW5-OB2-13	X	X					X	X		X			Downgradient of WRSA C and Process Plan
MW5-OB2-23	X	X					X	X		X			Downgradient of WRSA C and Process Plan
MW6-OB-13	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA C and Adjacent to HWY 11
MW7-BR-13	X	X					X	X		X			Downgradient of WRSA D (northwest)
MW7-BR-23	X	X					X	X		X			Downgradient of WRSA D (northwest)
MW8-OB-14	X	X				WL	X	X		X		WL	Downgradient of WRSA D and Adjacent to SW Arm Tributary
MW9-OB1-13	X	X					X	X		X			Downgradient of Contingency WRSA D (Contingency) and Overburden Storage Area 2
MW9-OB2-13	X	X					X	X		X			Downgradient of Contingency WRSA D (southeast)
MW10-OB-14	X*						X*						Within Footprint of WRSA D
MW11-BR-14	X*						X*			X*			Within Footprint of TMF
MW11-OB-14	X*						X*			X*			Within Footprint of TMF
MW12-OB-14	X						X			X*			Background - South of TMF and Goldfield Creek Tributary
MW13-OB-14	X	X					X	X		X			Background - South of TMF and Adjacent to Lake A-323
MW14-BR-14	X	X				WL	X	X		X		WL	Background - Southwest of TMF and Within Footprint of Aggregate Source T2
MW14-OB-14	X	X				WL	X	X		X		WL	Background - Southwest of TMF and Within Footprint of Aggregate Source T2
MW15-BR-14	X	X		X		WQ	X	X		X		WQ	Downgradient of TMF and north of Goldfield Creek Tributary
MW15-OB-14	X	X		X		WQ	X	X		X		WQ	Downgradient of TMF and north of Goldfield Creek Tributary
MW16-BR-14	X*						X*						Within Footprint of TMF
MW16-OB-14	X*						X*						Within Footprint of TMF
MW17-OB-14	X	X				WL	X	X		X		WL	Southeast Corner of HWY 11 and Lahitis Road
MW18-BR-21 (MW-A)	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA C, Adjacent to Mosher Lake
MW19-BR-21 (MW-B)	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA A, Adjacent to Barton Bay,
MW19-OB-21 (MW-B)	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA A, Adjacent to Barton Bay, overburden
MW20-BR-21 (MW-D)	X	X		X		WQ	X	X		X		WQ	Downgradient of TMF, adjacent to Southwest Arm, bedrock
MW20-OB-21 (MW-D)	X	X		X		WQ	X	X		X		WQ	Downgradient of TMF, adjacent to Southwest Arm, overburden
MW21-BR-21 (MW-F)	X	X		X	X^-3	HG/WQ	X	X		X	X^-3	HG/WQ	Downgradient of Process Plant, overburden
MW22-OB-21 (MW-M)	X			X		WQ	X			X		WQ	Between the Ore Stockpile and Kenogamisis Lake, to the West of MWS-14-04 and East of Proposed Monitoring Well MW-G
MW23-OB-21 (MW-G)	X	X		X	X^-3	HG/WQ	X	X		X	X^-3	HG/WQ	Downgradient of Process Plant and Pond B1, overburden
MW24-BR-21 (MW-N)	X			X		WQ	X			X		WQ	Between the TMF and Goldfield Creek Tributary, Northwest of Proposed Monitoring Well MW-E and Southeast of G7-14
MW24-OB-21 (MW-N)	X			X		WQ	X			X		WQ	Between the TMF and Goldfield Creek Tributary, Northwest of Proposed Monitoring Well MW-E and Southeast of G7-14
MW25-BR-21 (MW-E)	X	X		X		WQ	X	X		X		WQ	Downgradient of TMF, adjacent to Goldfield Creek Tributary, bedrock
MW25-OB-21 (MW-E)	X	X		X		WQ	X	X		X		WQ	Downgradient of TMF, adjacent to Goldfield Creek Tributary, overburden
MW26-OB1-23 (MW-O)	X			X		WQ	X			X		WQ	Monitoring well northwest of WRSA D contingency to be installed once access roads have been constructed
MW26-OB2-23 (MW-O)	X			X		WQ	X			X		WQ	Monitoring well northwest of WRSA D contingency to be installed once access roads have been constructed

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Greenstone Project

Monitoring Location	Spring/Summer						Fall						Location
	Level		Total Daily Volume	Sample (General Chemistry, Dissolved Metals)	Sample (BTEX, and PHCs)	Trigger Threshold Monitoring Location	Level		Total Daily Volume	Sample (General Chemistry, Dissolved Metals)	Sample (BTEX, and PHCs)	Trigger Threshold Monitoring Location	
	Manual	Data Logger					Manual	Data Logger					
Monitoring Wells (continued)													
MW27-BR-23 (MW-P)	X	X		X		HG	X	X		X		HG	Monitoring well downgradient of WRSA B and the construction and demolition landfill
MW30-BR-23 (MW-S)	X			X			X			X			Monitoring well downgradient of WRSA B and the construction and demolition landfill
MW30-OB-23 (MW-S)	X			X			X			X			Monitoring well downgradient of WRSA B and the construction and demolition landfill
MW16-04	X	X					X	X					Within Footprint of Aggregate Source S4
MW23-04	X	X					X	X					Within Footprint of Aggregate Source S4
MW16-05	X	X					X	X					Adjacent to Aggregate Source T2
MW03-BR-18	X	X		X		WQ	X	X		X		WQ	East of WRSA A, Adjacent to Central Basin
MW03-OB-18	X	X		X		WQ	X	X		X		WQ	East of WRSA A, Adjacent to Central Basin
MW10-18	X*						X*			X*			Within Footprint of Open Pit, South of Historical MacLeod Tailings
MWS-14-01	X	X				WL	X	X		X		WL	Downgradient of WRSA D (Northwest)
MWS-14-02 BR	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA D and Adjacent to Southwest Arm
MWS-14-02 OB	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA D and Adjacent to Southwest Arm
MWS-14-03 OB1	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA D and South of SW Arm Tributary
MWS-14-03 OB2	X	X		X		WQ	X	X		X		WQ	Downgradient of WRSA D and South of SW Arm Tributary
MWS-14-04	X			X		WQ	X			X		WQ	Downgradient of WRSA B and Adjacent to Southwest Arm
MWS-14-05 BR	X*						X*						Within Footprint of WRSA C
MWS-14-05 OB	X*						X*						Within Footprint of WRSA C
MWS-14-06	X						X			X			Adjacent to Process Plant
MWS-14-07 BR	X	X		X		WQ	X	X		X		WQ	Downgradient of TMF and Adjacent to Soutwest Arm
MWS-14-07 OB	X	X		X		WL/WQ	X	X		X		WL/WQ	Downgradient of TMF and Adjacent to Soutwest Arm
Historical MacLeod Tailings Monitoring Wells													
96-01	X*						X*			X			Between Overburden Storage Area 1 and Open Pit, Within Footprint of Historical MacLeod Tailings
96-02	X*						X*			X			Between Overburden Storage Area 1 and Open Pit, Within Footprint of Historical MacLeod Tailings
96-03	X						X			X			Downgradient of Overburden Storage Area 1 and Within Footprint of Historical MacLeod Tailings
96-04	X						X			X			Downgradient of Overburden Storage Area 1 and Within Footprint of Historical MacLeod Tailings
96-05	X*						X*						Within Footprint of Open Pit
96-06	X*						X*						Within Footprint of Open Pit
96-07A1	X*						X*			X*			Between Overburden Storage Area 1 and Open Pit, Within Footprint of Historical MacLeod Tailings
96-07A2	X*						X*			X*			Between Overburden Storage Area 1 and Open Pit, Within Footprint of Historical MacLeod Tailings
96-08A	X*						X*						Within Footprint of Open Pit
96-08B	X*						X*						Within Footprint of Open Pit
96-08C	X*						X*						Within Footprint of Open Pit
96-09A1	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-09A2	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-09A3	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-09A4	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-10A1	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
Historical MacLeod Tailings Monitoring Wells (Continued)													
96-10A2	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-10A3	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-10B	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-10C	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-11A1	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-11A2	X*						X*						Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-12A	X						X			X			Downgradient of WRSA A and Within Footprint of Historical MacLeod Tailings
96-12B	X	X					X	X		X			Downgradient of WRSA A and Within Footprint of Historical MacLeod Tailings
96-13	X*						X*						Between Overburden Storage Area 1 and Open Pit, Within Footprint of Historical MacLeod Tailings
96-14b	X						X			X			Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
96-15A1	X*						X*						Within Footprint of Open Pit
96-15A3	X*						X*						Within Footprint of Open Pit
96-15B	X*						X*						Within Footprint of Open Pit
23-03	X						X			X			Downgradient of Overburden Storage Area 1 and Within Footprint of Historical MacLeod Tailings
23-12B	X	X					X	X		X			Downgradient of WRSA A and Within Footprint of Historical MacLeod Tailings
23-14b	X						X			X			Within Footprint of Overburden Storage Area 1 and Historical MacLeod Tailings
MW07-18	X	X					X	X		X			Within Footprint of Historical MacLeod Low Tailings, Adjacent to Barton Bay
MW08-18	X	X				WL	X	X		X		WL	Within Footprint of Historical MacLeod Low Tailings, Adjacent to Barton Bay
MW09-18	X	X					X	X		X			Within Footprint of Historical MacLeod Low Tailings, Adjacent to Barton Bay
MW31-OB-23 (MW-H)	X					HG	X					HG	Downgradient of MHT Seepage Collection System
MW32-OB-23 (MW-I)	X	X				HG	X	X				HG	Downgradient of MHT Seepage Collection System
Historical Hardrock Tailings Monitoring Wells													
H96-01	X*						X*						Within Footprint of WRSA A and Historical Hardrock Tailings
H96-02A	X*						X*						Within Footprint of WRSA A and Historical Hardrock Tailings
H96-02B	X*						X*						Within Footprint of WRSA A and Historical Hardrock Tailings
H96-02C	X*						X*						Within Footprint of WRSA A and Historical Hardrock Tailings
H96-03	X*						X*						Within Footprint of WRSA A and Historical Hardrock Tailings
H96-04A1	X*						X*						Within Footprint of WRSA A and Historical Hardrock Tailings
H96-04B	X*						X*						Within Footprint of WRSA A and Historical Hardrock Tailings
H96-05A1	X*						X*						Within Footprint of WRSA A and Historical Hardrock Tailings
H96-05A2	X*						X*						Within Footprint of WRSA A and Historical Hardrock Tailings
H96-06A1	X*						X*			X			Within Footprint of WRSA A and Historical Hardrock Tailings
H96-06A2	X*						X*			X			Within Footprint of WRSA A and Historical Hardrock Tailings
H96-06A3	X*						X*			X			Within Footprint of WRSA A and Historical Hardrock Tailings
H96-06B	X*						X*			X			Within Footprint of WRSA A and Historical Hardrock Tailings
MW01-OB1-18	X	X					X	X		X			Within Footprint of Historical Hardrock Tailings, Adjacent to Central Basin
MW01-OB2-18	X	X				WL	X	X		X		WL	Within Footprint of Historical Hardrock Tailings, Adjacent to Central Basin
MW02-OB-18	X						X			X			Within Footprint of Historical Hardrock Tailings, Adjacent to Central Basin

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Groundwater Monitoring Summary
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Greenstone Project

Monitoring Location	Spring/Summer						Fall						Location
	Level		Total Daily Volume	Sample (General Chemistry, Dissolved Metals)	Sample (BTEX, and PHCs)	Trigger Threshold Monitoring Location	Level		Total Daily Volume	Sample (General Chemistry, Dissolved Metals)	Sample (BTEX, and PHCs)	Trigger Threshold Monitoring Location	
	Manual	Data Logger					Manual	Data Logger					
Drive-Point Piezometers													
DP2-14D	X						X						Downgradient of WRSA D and South of SW Arm Tributary
DP2-14S	X						X						SW Arm Tributary
DP3-14D	X						X						SW Arm Tributary
DP3-14S	X						X						SW Arm Tributary
DP3-22D	X						X						SW Arm Tributary
DP3-22D	X						X						SW Arm Tributary
DP4-14	X						X						SW Arm Tributary
DP5-14	X						X						WC-M
DP6-14D	X*	X*					X*	X*					Goldfield Creek
DP6-14S	X*						X*						Goldfield Creek
DP-A	X					WL	X					WL	Within the footprint of the sparse treed fend located east of the TMF
DP-B	X					WL	X					WL	Within wetland located at the headwaters of SWAT and confluence with Goldfield Creek Diversion
DP-C	X			X		WQ	X			X		WQ	Within Goldfield Cree, downgradient of TMF and Pond T1
Seeps													
Seep 1										X			Downgradient of WRSA A and Historical MacLeod Tailings
Seep 3										X			Downgradient of WRSA B and Adjacent to Southwest Arm
Seep 5										X			Within Footprint of WRSA A/C (Contingency)
Seeps (continued)													
Seep 6										X			Downgradient of Overburden Storage Area 1, within Footprint of Historical MacLeod Tailings
Seep 7										X			Downgradient of Overburden Storage Area 1, within Footprint of Historical MacLeod Tailings
Seep 8										X			Downgradient of Overburden Storage Area 1, within Footprint of Historical MacLeod Tailings
Seep 9										X			Within Footprint of Open Pit and Historical MacLeod Tailings
Seep 10										X			Within Footprint of WRSA A and Adjacent to HWY 11
Seep 11										X			Within Footprint of Open Pit and Historical MacLeod Tailings
Exploration Boreholes, Historical Shafts and Mine Infrastructure													
Hardrock Shaft 1				NP						NP			Downgradient of WRSA A and Adjacent to Central Basin
Hardrock Shaft 2	NP**		NP	NP		PV	NP**		NP	NP		PV	Within Footprint of WRSA A and Adjacent to Historical Hardrock Tailings
Hardrock Glory Hole				NP						NP			Within Footprint of Open Pit and Adjacent to Historical MacLeod Tailings
MacLeod Shaft 1										X		PV	Within Footprint of Open Pit and Adjacent to Historical MacLeod Tailings
Mosher Shaft 1	X	X	X			PV	X	X	X	X		PV	Adjacent to WRSA C and Mosher Lake
Open Pit and Underground Workings			X						X			PV	Northern Portion of Project Development Area
Construction Dewatering (Process Plant - Temp ETP PTTW)			NP						NP				Associated with Construction of the Process Plant, TMF, Goldfield Creek Diversion, Culvert Crossings, Water Management Ponds
Aggregate Pit S1			NP			PV			NP			PV	Northeast of the TMF, Headwaters of the Goldfield Creek Diversion
Aggregate Pit T2			NP			PV			NP			PV	Southwest of the TMF
TMF Quarry			NP						NP				
EP137	X*						X*						Within Footprint of WRSA A
MM006	X*						X*						Within Footprint of Open Pit
MM140	X*						X*						Within Footprint of Open Pit
MHT SCS East Chamber			X			HG			X			HG	MHT Seepage Collection System, located between MHT and Kenogamisis Lake
Vibrating Wire Piezometers													
HR041		X					X	X					Between the Open Pit and Barton Bay
TN014		X					X	X					Between the Open Pit and Central Basin
Total Existing Monitoring Locations:	**167**	**63**	**8**	**40**	**2**		**169**	**63**	**8**	**103**	**2**		
Proposed Monitoring Locations													
Proposed Monitoring Well MW-C (Ob)	NI	NI		NI		WQ	NI	NI		NI		WQ	Downgradient of TMF and Goldfield Creek Tributary, adjacent to Southwest Arm, overburden
Proposed Monitoring Well MW-C (Bdrk)	NI	NI		NI		WQ	NI	NI		NI		WQ	Downgradient of TMF and Goldfield Creek Tributary, adjacent to Southwest Arm, bedrock
Proposed Monitoring Well MW-J	NI					HG	NI					HG	Downgradient of MHT Seepage Collection System
Proposed Monitoring Well MW-K	NI					HG	NI					HG	Downgradient of MHT Seepage Collection System
Proposed Monitoring Well MW-L (Ob)	NI			NI		WQ	NI			NI		WQ	Between WRSA D and Kenogamisis Lake to the northeast of MWS-14-02 and southwest of G6-14
Proposed Monitoring Well MW-L (Bdrk)	NI			NI		WQ	NI			NI		WQ	Between WRSA D and Kenogamisis Lake to the northeast of MWS-14-02 and southwest of G6-14
Vibrating Wire Piezometer VWP-A-A	NI	NI					NI	NI					Between the Open Pit and Southwest Arm, shallow bedrock
Vibrating Wire Piezometer VWP-A-B	NI	NI					NI	NI					Between the Open Pit and Southwest Arm, intermediate bedrock
Vibrating Wire Piezometer VWP-A-C	NI	NI					NI	NI					Between the Open Pit and Southwest Arm, intermediate bedrock
Vibrating Wire Piezometer VWP-A-D	NI	NI					NI	NI					Between the Open Pit and Southwest Arm, deep bedrock
Vibrating Wire Piezometer VWP-D-A	NI	NI					NI	NI					West of Open Pit, shallow bedrock
Vibrating Wire Piezometer VWP-D-B	NI	NI					NI	NI					West of Open Pit, intermediate bedrock
Vibrating Wire Piezometer VWP-D-C	NI	NI					NI	NI					West of Open Pit, intermediate bedrock
Vibrating Wire Piezometer VWP-D-D	NI	NI					NI	NI					West of Open Pit, deep bedrock
Total Proposed Monitoring Locations:	**14**	**10**	**0**	**4**	**0**		**14**	**10**	**0**	**4**	**0**		
Total Proposed and Existing Monitoring Locations:	**181**	**73**	**8**	**44**	**2**		**183**	**73**	**8**	**107**	**2**		

Notes:

Decommissioned or overprinted by mine infrastructure
* Monitoring requirements to be re-evaluated once construction starts. Majority of locations will be removed from program but select locations will require replacement wells to be constructed outside of infrastructure footprint.
** Monthly manual water level monitoring to commence once pumping from shaft has started.
*** Mosher Shaft 1 is sampled at 5 different depth intervals (21 m, 122 m, 244, 396 m and 512 m)
MHT MacLeod High Tailings
Ob/Bdrk Nested monitoring well with one screen in overburden and one screen in shallow bedrock.
TC Location inaccessible due to tree clearing activities
F Frozen. Pressure transducer could not be downloaded
NP No pumping occurred during monitoring period
PV Pumped Volume
WL Water Level
HG Horizontal Gradient
WQ Water Quality
NI Not Yet Installed
FOS Sampling begins once fuel is stored on site

Appendix C.2 Well Completion Table

Table C-2-1
Well Completion Details
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Project

Name	Coordinates UTM NAD 83 Zone 16 Easting m	Coordinates UTM NAD 83 Zone 16 Northing m	Top of Casing Elevation m AMSL	Stick-up m	Ground Elevation m AMSL	Total Depth Drilled m	Azimuth degrees	Dip degrees	Top of Sand m BGS	Bottom of Sand m BGS	Top of Screen m BGS	Bottom of Screen m BGS	Screen Material Description
Monitoring Wells													
BH14-01	498663	5500278	339.61	0.81	338.80	25.10	-	-	4.57	19.50	16.45	19.50	SAND and GRAVEL
MW23-01	498754	5499943	344.35	0.70	343.65	7.44	-	-	4.11	7.47	4.40	7.44	BEDROCK
BH14-01A	499026	5500466	338.74	0.34	338.40	19.80	-	-	1.82	3.66	2.14	3.66	SAND and GRAVEL TILL
BH14-02	500179	5500320	337.66	0.96	336.70	17.00	-	-	0.61	1.98	0.61	1.22	SILTY SAND
BH14-02A	500131	5500322	337.96	1.26	336.70	4.66	-	-	2.80	4.60	3.10	4.60	BEDROCK
BH14-03	500966	5499090	334.10	0.80	333.30	37.80	-	-	6.10	10.97	7.62	10.67	SILTY SAND TILL
BH14-04	499984	5498174	336.22	0.92	335.30	39.80	-	-	18.90	24.19	19.58	22.63	SILTY SAND TILL
BH14-05	499167	5497601	333.18	0.98	332.20	22.80	-	-	1.83	4.70	2.21	3.37	SILT
BH14-06	498112	5498123	338.19	0.69	337.50	30.80	-	-	4.27	7.92	4.57	7.62	SAND
BH14-07	504511	5503474	337.42	1.12	336.30	12.00	-	-	6.30	11.30	8.20	11.20	TAILINGS
BH14-08	504714	5503856	339.69	0.89	338.80	26.20	-	-	5.90	10.10	6.80	9.80	TAILINGS
BH14-09	504470	5503256	346.03	0.93	345.10	20.70	-	-	13.40	17.70	13.70	16.70	SILTY SAND TO SANDY SILT TILL
BH14-10	504741	5503408	342.37	0.97	341.40	36.30	-	-	6.90	10.80	7.40	10.50	TAILINGS
BH14-11	504370	5503406	343.86	0.96	342.90	19.20	-	-	7.90	12.20	8.90	11.90	TAILINGS
BH14-12	504470	5503644	341.55	0.95	340.60	30.20	-	-	6.40	10.70	7.40	10.40	TAILINGS
BH14-15	502851	5501580	331.37	0.77	330.60	14.30	-	-	4.90	9.10	6.10	9.10	SILTY SAND TILL
BH14-18	502429	5502380	338.30	0.90	337.40	4.30	-	-	0.50	1.70	0.80	1.40	SAND and GRAVEL
BH14-23	503782	5503775	342.14	0.94	341.20	8.90	-	-	2.40	6.40	3.30	6.30	SILTY SAND TO GRAVELLY SAND
G1-OB-13	504776	5502334	332.04	0.91	331.13	6.96	-	-	2.84	4.65	3.33	4.85	SAND to SILTY SAND
G2-OB-13	502992	5502748	344.16	0.87	343.29	4.24	-	-	1.17	3.51	1.54	3.07	CLAY
G4-OB1-13	501679	5499784	333.69	0.91	332.78	12.19	-	-	9.91	12.19	10.67	12.19	SANDY SILT TILL
G4-OB2-13	501677	5499784	333.68	0.91	332.77	5.49	-	-	4.11	5.49	4.57	5.18	SANDY SILT
G5-OB1-14	499499	5498253	333.32	1.07	332.25	12.80	-	-	10.36	12.19	10.67	12.19	SILT TILL
G5-OB2-14	499499	5498254	333.38	1.05	332.33	5.18	-	-	3.05	5.19	3.67	5.19	SILT to SAND
G6-BR-14	503229	5500999	331.89	0.87	331.02	15.65	-	-	10.67	12.75	10.92	12.44	BEDROCK
G6-OB-14	503227	5500998	331.68	0.64	331.04	3.05	-	-	1.22	3.05	1.52	3.05	SILT to CLAYEY SILT
G7-OB1-14	498165	5497879	334.39	0.88	333.51	15.24	-	-	13.41	15.24	13.72	15.24	SILT to SAND and GRAVEL
G7-OB2-14	498166	5497878	334.24	0.74	333.50	5.85	-	-	3.35	5.85	3.56	5.18	SAND
MAC-1	503580	5502775	344.14	0.39	343.75	4.98	-	-	-	-	2.54	4.98	BEDROCK
MAC-2	503597	5502873	342.27	0.57	341.70	4.78	-	-	-	-	2.46	3.99	BEDROCK
MAC-3	504094	5502597	339.35	0.91	338.44	4.72	-	-	-	-	1.68	4.72	BEDROCK
MAC-4	504184	5502573	338.02	0.48	337.54	4.83	-	-	-	-	1.78	4.83	BEDROCK
MAC-5	504210	5502643	337.81	0.70	337.11	4.75	-	-	-	-	1.70	4.75	BEDROCK
MAC-6	504354	5502544	336.96	0.73	336.23	6.78	-	-	4.00	6.78	2.80	6.20	BEDROCK
MAC-7	504595	5502427	335.03	0.94	334.09	6.40	-	-	3.43	6.40	6.40	2.80	BEDROCK
MAC-8	503905	5502744	342.83	0.81	342.02	4.85	-	-	0.90	4.85	1.50	4.85	BEDROCK
MAC-9	504010	5502736	342.15	0.83	341.32	4.88	-	-	0.70	4.88	1.50	4.50	BEDROCK
MW1-BR-14	503837	5504139	332.68	0.72	331.96	14.15	-	-	9.60	11.43	9.91	11.43	BEDROCK
MW1-OB-14	503835	5504139	332.70	0.71	331.99	3.05	-	-	1.22	3.05	1.52	3.05	SAND to SILT to SILTY-CLAY
MW2-OB-13	502866	5503690	334.31	0.77	333.54	4.11	-	-	3.05	4.11	3.20	4.11	SILTY SAND
MW3-BR-13	505814	5502934	331.19	0.80	330.39	14.91	-	-	13.03	14.91	13.39	14.91	BEDROCK
MW3-OB-13	505812	5502935	331.23	0.91	330.32	10.52	-	-	8.63	10.52	8.99	10.52	SILTY SAND
MW4-OB-13	504915	5502024	330.77	0.78	329.99	7.26	-	-	2.63	4.46	2.94	4.46	SILT to SILTY CLAY
MW5-OB1-13	502691	5502101	333.11	1.04	332.07	13.01	-	-	9.32	12.11	10.59	12.11	HARD TILL
MW5-OB2-13	502690	5502106	333.09	0.96	332.13	6.35	-	-	4.57	6.35	4.88	5.79	HARD TILL
MW5-OB2-23	502621	5502067	333.47	0.68	332.79	7.62	-	-	5.64	7.47	5.94	7.47	SILTY SAND TILL
MW6-OB-13	502067	5502769	337.01	0.90	336.11	3.25	-	-	1.68	3.25	2.34	3.25	SAND
MW7-BR-13	501560	5500971	335.49	0.80	334.69	12.18	-	-	9.45	12.18	9.85	12.18	BEDROCK
MW7-BR-23	501555	5500896	336.44	0.84	335.60	11.00	-	-	9.25	11.00	9.47	11.00	BEDROCK
MW8-OB-14	503637	5501573	330.69	0.64	330.05	9.75	-	-	3.66	6.40	4.57	6.10	SANDY SILT
MW9-OB1-13	501735	5499186	333.06	0.78	332.28	12.29	-	-	10.06	12.29	10.77	12.29	SANDY SILT to SILTY SAND TILL
MW9-OB2-13	501731	5499185	333.32	0.72	332.60	4.57	-	-	2.87	4.57	3.35	4.27	SANDY SILT to SILTY SAND TILL
MW10-OB-14	502563	5500943	333.64	0.81	332.83	5.18	-	-	3.35	5.18	3.66	5.18	SILTY SAND
MW11-BR-14	499902	5499832	337.70	0.66	337.04	7.92	-	-	4.57	6.40	4.88	6.40	BEDROCK
MW11-OB-14	499901	5499831	337.69	0.66	337.03	2.13	-	-	0.61	2.13	0.91	2.13	SANDY SILT
MW12-OB-14	498460	5496708	336.22	0.78	335.45	4.57	-	-	2.74	4.57	3.05	4.57	SAND and SILT
MW13-OB-14	497596	5496576	343.67	0.85	342.82	7.62	-	-	5.79	7.62	6.10	7.62	SILT to SILTY CLAY
MW14-BR-14	496777	5497590	358.91	0.70	358.21	25.68	-	-	22.56	24.69	22.86	24.38	BEDROCK
MW14-OB-14	496777	5497587	359.04	0.87	358.17	6.10	-	-	2.74	6.10	3.05	6.10	SILTY SAND to SANDY SILT TILL
MW15-BR-14	499671	5497708	330.52	0.57	329.95	13.72	-	-	11.28	13.72	12.19	13.72	BEDROCK
MW15-OB-14	499670	5497709	330.53	0.55	329.98	6.10	-	-	4.11	6.10	4.57	6.10	SAND
MW16-BR-14	499012	5498878	338.18	0.76	337.42	19.71	-	-	15.24	17.37	15.54	17.07	BEDROCK
MW16-OB-14	499009	5498884	337.91	1.05	336.86	13.41	-	-	2.74	4.88	3.05	4.88	SILT
MW17-OB-14	501274	5502714	339.81	0.72	339.09	3.81	-	-	1.83	3.81	2.13	3.65	SAND
MW18-BR-21 (MW-A)	502821	5503253	351.30	1.09	350.22	21.61	-	-	19.50	21.60	19.80	21.30	BEDROCK
MW19-BR-21 (MW-B)	505743	5503790	336.28	0.95	335.33	14.17	-	-	12.00	14.20	12.30	13.90	BEDROCK
MW19-OB-21 (MW-B)	505745	5503790	336.32	0.82	335.50	8.80	-	-	7.00	8.80	7.30	8.80	SAND and GRAVEL
MW20-BR-21 (MW-D)	500357	5498108	334.77	0.93	333.84	23.60	-	-	21.50	23.60	21.80	23.30	BEDROCK
MW20-OB-21 (MW-D)	500357	5498110	334.64	0.81	333.83	4.27	-	-	2.40	4.30	2.40	3.90	SILT
MW21-BR-21 (MW-F)	503116	5501954	334.17	0.93	333.24	4.78	-	-	2.10	4.80	2.10	3.60	BEDROCK
MW22-OB-21 (MW-M)	504142	5501895	335.43	0.90	334.53	8.18	-	-	6.40	8.20	6.70	8.20	SILTY SAND
MW23-OB-21 (MW-G)	503568	5501816	330.92	0.88	330.04	8.08	-	-	2.90	8.10	3.20	4.70	SILTY SAND AND BEDROCK
MW24-BR-21 (MW-N)	498743	5497479	334.10	0.93	333.17	11.15	-	-	9.10	11.20	9.50	11.00	BEDROCK
MW24-OB-21 (MW-N)	498742	5497477	334.06	0.77	333.29	4.57	-	-	2.40	4.60	2.70	4.20	SILTY SAND
MW25-BR-21 (MW-E)	499145	5497367	332.90	0.82	332.08	9.68	-	-	7.50	9.70	7.90	9.40	BEDROCK
MW25-OB-21 (MW-E)	499148	5497368	332.93	0.93	332.01	4.27	-	-	2.20	4.20	2.50	4.00	SAND
MW26-OB1-23 (MW-O)	501115	5500678	336.15	0.71	335.45	15.39	-	-	11.23	13.72	12.19	13.72	SILTY SAND
MW26-OB2-23 (MW-O)	501116	5500679	335.93	0.67	335.26	4.57	-	-	2.74	4.57	3.05	4.57	SILTY SAND
MW27-BR-23 (MW-P)	504531	5501907	332.83	0.70	332.13	4.78	-	-	2.21	4.78	3.10	4.62	BEDROCK
MW30-BR-23 (MW-S)	504668	5501928	330.89	0.61	330.27	6.55	-	-	4.75	6.55	5.03	6.55	BEDROCK
MW30-OB-23 (MW-S)	504667	5501929	330.90	0.63	330.27	3.65	-	-	1.37	3.45	1.78	3.30	SAND/SILTY CLAY
MW16-04	499800	5500949	349.16	0.76	348.40	13.70	-	-	5.48	7.62	6.10	7.62	SILT
MW23-04	499773	5500927	345.75	0.74	345.01	8.23	-	-	5.74	7.62	6.10	7.62	SAND
MW16-05	497400	5497375	-	0.76	341.10	7.30	-	-	4.87	7.01	5.48	7.01	SILT and SAND
MW03-BR-18	506073	5503364	332.40	1.20	331.20	25.80	-	-	22.00	24.30	22.70	24.30	BEDROCK
MW03-OB-18	506070	5503370	332.38	1.18	331.20	6.00	-	-	-	6.00	4.50	6.00	SILT
MW10-18	504815	5502746	337.93	1.03	336.90	3.30	-	-	1.80	3.30	1.80	3.30	SAND AND SILT
MWS-14-01	501564	5500893	336.70	0.90	335.80	12.20	-	-	4.30	6.50	4.60	6.10	SILTY SAND TILL
MWS-14-02 BR	502592	5500266	331.94	0.64	331.30	13.40	-	-	7.60	9.50	7.90	9.40	BEDROCK
MWS-14-02 OB	502592	5500266	331.83	0.53	331.30	5.80	-	-	4.00	5.30	4.30	5.80	SILTY SAND TILL
MWS-14-03 OB1	501856	5501600	332.76	0.86	331.90	45.00	-	-	41.60	43.74	42.22	43.74	SILTY SAND TILL
MWS-14-03 OB2	501856	5501600	332.83	0.93	331.90	5.33	-	-	3.51	5.33	3.81	5.33	SILT TO SILTY SAND TILL
MWS-14-04	504451	5501792	331.90	0.90	331.00	7.50	-	-	5.00	7.50	5.90	7.50	BEDROCK
MWS-14-05 BR	502689	5502346	340.50	0.90	339.60	7.30	-	-	3.70	6.30	4.60	6.10	BEDROCK
MWS-14-05 OB	502689	5502346	340.45	0.85	339.60	1.50	-	-	0.50	1.50	0.80	1.40	SAND and GRAVEL
MWS-14-06	503349	5502096	334.37	0.87	333.50	6.60	-	-	4.20	6.60	5.10	6.60	BEDROCK
MWS-14-07 BR	500938	5498669	332.05	0.85	331.20	12.10	-	-	7.60	11.00	9.10	10.70	BEDROCK
MWS-14-07 OB	500938	5498669	332.01	0.81	331.20	6.10	-	-	4.40	6.10	4.60	6.10	SAND and GRAVEL TILL
Historical MacLeod Tailings Monitoring Wells													
96-01	504888	5503361	334.67	0.22	334.45	15.00	-	-	12.90	15.00	13.40	14.60	Fine SAND
96-02	504852	5503422	341.32	0.35	340.97	10.36	-	-	8.30	10.36	8.90	10.00	TAILINGS

Table C-2-1
Well Completion Details
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Project

Name	Coordinates UTM NAD 83 Zone 16 Easting m	Coordinates UTM NAD 83 Zone 16 Northing m	Top of Casing Elevation m AMSL	Stick-up m	Ground Elevation m AMSL	Total Depth Drilled m	Azimuth degrees	Dip degrees	Top of Sand m BGS	Bottom of Sand m BGS	Top of Screen m BGS	Bottom of Screen m BGS	Screen Material Description
96-03	504751	5503958	333.39	0.65	332.74	12.19	-	-	10.1	12.19	10.80	11.90	Fine SAND / Silty Sand TILL
96-04	504760	5503941	331.54	0.10	331.44	10.36	-	-	7.30	10.36	7.80	9.00	TAILINGS
96-05	504809	5503267	335.25	1.50	333.75	1.47	-	-	0.70	2.43	1.00	2.24	TAILINGS
96-06	504691	5503269	342.98	1.56	341.42	21.49	-	-	8.20	14.38	10.60	11.60	TAILINGS / SILT
96-07A1	504509	5503476	343.45	1.03	342.42	12.04	-	-	6.30	11.25	8.20	11.25	TAILINGS
96-07A2	504510	5503475	343.73	1.33	342.40	7.80	-	-	6.38	7.80	7.05	7.80	TAILINGS
96-08A	504157	5503443	342.33	1.13	341.20	7.16	-	-	2.95	7.00	3.95	7.00	TAILINGS
96-08B	504157	5503443	342.51	1.55	340.96	-	-	-	-	-	-	-	TAILINGS
96-08C	504157	5503443	342.59	1.60	340.99	-	-	-	-	-	-	-	TAILINGS
96-09A1	504522	5503964	339.36	1.09	338.27	9.65	-	-	2.98	9.40	6.30	9.40	TAILINGS
96-09A2	504522	5503966	339.63	1.32	338.31	9.65	-	-	8.70	9.66	9.10	9.66	TAILINGS
96-09A3	504522	5503964	339.67	1.35	338.32	7.54	-	-	1.97	5.49	2.40	5.40	TAILINGS
96-09A4	504521	5503965	339.60	1.33	338.27	4.57	-	-	1.00	4.57	1.50	4.57	TAILINGS
96-10A1	504747	5503574	341.86	1.45	340.41	10.87	-	-	9.60	10.86	7.70	10.50	TAILINGS
96-10A2	504749	5503574	341.79	1.40	340.39	10.97	-	-	9.40	10.90	9.98	10.90	TAILINGS
96-10A3	504748	5503576	341.75	1.36	340.39	5.49	-	-	1.92	5.49	2.40	5.40	TAILINGS
96-10B	504746	5503577	341.63	1.17	340.46	-	-	-	-	-	-	-	TAILINGS
96-10C	504749	5503576	341.48	1.23	340.25	-	-	-	-	-	-	-	TAILINGS
96-11A1	505058	5503628	339.26	1.13	338.13	7.01	-	-	2.60	7.1	4.05	7.1	TAILINGS
96-11A2	505062	5503630	339.18	1.33	337.85	4.57	-	-	-	-	3.00	4.57	TAILINGS
96-12A	505318	5503864	332.57	1.65	330.92	-	-	-	-	-	-	-	TAILINGS
96-12B	505320	5503862	332.42	1.70	330.72	-	-	-	-	-	-	-	TAILINGS
96-13	504154	5503485	335.65	1.16	334.49	-	-	-	-	-	-	-	TAILINGS
96-14b	504399	5504251	333.02	1.78	331.24	-	-	-	-	-	-	-	TAILINGS
96-15A1	504655	5503033	336.10	1.05	335.05	3.58	-	-	1.26	3.80	2.1	3.80	TAILINGS
96-15B	504653	5503033	336.86	1.80	335.06	-	-	-	-	-	-	-	TAILINGS
96-15A3	504653	5503036	336.09	1.17	334.92	1.98	-	-	-	-	0.4	1.98	TAILINGS
23-03	504737	5503963	338.15	0.79	337.36	15.85	-	-	13.00	14.94	13.41	14.94	SANDY SILT TO SILTY CLAY
23-12B	505318	5503861	331.66	0.66	331.00	6.78	-	-	3.96	6.71	5.2	6.71	TAILINGS
23-14b	504365	5504268	332.18	0.81	331.37	3.66	-	-	1.52	3.66	2.1	3.66	TAILINGS
MW07-18	505057	5504076	331.28	1.18	330.10	7.60	-	-	1.20	2.90	1.4	2.90	SAND AND SILT
MW08-18	504845	5504337	331.41	1.21	330.20	17.10	-	-	1.50	3.30	1.80	3.30	TAILINGS
MW09-18	504537	5504460	331.52	1.32	330.20	8.40	-	-	1.00	2.70	1.20	2.70	TAILINGS
Historical Hardrock Tailings Monitoring Wells													
H96-01	505121	5502580	334.67	0.22	334.45	1.55	-	-	0.60	1.80	1.10	1.70	TAILINGS
H96-02A	505124	5502443	332.85	0.80	332.05	1.14	-	-	0.20	1.20	0.60	1.10	TAILINGS
H96-02B	505123	5502445	332.62	0.40	332.22	-	-	-	-	-	-	-	TAILINGS
H96-02C	505126	5502445	333.63	1.44	332.19	-	-	-	-	-	-	-	TAILINGS
H96-03	505070	5502525	334.32	1.42	332.90	-	-	-	-	-	-	-	TAILINGS
H96-04A1	505363	5502429	333.15	1.86	331.29	3.12	-	-	1.20	3.10	1.50	2.70	TAILINGS
H96-04B	505362	5502431	332.68	1.42	331.26	-	-	-	-	-	-	-	TAILINGS
H96-05A1	505324	5502625	335.67	1.17	334.50	4.72	-	-	1.90	4.80	3.30	4.50	TAILINGS
H96-05A2	505323	5502622	335.76	1.34	334.42	2.44	-	-	test pit	test pit	0.80	2.40	TAILINGS
H96-06A1	505560	5502644	332.65	1.40	331.25	3.30	-	-	1.20	3.40	1.80	3.00	TAILINGS
H96-06A2	505559	5502645	332.78	1.54	331.24	3.30	-	-	2.60	3.20	2.90	3.20	TAILINGS
H96-06A3	505558	5502641	332.39	1.16	331.23	1.93	-	-	test pit	test pit	0.40	1.80	TAILINGS
H96-06B	505557	5502643	332.67	1.41	331.26	-	-	-	-	-	-	-	TAILINGS
MW01-OB1-18	505710	5502654	332.08	1.38	330.70	26.70	-	-	18.40	18.20	16.70	18.20	SAND AND SILT
MW01-OB2-18	505706	5502658	332.13	1.23	330.90	4.20	-	-	2.40	4.20	2.70	4.20	TAILINGS AND SAND
MW02-OB-18	505528	5502418	331.60	1.30	330.30	12.80	-	-	1.20	3.00	1.50	3.00	TAILINGS
Drive Point Piezometers													
DP2-14D	501541	5501743	331.58	0.86	330.72	2.19	-	-	-	-	1.77	2.19	-
DP2-14S	501541	5501743	331.42	0.59	330.83	1.54	-	-	-	-	1.12	1.54	-
DP3-14D	502943	5501816	330.50	1.22	329.28	1.83	-	-	-	-	1.41	1.83	-
DP3-14S	502943	5501816	330.64	1.35	329.29	0.78	-	-	-	-	0.36	0.78	-
DP3-22D	502944	5501821	330.05	0.96	329.09	-	-	-	-	-	-	-	-
DP3-22S	502944	5501821	330.36	1.25	329.12	-	-	-	-	-	-	-	-
DP4-14	503689	5501608	330.10	0.96	329.14	1.17	-	-	-	-	0.75	1.17	-
DP5-14	501523	5501019	333.18	0.53	332.65	1.60	-	-	-	-	1.18	1.60	-
DP6-14D	499468	5499799	334.64	1.54	333.10	-	-	-	-	-	-	-	-
DP6-14S	499468	5499798	334.67	1.57	333.10	0.56	-	-	-	-	0.14	0.56	-
DP-A	500498	5500553	336.48	0.90	335.52	1.38	-	-	-	-	0.96	1.38	-
DP-B	500456	5501639	334.08	1.22	332.86	1.36	-	-	-	-	0.94	1.36	-
DP-C	500057	5498096	330.47	1.15	329.32	1.70	-	-	-	-	1.28	1.70	-
Seeps													
Seep 1	505396	5503722	-	-	-	-	-	-	-	-	-	-	-
Seep 2	505195	5502277	-	-	-	-	-	-	-	-	-	-	-
Seep 3	504937	5502054	-	-	-	-	-	-	-	-	-	-	-
Seep 5	503648	5503387	-	-	-	-	-	-	-	-	-	-	-
Seep 6	504645	5504153	-	-	-	-	-	-	-	-	-	-	-
Seep 6	504667	5504167	-	-	-	-	-	-	-	-	-	-	-
Seep 7	504705	5504064	-	-	-	-	-	-	-	-	-	-	-
Seep 8	504740	5504012	-	-	-	-	-	-	-	-	-	-	-
Seep 9	504807	5503263	-	-	-	-	-	-	-	-	-	-	-
Seep 10	505290	5503541	-	-	-	-	-	-	-	-	-	-	-
Seep 11	504561	5503159	-	-	-	-	-	-	-	-	-	-	-
Exploration Boreholes, Historical Shafts and Mine Infrastructure													
Hardrock Shaft 1	505162	5502761	-	-	331.73	174.27	-	-	-	-	-	-	-
Hardrock Shaft 2	505927	5502717	-	-	341.86	446.01	-	-	-	-	-	-	-
Hardrock Glory Hole	504877	5503143	-	-	225.64	127.62	-	-	-	-	-	-	-
MacLeod Shaft 1	504206	5503001	-	-	340.45	776.91	-	-	-	-	-	-	-
Mosher Shaft 1	502678	5503070	-	-	348.92	756.88	-	-	-	-	-	-	-
EP137	505550	5503049	-	-	338.85	300.00	1.07	-54.77	-	-	-	-	-
MM006	504199	5502695	-	-	339.85	201.00	354.56	-42.03	-	-	-	-	-
MM140	503700	5502851	-	-	343.16	450.00	356.00	-49.31	-	-	-	-	-
Vibrating Wire Piezometers													
HR041 (VWP-C)-1	503805	5503862	-	-	337.4	537	183.4	-39.5	Sensor installation depth 198.65 m BGS				-
HR041 (VWP-C)-2	503805	5503862	-	-	337.4	537	183.4	-39.5	Sensor installation depth 317.65 m BGS				-
TN014 (VWP-B)-1	505474	5502349	-	-	330.4	552	355.9	-55.5	Sensor installation depth 53.60 m BGS				-
TN014 (VWP-B)-2	505474	5502349	-	-	330.4	552	355.9	-55.5	Sensor installation depth 230.60 m BGS				-
TN014 (VWP-B)-3	505474	5502349	-	-	330.4	552	355.9	-55.5	Sensor installation depth 465.60 m BGS				-

Notes:
- Monitoring location overprinted by mine infrastructure
m AMSL - Metres above mean sea level
m BGS - Metres below ground surface
TOC - Top of Casing
UTM - Universal Transverse Mercator
NAD - North American Datum
1. Exploration hole data provided by Premier
2. Ground and depth elevations for shafts estimated using Premier Wireframe - Hardrock Glory Hole elevation appears erroneous
3. Screen information from historical wells estimated using available borehole logs

Monitoring Well: 23-03

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (Hollow Stem Auger)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	29-Nov-2023 / 02-Dec-2023
Location:	MHT (east end of buttress)	**Ground surface elevation:**	337.36 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	338.15 m AMSL
Field investigator:	R. Baker / R. Dezan	**Easting:**	504737.17
Contractor:	RPM Drilling Inc.	**Northing:**	5503962.73

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	N Value	Diagram / Description
				338.14					
									Above Ground Casing 0.79 m stick-up
0	0		Ground Surface	337.36					
			SILTY SAND (FILL) Fine, some medium and coarse-grained sand, sub-angular to sub-round, light olive brown (2.5Y 5/3), dry, soft, well graded	0.00	1	AS	n/a	n/a	
			Trace silt, trace fine-grained gravel		2	SS	20" 83%	1-0-1-0 (1)	210 mm Diameter Borehole
5			Some fine-grained gravel		3	SS	12" 50%	1-1-1-1 (2)	
	2		Wet at 2.26 m BGS Moist at 2.29 m BGS		4	SS	12" 50%	2-2-2-3 (4)	
10			Becoming dark greyish brown (2.5Y 4/2) at 3.05 m BGS		5	SS	10" 42%	3-3-3-3 (6)	
	4		Becoming medium-grained, some coarse grained sand, some fine gravel, angular to subangular, very dark grey (2.5Y 3/3), moist, soft, well graded sand and gravel		6	SS	10" 42%	1-2-5-9 (7)	
15					7	SS	14" 58%	10-9-11-18 (20)	
					8	SS	0" 0%	11-12-14-6 (26)	
	6		Wet at 5.87 m BGS	331.27					
20			SAND and GRAVEL Fine and coarse-grained gravel, some silt to clayey silt, sub-angular, dark grey (10YR 4/1), hard	6.10	9	SS	8" 100%	6-50/2"	
				330.66	10	CC	16" 95%	n/a	Bentonite Chips 0.00 to 13.00 m
			SAND Fine-grained sand, some medium-grained sand, trace coarse-grained sand, some slit, trace coarse and fine gravel, sub-angular, very dark gray (10YR 3/1) to black (10YR 2/1), soft to firm, wet	6.71	11	SS	13" 54%	8-8-9-9 (17)	
25									
	8				12	SS	7.5" 31%	21-22-7-5 (29)	51 mm Diameter Schedule 40 PVC Riser

Screen Interval: 13.41 - 14.94 m BGS
Sand Pack Interval: 13.00 - 14.94 m BGS
Well Seal Interval: 0.00 - 13.00 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
CC - continuous core sample
AS - auger sample
n/a - not available

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Drawn By/Checked By: RD / RD

STANTEC BOREHOLE AND WELL V2 160901057.300.105.102_BHLOGS_RD.GPJ STANTEC - DATA TEMPLATE.GDT 1/29/24 RACBAKER

Monitoring Well: 23-03

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (Hollow Stem Auger)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	29-Nov-2023 / 02-Dec-2023
Location:	MHT (east end of buttress)	**Ground surface elevation:**	337.36 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	338.15 m AMSL
Field investigator:	R. Baker / R. Dezan	**Easting:**	504737.17
Contractor:	RPM Drilling Inc.	**Northing:**	5503962.73

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	N Value	Diagram / Description
			SAND Fine-grained sand, some medium-grained sand, trace coarse-grained sand, some slit, trace coarse and fine gravel, sub-angular, very dark gray (10YR 3/1) to black (10YR 2/1), soft to firm, wet	328.22	13	SS	0" 0%	7-5-4-4 (9)	
30			ORGANICS Woody debris, fine-grained gravel, angular, very dark brown (10YR 2/2), wet	9.14	14	SS	5" 21%	3-2-5-6 (7)	
	10			327.00	15	SS	9" 38%	8-8-9-7 (17)	
35			SILTY CLAY TO CLAY Grey (5YR 5/1), wet, soft to firm, layered silt, clay or sand between 2 mm and 50mm thick within unit	10.36	16	SS	4" 17%	5-10-12-14 (22)	
					17	SS	16" 67%	6-6-12-10 (18)	
	12				18	SS	13" 54%	7-5-5-7 (10)	
40					19	SS	21" 88%	12-11-15-13 (26)	No. 2 Silica Sand 13.00 to 14.94 m
45					20	SS	0" 0%	15-14-14-16 (28)	No. 10 Slot Schedule 40 PVC Screen 51 mm Diameter 13.41 to 14.94 m
	14			323.19					
			SANDY SILT Very fine-grained sand, grey (2.5YR 5/1), wet, firm, homogeneous	14.17	21	SS	18" 75%	11-11-10-8 (21)	
50					22	SS	n/a	10-11-11-13 (22)	
			Sand becomes more coarse-grained, grey (5YR 5/1), from 15.77 to 15.80 m BGS	321.51					
	16		End of Borehole	15.85					
55									

Screen Interval: 13.41 - 14.94 m BGS
Sand Pack Interval: 13.00 - 14.94 m BGS
Well Seal Interval: 0.00 - 13.00 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
CC - continuous core sample
AS - auger sample
n/a - not available

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Monitoring Well: 23-12B

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (Hollow Stem Auger)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	12-Sep-2023
Location:	MHT (east end of buttress)	**Ground surface elevation:**	331.00 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	331.66 m AMSL
Field investigator:	S. Tam	**Easting:**	505317.98
Contractor:	RPM Drilling Inc.	**Northing:**	5503861.42

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	N Value	Diagram / Description
				331.66					
			Ground Surface	331.01					Above Ground Casing 0.66 m stick-up
0	0		SILT (Topsoil) Dark yellowish brown (10YR 4/4), moist, soft	0.00 330.90					
			SILTY CLAYEY SAND (Tailings) Black (10 YR 2/1) with silver sheen, moist, soft	0.10	1	SS	16" 67%	1-1-1-2 (2)	
					2	SS	7" 29%	1-1-1-1 (2)	
5				329.33					
	2		SILTY SAND TO SANDY SILT Little clay, grey (10YR 6/1), wet ,soft, heterogenous Becoming black (10YR 2/2), soft to very soft at 1.75 m BGS	1.68	3	SS	13" 54%	0-0-9-11 (9)	Bentonite Chips 0.00 to 3.96 m
					4	SS	10" 42%	3-6-5-6 (11)	210 mm Diameter Borehole
10				327.80					51 mm Diameter Schedule 40 PVC Riser
	4		SILT Grey (10YR 6/1), wet, soft to firm, heterogenous	3.20	5	SS	15" 63%	4-4-6-5 (10)	
15					6	SS	17" 71%	1-4-5-7 (9)	No. 2 Silica Sand 3.96 to 6.71 m
	6			324.91					No. 10 Slot Schedule 40 PVC Screen 51 mm Diameter 5.18 to 6.71 m
20			SAND Trace silt, very dark grey (10YR 3/1), wet, firm to hard, well-graded	6.10	7	SS	9" 38%	50/5.5"	
				324.22					
			Auger refusal at 6.78 m BGS End of Borehole	6.78					
25									

Screen Interval: 5.18 - 6.71 m BGS
Sand Pack Interval: 3.96 - 6.71 m BGS
Well Seal Interval: 0.00 - 3.96 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
n/a - not available

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Monitoring Well: 23-14B

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (Hollow Stem Auger)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	13-Sep-2023
Location:	MHT (west end of buttress)	**Ground surface elevation:**	331.37 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	332.18 m AMSL
Field investigator:	S. Tam	**Easting:**	504364.77
Contractor:	RPM Drilling Inc.	**Northing:**	5504268.41

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery / N Value	Diagram	Description
				332.18					
-2									Above Ground Casing 0.81 m stick-up
0	0		Ground Surface	331.37					
			SILTY SAND TO SANDY SILT Trace clay, dark yellowish brown (10YR 3/4) and very dark grey (GLEY 1/3N), moist, soft to hard	0.00	1	SS	16" 67% 2-3-3-3 (6)		210 mm Diameter Borehole
2			Woody debris at 0.33 m BGS						Bentonite Chips 0.00 to 1.52 m
	1				2	SS	9" 38% n/a		51 mm Diameter Schedule 40 PVC Riser
4			Some clay, black (GLEY 1/3N) at 1.32 m BGS						
6	2				3	SS	19" 79% 4-8-6-8 (14)		No. 2 Silica Sand 1.52 to 3.66 m
8					4	SS	14" 58% 1-3-4-10 (7)		No. 10 Slot Schedule 40 PVC Screen 51 mm Diameter 2.13 to 3.66 m
10	3				5	SS	13" 54% 5-14-21-50/1" (35)		
				327.86					
12			SAND Some clay and trace silt, rounded greenish grey (GLEY 1 5/10), wet, hard to firm, well-graded	3.51 327.71					
	4		End of Borehole	3.66					
14									

Screen Interval: 2.13 - 3.66 m BGS
Sand Pack Interval: 1.52 - 3.66 m BGS
Well Seal Interval: 0.00 - 1.52 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
n/a - not available

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Monitoring Well: BH23-01

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (HSA/HQ diamond)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	15-Sep-2023 / 16-Sep-2023
Location:	West end of Goldfield Creek Diversion	**Ground surface elevation:**	343.65 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	344.35 m AMSL
Field investigator:	S. Tam	**Easting:**	498754.09
Contractor:	RPM Drilling Inc.	**Northing:**	5499943.45

Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	SCR	RQD	N Value	Diagram	Description
				344.35								
												Above Ground Casing 0.70 m stick-up
0	0		Ground Surface	343.65								
			SAND (Topsoil) Very dark brown (10YR 2/1) to black (10YR 2/2) with small, woody debris and some grey (10YR 6/1), moist, soft	0.00	1	SS	11" 46%	n/a	n/a	1-2-3-8 (5)		210 mm Diameter Borehole 0.00 m to 0.76 m BGS
			Becoming well-graded sand and trace fine gravel, angular to sub-angular, dark yellowish brown (10YR 4/4), moist, soft to hard									
			BEDROCK Dark grey with quartz veins	342.74 0.76	2	CC	45" 92%	42" 86%	45" 92%	n/a		
5	2				3	CC	42" 110%	41" 108%	42" 110%	n/a		Bentonite Chips 0.00 to 4.11 m; 96 mm Diameter Borehole 0.76 m to 7.77 m BGS
10			Horizontal fracture at 3.02 m BGS		4	CC	57" 98%	57" 98%	57" 98%	n/a		51 mm Diatemer Schedule 40 PVC Riser; No. 2 Silica Sand 4.11 to 7.47 m
15	4		Diagonal fracture from 5.11 to 6.11 m BGS with signs of staining		5	CC	59" 105%	38" 68%	54" 96%	n/a		
20	6		Fracture at 6.27 m BGS; Fracture from 6.38 to 7.59 m BGS		6	CC	60" 97%	60" 97%	57" 92%	n/a		No. 10 Slot Schedule 40 PVC Screen 51 mm Diameter 4.40 to 7.44 m
25	8		End of Borehole	336.21 7.44								

Screen Interval: 4.40 - 7.44 m BGS
Sand Pack Interval: 4.09 - 7.44 m BGS
Well Seal Interval: 0.00 - 4.09 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
CC - continuous core sample
n/a - not available

HSA - Hollow Stem Auger

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Monitoring Well: MW5-OB2-23

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (Hollow Stem Auger)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	14-Sep-2023
Location:	Pond M1	**Ground surface elevation:**	332.79 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	333.47 m AMSL
Field investigator:	S. Tam	**Easting:**	502620.94
Contractor:	RPM Drilling Inc.	**Northing:**	5502067.18

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	N Value	Diagram / Description
				333.47					
			Ground Surface	332.79					Above Ground Casing 0.68 m stick-up
0	0		PEAT Woody debris and trace medium-grained sand with roots, brown (10YR 3/3), moist, crumbly texture, soft	0.00	1	SS	7" 29%	0-0-0-1 (0)	
					2	SS	9" 38%	0-1-0-1 (1)	
5					3	SS	3" 13%	0-0-0-1 (0)	
	2				4	SS	13" 54%	0-1-2-6 (3)	210 mm Diameter Borehole
			Wet seam of larger pieces of woody debris and dark yellowish brown (10YR 4/6) organic matter at 2.62 m BGS	329.99					
			SILTY SAND TO SANDY SILT Fine-grained sand, gray (10YR 6/1), moist, soft to hard	2.80					Bentonite Chips 0.00 to 5.64 m
10					5	SS	13" 54%	2-2-4-8 (6)	
	4								51 mm Diameter Schedule 40 PVC Riser
15					6	SS	4" 17%	2-2-3-5 (5)	
				327.63					
			CLAYEY SILT Wet, softer and more wet than previous run, grey (10YR 6/1)	5.16					
	6								No. 2 Silica Sand 5.64 to 7.47 m
20				326.62					
			SANDY SILT TO SILTY SAND Soft to hard, well graded sand, wet, diamicton	6.17	7	SS	22" 92%	3-2-2-3 (4)	
									No. 10 Slot Schedule 40 PVC Screen 51 mm Diameter 5.94 to 7.47 m
25				325.17					
	8		End of Borehole	7.62					

Screen Interval: 5.94 - 7.47 m BGS
Sand Pack Interval: 5.64 - 7.47 m BGS
Well Seal Interval: 0.00 - 5.64 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
n/a - not available

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Monitoring Well: MW7-BR-23

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (HSA/HQ diamond)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	17-Sep-2023 / 18-Sep-2023
Location:	Downgradient WRSA D	**Ground surface elevation:**	335.60 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	336.44 m AMSL
Field investigator:	S. Tam	**Easting:**	501555.45
Contractor:	RPM Drilling Inc.	**Northing:**	5500895.59

SUBSURFACE PROFILE				SAMPLE DETAILS						INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	SCR	RQD	N Value	Diagram / Description
				336.44							
											Above Ground Casing 0.84 m stick-up
0	0		Ground Surface	335.60							
			PEAT Woody, organics, black (10YR 2/1), moist, soft	0.00 335.22	1	SS	12	n/a	n/a	0-2-7-9 (9)	
			SILTY SAND TO SANDY SILT Fine, medium and coarse-grained sand, fine gravel, crushed rock, brown (10YR 4/3), moist, soft to hard Becoming grey (10YR 6/1) at 0.51 m BGS	0.38	2	SS	11	n/a	n/a	11-14-28-49 (42)	
5	1				3	SS	10	n/a	n/a	11-16-9-10 (25)	
				333.72							
	2		SAND Fine, medium, and coarse-grained sand, some silt, trace fine gravel, grayish brown (10YR 5/2), moist, soft to hard, well graded, diamicton	1.88	4	SS	10	n/a	n/a	33-50/5"	
10	3				5	SS	11	n/a	n/a	26-50/2"	210 mm Diameter Borehole 0.00 m to 7.49 m BGS
	4										
15					6	SS	8	n/a	n/a	50/3"	Bentonite Chips 0.00 to 9.25 m
	5			330.63							
			SILTY SAND TO SANDY SILT Fine and medium-grained sand, trace coarse-grained sand, trace clay, crushed rock in sand matrix, grey (10YR 5/1), moist, hard, diamicton Soft seam of sand of 50 mm in thickness at 4.98 m BGS	4.98							

Screen Interval: 9.47 - 11.00 m BGS
Sand Pack Interval: 9.25 - 11.00 m BGS
Well Seal Interval: 0.00 - 9.25 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
CC - continuous core sample
n/a - not available

HSA - Hollow Stem Auger

Stantec

Drawn By/Checked By: RD / RD

STANTEC BOREHOLE AND WELL V2 160901057.300.105.102_BHLOGS_RD.GPJ STANTEC - DATA TEMPLATE.GDT 1/29/24 RACBAKER

Monitoring Well: MW7-BR-23

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (HSA/HQ diamond)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	17-Sep-2023 / 18-Sep-2023
Location:	Downgradient WRSA D	**Ground surface elevation:**	335.60 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	336.44 m AMSL
Field investigator:	S. Tam	**Easting:**	501555.45
Contractor:	RPM Drilling Inc.	**Northing:**	5500895.59

SUBSURFACE PROFILE				SAMPLE DETAILS						INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	SCR	RQD	N Value	Diagram	Description
20	6		SILTY SAND TO SANDY SILT Fine and medium-grained sand, trace coarse-grained sand, trace clay, crushed rock in sand matrix, grey (10YR 5/1), moist, hard, diamicton									
					7	SS	5	n/a	n/a	50/3"		51 mm Diameter Schedule 40 PVC Riser
	7				8	CC	6	n/a	n/a	50/1"		
			Fine gravel at 7.49 m BGS	328.11								
25			BEDROCK Layering of grey to lighter grey, hard, light weathering	7.49	9	CC	15.4" 81%	15.4" 81%	15.4" 81%	n/a		96 mm Diameter Borehole 7.49 m to 11.00 m BGS
	8		Fracture at 8.18 m BGS		10	CC	59" 100%	58.5" 99%	59" 100%	n/a		No. 2 Silica Sand 9.25 to 11.00 m
30	9		Fracture at 9.45 m BGS		11	CC	59" 98%	43" 72%	53" 88%	n/a		No. 10 Slot Schedule 40 PVC Screen 51 mm Diameter 9.47 to 11.00 to m
	10											
35			Fractures at 10.57 and 10.90 m BGS									
	11		Fracture from 10.92 to 11.00 m BGS	324.61								
			End of Borehole	11.00								
40	12											

Screen Interval: 9.47 - 11.00 m BGS
Sand Pack Interval: 9.25 - 11.00 m BGS
Well Seal Interval: 0.00 - 9.25 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
CC - continuous core sample
n/a - not available

HSA - Hollow Stem Auger

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Drawn By/Checked By: RD / RD

STANTEC BOREHOLE AND WELL V2 160901057.300.105.102_BHLOGS_RD.GPJ STANTEC - DATA TEMPLATE.GDT 1/29/24 RACBAKER

Monitoring Well: MW23-04

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (Hollow Stem Auger)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	16-Sep-2023
Location:	North of TMF	**Ground surface elevation:**	345.01 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	345.75 m AMSL
Field investigator:	S. Tam	**Easting:**	499772.55
Contractor:	RPM Drilling Inc.	**Northing:**	5500927.21

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery / N Value	Diagram	Description
				345.75					
									Above Ground Casing 0.74 m stick-up
0	0		Ground Surface	345.01					
			SILTY SAND (TOPSOIL)	0.00					
			Fine-grained, woody debris, some fine and medium-grained sand, black (10YR 2/1) to brown (10YR 4/3), moist, crumbly texture, soft	344.86	1	SS	13" 54% 2-5-8-9 (13)		
				0.15					
			SILT Trace fine-grained sand and clay, ligth gray (10YR 7/1), moist, soft						
			Becoming light brownish gray (10YR 6/2)		2	SS	17" 71% 5-11-11-12 (22)		
5					3	SS	17" 71% 10-11-10-12 (21)		210 mm Diameter Borehole
	2				4	SS	17" 71% 6-10-11-13 (21)		Bentonite Chips 0.00 to 5.74 m
10					5	SS	17" 71% 7-11-11-12 (22)		
	4								
15				340.19					
			SAND Fine, medium and coarse-grained sand, some silt, trace fine gravel, angular to sub-round, grayish brown (10YR 5/2), moist to wet, soft to very soft, well graded	4.82	6	SS	14" 58% 9-13-23-21 (36)		51 mm Diameter Schedule 40 PVC Riser
									No. 2 Silica Sand 5.74 to 7.62 m
20	6				7	SS	12" 50% 12-14-19-26 (33)		
									No. 10 Slot Schedule 40 PVC Screen 51 mm Diameter 6.10 to 7.62 m
25									
	8		Seam of coarse-grained sand, black (10 YR 2/1), 152 mm thick starting at 7.85 m BGS		8	SS	15" 63% 36-50/5" (0)		
				336.78					
			End of Borehole	8.23					

Screen Interval: 6.10 - 7.62 m BGS
Sand Pack Interval: 5.74 - 7.62 m BGS
Well Seal Interval: 0.00 - 5.74 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
n/a - not available

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STANTEC BOREHOLE AND WELL V2 160901057.300.105.102_BHLOGS_RD.GPJ STANTEC - DATA TEMPLATE.GDT 11/19/24 STAM

Monitoring Well: MW26-OB1/OB2-23

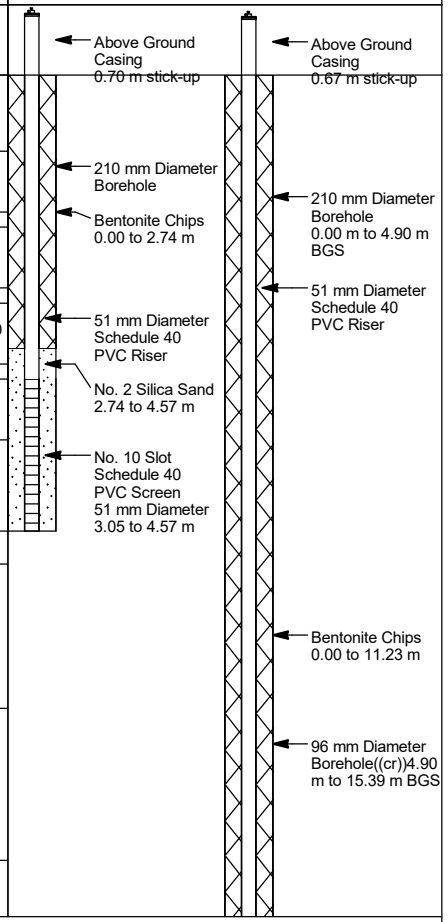
Project: Greenstone Mine 2023 Field Programs
Client: Greenstone Gold Mines GP Inc.
Location: Haul road near SME
Number: 160901057.300.105.102

Field investigator: S. Tam
Contractor: RPM Drilling Inc.
Method: Track Mount CME 55 (HSA/HQ Diamond)
Date started/completed: 19-Sep-2023 / 21-Sep-2023

Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	N Value
				336.15				
			Ground Surface	335.45				
0	0		SANDY SILT (Topsoil) Fine-grained sand, black (10YR 2/1), moist	0.00 335.40				
			SILTY SAND TO SANDY SILT Fine and medium-grained sand, Brown (10YR 4/3), moist, soft to hard, well graded Becoming light brownish grey (10YR 6/2)	0.05	1	SS	11" 37%	0-1-5-5 (6)
			Wet seam from 1.09 to 1.17 m BGS, grayish brown (10YR 5/2)		2	SS	8" 33%	3-5-4-7 (9)
5								
	2		Wet seam from 1.85 m to 1.98 m BGS		3	SS	17" 71%	3-6-2-6 (8)
					4	SS	9" 38%	13-19-28-40 (47)
			Wet seam from 2.67 m to 2.74 m BGS Trace coarse gravel beginning at 2.82 m BGS					
10					5	SS	16" 67%	23-43-48-41 (91)
			Becoming greyish brown (10YR 5/2)					
	4							
15				330.55	6	SS	8" 62%	43-50/2"
			SILTY SAND Fine-grained, trace medium and coarse sand, little fine and coarse gravel, dary gray (10YR 4/1), moist, hard, diamicton	4.90	7	CC	7" 12%	n/a
20	6							
					8	CC	38" 63%	n/a
25								
	8							

WELL DETAILS

MW26-OB1-23	MW26-OB2-23
GS Elev: 335.45 m AMSL	GS Elev: 335.26 m AMSL
TOC Elev: 336.15 m AMSL	TOC Elev: 335.93 m AMSL
Easting: 501114.71	Easting: 501116.33
Northing: 5500678.34	Northing: 5500679.09
Stick-up: 0.71 m	Stick-up: 0.67 m



Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m BTOC - metres below top of casing
SS - split-spoon sample
CC - continuous core sample
n/a - not available

HSA - Hollow Stem Auger

Screen Interval: 3.05 - 4.57; 12.19 - 13.72 m BGS
Sand Pack Interval: 11.23 - 13.87 m BGS
Well Seal Interval: 0.00 - 11.23 m BGS

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Drawn By/Checked By: RD / RD

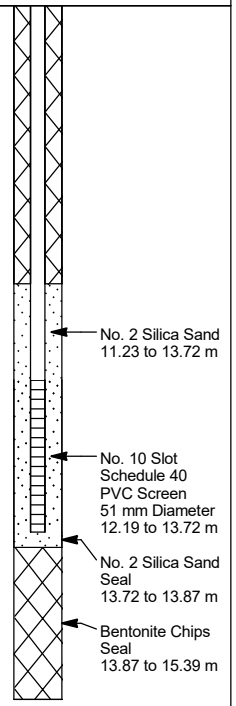
STANTEC BOREHOLE AND WELL - CLUST 11X8.5 160901057.300.105.102_BHLOGS_RD.GPJ STANTEC - DATA TEMPLATE.GDT 11/19/24 STAM

Monitoring Well: MW26-OB1/OB2-23

Project: Greenstone Mine 2023 Field Programs
Client: Greenstone Gold Mines GP Inc.
Location: Haul road near SME
Number: 160901057.300.105.102

Field investigator: S. Tam
Contractor: RPM Drilling Inc.
Method: Track Mount CME 55 (HSA/HQ Diamond)
Date started/completed: 19-Sep-2023 / 21-Sep-2023

SUBSURFACE PROFILE				SAMPLE DETAILS				WELL DETAILS
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery / N Value	
30			SILTY SAND Fine-grained, trace medium and coarse sand, little fine and coarse gravel, dary gray (10YR 4/1), moist, hard, diamicton		9	CC	19" 32% / n/a	Name: MW26-OB1-23 GS Elev: 335.45 m AMSL TOC Elev: 336.15 m AMSL Easting: 501114.71 Northing: 5500678.34 Stick-up: 0.71 m
	10		Seam of more moist, and softer material at 9.30 m BGS		10	CC	57" 97% / n/a	Name: MW26-OB2-23 GS Elev: 335.26 m AMSL TOC Elev: 335.93 m AMSL Easting: 501116.33 Northing: 5500679.09 Stick-up: 0.67 m
35					11	CC	15" 28% / n/a	
	12				12	CC	12" 19% / n/a	
40								
45	14				13	CC	52" 87% / n/a	
50				320.05				
	16		End of Borehole	15.39				
55								



Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
m BTOC - metres below top of casing
SS - split-spoon sample
CC - continuous core sample
n/a - not available

HSA - Hollow Stem Auger

Screen Interval: 3.05 - 4.57; 12.19 - 13.72 m BGS
Sand Pack Interval: 11.23 - 13.87 m BGS
Well Seal Interval: 0.00 - 11.23 m BGS

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STANTEC BOREHOLE AND WELL - CLUST 11X8.5 160901057.300.105.102_BHLOGS_RD.GPJ STANTEC - DATA TEMPLATE.GDT 11/19/24 STAM

Monitoring Well: MW27-BR-23 (MW-P)

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (HQ diamond)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	25-Nov-2023
Location:	Downgradient of WRSA B and adjacent to the C & D Landfill	**Ground surface elevation:**	332.13 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	332.83 m AMSL
Field investigator:	R. Baker	**Easting:**	504530.96
Contractor:	RPM Drilling Inc.	**Northing:**	5501906.76

SUBSURFACE PROFILE				SAMPLE DETAILS					INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	SCR	RQD	Diagram / Description
				332.82						
-2										Above Ground Casing 0.70 m stick-up
0	0		Ground Surface	332.13						
			SANDY SILT (Topsoil)/BLAST ROCK Brown (10YR 5/3) soft, moist	0.00						
				331.52		N/A	n/a	n/a	n/a	
2			BEDROCK Very dark grey (10YR 3/1) to black (10YR 2/1), with quartz veins at 1.68 and 1.78 m BGS Rust staining in fractures	0.61						
	1									Bentonite Chips 0.00 to 2.21 m
4			Angled fracture at 1.47 m BGS		1	CC	35" 100%	32" 91%	34.3" 98%	96 mm Diameter Borehole
6			Horizontal fracture at 1.98 m BGS Angled fracture at 2.06 m BGS							51 mm Diameter Schedule 40 PVC Riser
	2									
8			Horizontal fracture at 2.44 m BGS		2	CC	59" 106%	39.5" 71%	48.5" 87%	No. 2 Silica Sand 2.21 to 4.78 m
10	3		Angled fracture at 2.90 m BGS							
			Angled fractures at 3.35 and 3.40 m BGS							
12										
	4				3	CC	58" 100%	40" 69%	40.5" 70%	No. 10 Slot Schedule 40 PVC Screen 51 mm Diameter 3.10 to 4.62 to m
14			Horizontal fracture at 4.42 m BGS							
				327.35						
16	5		End of Borehole	4.78						

Screen Interval: 3.10 - 4.62 m BGS
Sand Pack Interval: 2.21 - 4.78 m BGS
Well Seal Interval: 0.00 - 2.21 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
CC - continuous core sample
n/a - not available

Stantec

Drawn By/Checked By: RD / RD

STANTEC BOREHOLE AND WELL V2 160901057.300.105.102_BHLOGS_RD.GPJ STANTEC - DATA TEMPLATE.GDT 1/29/24 RACBAKER

Monitoring Well: MW28-BR-23 (MW-Q)

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (HSA/HQ diamond)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	26-Nov-2023
Location:	Downgradient of WRSA B and adjacent to the C & D Landfill	**Ground surface elevation:**	331.47 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	332.11 m AMSL
Field investigator:	R. Baker	**Easting:**	504541.31
Contractor:	RPM Drilling Inc.	**Northing:**	5502025.74

SUBSURFACE PROFILE				SAMPLE DETAILS						INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	SCR	RQD	N Value	Diagram / Description
				332.11							
			Ground Surface	331.47							Above Ground Casing 0.64 m stick-up
0	0		FILL/TOPSOIL Grey blast rock, trace silt, small stone chips 1 mm to 5 mm, roots present, black (2.5Y 2.5/1), moist	0.00	1	AS	12" 40%	n/a	n/a	n/a	
				330.71							
	1		BLAST ROCK With angular gravel, grey, rough, wet	0.76	2	SS	10" 42%	n/a	n/a	14-11-5-0 (16)	210 mm Diameter Borehole 0.00 m to 3.00 m BGS
5				329.94							
	2		SAND Fine-grained, trace medium sand, trace silt and two sub-rounded, large, gravel stones, light yellowish brown (2.5Y 6/3), wet	1.52	3	SS	6" 25%	n/a	n/a	10-11-10-18 (21)	Bentonite Chips 0.00 to 4.34 m
			Coarse-grained, sub-rounded sand, moist at 2.44 m BGS		4	SS	11" 50%	n/a	n/a	n/a	
10	3		Seam of medium-grained sand at 2.92 m BGS	328.47							
			BEDROCK Very dark grey (10YR 3/1)	3.00	5	CC	15" 100%	12" 80%	14.5" 97%	n/a	
	4		Staining observed in horizontal fractures at 3.96 and 4.37 m BGS		6	CC	62" 100%	49.5" 80%	53.5" 86%	n/a	51 mm Diameter Schedule 40 PVC Riser 96 mm Diameter Borehole 3.00 m to 6.48 m BGS No. 2 Silica Sand 4.34 to 6.48 m
15											
	5		Multiple fractures between from 3.05 to 5.87 m BGS		7	CC	60" 100%	29" 48%	46.3" 77%	n/a	No. 10 Slot Schedule 40 PVC Screen 51 mm Diameter 4.95 to 6.48 m
20	6			324.99							
			End of Borehole	6.48						n/a	

Screen Interval: 4.95 - 6.48 m BGS
Sand Pack Interval: 4.34 - 6.48 m BGS
Well Seal Interval: 0.00 - 4.34 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
CC - continuous core sample
AS - auger sample
n/a - not available

HSA - Hollow Stem Auger

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Drawn By/Checked By: RD / RD

Sheet 1 of 1

STANTEC BOREHOLE AND WELL V2 160901057.300.105.102_BHLOGS_RD.GPJ STANTEC - DATA TEMPLATE.GDT 1/29/24 RACBAKER

Monitoring Well: MW31-OB-23 (MW-H)

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (Hollow Stem Auger)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	03-Dec-2023
Location:	Downgradient of MHT Seepage Collection System	**Ground surface elevation:**	331.43 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	332.05 m AMSL
Field investigator:	R. Dezan	**Easting:**	504777.58
Contractor:	RPM Drilling Inc.	**Northing:**	5504078.65

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	N Value	Diagram / Description
				332.05					
			Ground Surface	331.43					Above Ground Casing 0.62 m stick-up
0	0		PEAT	0.00					
			Dry, soft, dark brown (10YR 3/3)	331.33					
			SILTY CLAY Wet, soft, grey (5Y 5/1)	0.10	1	AS	n/a	n/a	
2				330.67					210 mm Diameter Borehole
			SANDY SILT Fine-grained becoming sandier with depth, soft, (gray (5Y 5/1), wet	0.76	2	SS	11" 46%	2-2-2-2 (4)	Bentonite Chips 0 to 1.83 m
4	1								
					3	SS	12" 50%	1-4-2-3 (6)	51 mm Diameter Schedule 40 PVC Riser
6			Seam of tailings, reddish black (10YR 2.5/1) 127 mm thick starting at 1.93 m BGS						No. 2 Silica Sand 1.83 to 3.66 m
	2		Seam of wet, firm clayey silt 76 mm thick starting at 2.06 m BGS						
8				328.82	4	SS	17" 71%	1-0-1-2 (1)	
			TAILINGS Wet, very soft to firm, very dusky red (7.5R 2.5/2) from 2.62 to 2.84 mBGS	2.62					
10	3		Some very fine-grained sand		5	SS	7" 29%	1-2-0-0 (2)	No. 10 Slot Schedule 40 PVC Screen 51 Diameter 2.13 to 3.66 m
			Seam of silty sand, very soft, very dusky red (7.5R 2.5/2) at 3.56 to 3.61 mBGS	327.78					
12			End of Borehole	3.66					

Screen Interval: 2.13 - 3.66 m BGS
Sand Pack Interval: 1.83 - 3.66 m BGS
Well Seal Interval: 0.00 - 1.83 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
AS - auger sample
n/a - not available

Stantec

Drawn By/Checked By: RD / RD

STANTEC BOREHOLE AND WELL V2 160901057.300.105.102_BHLOGS_RD.GPJ STANTEC - DATA TEMPLATE.GDT 1/29/24 RACBAKER

Monitoring Well: MW32-OB-23 (MW-I)

Project:	Greenstone Mine 2023 Field Programs	**Method:**	Track Mount CME 55 (Hollow Stem Auger)
Client:	Greenstone Gold Mines GP Inc.	**Date started/completed:**	03-Dec-2023
Location:	Downgradient of MHT Seepage Collection System	**Ground surface elevation:**	330.78 m AMSL
Number:	160901057.300.105.102	**Top of casing elevation:**	331.50 m AMSL
Field investigator:	R. Dezan	**Easting:**	504979.65
Contractor:	RPM Drilling Inc.	**Northing:**	5503995.14

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	Recovery	N Value	Diagram / Description
				331.50					
-2									Above Ground Casing 0.72 m stick-up
0	0		Ground Surface	330.78					
			PEAT Wet, dark yellowish brown (10YR 3/4)	0.00 330.71					
			SILTY SAND Fine-grained, wet, very soft, black (10YR 2/1)	0.08	1	AS	n/a	n/a	210 mm Diameter Borehole
2									Bentonite Chips 0 to 1.83 m
	1			329.66	2	SS	15" 63%	1-1-3-3 (4)	
4			SILTY CLAY Wet, soft to firm, black (10YR 2/1)	1.12					51 mm Diameter Schedule 40 PVC Riser
					3	SS	12" 50%	1-1-1-1 (2)	
6	2		Seam of wet, firm, very fine-grained sand from 1.96 to 2.03 mBGS Seam of wet, soft, black (10YR 2/1), peat from 2.03 to 2.11 mBGS Seam of wet, firm, very fine-grained sand from 2.11 to 2.13 mBGS						No. 2 Silica Sand 1.83 to 3.66 m
				328.47					
8			CLAYEY SILT TO SILTY CLAY Wet, soft to firm, grey (5Y 5/1)	2.31	4	SS	15" 63%	2-3-4-6 (7)	
	3								No. 10 Slot Schedule 40 PVC Screen 51 mm Diameter 2.13 to 3.66 m
10			Seams of wet, soft to firm, very dark grey (10YR 3/1) clay of approximately 2 mm thickness every 0.05 m		5	SS	16" 67%	3-6-7-8 (13)	
12				327.12					
			End of Borehole	3.66					

Screen Interval: 2.13 - 3.66 m BGS
Sand Pack Interval: 1.83 - 3.66 m BGS
Well Seal Interval: 0.00 - 1.83 m BGS

Notes:
m AMSL - metres above mean sea level
m BGS - metres below ground surface
SS - split-spoon sample
AS - auger sample
n/a - not available

Stantec

Drawn By/Checked By: RD / RD

STANTEC BOREHOLE AND WELL V2 160901057.300.105.102_BHLOGS_RD.GPJ STANTEC - DATA TEMPLATE.GDT 1/29/24 RACBAKER

Appendix C.3 Pumping Data and Hydrographs

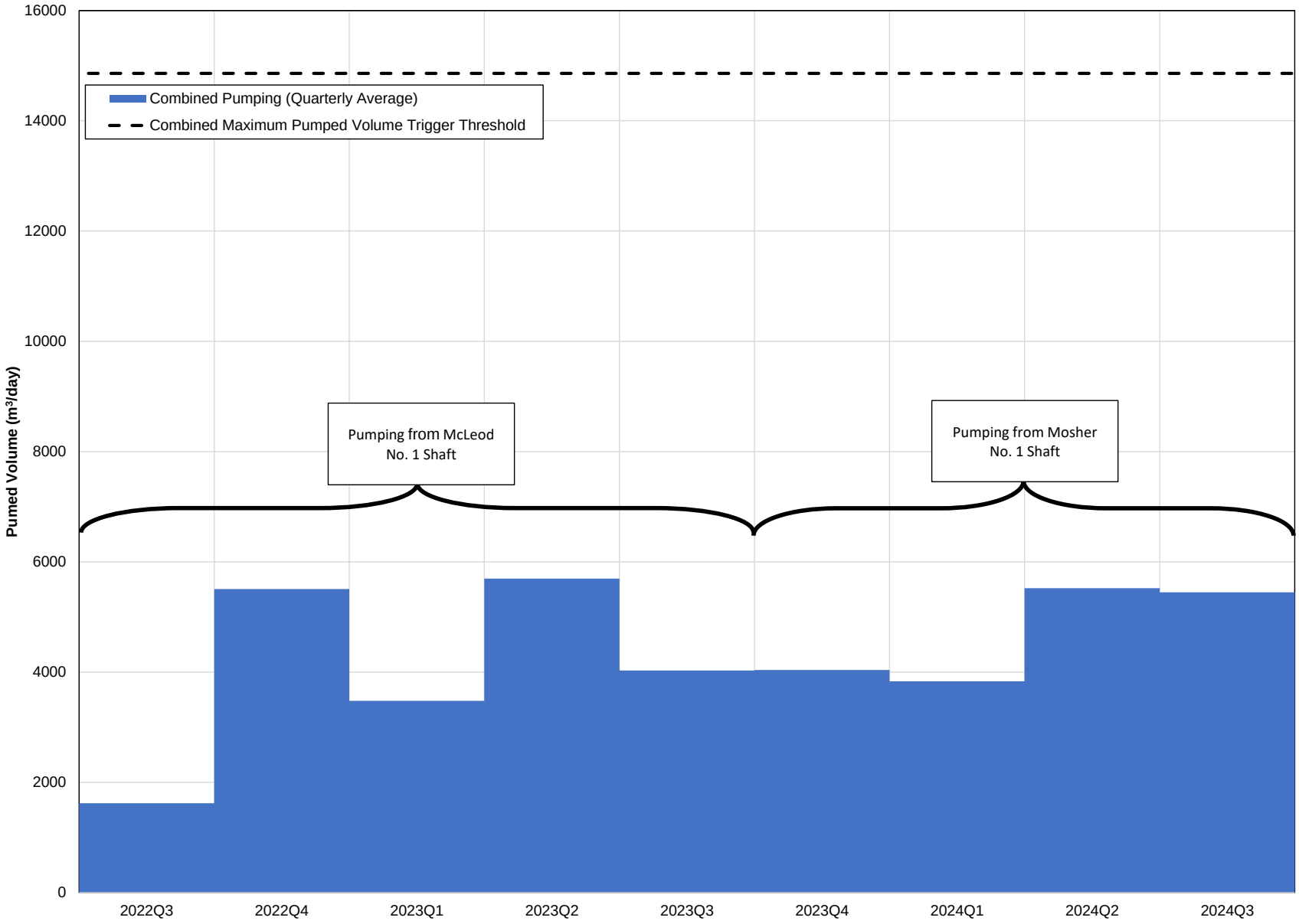
Table C-3-1
Manual Groundwater Elevations
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Project

Monitoring Location	Date	Time	Manual Groundwater Level (m BTOC)	Groundwater Elevation (m AMSL)	Monitoring Location	Date	Time	Manual Groundwater Level (m BTOC)	Groundwater Elevation (m AMSL)
23-03	22-May-24	16:29	6.68	331.47	BH14-08	10-Jul-24	14:10	5.39	334.30
23-03	10-Jul-24	14:30	7.34	330.81	BH14-09	1-Nov-23	9:06	9.72	336.31
23-12B	12-Oct-23	14:58	1.06	330.61	BH14-10	19-Oct-23	14:28	6.94	335.43
23-12B	31-May-24	14:30	0.95	330.71	BH14-10	7-Jun-24	14:33	7.41	334.97
23-12B	18-Jul-24	12:20	1.00	330.66	BH14-11	1-Nov-23	10:26	10.26	333.60
23-14B	19-Oct-23	12:29	1.21	331.81	BH14-11	28-May-24	14:32	*	*
23-14B	6-Jun-24	13:16	1.91	331.12	BH14-11	10-Jul-24	12:06	*	*
23-14B	18-Jul-24	10:43	1.06	331.96	BH14-12	1-Nov-23	10:15	6.18	335.37
96-01	11-Oct-23	15:04	8.43	334.16	BH14-12	8-Jun-24	14:05	6.81	334.74
96-01	7-Jun-24	14:53	9.32	331.91	BH14-12	10-Jul-24	14:43	6.65	334.90
96-01	31-Jul-24	11:35	10.26	332.33	BH14-15	12-Oct-23	10:28	1.14	330.23
96-02	23-Oct-23	16:50	6.70	334.61	BH14-15	3-Jun-24	12:15	1.06	330.31
96-02	7-Jun-24	15:05	7.55	333.77	BH14-15	21-Jul-24	9:27	1.13	330.24
96-02	10-Jul-24	13:50	7.69	333.62	BH14-23	7-Oct-23	17:02	7.00	335.14
96-04	19-Oct-23	15:11	6.35	332.20	BH14-23	27-Apr-24	15:20	*	*
96-04	22-May-24	16:36	6.42	332.13	BH14-23	21-Jul-24	12:10	*	*
96-04	10-Jul-24	14:20	6.43	332.12	BH15-17	19-Oct-23	9:52	2.61	360.70
96-05	8-Oct-23	9:39	3.24	332.02	BH23-01	24-Oct-23	11:48	3.98	340.38
96-05	7-Jun-24	14:44	*	*	BH23-01	30-May-24	10:42	2.88	341.47
96-06	10-Oct-23	17:22	8.50	334.48	BH23-01	24-Jul-24	11:51	3.70	340.65
96-07A1	11-Oct-23	14:05	9.12	334.33	DP2-14D	17-Oct-23	15:30	0.28	331.30
96-07A1	6-Jun-24	15:34	10.42	333.03	DP2-14D	29-Apr-24	10:02	0.25	331.33
96-07A1	10-Jul-24	12:43	9.97	333.47	DP2-14D	21-Aug-24	15:25	0.33	331.25
96-07A2	11-Oct-23	14:07	*	*	DP2-14S	17-Oct-23	15:35	0.14	331.28
96-07A2	6-Jun-24	15:37	*	*	DP2-14S	29-Apr-24	10:05	0.03	331.39
96-07A2	10-Jul-24	12:46	*	*	DP2-14S	21-Aug-24	15:30	0.13	331.29
96-08A	12-Oct-23	11:28	*	*	DP3-22D	24-Oct-23	14:48	0.40	329.66
96-08A	28-May-24	14:11	*	*	DP3-22D	12-Jun-24	14:45	0.56	329.49
96-08A	10-Jul-24	12:28	*	*	DP3-22D	11-Jul-24	14:40	0.47	329.58
96-08B	12-Oct-23	11:40	*	*	DP3-22S	24-Oct-23	14:43	1.00	329.36
96-08B	28-May-24	14:18	*	*	DP3-22S	12-Jun-24	14:50	0.83	329.53
96-08B	10-Jul-24	12:23	10.26	332.25	DP3-22S	11-Jul-24	14:37	0.71	329.65
96-08C	12-Oct-23	11:49	13.04	329.55	DP4-14	2-Nov-23	15:32	**	**
96-08C	28-May-24	14:13	11.51	331.09	DP4-14	20-Jun-24	14:39	-0.18	330.28
96-08C	10-Jul-24	12:18	12.66	329.94	DP4-14	12-Aug-24	13:59	-0.31	330.41
96-09A1	8-Oct-23	8:52	4.48	334.88	DP5-14	4-Oct-23	15:41	1.05	332.13
96-09A1	22-May-24	14:17	3.71	335.66	DP5-14	1-May-24	15:35	1.04	332.14
96-09A1	18-Jul-24	11:11	4.10	335.27	DP5-14	12-Jul-24	13:55	1.23	331.96
96-09A2	8-Oct-23	8:57	5.19	334.44	DP6-14D	2-Nov-23	13:30	0.40	334.24
96-09A2	22-May-24	14:10	4.17	335.46	DP6-14S	2-Nov-23	13:30	0.15	334.52
96-09A2	18-Jul-24	11:14	4.46	335.17	DP-A	6-Nov-23	13:28	0.52	335.96
96-09A3	8-Oct-23	9:02	5.23	334.44	DP-A	13-Jun-24	14:14	0.50	335.98
96-09A3	22-May-24	14:21	3.91	335.76	DP-A	5-Sep-24	9:50	0.56	335.92
96-09A3	18-Jul-24	11:19	4.27	335.39	DP-B	7-Oct-23	11:22	0.30	333.78
96-09A4	8-Oct-23	9:05	4.70	334.90	DP-B	28-Apr-24	13:45	0.13	333.95
96-09A4	22-May-24	14:24	3.71	335.89	DP-B	8-Aug-24	15:15	0.31	333.77
96-09A4	18-Jul-24	11:21	4.17	335.43	DP-C	23-Oct-23	14:06	2.19	328.28
96-10A1	12-Oct-23	12:41	6.10	335.76	DP-C	20-Jun-24	11:25	2.27	328.21
96-10A1	8-Jun-24	11:10	6.41	335.45	DP-C	21-Aug-24	11:57	2.02	328.45
96-10A1	10-Jul-24	13:32	6.45	335.41	EP137	1-Nov-23	13:31	23.45	315.74
96-10A2	12-Oct-23	12:44	6.55	335.24	G1-OB-13	7-Oct-23	13:46	1.71	330.33
96-10A2	8-Jun-24	11:06	6.39	335.41	G1-OB-13	6-Jun-24	14:33	1.01	331.03
96-10A2	10-Jul-24	13:24	6.47	335.33	G1-OB-13	7-Aug-24	10:51	1.47	330.56
96-10A3	12-Oct-23	12:51	5.98	335.77	G2-OB-13	7-Oct-23	13:13	1.48	342.69
96-10A3	8-Jun-24	11:17	6.22	335.53	G2-OB-13	7-Jun-24	14:06	1.13	343.03
96-10A3	10-Jul-24	13:42	3.78	337.97	G2-OB-13	27-Aug-24	15:42	1.45	342.72
96-10B	12-Oct-23	12:59	10.60	331.03	G4-OB1-13	12-Oct-23	12:29	1.43	332.26
96-10B	8-Jun-24	11:14	11.20	330.43	G4-OB1-13	29-May-24	10:55	1.07	332.63
96-10B	10-Jul-24	13:36	11.02	330.62	G4-OB1-13	23-Jul-24	14:27	1.34	332.35
96-10C	12-Oct-23	13:20	21.90	319.58	G4-OB2-13	12-Oct-23	12:12	1.24	332.44
96-10C	8-Jun-24	11:21	21.70	319.78	G4-OB2-13	30-Apr-24	13:12	1.05	332.63
96-10C	10-Jul-24	13:48	23.16	318.32	G4-OB2-13	23-Jul-24	14:24	1.45	332.23
96-11A1	10-Oct-23	9:42	5.99	333.26	G5-OB1-14	31-Oct-23	14:38	***	***
96-11A1	8-Jun-24	12:01	6.59	332.66	G5-OB2-14	31-Oct-23	14:39	***	***
96-11A1	18-Jul-24	11:38	7.05	332.21	G6-BR-14	10-Oct-23	15:00	2.17	329.72
96-11A2	10-Oct-23	9:45	5.32	333.86	G6-BR-14	23-Jun-24	11:06	1.59	330.30
96-11A2	8-Jun-24	12:03	*	*	G6-BR-14	29-Aug-24	14:28	1.70	330.19
96-11A2	18-Jul-24	11:44	5.30	333.88	G6-OB-14	10-Oct-23	14:45	1.77	329.91
96-12A	19-Oct-23	11:30	1.16	331.41	G6-OB-14	23-Jun-24	10:50	1.26	330.43
96-12A	31-May-24	14:45	1.84	330.73	G6-OB-14	19-Aug-24	14:19	1.35	330.33
96-12A	18-Jul-24	12:26	1.37	331.20	G7-OB1-14	5-Oct-23	17:08	0.81	333.58
96-13	12-Oct-23	12:08	3.18	332.47	G7-OB1-14	29-May-24	15:24	0.69	333.70
96-13	28-May-24	14:22	3.13	332.53	G7-OB1-14	23-Jul-24	13:18	0.88	333.50
96-13	10-Jul-24	12:30	3.43	332.22	G7-OB2-14	5-Oct-23	16:39	1.50	332.74
96-15A3	8-Oct-23	9:24	3.09	333.00	G7-OB2-14	29-May-24	15:02	1.40	332.84
96-15B	8-Oct-23	9:27	9.48	327.38	G7-OB2-14	23-Jul-24	12:41	1.59	332.65
BH14-02	18-Oct-23	14:24	1.47	336.19	H96-01	7-Oct-23	14:29	3.35	331.31
BH14-02	19-May-24	11:02	1.10	336.56	H96-01	2-May-24	15:16	2.70	331.97
BH14-02	12-Jul-24	13:36	1.33	336.33	H96-01	21-Jul-24	13:06	2.76	331.91
BH14-02A	18-Oct-23	13:58	1.62	336.04	H96-02A	7-Oct-23	14:48	3.64	329.21
BH14-02A	19-May-24	10:51	1.21	336.45	H96-02A	2-May-24	15:35	*	*
BH14-02A	27-Aug-24	14:09	1.60	336.06	H96-02A	21-Jul-24	12:45	*	*
BH14-05	7-Oct-23	9:50	1.27	331.91	H96-02B	7-Oct-23	14:51	5.93	326.69
BH14-08	7-Oct-23	16:49	5.35	334.34	H96-02B	2-May-24	15:31	*	*
BH14-08	8-Jun-24	11:49	5.43	334.26	H96-02B	21-Jul-24	12:49	*	*
H96-02C	7-Oct-23	14:45	17.66	315.97	MW13-OB-14	26-Jun-24	11:50	5.59	338.08
H96-02C	2-May-24	15:25	*	*	MW13-OB-14	10-Sep-24	10:24	5.43	338.24
H96-02C	21-Jul-24	12:52	19.30	314.33	MW14-BR-14	18-Oct-23	15:44	5.24	353.68
H96-03	7-Oct-23	14:23	4.82	329.50	MW14-BR-14	10-Jun-24	14:34	4.60	354.31
H96-03	2-May-24	15:21	*	*	MW14-BR-14	15-Jul-24	13:30	4.66	354.25
H96-03	21-Jul-24	13:00	*	*	MW14-OB-14	18-Oct-23	16:16	2.39	356.64
H96-04A1	7-Oct-23	15:11	2.72	330.43	MW14-OB-14	10-Jun-24	14:15	1.21	357.83
H96-04A1	2-May-24	15:45	2.05	331.10	MW14-OB-14	15-Jul-24	13:45	1.92	357.12
H96-04A1	12-Jul-24	12:07	2.99	330.16	MW15-BR-14	5-Oct-23	12:52	0.55	329.98
H96-04B	7-Oct-23	15:15	11.94	320.74	MW15-BR-14	30-May-24	12:13	0.66	329.86
H96-04B	2-May-24	15:42	14.13	318.56	MW15-BR-14	31-Jul-24	14:04	0.47	330.05
H96-04B	12-Jul-24	12:01	14.11	318.57	MW15-OB-14	5-Oct-23	12:20	0.56	329.97
H96-05A1	7-Oct-23	14:35	4.48	331.19	MW15-OB-14	30-May-24	11:54	0.51	330.02
H96-05A1	31-May-24	15:48	5.13	330.54	MW15-OB-14	31-Jul-24	13:46	0.51	330.02
H96-05A1	19-Jul-24	7:12	*	*	MW16-05	31-Oct-23	15:34	3.48	338.38
H96-05A2	7-Oct-23	14:40	3.64	332.11	MW16-05	26-Jun-24	10:45	2.98	338.88
H96-05A2	31-May-24	15:45	*	*	MW16-05	10-Sep-24	11:00	3.51	338.36
H96-05A2	19-Jul-24	7:19	*	*	MW16-BR-14	7-Oct-23	10:14	2.12	336.05
H96-06A1	22-Oct-23	15:19	*	*	MW16-OB-14	7-Oct-23	10:17	1.74	336.17
H96-06A1	31-May-24	15:28	3.40	329.25	MW17-OB-14	11-Oct-23	16:41	2.62	337.19
H96-06A1	12-Jul-24	12:12	3.55	329.10	MW17-OB-14	27-Apr-24	13:38	2.07	337.75
H96-06A2	22-Oct-23	15:30	*	*	MW17-OB-14	10-Jul-24	11:46	2.28	337.54

Table C-3-1
Manual Groundwater Elevations
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Project

Monitoring Location	Date	Time	Manual Groundwater Level (m BTOC)	Groundwater Elevation (m AMSL)	Monitoring Location	Date	Time	Manual Groundwater Level (m BTOC)	Groundwater Elevation (m AMSL)
H96-06A2	31-May-24	15:31	3.76	329.01	MW18-BR-21	5-Oct-23	15:16	11.37	339.93
H96-06A2	12-Jul-24	12:16	3.90	328.87	MW18-BR-21	3-Jun-24	10:10	12.19	339.11
H96-06A3	22-Oct-23	15:48	*	*	MW18-BR-21	25-Jul-24	13:43	13.59	337.72
H96-06A3	31-May-24	15:21	2.91	329.47	MW19-BR-21	11-Oct-23	12:31	6.46	329.82
H96-06A3	12-Jul-24	12:23	2.94	329.45	MW19-BR-21	3-Jun-24	11:44	6.18	330.10
H96-06B	22-Oct-23	15:51	*	*	MW19-BR-21	25-Jul-24	12:10	6.33	329.95
H96-06B	31-May-24	15:24	8.10	324.57	MW19-OB-21	11-Oct-23	12:12	6.50	329.82
H96-06B	12-Jul-24	12:27	8.28	324.39	MW19-OB-21	3-Jun-24	12:14	6.30	330.03
Hardrock Shaft 1	19-Oct-23	11:46	*	*	MW19-OB-21	25-Jul-24	11:55	6.44	329.88
MAC-1	31-Oct-23	14:56	1.10	343.04	MW1-BR-14	5-Oct-23	14:04	1.09	331.59
MAC-1	7-Jun-24	13:47	0.75	343.39	MW1-BR-14	2-May-24	14:33	0.92	331.76
MAC-1	27-Aug-24	15:00	1.06	343.08	MW1-BR-14	17-Jul-24	14:52	0.99	331.69
MAC-2	31-Oct-23	14:47	4.73	337.54	MW1-OB-14	5-Oct-23	13:40	1.20	331.50
MAC-2	7-Jun-24	13:41	2.42	339.85	MW1-OB-14	2-May-24	14:40	1.02	331.68
MAC-2	27-Aug-24	15:10	3.85	338.42	MW1-OB-14	17-Jul-24	14:37	1.00	331.70
MAC-7	7-Oct-23	13:55	1.47	333.56	MW20-BR-21	5-Oct-23	10:08	5.60	329.17
MAC-7	8-Jun-24	14:44	0.95	334.09	MW20-BR-21	1-May-24	14:22	4.01	330.76
MAC-7	7-Aug-24	11:14	2.30	332.73	MW20-BR-21	10-Jul-24	13:23	4.53	330.24
MM140	31-Oct-23	14:37	25.95	317.80	MW20-OB-21	5-Oct-23	10:45	*	*
MM140	7-Jun-24	13:34	11.51	332.24	MW20-OB-21	2-May-24	14:46	3.54	331.10
MM140	27-Aug-24	15:22	12.20	331.55	MW20-OB-21	10-Jul-24	13:50	3.88	330.76
Mosher Shaft	19-Oct-23	10:20	****	****	MW21-BR-21	2-Nov-23	11:06	2.95	331.22
Mosher Shaft	16-May-24	12:02	-	245.68M	MW21-BR-21	3-Jun-24	14:57	2.81	331.36
Mosher Shaft	10-Jul-24	15:18	-	291.14M	MW21-BR-21	24-Jul-24	15:33	3.39	330.78
MW01-OB1-18	23-Oct-23	16:44	8.49	323.59	MW22-OB-21	1-Nov-23	14:51	1.94	332.12
MW01-OB1-18	12-Jun-24	12:03	4.48	327.60	MW22-OB-21	5-Jun-24	11:46	2.39	331.68
MW01-OB1-18	9-Jul-24	12:00	8.06	324.02	MW22-OB-21	25-Jul-24	15:36	3.21	330.86
MW01-OB1-18	25-Jul-24	11:06	8.17	323.91	MW23-04	31-Oct-23	10:04	5.05	340.70
MW01-OB2-18	22-Oct-23	17:15	3.35	328.78	MW23-04	19-May-24	10:21	5.42	340.32
MW01-OB2-18	4-Jun-24	13:17	3.49	328.64	MW23-04	12-Jul-24	13:00	5.44	340.31
MW01-OB2-18	9-Jul-24	12:00	3.54	328.60	MW23-OB-21	2-Nov-23	9:58	1.56	329.36
MW01-OB2-18	25-Jul-24	11:12	3.66	328.47	MW23-OB-21	22-May-24	9:27	1.07	329.85
MW02-OB-18	31-Oct-23	11:55	2.16	328.14	MW23-OB-21	25-May-24	14:23	1.05	329.87
MW02-OB-18	29-May-24	12:40	2.00	328.30	MW23-OB-21	23-Jul-24	15:36	1.76	329.16
MW02-OB-18	25-Jul-24	14:38	2.65	327.65	MW24-BR-21	5-Oct-23	15:18	9.10	324.99
MW03-BR-18	11-Oct-23	14:10	4.08	328.32	MW24-BR-21	2-Jun-24	13:45	8.12	325.98
MW03-BR-18	4-Jun-24	14:28	2.24	330.16	MW24-BR-21	24-Jul-24	13:02	9.81	324.29
MW03-BR-18	17-Jul-24	12:18	2.65	329.76	MW24-OB-21	5-Oct-23	15:45	1.74	332.32
MW03-OB-18	11-Oct-23	13:47	2.24	330.13	MW24-OB-21	2-Jun-24	14:32	1.06	333.00
MW03-OB-18	4-Jun-24	15:00	2.12	330.25	MW24-OB-21	24-Jul-24	13:28	1.50	332.56
MW03-OB-18	17-Jul-24	11:46	2.23	330.13	MW25-BR-21	5-Oct-23	14:35	2.34	330.56
MW07-18	11-Oct-23	10:08	1.23	330.05	MW25-BR-21	3-Jun-24	13:47	1.48	331.42
MW07-18	6-Jun-24	14:28	1.33	329.95	MW25-BR-21	24-Jul-24	14:23	1.95	330.95
MW07-18	24-Jul-24	3:07	1.55	329.73	MW25-OB-21	5-Oct-23	14:05	2.51	330.42
MW08-18	11-Oct-23	10:41	1.72	329.69	MW25-OB-21	3-Jun-24	14:15	1.82	331.12
MW08-18	6-Jun-24	15:32	1.68	329.73	MW25-OB-21	24-Jul-24	14:08	2.12	330.81
MW08-18	24-Jul-24	14:41	2.22	329.19	MW26-BR-23	23-Oct-23	12:46	0.63	335.31
MW09-18	11-Oct-23	11:13	1.85	329.67	MW26-BR-23	4-Jun-24	10:39	0.62	335.31
MW09-18	6-Jun-24	15:04	1.84	329.69	MW26-BR-23	25-Jul-24	10:40	0.67	335.26
MW09-18	24-Jul-24	14:10	2.34	329.18	MW26-OB-23	22-Oct-23	12:21	0.88	335.27
MW10-OB-14	10-Oct-23	14:20	1.62	332.02	MW26-OB-23	4-Jun-24	10:18	0.83	335.33
MW10-OB-14	26-Jun-24	13:59	1.29	332.35	MW26-OB-23	25-Jul-24	10:56	0.85	335.30
MW10-OB-14	19-Aug-24	11:12	1.24	332.40	MW27-BR-23	25-May-24	14:53	2.33	330.50
MW11-BR-14	2-Nov-23	12:13	1.13	336.57	MW27-BR-23	16-Jul-24	15:32	2.60	330.24
MW11-OB-14	2-Nov-23	12:39	1.15	336.54	MW2-OB-13	5-Oct-23	15:36	1.62	332.69
MW12-OB-14	5-Nov-23	13:14	2.42	333.80	MW2-OB-13	28-Apr-24	17:31	1.40	332.91
MW12-OB-14	2-Jun-24	15:23	1.76	334.46	MW2-OB-13	18-Jul-24	15:52	1.43	332.88
MW12-OB-14	15-Jul-24	11:40	2.00	334.22	MW30-BR-23	19-Jun-24	15:25	0.87	330.02
MW13-OB-14	31-Oct-23	15:14	***	***	MW30-BR-23	16-Jul-24	13:25	1.03	329.86
MW13-OB-14	26-Jun-24	11:50	5.59	338.08	MW30-OB-23	12-Jun-24	13:00	0.80	330.11
MW13-OB-14	10-Sep-24	10:24	5.43	338.24	MW30-OB-23	16-Jul-24	13:57	1.05	329.85
MW14-BR-14	18-Oct-23	15:44	5.24	353.68	MW31-OB-23	11-Jun-24	10:05	1.23	330.83
MW14-BR-14	10-Jun-24	14:34	4.60	354.31	MW31-OB-23	10-Jul-24	15:00	1.74	330.32
MW32-OB-23	11-Jun-24	10:15	0.92	330.58	MW9-OB1-13	12-Jul-24	14:32	2.22	330.84
MW32-OB-23	10-Jul-24	15:10	1.10	330.40	MW9-OB2-13	11-Oct-23	15:15	*	*
MW33-OB-23	25-May-24	15:48	6.03	328.96	MW9-OB2-13	30-Apr-24	13:36	1.05	332.27
MW33-OB-23	5-Jul-24	12:34	3.06	331.93	MW9-OB2-13	12-Jul-24	14:40	2.40	330.92
MW3-BR-13	10-Oct-23	10:04	6.86	324.33	MWS-14-01	11-Oct-23	15:51	1.67	335.03
MW3-BR-13	29-May-24	14:58	7.73	323.46	MWS-14-01	30-Apr-24	12:45	1.35	335.35
MW3-BR-13	17-Jul-24	13:26	8.59	322.60	MWS-14-01	23-Jul-24	14:53	1.62	335.08
MW3-OB-13	10-Oct-23	11:52	5.60	325.63	MWS-14-02 BR	10-Oct-23	14:00	2.62	329.32
MW3-OB-13	29-May-24	14:28	3.94	327.29	MWS-14-02 BR	26-Jun-24	14:30	1.75	330.20
MW3-OB-13	17-Jul-24	13:04	5.33	325.90	MWS-14-02 BR	19-Aug-24	10:43	1.59	330.35
MW4-OB-13	10-Oct-23	13:28	1.16	329.61	MWS-14-02 OB	10-Oct-23	13:35	2.57	329.27
MW4-OB-13	31-May-24	16:05	1.16	329.61	MWS-14-02 OB	26-Jun-24	14:49	1.95	329.89
MW4-OB-13	12-Jul-24	11:33	1.20	329.57	MWS-14-02 OB	19-Aug-24	10:54	1.82	330.02
MW5-OB1-13	2-Nov-23	14:44	1.12	331.99	MWS-14-03 OB1	12-Oct-23	15:40	1.28	331.48
MW5-OB1-13	30-May-24	13:58	0.85	332.26	MWS-14-03 OB1	17-Jun-24	16:04	1.24	331.52
MW5-OB1-13	25-Jul-24	8:57	1.22	331.89	MWS-14-03 OB1	25-Jul-24	12:34	1.50	331.26
MW5-OB2-23	19-Oct-23	13:33	1.76	331.71	MWS-14-03 OB2	12-Oct-23	15:53	1.68	331.15
MW5-OB2-23	30-May-24	14:38	1.56	331.91	MWS-14-03 OB2	12-Jun-24	13:35	1.73	331.10
MW5-OB2-23	25-Jul-24	9:23	1.88	331.60	MWS-14-03 OB2	25-Jul-24	12:50	2.00	330.84
MW6-OB-13	24-Oct-23	12:32	*	*	MWS-14-04	31-Oct-23	12:47	3.01	328.89
MW6-OB-13	19-Jun-24	16:48	1.25	335.76	MWS-14-04	11-Jun-24	15:32	2.34	329.56
MW6-OB-13	25-Jul-24	9:50	1.76	335.25	MWS-14-04	16-Jul-24	15:02	2.96	328.94
MW7-BR-23	24-Oct-23	10:53	1.50	334.94	MWS-14-06	12-Oct-23	16:47	1.63	332.75
MW7-BR-23	29-May-24	10:40	1.13	335.31	MWS-14-07 BR	18-Oct-23	12:52	2.68	329.37
MW7-BR-23	23-Jul-24	14:40	1.37	335.07	MWS-14-07 BR	29-May-24	14:09	2.16	329.89
MW8-OB-14	31-Oct-23	14:34	1.18	329.51	MWS-14-07 BR	10-Jul-24	14:57	2.58	329.47
MW8-OB-14	20-Jun-24	14:45	1.01	329.68	MWS-14-07 OB	18-Oct-23	12:25	2.70	329.31
MW8-OB-14	25-Jul-24	14:15	1.29	329.40	MWS-14-07 OB	29-May-24	11:43	2.17	329.84
MW9-OB1-13	11-Oct-23	15:21	5.80	327.27	MWS-14-07 OB	10-Jul-24	14:38	2.59	329.42
MW9-OB1-13	30-Apr-24	13:30	0.92	332.14					

Notes:
* Location dry
** No access due to freezing conditons
*** Monitoring well inaccessible due to safety
**** Location being prepared for pumping
M Water level obtained from Mill Monitoring System



Notes:

Combined maximum pumped volume may include volumes from the Open Pit and Historical Underground Workings
Pumping began on September 20, 2022.
Second pumped added to Mosher No.1 Shaft March 27, 2024

Client/Project

2024 Fish and Fish Habitat
Federal EIS Follow-Up Monitoring Report
Greenstone Project

Figure No.

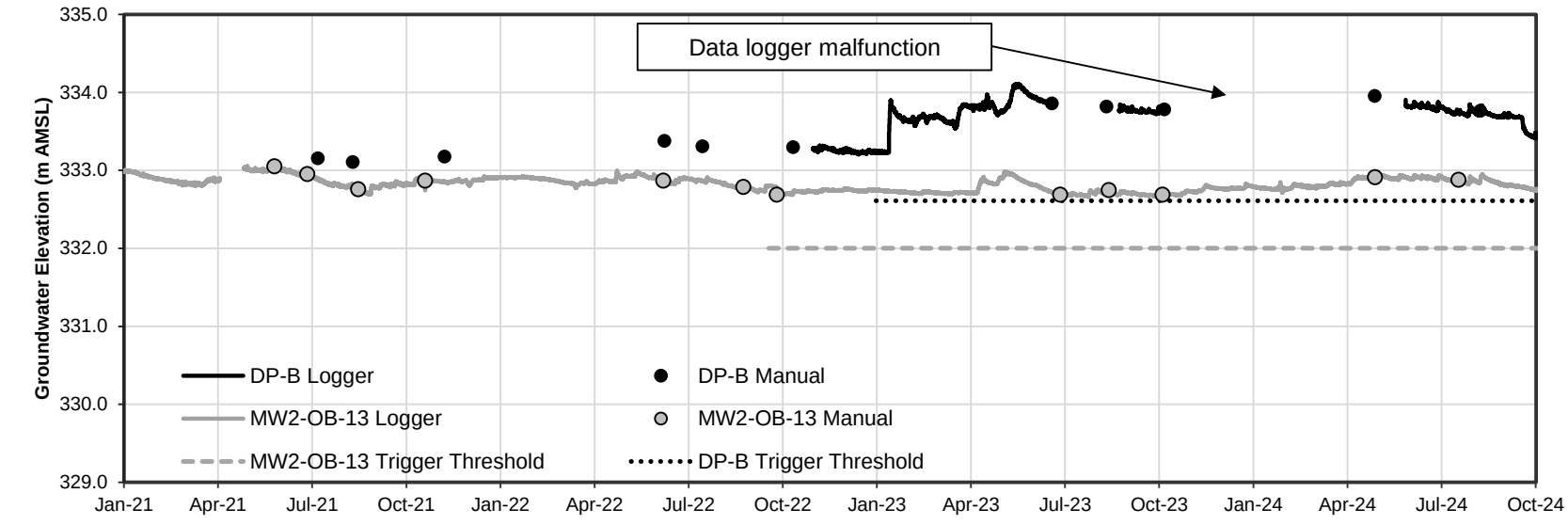
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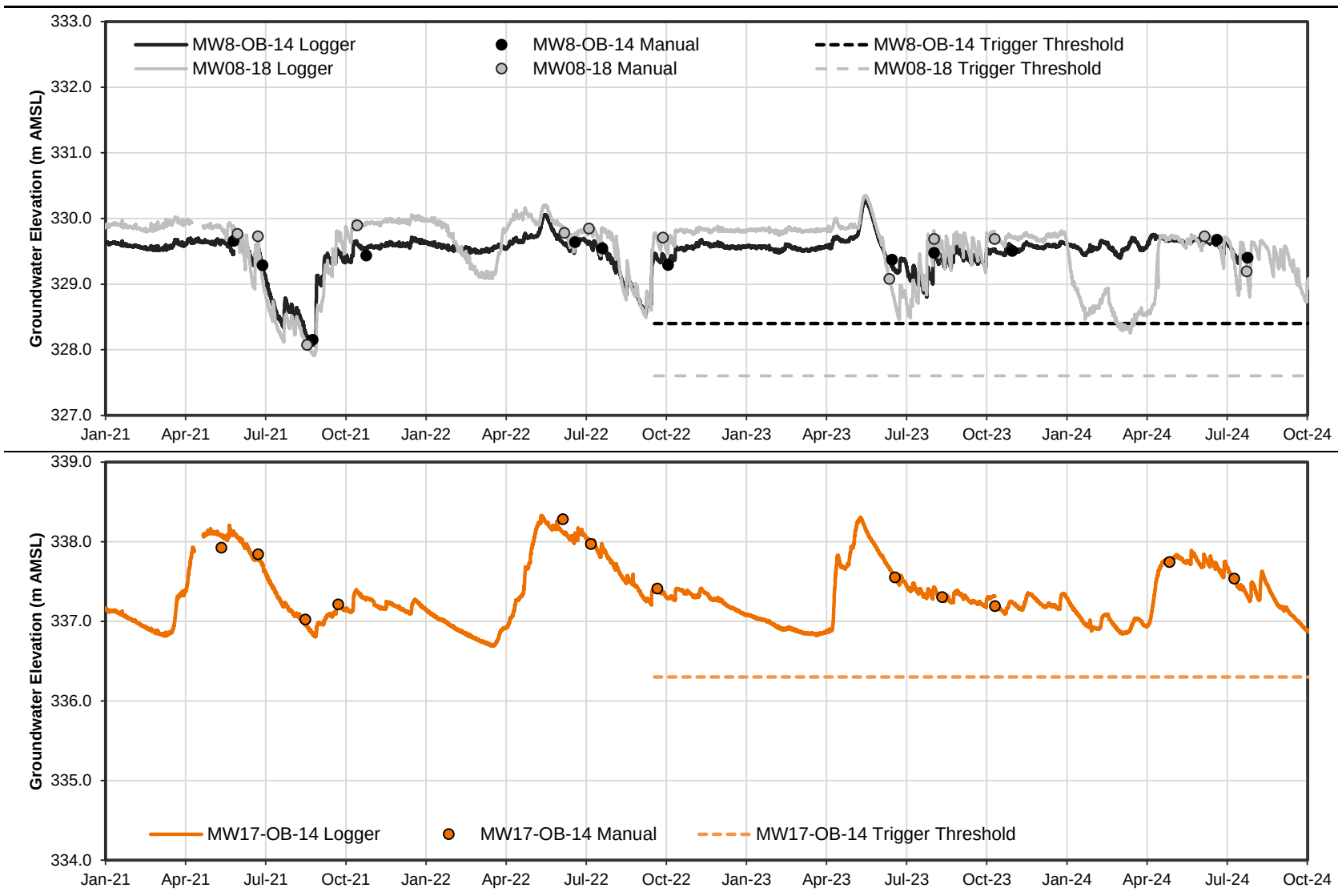
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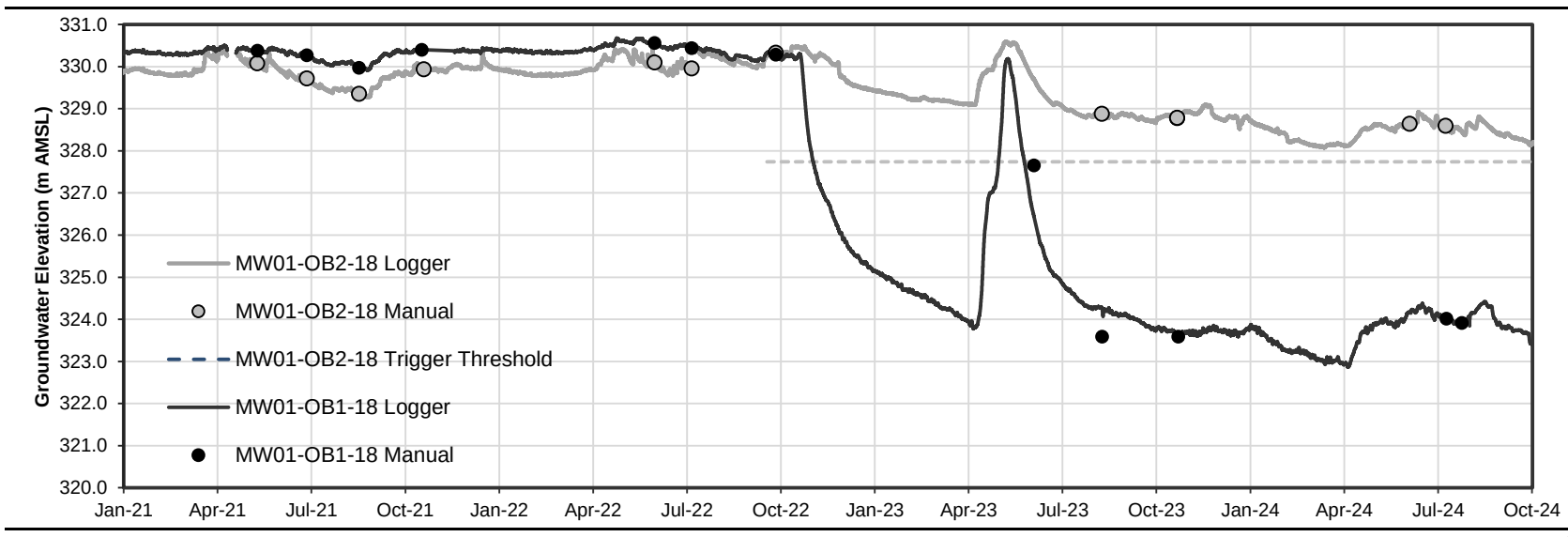
Pumped Volume
Open Pit Area

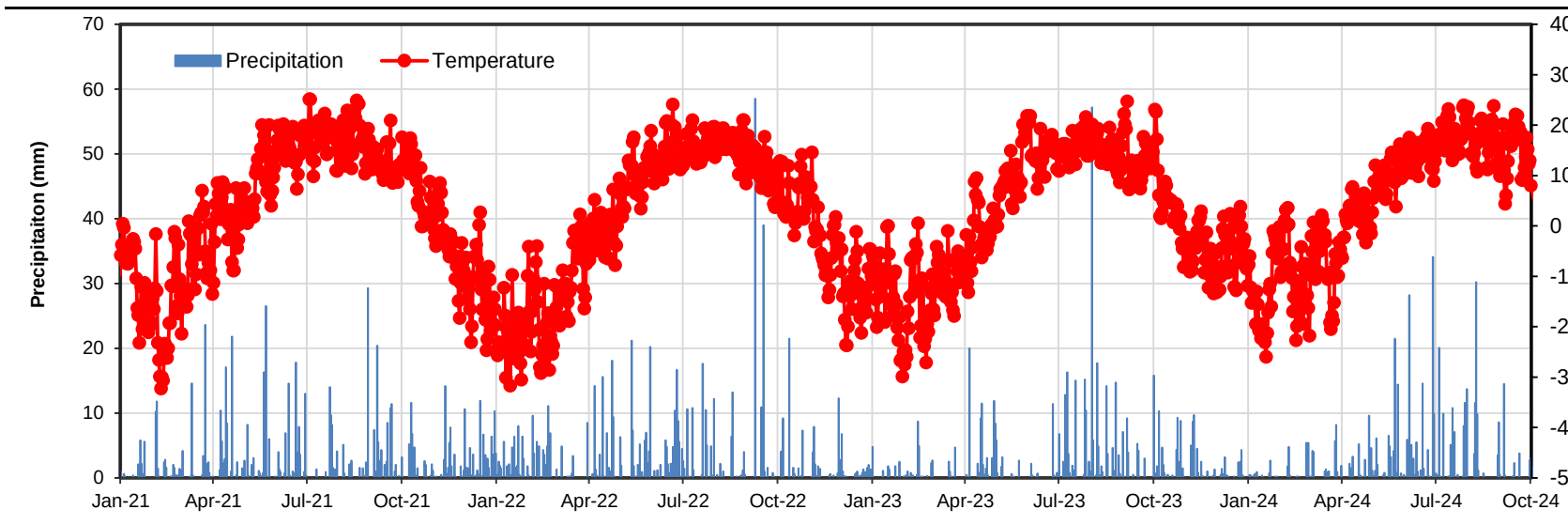
Stantec

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Notes:

'Error in barologger. Data from mid-April 2021 removed.
Climate data obtain from the Environment Canada Website: Station Geraldton A

Client/Project

2024 Fish and Fish Habitat
Federal EIS Follow-Up Monitoring Report
Greenstone Project

Figure No.

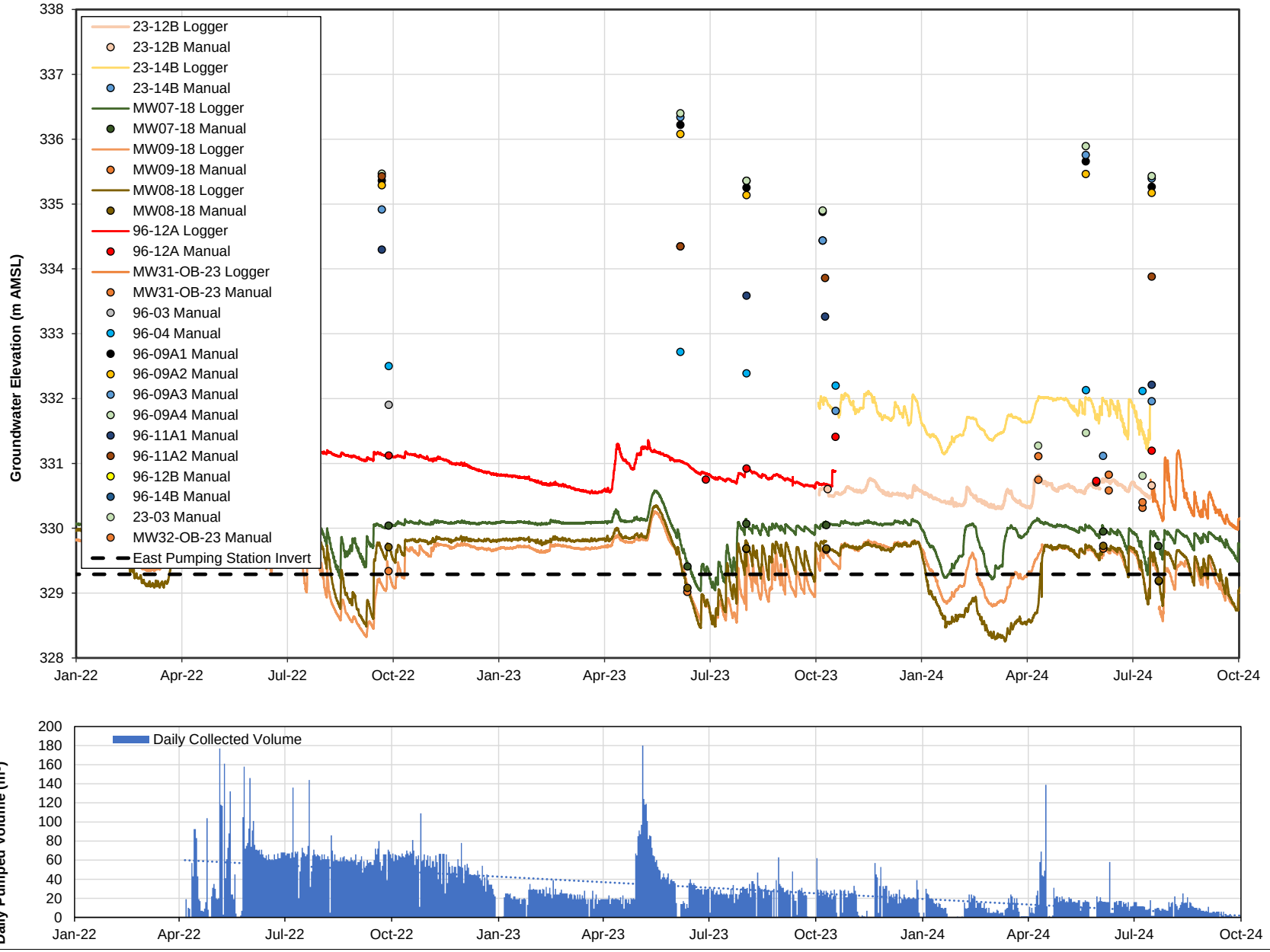
C - 3 - 2

Title

Open Pit and Historical Workings Hydrographs

Stantec

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Notes:

Climate data obtain from the Environment Canada Website: Station Geraldton A.
96-03, 96-12B, 96-14B overprinted by mine infrastructure. Replacement wells 23-03, 23-12B, and 23-14B installed in fall 2023
96-04 data logger failure from fall 2023 to summer 2024.
MW31-OB-23 (MW-H) and MW32-OB-23 (MW-I) installed in fall 2023.

Client/Project

2024 Fish and Fish Habitat
Federal EIS Follow-Up Monitoring Report
Greenstone Project

Figure No.

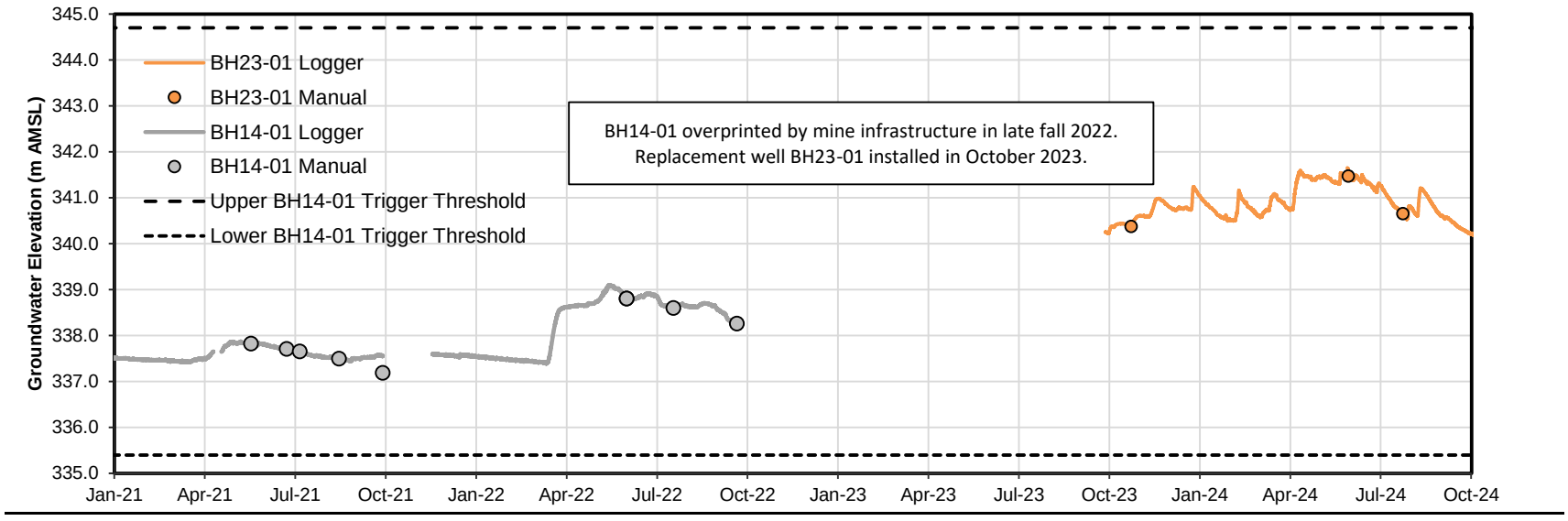
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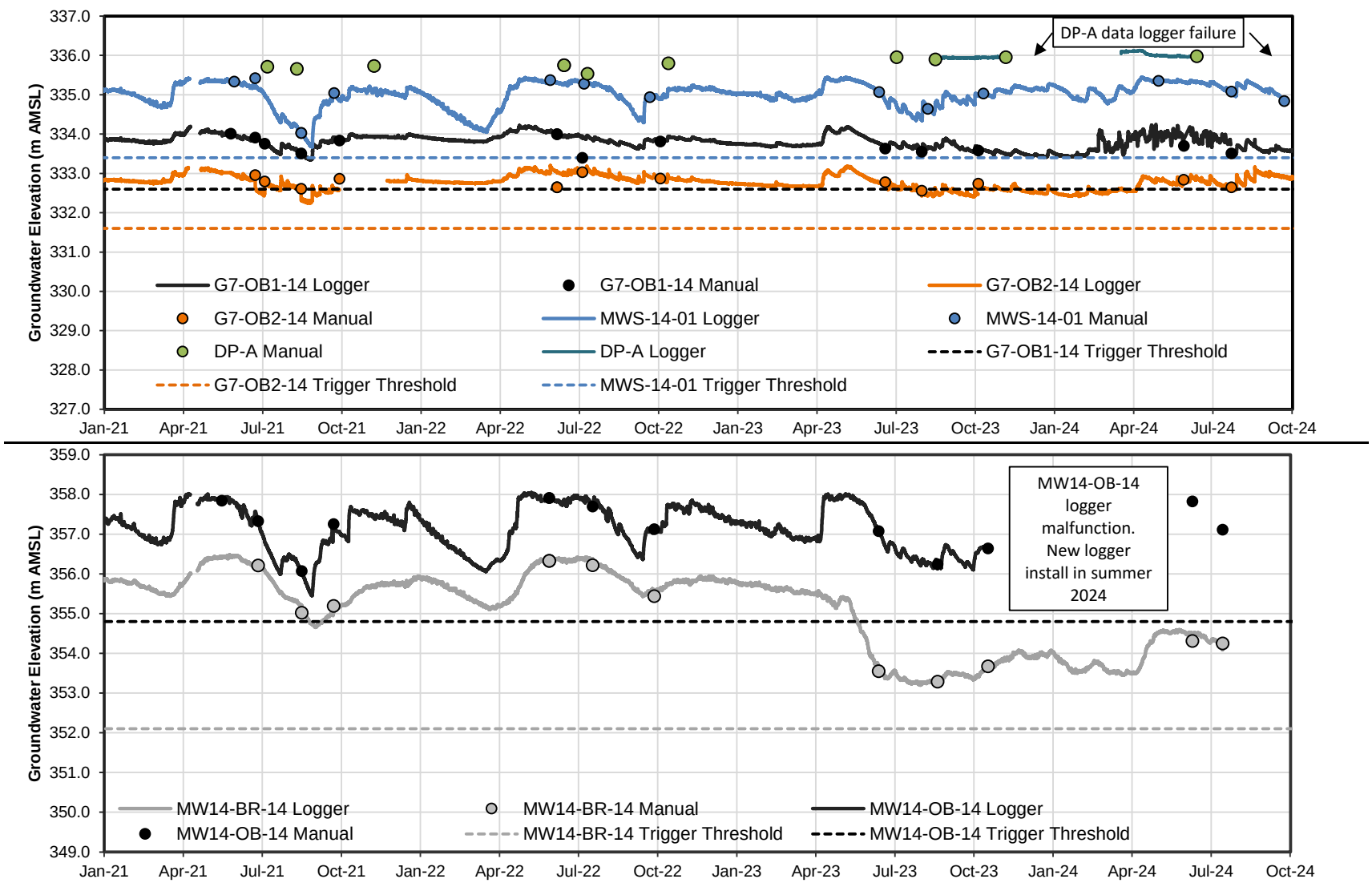
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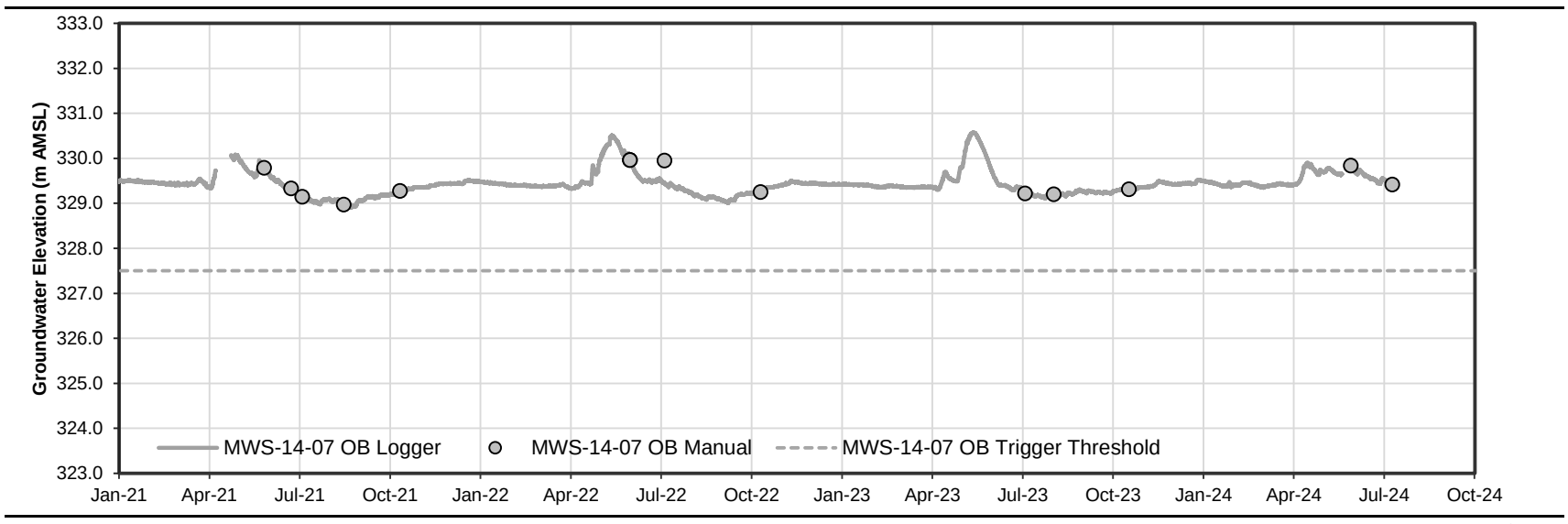
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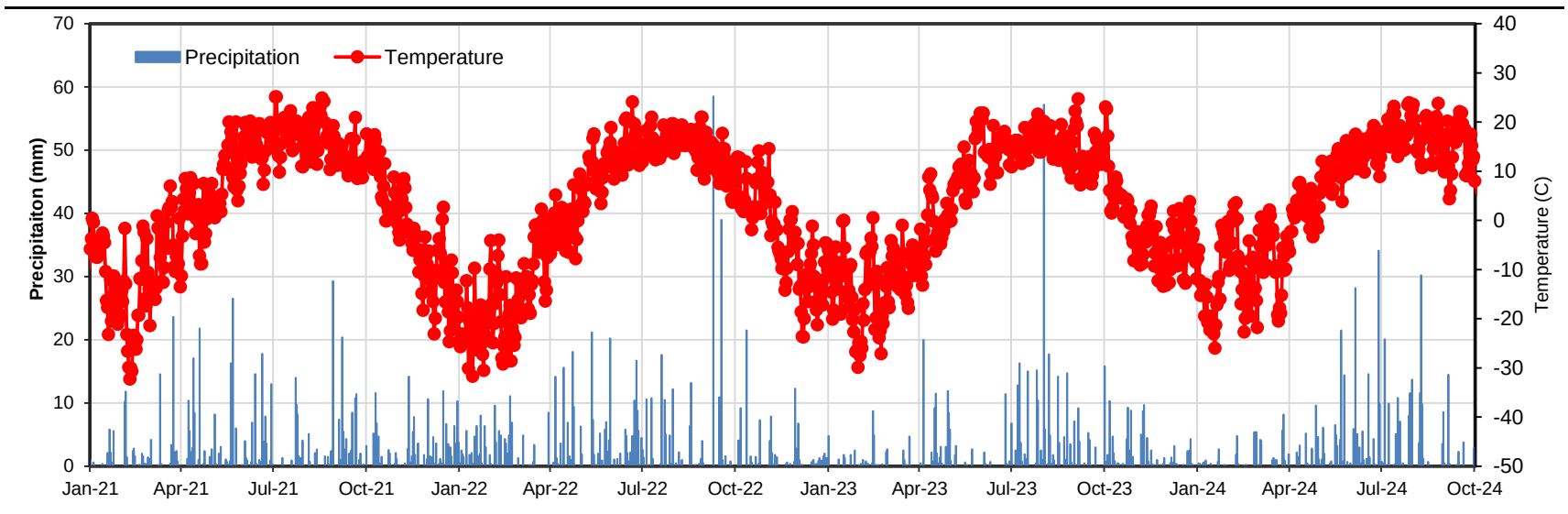
Stantec

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Notes:

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Climate data obtain from the Environment Canada Website: Station Geraldton A

Client/Project

Monthly Report
Multi-Media Monitoring Plan
Greenstone Mine

Figure No.

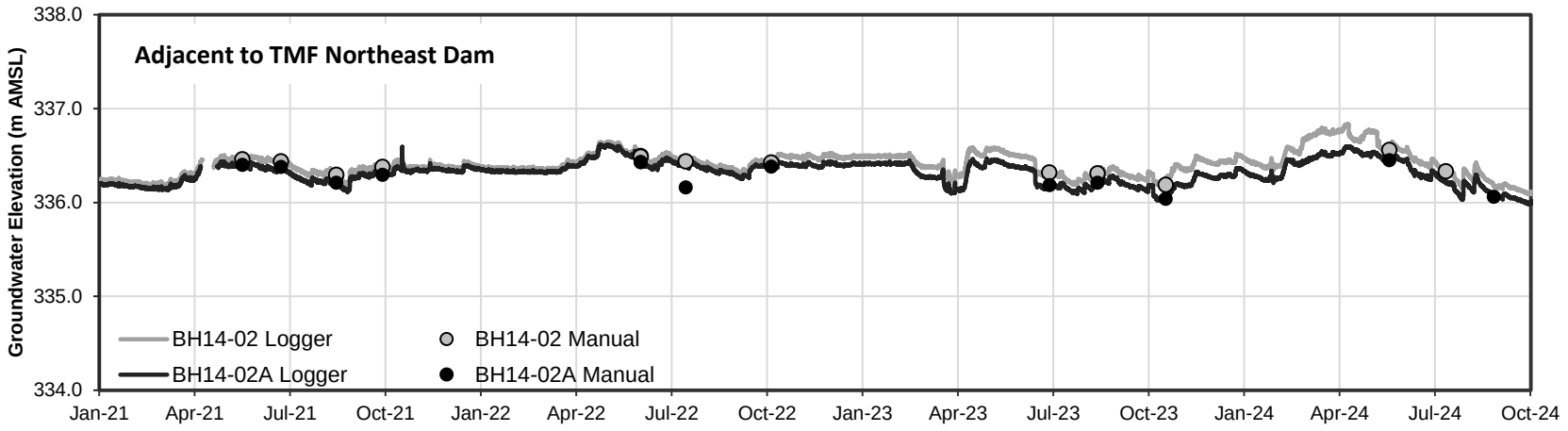
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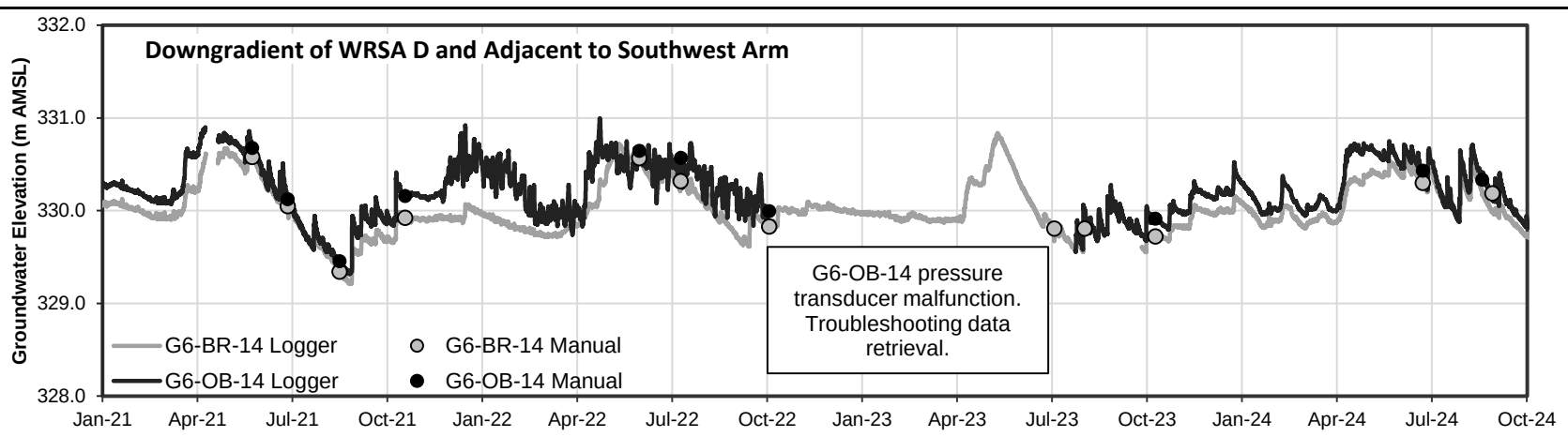
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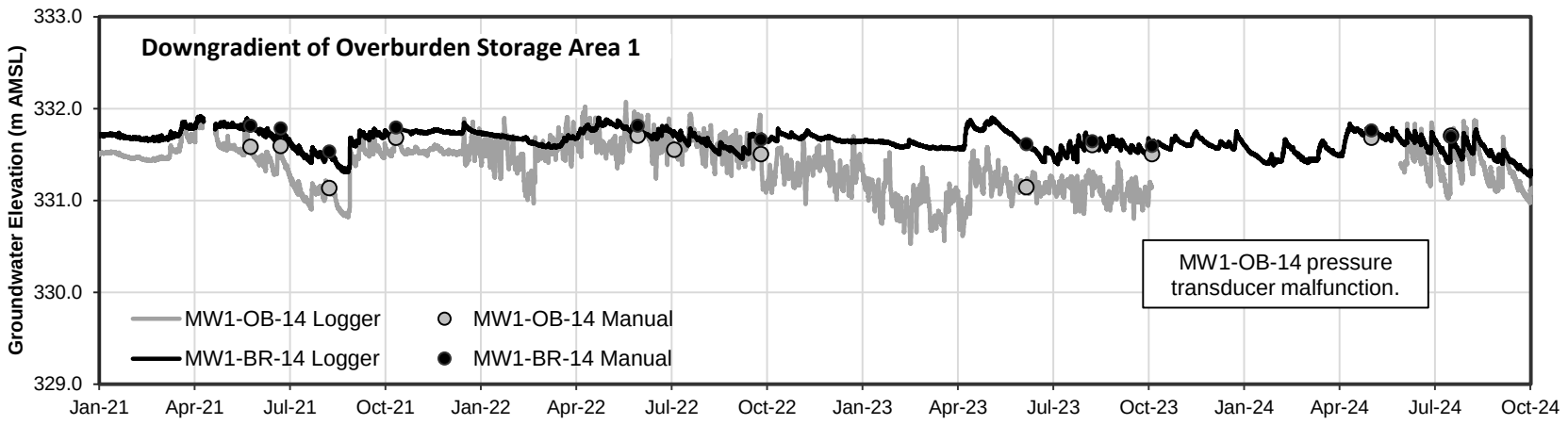
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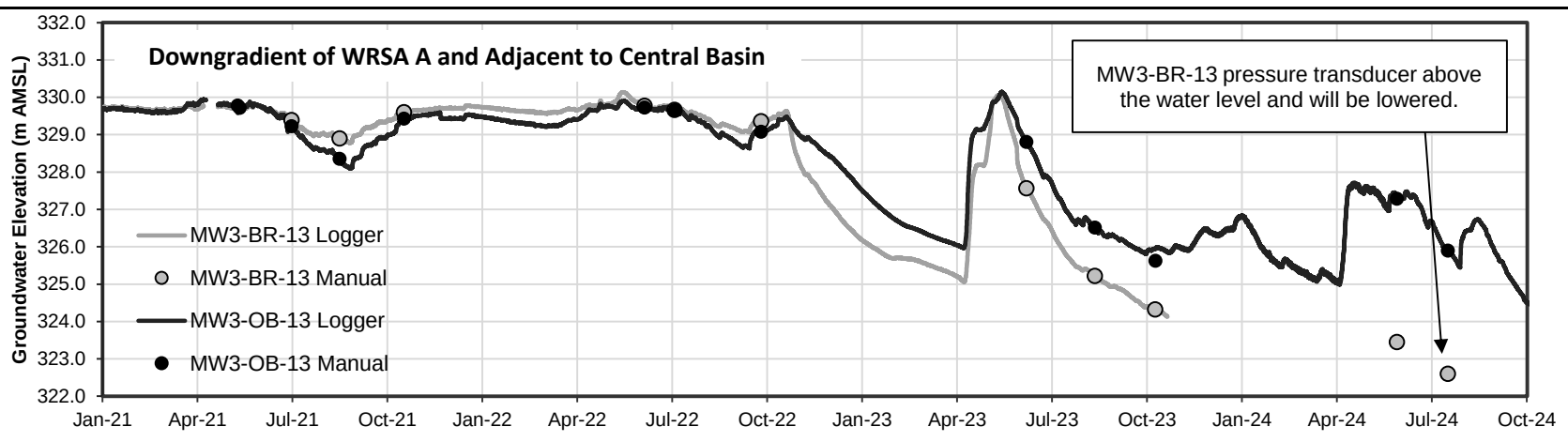
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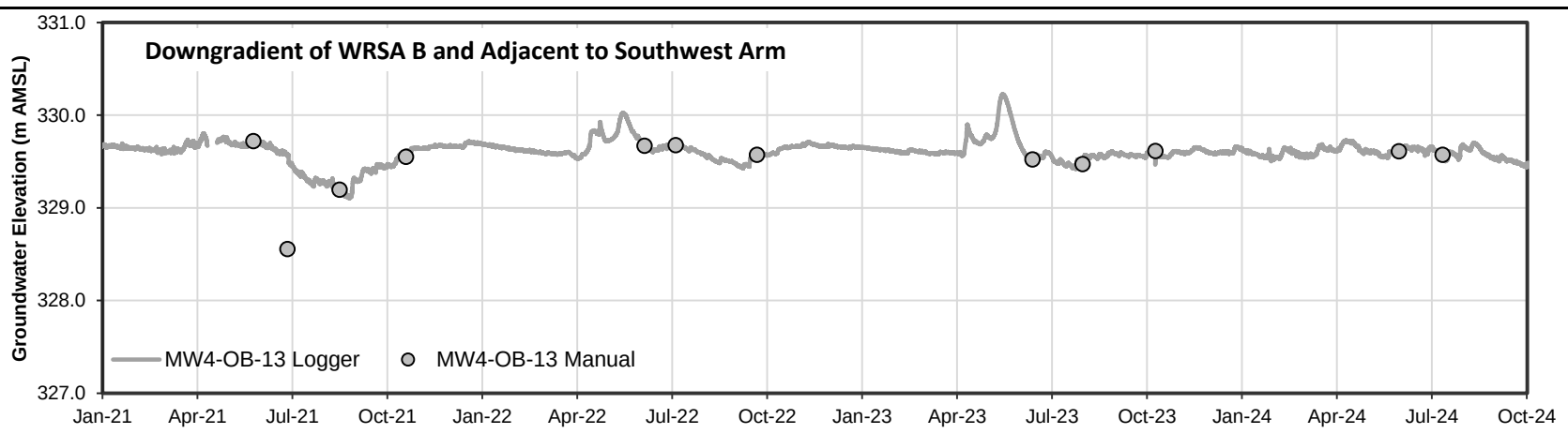
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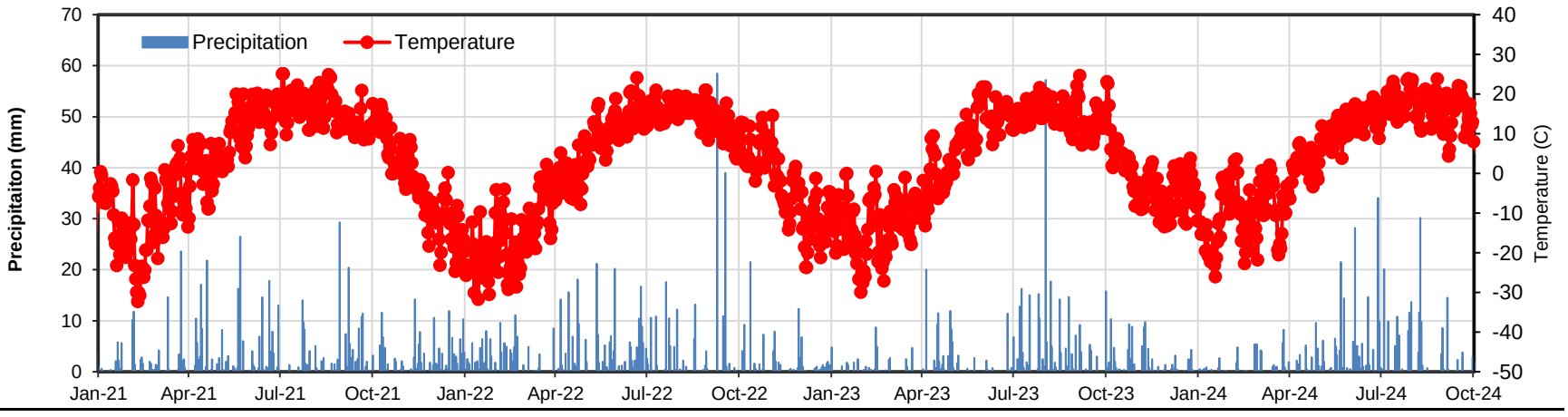












Notes:

Error in barologger. Data from mid-April 2021 removed.
Climate data obtain from the Environment Canada Website: Station Geraldton A

Client/Project

Monthly Report
Multimedia Monitoring Plan
Greenstone Mine

Figure No.

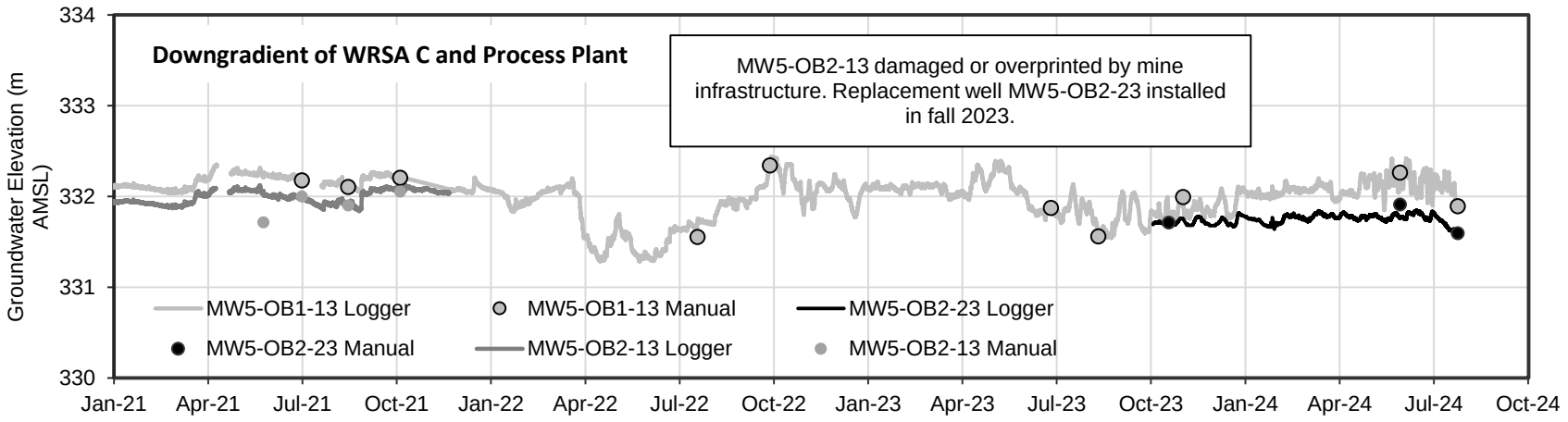
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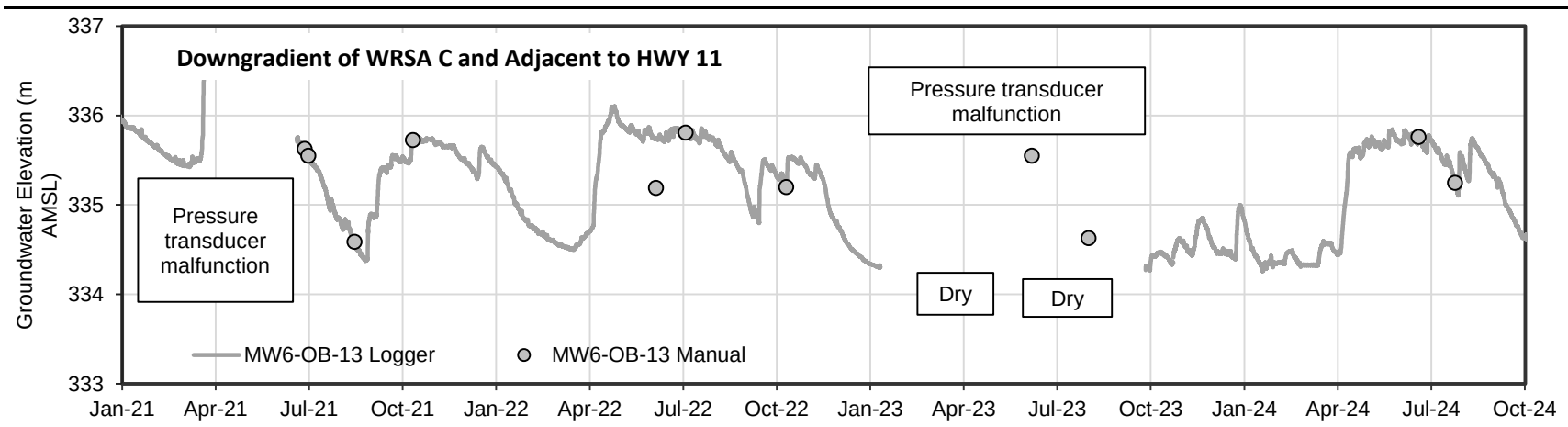
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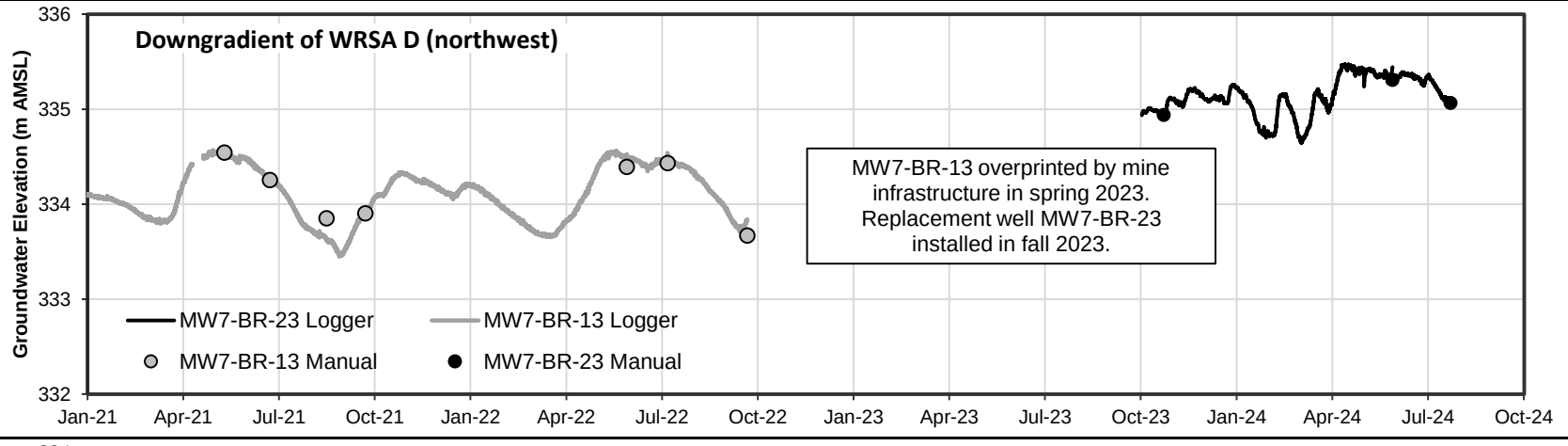
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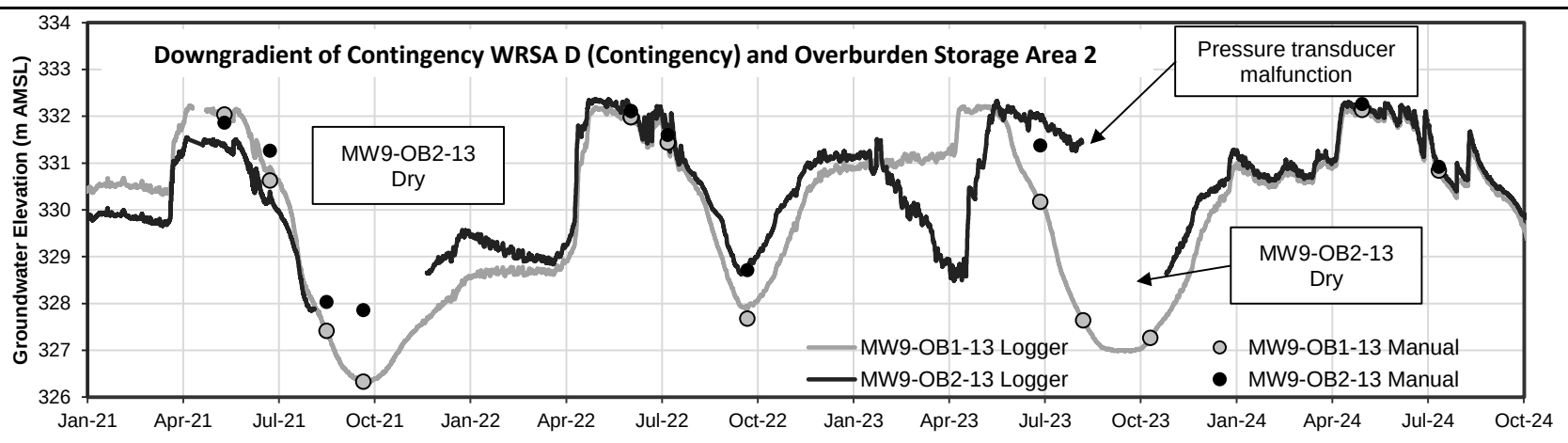
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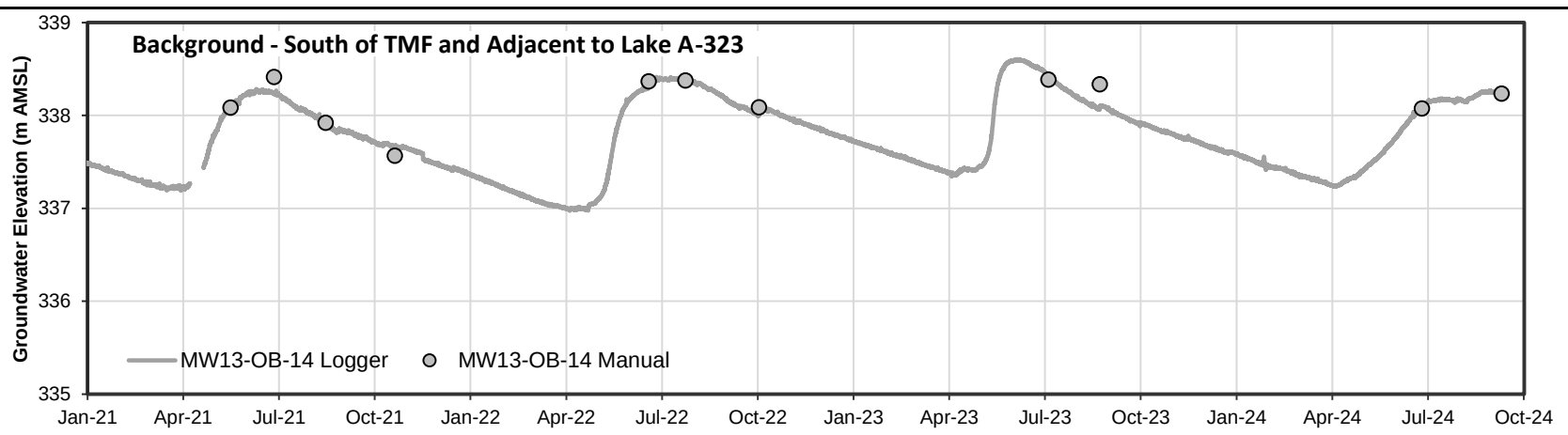
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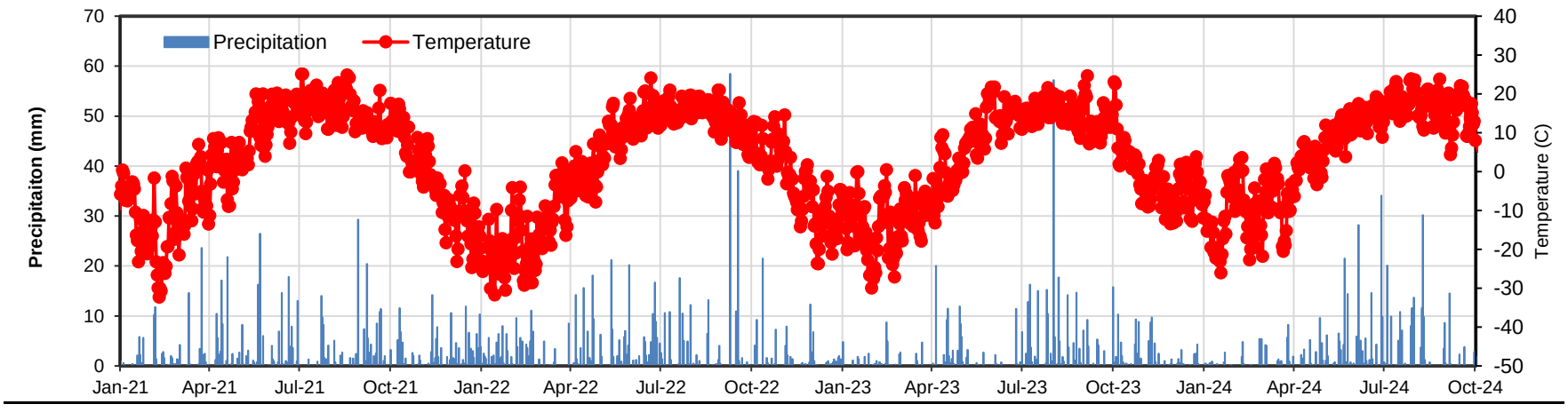












Notes:

Error in barologger. Data from mid-April 2021 removed.
Climate data obtain from the Environment Canada Website: Station Geraldton A

Client/Project

Monthly Report
Multimedia Monitoring Plan
Greenstone Mine

Figure No.

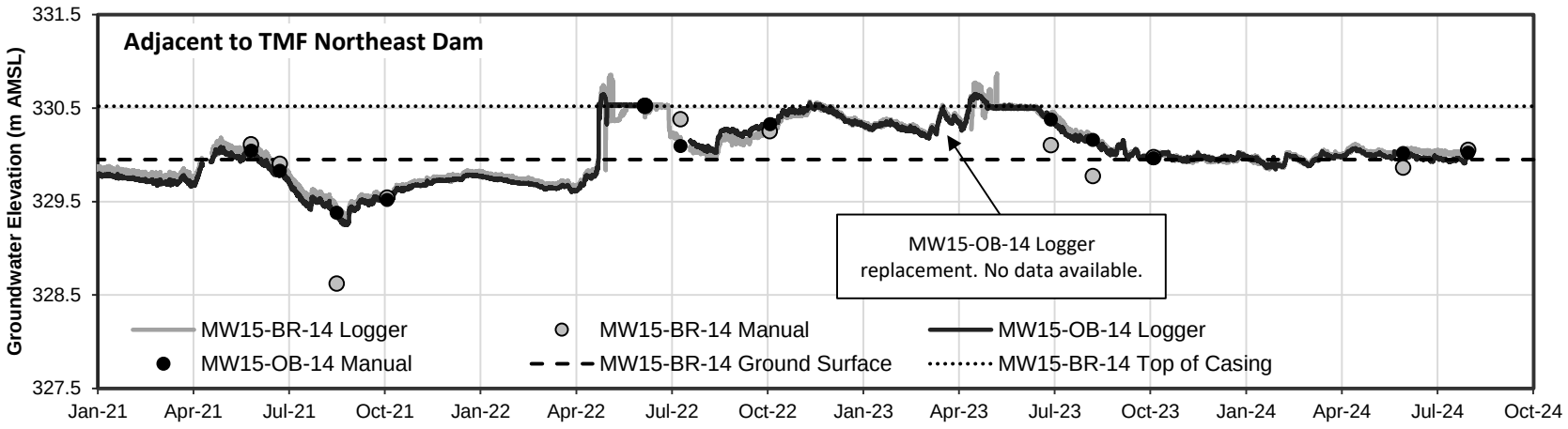
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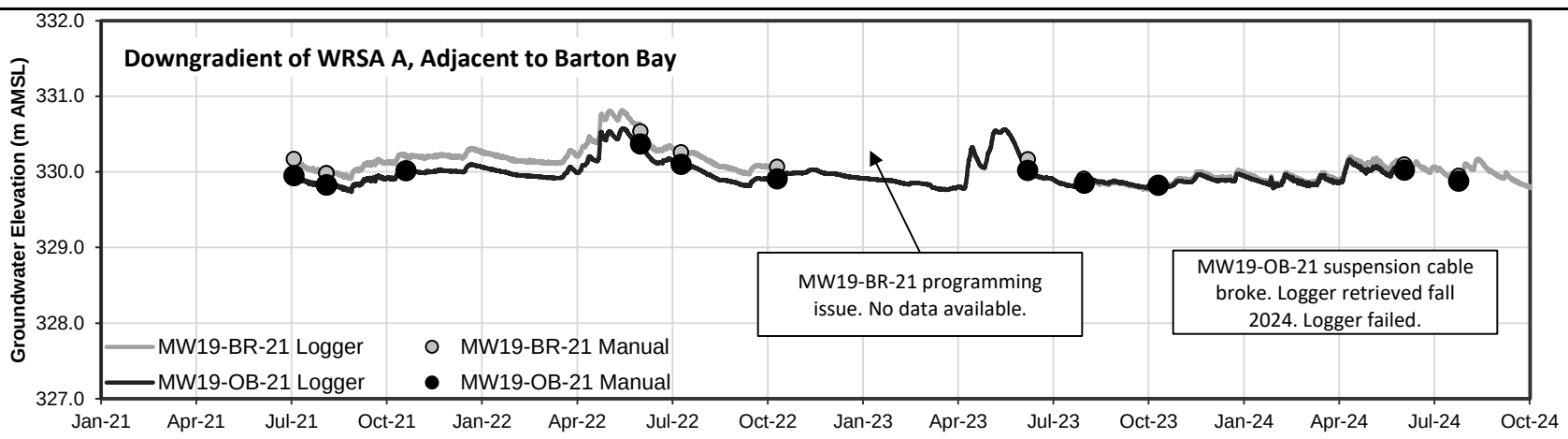
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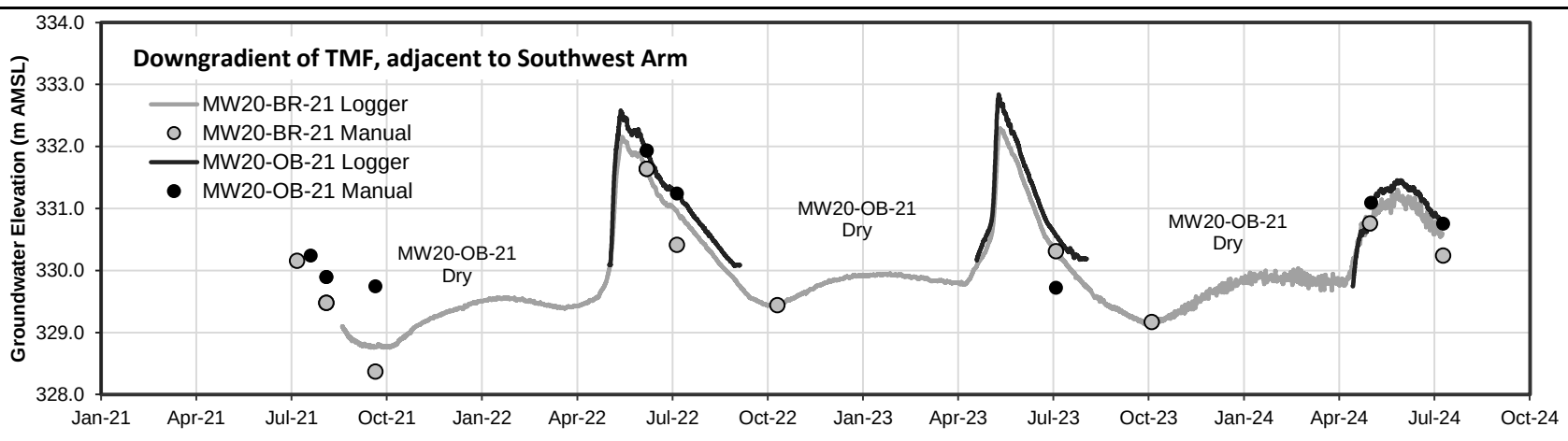
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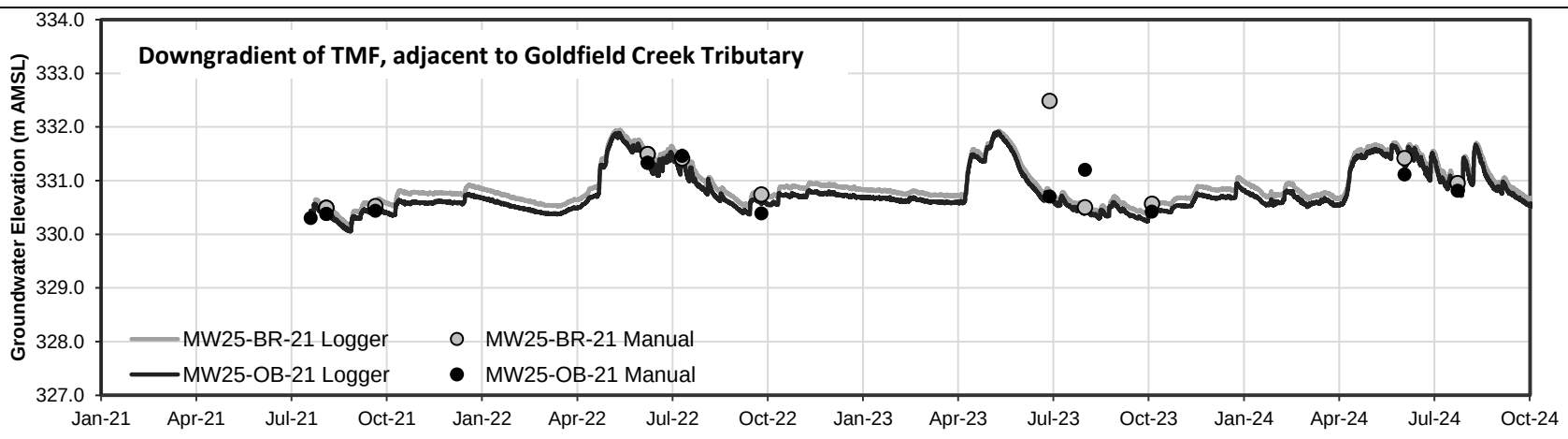
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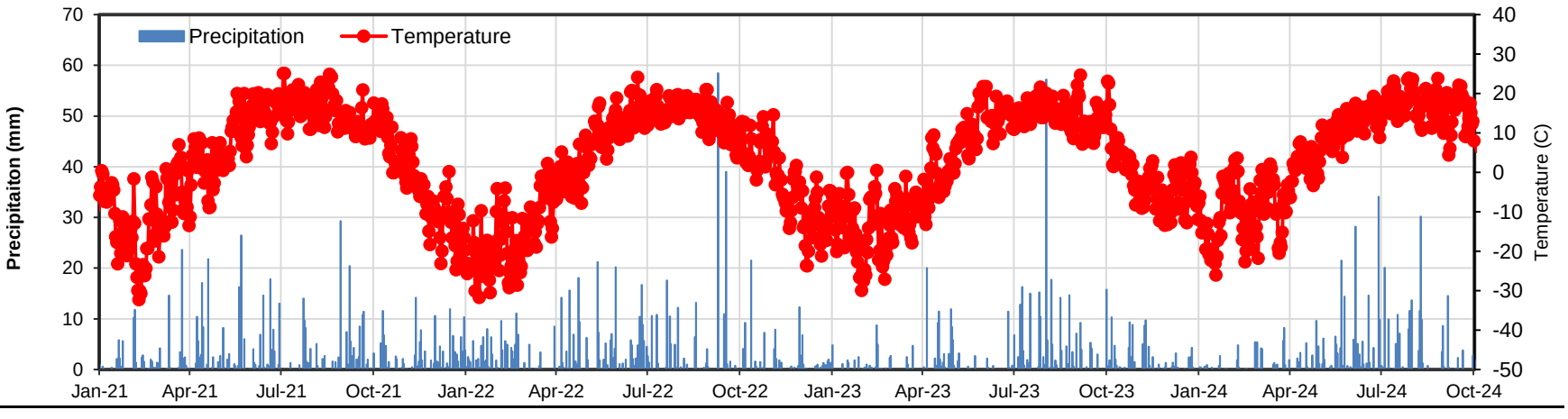












Notes:

Error in barologger. Data from mid-April 2021 removed.
Climate data obtain from the Environment Canada Website: Station Geraldton A

Client/Project

Monthly Report
Multimedia Monitoring Plan
Greenstone Mine

Figure No.

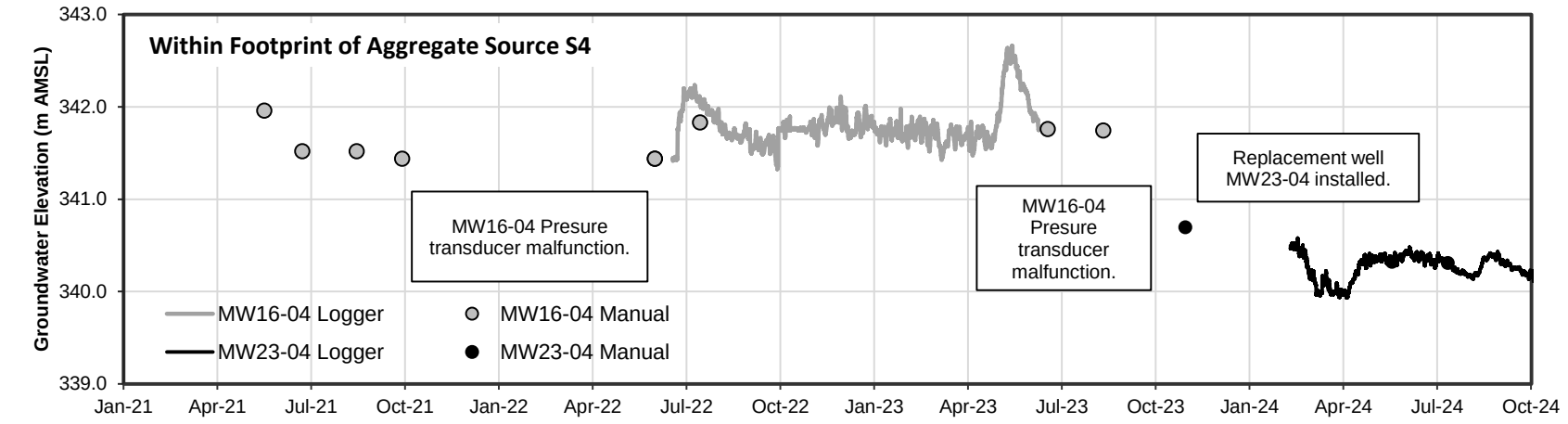
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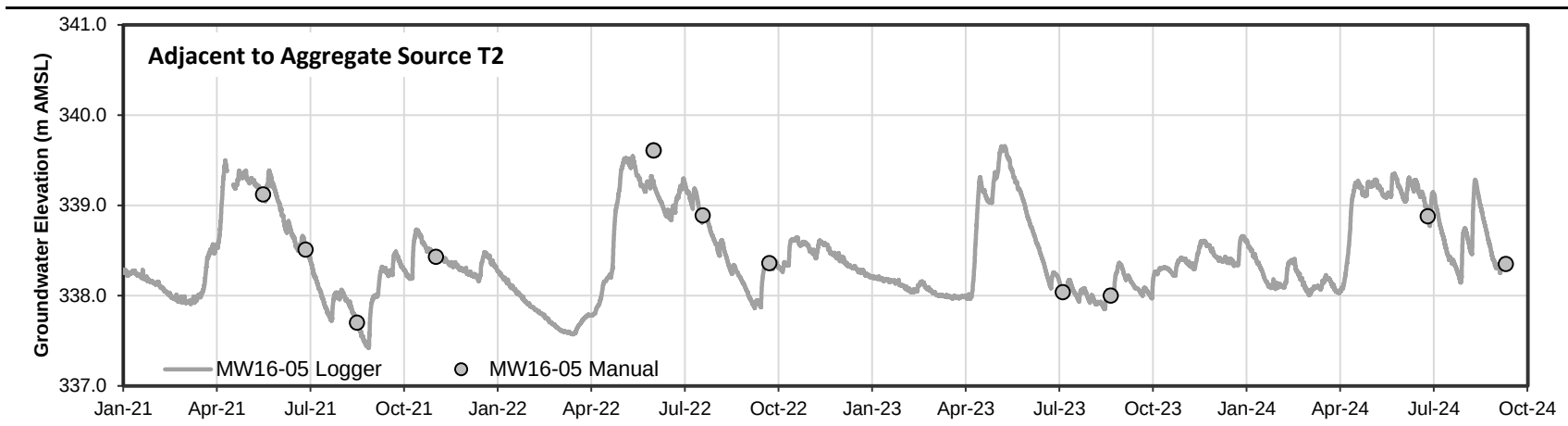
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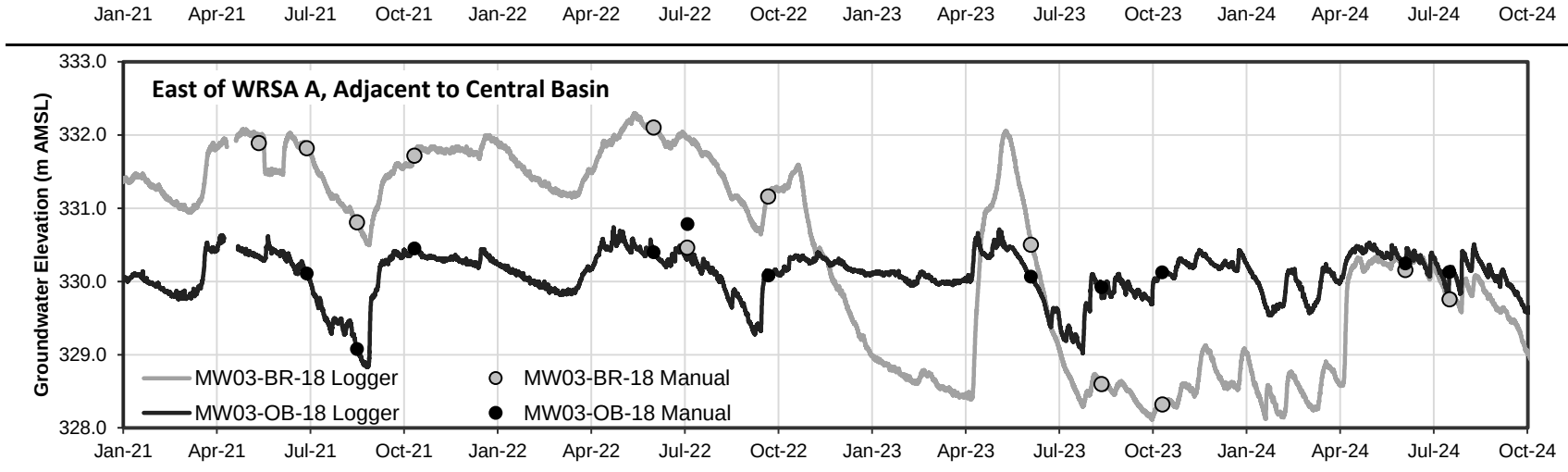
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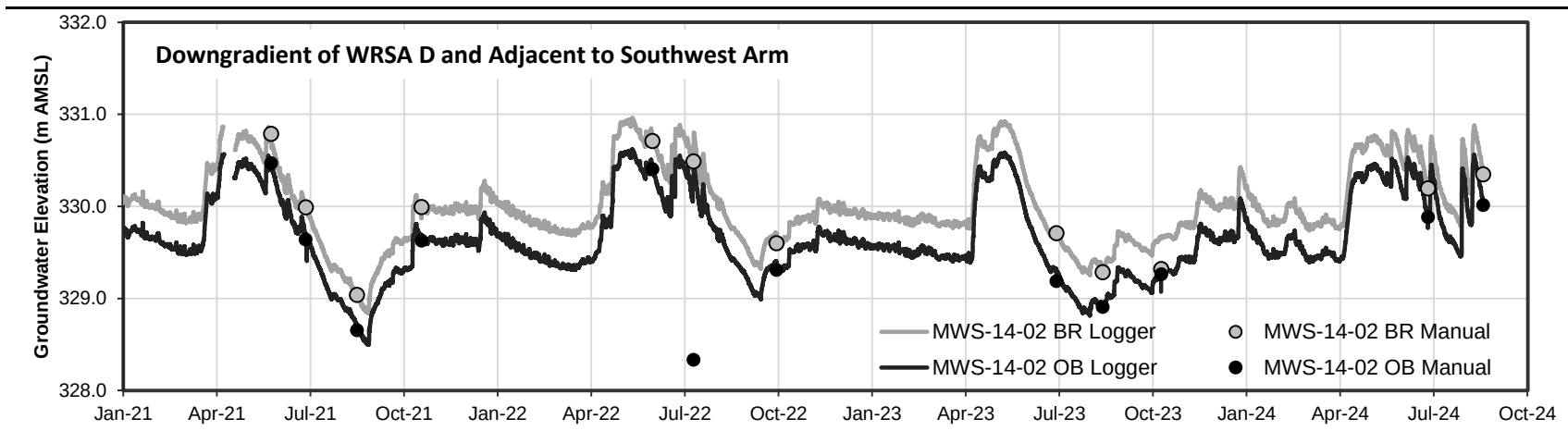
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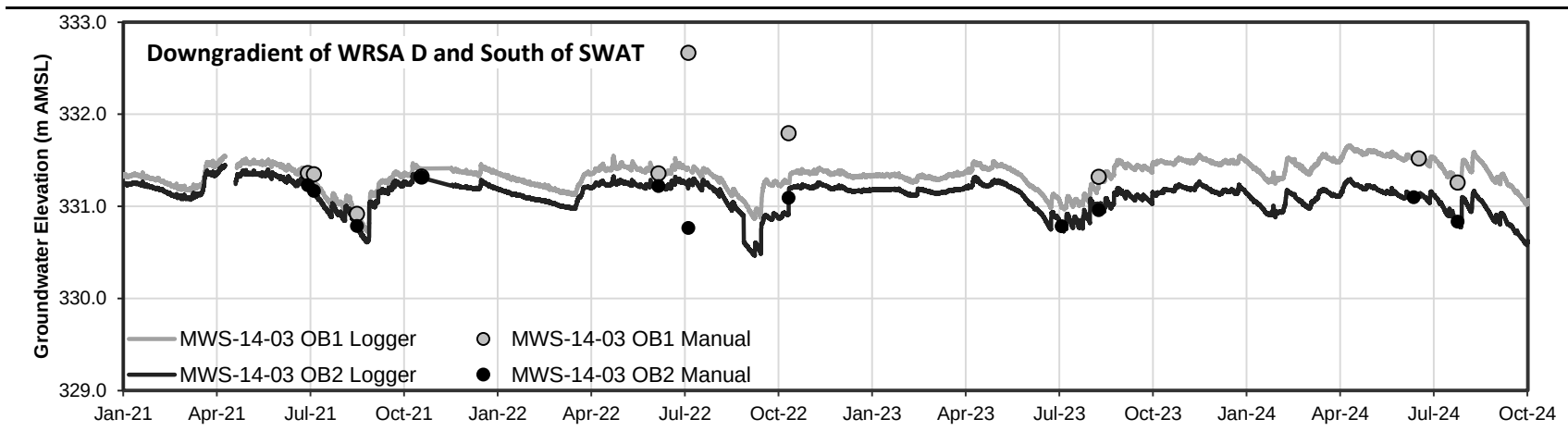
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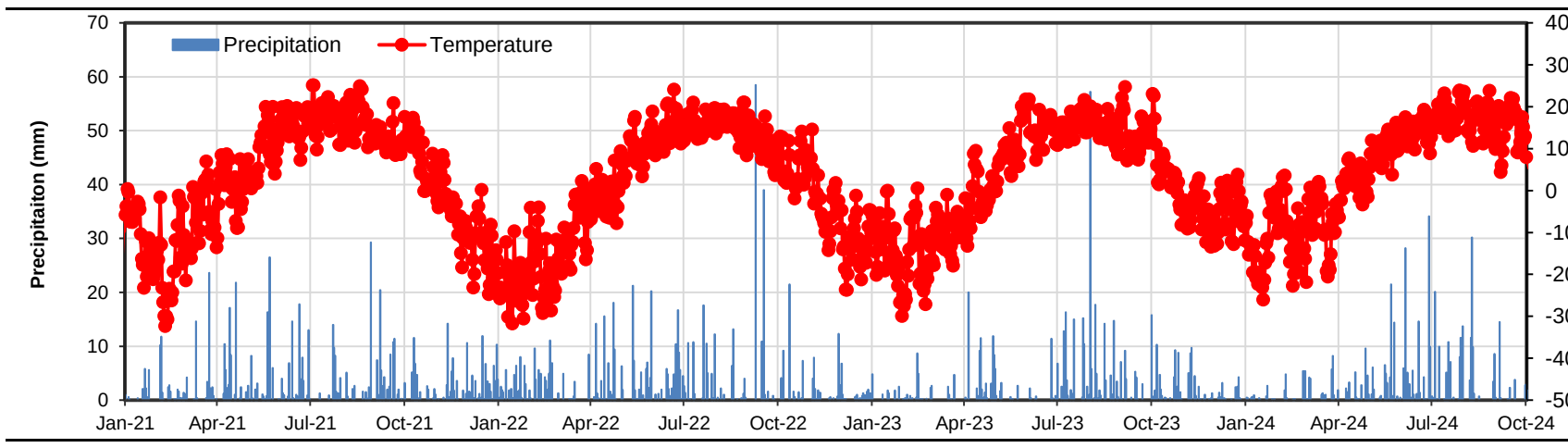












Notes:

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Climate data obtain from the Environment Canada Website: Station Geraldton A

Client/Project

Monthly Report
Multimedia Monitoring Plan
Greenstone Mine

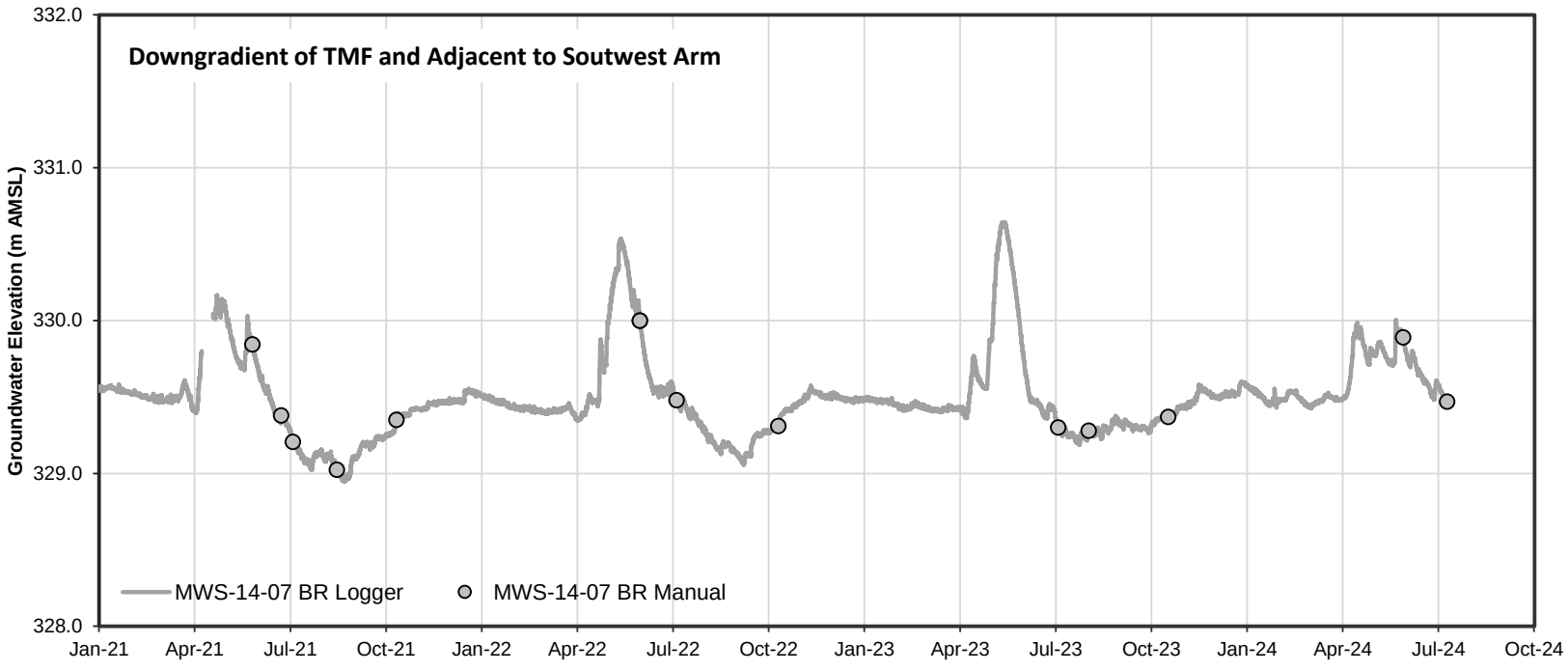
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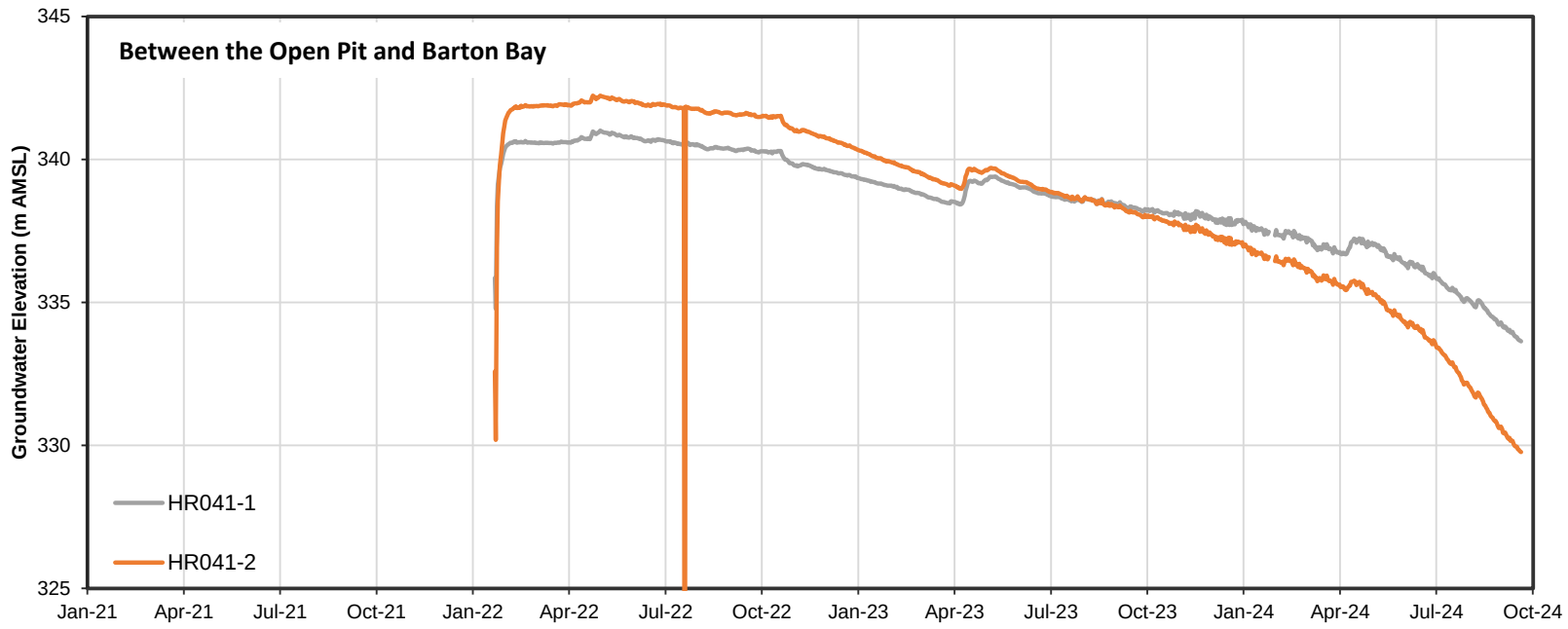
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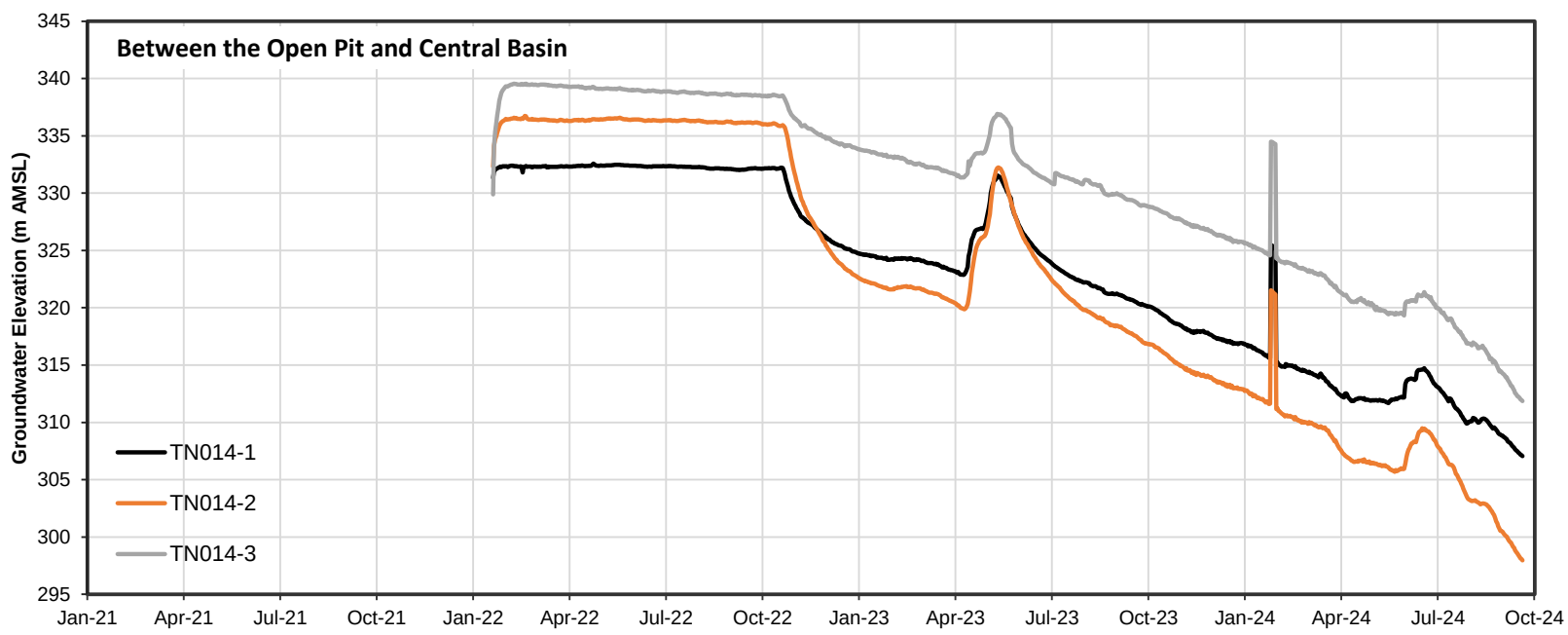
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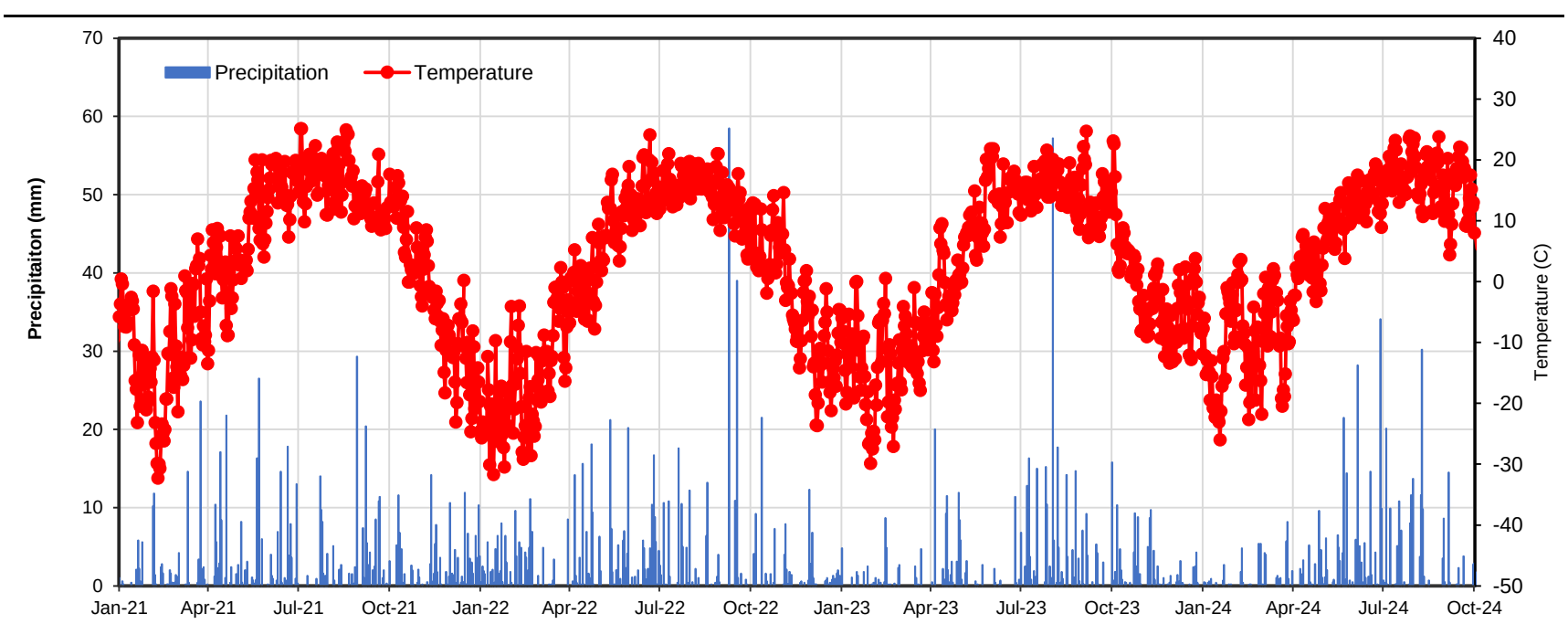
Hydrographs

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Notes:

Error in barologger. Data from mid-April 2021 removed.
Climate data obtain from the Environment Canada Website: Station Geraldton A

Client/Project

Monthly Report
Multi-Media Monitoring Plan
Greenstone Mine

Figure No.

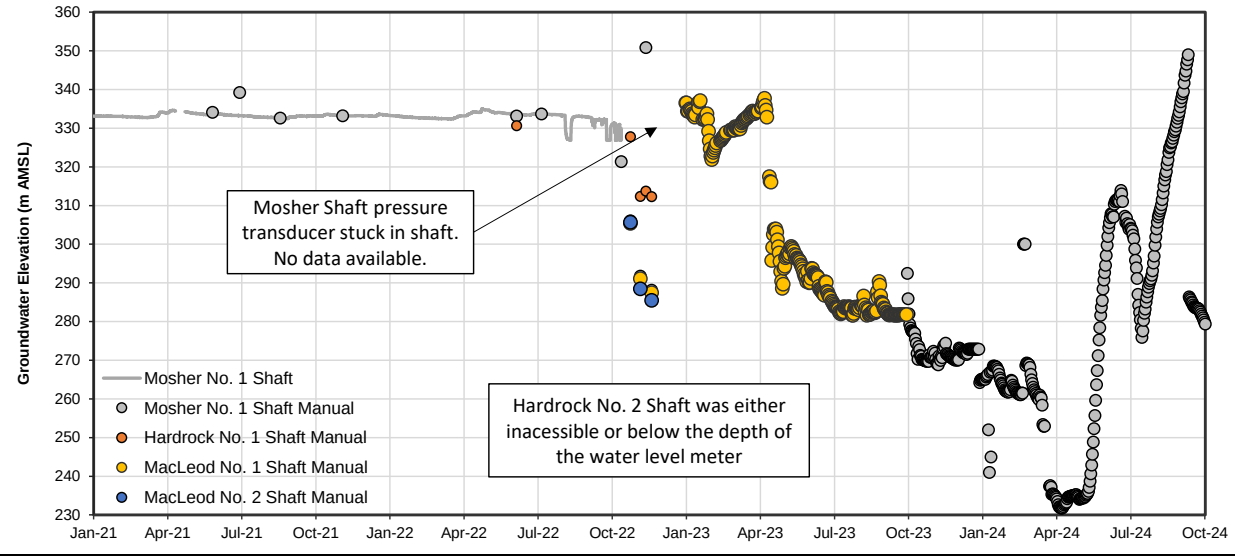
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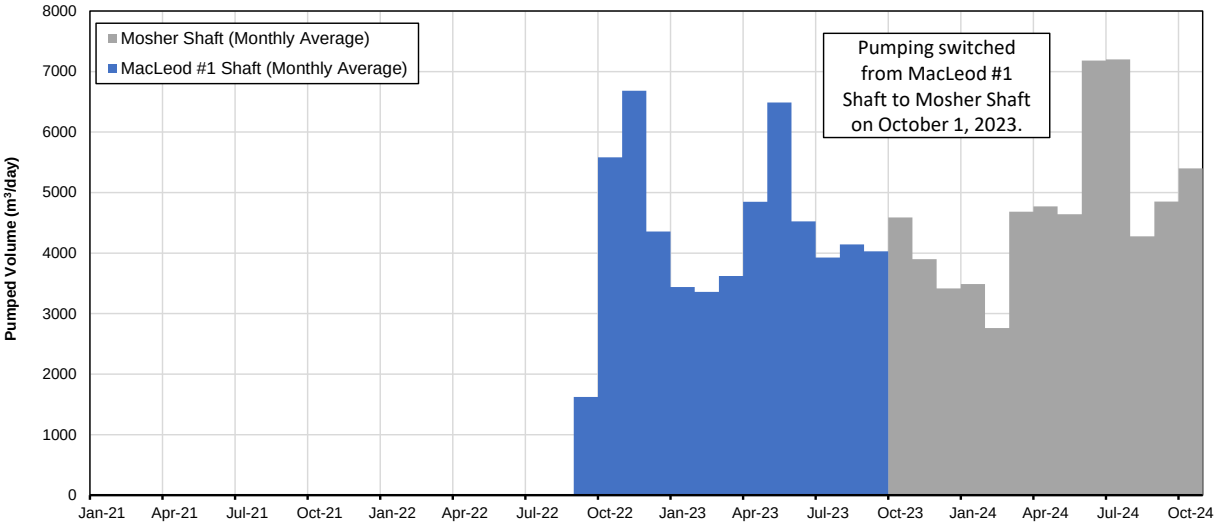
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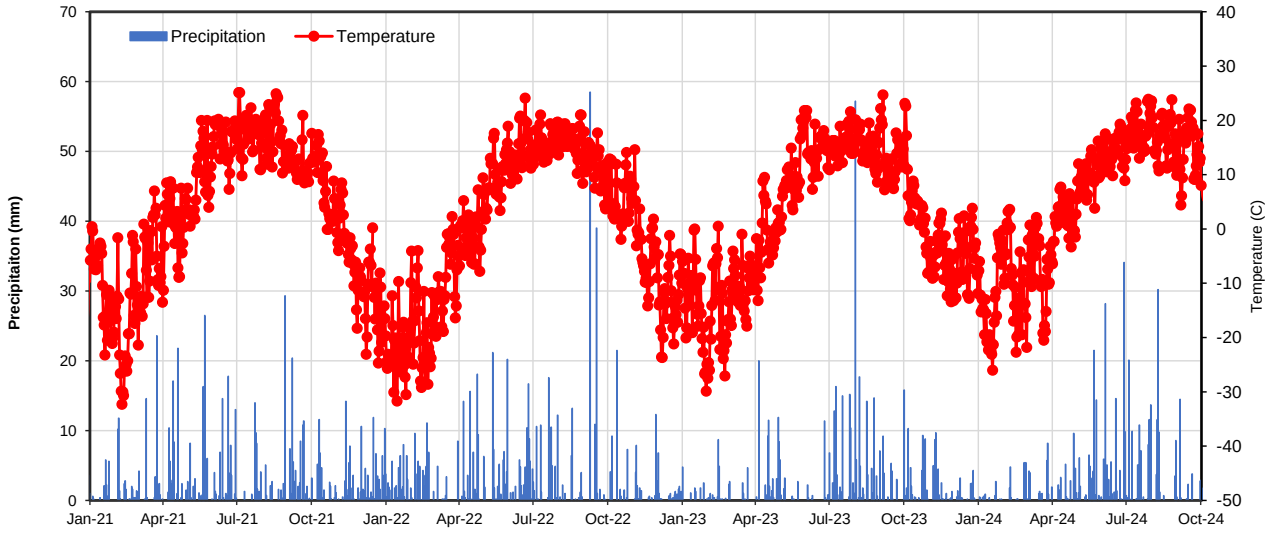
Hydrographs

Stantec

\\cd1004-f01\01609\active\160901121\03_data\field\Groundwater\Logger Data\Corrected\2024 Federal Fish Follow-Up Monitoring Report\Fig C-3-9_ Hydrograph.xlsx







Notes:

Error in barologger. Data from mid-April 2021 removed.
Climate data obtain from the Environment Canada Website: Station Geraldton A

Client/Project

Monthly Report
Multi-Media Monitoring Plan
Greenstone Mine

Figure No.

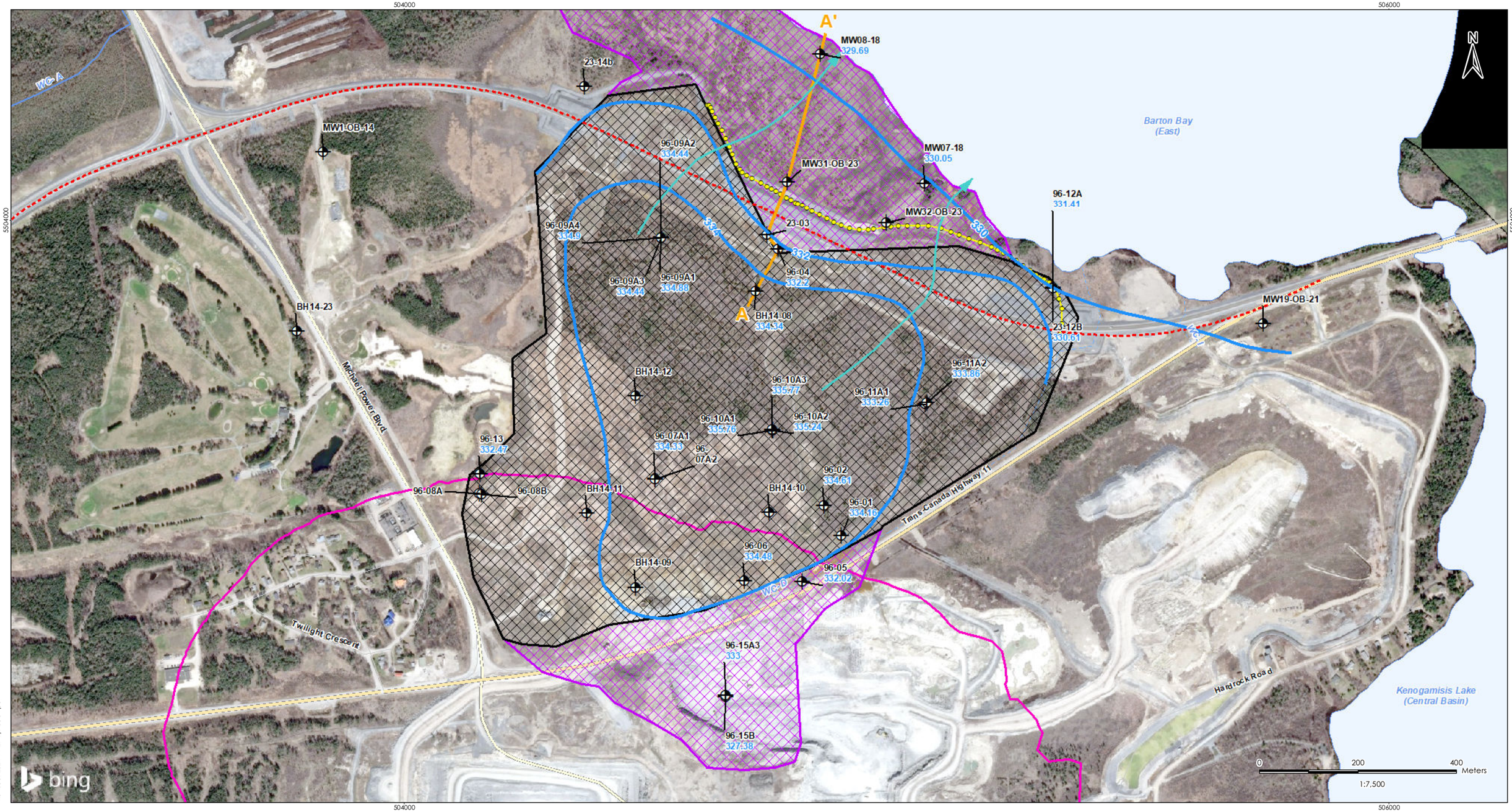
C - 3 - 10

Title

Hydrographs

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Appendix C.4 Groundwater Certificates and Water Quality Tables



\\ca0004-ppfss04\work_group\01609\active\609628685\drawing\MXD\HydroGeo\ReportFigures\2024_Fish_Federal_EIS_Followup_Report\160901121_2024_FedFish_Fig_C-4-1_GW_Contour.mxd
Revised: 2024-11-29 By: bcowper

Legend

- Monitoring Well
- 327.54 Groundwater Elevation (July 2024)
- MHT Drain
- New Highway 11 Alignment
- Highway
- Major Road
- Local Road
- Interpreted Groundwater Contour
- Interpreted Groundwater Flow Direction
- Watercourse- Permanent
- Watercourse- Intermittent
- Open Pit- Full Extent
- Cross-Section Location

Historical Tailings Areas

- MacLeod High Tailings
- MacLeod Low Tailings

Stantec

Notes

1. Coordinate System: NAD 1983 UTM Zone 16N
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2013.
3. Orthographic Imagery May 2024.
4. Groundwater levels are from the July1 2024 groundwater monitoring event.

November 2024
160961293

Client/Project

Hydrogeological Assessment
Greenstone Gold Mines GP Inc. (GGM)

Figure No.

C-4-1

Title

Interpretted Shallow Groundwater Contours, MHT Area

A
SOUTH

A'
NORTH

BH14-08 (OS 0m)
96-04 (OS 0m)
23-03 (OS 0m)
MW31-OB-23 (OS 0m)
MW08-18 (OS 0m)

Barton Bay

SILTY SAND (FILL)
TAILINGS - SILT
TAILINGS
SILTY SAND
SAND AND GRAVEL
HISTORICAL TAILINGS
PEAT
TAILINGS (SILTY CLAY)
TAILINGS (SANDY SILT)
TAILINGS (SANDY SILT)
TAILINGS
PEAT/MUSKEG
SILT
ORGANICS
ORGANICS
ORGANICS
SILT
SILTY SAND
SILTY CLAY
SAND
SANDY SILT
SAND & SILT
CLAY
COBBLES & BOULDERS
SAND
COBBLES & BOULDERS
SANDY SILT (TILL)
SAND
BEDROCK
SAND AND SHALE

Elevation (mAMSL)

0 25 50 m
1:1,500
10x Vertical Exaggeration

\\ca0004-ppfss04\work_group\01609\active\60960865\drawing\MXD\HydroGeo\ReportFigures\2024_Fish_Federal_EIS_Followup_Report\160901121_2024_FedFish_Fig_C-4-2_Section_AA.mxd
Revised: 2024-11-29 By: bcowper

November 2024
160960945

Stantec

Notes

1. DEM from Premier Gold processed to bare earth 1m cell size with an estimated vertical accuracy of 20-40cm.
2. Water levels were taken between July 2024.
3. * - Conceptual interpretation of water table, degre of depression of water table above MHT drain is unknown.

Legend

BH14-08 (OS m) — Well ID (Offset)

Sand — Stratigraphy

Water Level (July 2024)

Well Screen

Legend

MHT Drain *

Interpreted Groundwater Elevation

Interpreted Groundwater Flow Direction

Stratigraphy

Historical Tailings

Organics

Overburden

Bedrock

Client/Project

Hydrogeological Assessment
Greenstone Gold Mines GP Inc. (GGM)

Figure No.

C-4-2

Title

Cross-Section A-A'

Appendix C.5 Groundwater Quality Data

Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Mine

Sample Location			23-12B	23-14B			96-01	96-02	96-04	96-07A1	96-12A	BH14-02	BH14-02A	BH-14-10	BH14-15			BH23-01			G4-OB1-13		G4-OB2-13	G6-BR-14		
Sample Date			12-Oct-23	19-Oct-23	6-Jun-24	18-Jul-24	11-Oct-23	10-Oct-23	19-Oct-23	11-Oct-23	19-Oct-23	18-Oct-23	18-Oct-23	19-Oct-23	12-Oct-23	3-Jun-24	21-Jul-24	24-Oct-23	30-May-24	24-Jul-24	12-Oct-23	12-Oct-23	12-Oct-23	10-Oct-23	23-Jun-24	19-Aug-24
Sample ID			23-12B	23-14B	23-14B	23-14B	96-01	96-02	96-04	96-07 A1	96-12A	BH14-02	BH14-02A	BH14-10	BH14-15	BH14-15	BH14-15	BH23-01	BH23-01	BH23-01	G4-OB1-13	DUPLICATE 6	G4-OB2-13	G6-BR-14	G6-BR-14	G6-BR-14
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	BV	ALS	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	ALS	BV	BV	ALS	BV	BV	BV	BV	BV	ALS
Laboratory Work Order			C3V9672	C3W8782	C4H5675	TY2407829	C3V9547	C3V8582	C3W8782	C3V9547	C3W8782	C3W8750	C3W8750	C3W8782	C3V9672	C4G9053	TY2407874	C3X5415	C4G7181	TY2408060	C3V9672	C3V9672	C3V9672	C3V8570	C4J2357	TY2409199
Laboratory Sample ID			XHF393	XJD237	ZKL344	TY2407829-001	XHE682	XGZ577	XJD240	XHE681	XJD234	XJD041	XJD040	XJD239	XHF387	ZJC447	TY2407874-001	XKN800	ZIS037	TY2408060-001	XHF389	XHF394	XHF388	XGZ403	ZNX936	TY2409199-004
Sample Type	Units	MOE APV																				Field Duplicate				
Field Parameters																										
pH, Field	S.U.	n/v	-	7.01	6.76	7.00	-	6.67	6.94	-	6.51	6.47	7.09	6.64	-	7.02	7.20	6.68	6.87	7.50	-	-	-	7.12	7.56	7.42
Temperature, Field	deg C	n/v	-	10.2	14.5	12.6	-	7.7	6.6	-	7.9	9.1	9.6	7.2	-	7.7	5.70	7.9	8.1	14.0	-	-	-	7.9	7.1	7.70
General Chemistry																										
Acidity as CaCO3	mg/L	n/v	71	64	100	39.0	52	120	24	82	100	180	88	90	18	19	4.3	28	9.0	39.4	6.6	8.0	11	8.4	13	3.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	430	540	590	618	380	440	140	320	430	830	340	420	260	360	435	310	190	357	250	250	300	290	300	328
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	1.1	3.8	1.8	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6	2.9	<1.0	1.1	2.7	<2.0	1.3	1.0	<2.0	2.5	2.3	2.3	2.3	2.8	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	n/v	430	550	590	618	380	440	140	320	430	830	340	420	260	360	435	320	200	357	260	260	310	290	300	328
Ammonia (as N)	mg/L	n/v	0.56	0.056	0.48	0.321	11	0.72	3.1	1.6	1.1	2.6	<0.050	0.79	0.36	0.37	0.351	<0.050	<0.050	0.0194	0.34	0.32	0.17	0.36	0.33	0.428
Ammonia, Un-ionized (Calculated)	mg/L	n/v	-	-	-	<0.0010	-	-	-	-	-	-	-	-	-	-	<0.0010	-	-	<0.0010	-	-	-	-	-	0.0017
Chloride	mg/L	180[A]	14	32	37	38.5	10	3.6	8.1	1.1	5.0	33	2.2	1.3	3.5	4.0	1.10	1.1	1.2	1.04	1.9	2.0	<1.0	<1.0	<1.0	0.39
Cyanide	mg/L	0.0052[A]	**0.0246[A]**	**0.0571[A]**	**0.0910 AS[A]**	-	**0.0109[A]**	**0.0687[A]**	**0.0247[A]**	**0.0227[A]**	**0.0249[A]**	<0.00050	<0.00050	**0.338[A]**	0.00087	<0.00050	-	<0.00050	<0.00050	-	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	-
Cyanide (Free)	mg/L	n/v	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0200 DLM	<0.002 ICB	0.0021 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.0100 DLM	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	n/v	-	-	-	-	-	-	-	-	-	49	13	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Lab	µS/cm	n/v	2,990	2,780	2,470	2,360	2,690	2,530	778	3,240	3,080	1,530	641	3,120	648	669	632	596	381	418	479	478	561	535	532	516
Fluoride	mg/L	n/v	<0.10	0.10	<0.10	<0.200 DLDS	0.16	0.30	<0.10	0.12	<0.10	<0.10	<0.10	0.22	0.16	0.39	0.327	<0.10	<0.10	0.024	0.43	0.42	0.46	0.32	0.35	0.221
Hardness (as CaCO3)	mg/L	n/v	1,800	1,700	1,500	1,510	1,100	1,700	1,100	2,100	2,000	850	420	2,000	330	310	280	320	210	264	170	160	280	280	270	271
Nitrate (as N)	mg/L	n/v	<0.10	<0.10	<0.10	<0.200 DLDS	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.30	<0.10	<0.040 DLDS	<0.10	0.69	<0.020	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020
Nitrate + Nitrite (as N)	mg/L	n/v	<0.10	<0.10	<0.10	-	0.29	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.40	<0.10	-	<0.10	0.69	-	<0.10	<0.10	<0.10	<0.10	<0.10	-
Nitrite (as N)	mg/L	n/v	<0.010	<0.010	<0.010	<0.100 DLDS	0.230	<0.010	0.012	0.015	<0.010	<0.010	<0.010	<0.010	0.097	<0.010	<0.020 DLDS	0.068	<0.010	<0.010	0.013	0.026	0.022	0.049	<0.010	<0.010
pH, lab	S.U.	n/v	7.43	7.87	7.52	7.41	7.35	7.22	7.22	7.02	7.25	7.66	7.95	7.30	7.65	7.91	8.02	7.63	7.75	7.25	8.02	7.98	7.91	7.92	8.00	8.02
Phosphorus, Total	mg/L	n/v	2.8 DB	1.3	5.3	2.93	2.4	16	0.98 DB	0.76 DB	1.4 DB	0.15	0.0041	1.9	0.36	0.41	1.23	0.0017	0.0013	0.0359	0.034	0.038	0.054	0.033	0.046	0.229
Sulfate	mg/L	n/v	1,600	1,200	960	994	1,300	1,200	260	1,900	1,600	23	9.2	1,700	74	15	1.89	8.2	4.9	2.70	1.7	1.6	<1.0	<1.0	<1.0	<0.30
Total Dissolved Solids	mg/L	n/v	2,620	2,370	1,970	2,000	1,580	1,820	1,510	2,970	2,860	890	435	2,850	365	380	411	325	190	274	235	235	255	235	305	302
Total Kjeldahl Nitrogen	mg/L	n/v	1.7	0.85	0.82	0.936	12	1.3	3.8	2.4	2.7	3.5	0.45	1.4	0.80	0.61	1.02	0.17	0.19	1.26	0.50	0.51	0.27	0.48	0.41	0.552
Total Suspended Solids	mg/L	n/v	330	6,500	4,600	9,880	8,100	40,000	2,400	980	3,900	61	42	49,000	1,100	670	2,900	47	28	3,680	29	8	42	11	11	488
Turbidity, Lab	NTU	n/v	74	20	210	0.10 TMV	45	1,100	20	84	52	84	24	33	55	190	2,610	1.5	27	0.10 TMV	1.4	2.0	2.4	3.3	7.0	218
Metals, Dissolved																										
Aluminum	µg/L	n/v	4.8	<5	<2.5	1.7	182	<5	5.5	7	14	9.8	15.6	<5	2.5	106	1.5	11.1	8.5	10.4	0.9	0.8	<0.5	0.8	0.7	3.2
Antimony	µg/L	1,600[A]	<0.5	<1	<0.5	0.23	1	1	0.5	<1	<1	<0.1	<0.1	3	0.5	<0.1	<0.10	0.1	0.1	0.11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10
Arsenic	µg/L	150[A]	**3,530[A]**	**571[A]**	**1,510[A]**	**1,670[A]**	31	**4,380[A]**	**7,410[A]**	**6,600[A]**	**6,110[A]**	14.1	17	**17,400[A]**	8.7	6.4	3.52	1.3	0.9	2.50	3.4	3.3	0.7	1.1	1.1	1.00
Barium	µg/L	2,300[A]	115	40	33	45.5	29	18	12	12	114	48.5	16.4	16	46.4	56.7	55.6	30.4	14.4	23.5	31.8	30.8	31.8	51.5	49.3	51.9
Beryllium	µg/L	5.3[A]	<0.25	<0.5	<0.25	<0.020	<0.5	<0.5	<0.25	<0.5	<0.5	<0.05	<0.05	<0.5	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020
Bismuth	µg/L	n/v	<0.5	<1	<0.5	<0.050	<1	<1	<0.5	<1	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050	<0.1	<0.1	<0.1	<0.1	<0.1	<0.050
Boron	µg/L	3,550[A]	41	20	9	10	20	40	75	70	60	10	8	30	31	53	53	7	4	<10	62	61	26	32	30	31
Cadmium	µg/L	0.21[A]	<0.05	<0.1	<0.05	<0.0050	<0.1	<0.1	<0.05	<0.1	<0.1	0.01	<0.01	<0.1	<0.01	<0.01	<0.0050	0.05	<0.01	0.0099	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050
Calcium	mg/L	n/v	460	482	413	408	309	434	270	506	534	271	134	524	101	81.1	69.9	98.0	64.4	80.1	36.4	34.0	70.3	74.4	71.3	69.5
Cesium	µg/L	n/v	<0.1	<0.2	<0.1	0.035	<0.2	<0.2	<0.1	<0.2	<0.2	1.68	0.23	<0.2	<0.02	0.02	<0.010	0.04	<0.02	0.023	<0.02	<0.02	<0.02	0.63	0.56	0.619
Chromium	µg/L	64[A]	<2.5	<5	<2.5	<0.50	<5	<5	<2.5	<5	<5	<0.5	<0.5	<5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50
Cobalt	µg/L	5.2[A]	4.57	**8.6[A]**	**10.1[A]**	**7.99[A]**	3.5	0.9	1.36	**5.5[A]**	3.1	0.9	<0.05	2.3	1.28	0.44	0.37	1.57	0.3	1.16	0.21	0.21	0.06	<0.05	<0.05	<0.10
Copper	µg/L	6.9[A]	<0.5	<1	<0.5	<0.20	1	<1	0.6	2	<1	<0.1	<0.1	<1	1.4	0.8	0.49	3	2.5	2.99	0.1	<0.1	0.2	0.2	<0.1	0.49
Iron	µg/L	n/v	18,500	3,100	19,300	14,200	540	38,500	25,000	47,400	32,800	9,920	9,500	46,900	1,670	3,540	2,880	62	716	22,800	366	353	523	782	799	836
Lead	µg/L	2[A]	<0.25	<0.5	<0.25	<0.050	<0.5	<0.5	<0.25	<0.5	<0.5	<0.05	<0.05	<0.5	<0.05	0.16	<0.050	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	<0.050
Lithium	µg/L	n/v	19.9	10	5.8	5.1	7	11	12.1	17	10	0.8	1.3	11	4.8	10.4	11.0	1	0.7	<1.0	3.8	3.7	8.7	7.5	7.2	7.3
Magnesium	mg/L	n/v	161	132	105	119	78.2	149	93.7	196	163	41.5	21.6	164	18.8	27.2	25.6	17.2	12.4	15.5	19.5	18.6	24.7	22.7	22.8	23.7
Manganese	µg/L	n/v	1,200	2,750	1,970	1,810	1,750	643	385	158	1,730	2,930	2,430	709	144	96.1	72.9	611	15.8	204	21.6	21.3	50	44.6	44.3	46.9
Mercury	µg/L	0.77[A]	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050
Molybdenum	µg/L	730[A]	3.39	1.1	1.08	1.25	<0.5	2	2	0.8	<0.5	0.19	0.29	4.4	2.78	0.46	0.500	0.81	0.37	0.263	1.5	1.43	0.56	0.44	0.63	0.424
Nickel	µg/L	39[A]	1.5	8	12.1	8.68	3	<1	5.2	<1	<1	0.9	0.2	3	2.2	0.6	<0.50	17.4	4.7	6.41	0.7	0.6	0.1	<0.1	<0.1	<0.50
Phosphorus	µg/L	n/v	<25	<50	<25	<50	2,060	<50	<25	<50	<50	197	<5	<50	11	81	71	<5	<5	<50	35	36	40	42	40	<50
Potassium	mg/L	n/v	30.7	13.2	6.5	8.12	8.9	25.9	20.8	35.6	23.1	4.36	0.92	26.1	3.92	3.01	2.79	2.41	1.28	1.40	3.03	2.81	2.60	2.23	2.29	2.20
Rubidium	µg/L	n/v	11	2.8	3.6	4.75	3.7	3.7	4.4	11.8	8	5.91	2	7.3	4.24	1.66	1.46	4.64	2.01	2.74	0.66	0.65	0.8	0.75	0.77	0.84
Selenium	µg/L	5[A]	<1	<2	<1	0.100	<2	<2	<1	<2	<2	<0.2	<0.2	<2	<0.2	<0.2	0.079	<0.2	<0.2	0.108	<0.2	<0.2	<0.2	<0.2	<0.2	<0.050
Silicon	µg/L	n/v	9,250	8,350	8,060	9,300	4,620	10,900	5,000	9,290	9,070	8,600	7,640	10,700	5,620	9,370	10,200	5,860	4,710	4,710	4,800	4,800	8,320	9,060	8,580	9,710
Silver	µg/L	0.12[A]	<0.05	<0.1	<0.05	<0.010	0.1	<0.1	<0.05	<0.1	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.010	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010
Sodium	mg/L	180[A]	44.8	67.4	38.4	41.7	37.9	4.1	4.79	5.3	51.1	5.63	3.43	55.2	11.5	27.0	26.5	1.75	1.29	1.84	40.6	38.5	15.1	14.0	13.9	13.8
Strontium	µg/L	n/v	1,960	1,160	816	882	663	1,980	1,750	2,840	1,990	693	329	1,690	207	260	240	103	61.4	86.4	288	275	273	312	316	306
Sulfur	µg/L	n/v	-	-	-	362,000	-	-	-	-	-	-	-	-	-	-	840	-	-	980	-	-	-	-	-	630
Sulfur	mg/L	n/v	500	450	320	-	270	400	290	610	540	5.0	<0.5	550	24	3.1	-	2.7	1.5	-	0.7	1.1	<0.5	<0.5	<0.5	-
Tellurium	µg/L	n/v	<0.5	<1	<0.5	<0.20	<1	<1	<0.5	<1	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20	<0.1	<0.1	<0.1	<0.1	<0.1	<0.20
Thallium	µg/L	40[A]	<0.025	<0.05	<0.025	<0.010	<0.05	<0.05	<0.025	<0.05	<0.05	<0.005	<0.005	<0.05	0.006	0.005	<0.010	0.025	0.013	0.019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010
Thorium	µg/L	n/v	<1	<2	<1	<0.10	<2	<2	<1	<2	<2	<0.2	<0.2	<2	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10	<0.2	<0.2	<0.2	<0.2	<0.2	<0.10
Tin	µg/L	n/v	<0.5	<1	<0.5	<0.10	<1	<1	<0.5	<1	<1	<0.1	<0.1	<1	<0.1	<0.1	<0.10	0.1	<0.1	0.18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10
Titanium	µg/L	n/v	<2.5	<5	<2.5	<0.30	10	<5	<2.5	<5	<5	1	1.3	<5	0.5	7.9	<0.30	<0.5	<0.5	<0.30	<0.5	<0.5	<0.5	1	<0.5	<0.30
Tungsten	µg/L	n/v	<0.5	<1	<0.5	<0.10	<1	3	2	<1	<1	0.2	0.4	<1	1.5	1.9	1.75	3.5	0.1	1.04	16.6	15.6	<0.1	0.3	0.6	0.66
Uranium	µg/L	33[A]	2.54	2.4	1.73	1.41	1.9	<0.1	0.12	0.4	0.4	0.3	0.16	0.8	1.03	0.14	0.130	0.65	0.37	0.482	0.09	0.08	0.07	0.02	0.02	0.024
Vanadium	µg/L	20[A]	<0.25	<0.5	<0.25	<0.50	1	<0.5	<0.25	<0.5	2.1	0.59	1.03	<0.5	0.27	0.5	<0.50	0.27	0.14	<0.50	0.09	0.09	<0.05	<0.05	<0.05	<0.50
Zinc	µg/L	89[A]	**10,600[A]**	**18,600[A]**	**239[A]**	32.3	10	<5	**5,640[A]**	<5	<5	0.7	<0.5	8	3.4	3.1	<1.0	**1,200[A]**	47.8	43.4	<0.5	<0.5	0.6	<0.5	0.6	8.3
Zirconium	µg/L	n/v	0.9	<1	<0.5	0.38	<1	<1	<0.5	<1	6	1	1.7	<1	0.5	0.6	<0.30	0.5	0.3	0.38	<0.1	<0.1	<0.1	0.4	0.4	0.44

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Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
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Greenstone Mine

Sample Location			23-12B	23-14B			96-01	96-02	96-04	96-07A1	96-12A	BH14-02	BH14-02A	BH14-10	BH14-15			BH23-01			G4-OB1-13		G4-OB2-13	G6-BR-14		
Sample Date			12-Oct-23	19-Oct-23	6-Jun-24	18-Jul-24	11-Oct-23	10-Oct-23	19-Oct-23	11-Oct-23	19-Oct-23	18-Oct-23	18-Oct-23	19-Oct-23	12-Oct-23	3-Jun-24	21-Jul-24	24-Oct-23	30-May-24	24-Jul-24	12-Oct-23	12-Oct-23	12-Oct-23	10-Oct-23	23-Jun-24	19-Aug-24
Sample ID			23-12B	23-14B	23-14B	23-14B	96-01	96-02	96-04	96-07 A1	96-12A	BH14-02	BH14-02A	BH14-10	BH14-15	BH14-15	BH14-15	BH23-01	BH23-01	BH23-01	G4-OB1-13	DUPLICATE 6	G4-OB2-13	G6-BR-14	G6-BR-14	G6-BR-14
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	BV	ALS	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	ALS	BV	BV	ALS	BV	BV	BV	BV	BV	ALS
Laboratory Work Order			C3V9672	C3W8782	C4H5675	TY2407829	C3V9547	C3V8582	C3W8782	C3V9547	C3W8782	C3W8750	C3W8750	C3W8782	C3V9672	C4G9053	TY2407874	C3X5415	C4G7181	TY2408060	C3V9672	C3V9672	C3V9672	C3V8570	C4J2357	TY2409199
Laboratory Sample ID			XHF393	XJD237	ZKL344	TY2407829-001	XHE682	XGZ577	XJD240	XHE681	XJD234	XJD041	XJD040	XJD239	XHF387	ZJC447	TY2407874-001	XKN800	ZIS037	TY2408060-001	XHF389	XHF394	XHF388	XGZ403	ZNX936	TY2409199-004
Sample Type																						Field Duplicate				
Metals, Total																										
Aluminum	µg/L	n/v	566	10,200	3,950	110,000	1,840	2,500	13,400	2,910	5,060	17.1	53.1	210	1,720	1,650	12,100	196	33	11,200	18.9	18.8	107	14.6	66.8	301
Antimony	µg/L	1,600[A]	<0.5	<1	<1	19.5	<1	3	<1	<1	<1	<0.1	<0.1	<1	<0.5	<0.1	<1.00 DLM	0.1	0.1	12.9	0.2	0.2	0.1	<0.1	<0.1	<0.10
Arsenic	µg/L	150[A]	**3,900[A]**	**3,140[A]**	**2,550[A]**	**9,090[A]**	35	**7,000[A]**	**7,820[A]**	**6,850[A]**	**6,030[A]**	15.8	17.2	**861[A]**	15.9	12	9.15	2.1	1.9	**712[A]**	3.5	3.6	1.4	1	1.1	1.58
Barium	µg/L	2,300[A]	115	84	110	695	61	224	83	31	61	45.4	17.6	88	64	71.4	148	35.6	17.7	1,170	31.7	31.2	32	52.5	51.4	55.3
Beryllium	µg/L	5.3[A]	<0.25	<0.5	0.8	3.34	<0.5	1	0.6	<0.5	0.6	<0.05	<0.05	<0.5	<0.25	0.11	0.436	<0.05	<0.05	<2.00 DLM	<0.05	<0.05	<0.05	<0.05	<0.05	0.027
Bismuth	µg/L	n/v	<0.5	<1	<1	<5.00 DLM	<1	<1	<1	<1	<1	<0.1	<0.1	<1	<0.5	<0.1	<0.500 DLM	<0.1	<0.1	<5.00 DLM	<0.1	<0.1	<0.1	<0.1	<0.1	<0.050
Boron	µg/L	3,550[A]	40	30	40	<1,000 DLM	20	50	60	70	90	9	8	70	39	55	<100 DLM	6	4	<1,000 DLM	65	64	26	30	30	29
Cadmium	µg/L	0.21[A]	<0.025	0.13	**0.49[A]**	**0.681[A]**	0.2	**0.24[A]**	0.21	0.06	0.19	0.005	<0.005	**0.26[A]**	0.055	0.043	0.116	0.061	0.016	**2.91[A]**	0.005	<0.005	0.007	<0.005	<0.005	0.0181
Calcium	mg/L	n/v	492	635	1,160	1,080	398	1,510	309	559	1,100	268	133	1,780	194	141	263	94.2	63.5	182	35.5	36.3	68.7	70.1	72.1	75.0
Cesium	µg/L	n/v	0.1	1.1	0.6	14.7	0.2	0.3	2.5	0.6	0.4	1.56	0.24	0.4	0.2	0.19	1.15	0.06	0.03	<1.00 DLM	<0.02	<0.02	<0.02	0.67	0.66	0.605
Chromium	µg/L	64[A]	3.1	49	13	**407[A]**	7	10	**89[A]**	15	20	<0.5	0.6	<5	5.5	5.5	30.1	1.3	1.8	**443[A]**	<0.5	<0.5	<0.5	<0.5	<0.5	0.97
Cobalt	µg/L	5.2[A]	5.02	**24[A]**	**50.5[A]**	**115[A]**	**6.2[A]**	**18.2[A]**	**11.4[A]**	**8.5[A]**	**9.3[A]**	0.83	0.06	**29.4[A]**	3.17	2.56	**8.35[A]**	1.97	0.58	**28.6[A]**	0.22	0.21	0.18	<0.05	0.07	0.22
Copper	µg/L	6.9[A]	1.5	**26[A]**	**37[A]**	**197[A]**	**8[A]**	<1	**33[A]**	**17[A]**	6	0.2	0.3	<1	**8.1[A]**	6	**25.5[A]**	3.9	4.4	**637[A]**	0.3	0.2	1.1	<0.1	0.3	0.92
Iron	µg/L	n/v	20,700	40,400	78,100	274,000	3,670	179,000	89,800	67,200	44,500	9,960	9,810	46,200	6,140	7,980	20,000	383	5,890	2,280,000	405	409	598	800	923	1,320
Lead	µg/L	2[A]	1.34	**15[A]**	**8.2[A]**	**82.7[A]**	**3.6[A]**	**3[A]**	**28.7[A]**	**9.6[A]**	**8.4[A]**	<0.05	0.15	<0.5	**3.02[A]**	**3.15[A]**	**8.28[A]**	0.22	0.1	**11.8[A]**	0.07	0.09	0.18	<0.05	0.26	0.540
Lithium	µg/L	n/v	20.2	22	14	110	11	19	19	19	22	0.7	1.3	19	8.3	13.1	26.6	1.4	0.7	<100 DLM	4	4	8.8	7.5	7.5	7.0
Magnesium	mg/L	n/v	154	163	312	355	101	243	114	198	332	41.4	21.6	264	44.2	43.6	83.4	16.8	12.3	24.7	18.3	18.3	24.6	22.4	23.2	25.3
Manganese	µg/L	n/v	1,230	3,560	5,900	5,780	2,040	6,290	1,870	542	2,650	2,880	2,430	8,420	298	218	520	609	30.1	1,170	22.3	22.4	74.5	45.3	48.7	58.0
Mercury	µg/L	0.77[A]	<0.1	<0.01	<0.01	0.0070	0.02	***<1.5***	***<1.5***	<0.1	<0.1	<0.01	<0.01	***<1.5***	<0.1	<0.1	<0.0050	<0.01	<0.01	0.0422	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050
Molybdenum	µg/L	730[A]	3.03	1	<0.5	<5.00 DLM	<0.5	2.6	1.7	0.8	<0.5	0.23	0.3	<0.5	1.89	0.29	0.828	0.78	0.29	19.8	1.48	1.48	0.46	0.42	0.72	0.651
Nickel	µg/L	39[A]	3.2	**54[A]**	**108[A]**	**324[A]**	7	**57[A]**	**69[A]**	14	14	0.9	0.4	**251[A]**	7	5.4	20.2	19.5	8.7	**268[A]**	0.8	0.8	0.4	<0.1	0.2	1.54
Phosphorus	µg/L	n/v	78	690	210	5,610	2,240	<50	1,140	420	1,760	192	11	<50	440	377	802	8	<5	<5,000 DLM	39	39	47	42	59	95
Potassium	mg/L	n/v	28.9	15.2	12.6	39.5	8.7	34.5	23.9	35.9	23.3	4.00	0.92	40.1	3.8	3.41	5.66	2.50	1.37	<5.00 DLM	2.96	2.99	2.61	2.28	2.25	2.22
Rubidium	µg/L	n/v	11.7	23.7	25.8	192	5.7	35.1	38.6	16.6	14.4	5.44	2.01	29.1	7.1	4.35	16.7	5.02	2.27	<20.0 DLM	0.71	0.69	0.98	0.78	0.92	1.27
Selenium	µg/L	5[A]	<0.25	<0.5	<0.5	**5.03[A]**	<0.5	<0.5	<0.5	<0.5	<0.5	0.14	0.06	<0.5	<0.25	<0.05	<0.500 DLM	0.06	0.06	**7.52[A]**	0.13	0.14	<0.05	<0.05	<0.05	<0.050
Silicon	µg/L	n/v	9,800	24,700	13,400	206,000	7,020	19,800	21,500	12,300	13,700	8,550	7,690	16,400	8,210	11,200	31,900	5,890	4,700	105,000	4,990	4,860	8,480	8,480	8,470	9,990
Silver	µg/L	0.12[A]	<0.05	<0.1	<0.1	***<1.00 DLM***	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.1	<0.05	<0.01	**0.306[A]**	0.05	0.03	**4.40[A]**	<0.01	<0.01	<0.01	<0.01	<0.01	0.066
Sodium	mg/L	180[A]	42.3	67.6	46.3	54.3	35.1	4.0	5.2	5.3	53.3	5.43	3.47	55.0	11.2	28.0	29.6	1.80	1.40	<5.00 DLM	38.9	39.3	14.7	13.6	13.3	13.6
Strontium	µg/L	n/v	1,980	1,290	1,600	1,720	778	3,240	1,970	2,900	2,230	658	322	3,520	241	300	401	102	63.5	332	282	282	280	322	306	288
Sulfur	µg/L	n/v	-	-	-	379,000	-	-	-	-	-	-	-	-	-	-	<5,000 DLM	-	-	<50,000 DLM	-	-	-	-	-	<500
Sulfur	mg/L	n/v	540	440	350	-	330	480	280	620	560	3.3	<0.5	870	24	4.0	-	2.7	1.6	-	0.7	1.0	<0.5	<0.5	<0.5	-
Tellurium	µg/L	n/v	<0.5	<1	<1	<20.0 DLM	<1	<1	<1	<1	<1	<0.1	<0.1	<1	<0.5	<0.1	<2.00 DLM	<0.1	<0.1	<20.0 DLM	<0.1	<0.1	<0.1	<0.1	<0.1	<0.20
Thallium	µg/L	40[A]	<0.025	0.17	0.18	2.41	<0.05	<0.05	0.33	<0.05	0.12	<0.005	<0.005	<0.05	0.048	0.031	0.144	0.026	0.02	1.12	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010
Thorium	µg/L	n/v	<1	4	<2	36.4	<2	<2	4	<2	3	<0.2	<0.2	<2	<1	0.4	4.55	<0.2	<0.2	11.5	<0.2	<0.2	<0.2	<0.2	<0.2	0.13
Tin	µg/L	n/v	<0.5	<1	<1	<10.0 DLM	<1	<1	<1	<1	<1	<0.1	0.1	<1	<0.5	<0.1	<1.00 DLM	0.2	0.2	28.8	<0.1	<0.1	<0.1	<0.1	<0.1	0.11
Titanium	µg/L	n/v	36.5	435	<5	5,290	85	24	491	93	72	1.5	2.4	<5	92.8	71.1	787	13.8	1.4	416	1.6	1.3	8.2	1.7	3.9	21.4
Tungsten	µg/L	n/v	<0.5	<1	<1	40.4	<1	<1	11	5	<1	0.2	0.4	<1	1.3	0.8	3.38	5.2	0.7	830	15.3	15.6	<0.1	0.3	0.5	1.12
Uranium	µg/L	33[A]	2.58	3	1.5	5.75	2.6	0.1	1.4	0.5	2.7	0.31	0.16	0.1	1.32	0.46	1.29	0.74	0.45	7.80	0.08	0.08	0.07	0.02	0.04	0.060
Vanadium	µg/L	20[A]	2.25	**36.2[A]**	12.1	**296[A]**	6.1	6.4	**55.7[A]**	7.3	**23.2[A]**	0.54	1.14	<0.5	5.63	5.42	**29.0[A]**	0.75	0.38	**263[A]**	0.24	0.21	0.34	0.07	0.21	0.89
Zinc	µg/L	89[A]	**11,100[A]**	**22,100[A]**	**1,980[A]**	**1,510[A]**	26	**213[A]**	**10,800[A]**	27	**219[A]**	0.6	1.5	**368[A]**	14.4	12.1	34.4	**2,030[A]**	**170[A]**	**16,200[A]**	5.9	5.7	2.4	<0.5	2.2	15.1
Zirconium	µg/L	n/v	1.5	3	<1	75.8	2	1	2	1	9	0.8	1.8	<1	2.5	1.5	2.67	0.6	0.4	81.9	<0.1	<0.1	0.2	0.6	0.9	1.00

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Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
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Sample Location			G6-OB-14			G7-OB1-14			G7-OB2-14			MAC-1	MOSHER SHAFT 1	MW1-BR-14	MW01-OB1-18					MW1-OB-14	MW01-OB2-18	
Sample Date			10-Oct-23	23-Jun-24	19-Aug-24	5-Oct-23	29-May-24	23-Jul-24	5-Oct-23	29-May-24	23-Jul-24	31-Oct-23	19-Oct-23	5-Oct-23	22-Oct-23	22-Oct-23	4-Jun-24	12-Jun-24	25-Jul-24	5-Oct-23	25-Jul-24	25-Jul-24
Sample ID			G6-OB-14	G6-OB-14	G6-OB-14	G7-OB1-14	G7-OB1-14	G7-OB1-14	G7-OB2-14	G7-OB2-14	G7-OB2-14	Mac 1	Mosher Shaft	MW1-BR-14	MW01-BR-18	MW01-OB-18	MW01_BR-18	MW01-OB-18	MW01-OB1-18	MW1-OB-14	DUPLICATE 6 GW	MW01-OB2-18
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	ALS	BV	BV	ALS	BV	BV	ALS	BV	BV	BV	BV	BV	BV	BV	ALS	BV	ALS	ALS
Laboratory Work Order			C3V8570	C4J2357	TY2409199	C3V4922	C4G3628	TY2408000	C3V4922	C4G3628	TY2408000	C3Y3918	C3W8782	C3V4896	C3X4935	C3X4935	C4H0803	C4I2224	TY2408099	C3V4896	TY2408099	TY2408099
Laboratory Sample ID			XGZ404	ZNX935	TY2409199-003	XGE206	ZHY394	TY2408000-004	XGE205	ZHY393	TY2408000-003	XMJ801	XJD236	XGE120	XKL118	XKL117	ZJL535	ZLV918	TY2408099-003	XGE119	TY2408099-010	TY2408099-004
Sample Type	Units	MOE APV																			Field Duplicate	
Field Parameters																						
pH, Field	S.U.	n/v	7.49	8.36	7.99	7.73	7.55	7.52	7.55	7.46	7.55	6.48	6.92	7.37	7.09	6.98	7.20	7.54	6.85	6.80	-	7.04
Temperature, Field	deg C	n/v	9.5	10.6	14.2	12.3	9.9	7.00	12.1	13.4	6.40	5.1	8.2	15.2	11.4	15.1	13.7	18.0	14.0	14.9	-	12.2
General Chemistry																						
Acidity as CaCO3	mg/L	n/v	<5.0	<5.0	<2.0	<5.0	<5.0	<2.0	<5.0	<5.0	<2.0	53	48	16	35	43	40	50	22.8	53	22.6	24.2
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	140	120	147	160	160	181	200	170	216	270	300	320	430	510	490	390	318	370	476	461
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	1.2	1.5	<2.0	1.9	1.4	<2.0	6.5	1.1	<2.0	<1.0	<1.0	2.7	3.0	2.1	2.0	1.5	<2.0	1.7	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	n/v	140	120	147	160	170	181	210	170	216	270	310	320	430	510	490	390	318	370	476	461
Ammonia (as N)	mg/L	n/v	<0.050	<0.050	0.0181	<0.050	<0.050	0.0398	0.055	0.074	0.0540	<0.050	0.43	<0.050	<0.050	1.2	0.12	0.61	0.597	<0.050	0.166	0.0145
Ammonia, Un-ionized (Calculated)	mg/L	n/v	-	-	<0.0010	-	-	<0.0010	-	-	<0.0010	-	-	-	-	-	-	-	0.0011	-	<0.0010	<0.0010
Chloride	mg/L	180[A]	<1.0	<1.0	0.22	3.1	<1.0	0.22	1.2	<1.0	0.25	24	100	97	7.2	6.5	1.9	2.0	2.65	140	2.50	2.82
Cyanide	mg/L	0.0052[A]	<0.00050	<0.00050	-	<0.00050 CYN	<0.00050	-	<0.00050	<0.00050 CYN	-	0.00090	**0.0100[A]**	<0.00050 CYN	**0.00612[A]**	0.00189	0.00240	0.00229	-	<0.00050 CYN	-	-
Cyanide (Free)	mg/L	n/v	<0.002 ICB	<0.002 ICB	<0.0020	0.0028 ICB	<0.002 ICB	<0.0020	<0.002 ICB	0.0025 ICB	<0.0020	<0.002 ICB	0.0035 ICB	0.0049 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0020	0.0059 ICB	<0.0020	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	n/v	-	-	-	4.8	5.2	6.94	6.0	10	10.1	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Lab	µS/cm	n/v	275	227	223	289	302	287	355	307	331	729	2,310	1,450	2,840	2,300	2,490	2,380	2,230	1,120	2,210	2,210
Fluoride	mg/L	n/v	<0.10	<0.10	0.037	0.12	0.11	0.076	0.18	0.12	0.128	<0.10	0.18	<0.10	0.25	<0.10	0.28	<0.10	<0.400 DLDS	0.10	<0.400 DLDS	<0.400 DLDS
Hardness (as CaCO3)	mg/L	n/v	150	120	118	150	160	144	200	170	168	360	1,300	680	1,400	1,500	1,300	1,500	1,510	430	1,180	1,210
Nitrate (as N)	mg/L	n/v	<0.10	<0.10	<0.020	<0.10	<0.10	<0.020	<0.10	<0.10	<0.020	0.68	<0.10	<0.10	1.38	<0.10	1.19	<0.10	<0.400 DLDS	<0.10	0.785	0.822
Nitrate + Nitrite (as N)	mg/L	n/v	<0.10	<0.10	-	<0.10	<0.10	-	<0.10	<0.10	-	0.70	<0.10	<0.10	1.38	<0.10	1.19	<0.10	-	<0.10	-	-
Nitrite (as N)	mg/L	n/v	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.012	<0.010	<0.010	0.017	<0.010	0.012	<0.010	<0.010	<0.010	<0.010	<0.200 DLDS	<0.010	<0.200 DLDS	<0.200 DLDS
pH, lab	S.U.	n/v	7.94	8.14	8.06	8.10	7.94	8.21	8.54	7.83	8.14	7.41	7.40	7.94	7.87	7.63	7.65	7.60	7.89	7.69	7.88	7.90
Phosphorus, Total	mg/L	n/v	0.052	0.025	1.44	0.32	0.078	0.0584	0.78	0.29	0.805	0.14 DB	0.052	0.0027	27	4.6	3.3	9.5	4.90	0.026	0.830	4.45
Sulfate	mg/L	n/v	2.2	1.5	1.31	<5.0 MI	<1.0	<0.30	<1.0	1.3	1.04	80	930	330	1,400	940	1,100	1,200	1,160	1.4	909	891
Total Dissolved Solids	mg/L	n/v	105	150	150	180	175	207	190	155	442	415	1,680	915	2,320	1,890	1,930	2,340	1,990	580	1,760	1,780
Total Kjeldahl Nitrogen	mg/L	n/v	<0.10	<0.10	0.224	0.24	0.13	0.146	0.68	0.24	0.369	0.32	0.90	0.34	0.68	1.3	0.92	1.3	1.97	0.28	0.876	0.535
Total Suspended Solids	mg/L	n/v	140	46	2,210	190	1,800	101	32,000	4,100	403,000	81	52	11	50,000	71,000	630	5,900	34,100	99	3,820	10,000
Turbidity, Lab	NTU	n/v	1.5	9.3	959	340	310	93.0	150	140	0.10 TMV	8.6	51	15	11	19	230	84	0.10 TMV	190	2,020	0.10 TMV
Metals, Dissolved																						
Aluminum	µg/L	n/v	1.5	1.6	5.1	2.4	6.9	1.6	6	11.1	9.1	19.2	<5	0.6	89	<5	181	<5	42.0	4.1	<5.0 DLM	<5.0 DLM
Antimony	µg/L	1,600[A]	<0.1	<0.1	<0.10	0.1	<0.1	<0.10	<0.1	<0.1	<0.10	0.7	<1	0.1	<1	6	<0.5	5	5.16	<0.1	<0.50 DLM	<0.50 DLM
Arsenic	µg/L	150[A]	0.4	0.4	0.39	0.9	1	0.90	0.8	1.5	1.29	1.5	**611[A]**	2	94	**959[A]**	72.5	**943[A]**	**1,140[A]**	26.2	65.4	60.8
Barium	µg/L	2,300[A]	10.8	6	5.08	10.2	8.9	8.95	19.7	13.6	19.4	33.8	35	40.2	19	29	16	20	22.2	31.9	12.1	12.0
Beryllium	µg/L	5.3[A]	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020	<0.05	<0.5	<0.05	<0.5	<0.5	<0.25	<0.5	<0.100 DLM	<0.05	<0.100 DLM	<0.100 DLM
Bismuth	µg/L	n/v	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050	<0.1	<1	<0.1	<1	<1	<0.5	<1	<0.250 DLM	<0.1	<0.250 DLM	<0.250 DLM
Boron	µg/L	3,550[A]	8	5	<10	6	6	<10	7	5	<10	6	130	111	30	30	27	20	<50 DLM	11	<50 DLM	<50 DLM
Cadmium	µg/L	0.21[A]	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	0.14	<0.1	<0.01	<0.1	<0.1	<0.05	<0.1	<0.0250 DLM	<0.01	<0.0250 DLM	<0.0250 DLM
Calcium	mg/L	n/v	42.6	32.7	33.0	48.3	49.1	44.5	61.8	53.5	50.5	108	339	202	277	280	254	354	346	131	217	223
Cesium	µg/L	n/v	<0.02	<0.02	<0.010	<0.02	<0.02	<0.010	<0.02	<0.02	0.011	0.03	0.9	0.13	<0.2	<0.2	0.1	<0.2	0.289	<0.02	0.135	0.134
Chromium	µg/L	64[A]	0.7	0.5	0.69	<0.5	<0.5	<0.50	<0.5	0.8	<0.50	<0.5	<5	<0.5	<5	<5	<2.5	<5	<2.50 DLM	<0.5	<2.50 DLM	<2.50 DLM
Cobalt	µg/L	5.2[A]	<0.05	<0.05	<0.10	<0.05	<0.05	<0.10	<0.05	<0.05	<0.10	1.21	1.4	0.85	<0.5	<0.5	0.36	<0.5	<0.50 DLM	0.7	<0.50 DLM	<0.50 DLM
Copper	µg/L	6.9[A]	0.2	0.2	1.08	0.4	0.5	<0.20	0.3	0.1	0.63	5	<1	<0.1	1	<1	1.7	<1	1.05	0.9	<1.00 DLM	<1.00 DLM
Iron	µg/L	n/v	5	<5	<10	568	624	407	640	696	749	22	31,700	675	4,440	8,420	1,280	10,600	11,300	9,830	<50 DLM	<50 DLM
Lead	µg/L	2[A]	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050	<0.05	<0.5	<0.05	<0.5	<0.5	0.31	<0.5	<0.250 DLM	<0.05	<0.250 DLM	<0.250 DLM
Lithium	µg/L	n/v	1.4	0.8	<1.0	0.8	0.9	<1.0	1.4	0.9	1.1	<0.5	10	4.6	118	13	89.9	11	10.3	3.7	89.0	85.7
Magnesium	mg/L	n/v	9.47	8.46	8.53	8.05	8.50	7.98	11.4	9.88	10.2	22.9	111	42.9	172	192	159	158	158	24.2	155	158
Manganese	µg/L	n/v	7.5	1.3	3.82	62.1	60.7	64.5	44.7	36.3	45.4	102	841	248	237	72	180	81	105	585	166	164
Mercury	µg/L	0.77[A]	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.0050	<0.0050
Molybdenum	µg/L	730[A]	0.22	0.1	0.114	0.23	0.21	0.173	0.2	0.12	0.136	0.27	0.7	1.16	3.9	2.2	2.53	3.3	3.37	0.53	2.32	2.35
Nickel	µg/L	39[A]	0.2	<0.1	<0.50	0.1	0.4	<0.50	<0.1	0.6	<0.50	7.4	<1	1.8	2	<1	1.3	<1	<2.50 DLM	0.7	<2.50 DLM	<2.50 DLM
Phosphorus	µg/L	n/v	<5	<5	<50	15	15	<50	11	<5	<50	<5	<50	<5	<50	<50	<25	<50	<250 DLM	8	<250 DLM	<250 DLM
Potassium	mg/L	n/v	0.42	0.28	0.302	0.66	0.65	0.631	0.98	0.71	0.877	2.65	13.4	2.40	13.1	12.8	10.9	8.7	9.69	1.38	11.6	11.4
Rubidium	µg/L	n/v	0.49	0.28	0.34	1.09	1.01	1.06	1.93	1.69	1.76	1.12	21.8	9.57	14.7	13.1	12.8	10.1	11.8	1.16	13.7	14.4
Selenium	µg/L	5[A]	<0.2	<0.2	0.094	<0.2	<0.2	<0.050	<0.2	<0.2	0.190	<0.2	<2	<0.2	<2	<2	<1	<2	<0.250 DLM	<0.2	<0.250 DLM	<0.250 DLM
Silicon	µg/L	n/v	5,600	4,540	5,310	4,800	4,740	4,660	5,360	4,900	5,140	3,570	5,870	5,030	9,130	11,900	8,660	10,200	11,500	9,040	10,000	9,700
Silver	µg/L	0.12[A]	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010	<0.01	<0.1	0.01	<0.1	<0.1	<0.05	<0.1	<0.050 DLM	0.01	<0.050 DLM	<0.050 DLM
Sodium	mg/L	180[A]	2.84	1.97	1.83	1.88	1.91	1.79	2.40	1.80	2.03	12.1	61.3	59.4	**183[A]**	8.6	121	5.2	4.97	69.4	115	118
Strontium	µg/L	n/v	38.2	29.8	30.0	49.9	48.6	48.2	69.4	54.3	60.2	928	3,760	246	1,240	1,030	1,050	977	1,020	174	1,060	1,040
Sulfur	µg/L	n/v	-	-	<500	-	-	<500	-	-	<500	-	-	-	-	-	-	-	427,000	-	352,000	349,000
Sulfur	mg/L	n/v	0.8	0.8	-	<0.5	<0.5	-	0.7	<0.5	-	27	330	110	430	330	370	400	-	<0.5	-	-
Tellurium	µg/L	n/v	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20	<0.1	<1	<0.1	<1	<1	<0.5	<1	<1.00 DLM	<0.1	<1.00 DLM	<1.00 DLM
Thallium	µg/L	40[A]	<0.005	<0.005	<0.010	<0.005	<0.005	<0.010	<0.005	<0.005	<0.010	0.011	<0.05	0.009	<0.05	<0.05	<0.025	<0.05	<0.050 DLM	0.006	<0.050 DLM	<0.050 DLM
Thorium	µg/L	n/v	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10	<0.2	<2	<0.2	<2	<2	<1	<2	<0.50 DLM	<0.2	<0.50 DLM	<0.50 DLM
Tin	µg/L	n/v	<0.1	<0.1	0.10	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10	<0.1	<1	<0.1	<1	<1	<0.5	<1	<0.50 DLM	<0.1	<0.50 DLM	<0.50 DLM
Titanium	µg/L	n/v	<0.5	<0.5	<0.30	0.8	0.6	<0.30	1.4	2.1	1.54	<0.5	<5	0.6	7	<5	14.4	<5	1.53	0.9	<1.50 DLM	<1.50 DLM
Tungsten	µg/L	n/v	<0.1	<0.1	<0.10	0.1	<0.1	<0.10	<0.1	<0.1	<0.10	1.4	<1	0.7	<1	9	1.2	8	8.69	<0.1	0.58	0.58
Uranium	µg/L	33[A]	0.2	0.13	0.119	<0.01	<0.01	<0.010	0.04	0.04	0.044	0.55	2.9	3.65	8.1	2.1	7.63	2.8	2.62	0.09	7.13	7.08
Vanadium	µg/L	20[A]	0.97	0.88	1.02	0.5	0.45	<0.50	1.18	2.58	1.96	0.11	<0.5	<0.05	<0.5	<0.5	0.65	<0.5	<2.50 DLM	0.53	<2.50 DLM	<2.50 DLM
Zinc	µg/L	89[A]	0.7	0.9	2.7	1.1	2.4	3.3	0.6	<0.5	1.4	1.7	<5	<0.5	<5	<5	4.3	<5	<5.0 DLM	1.8	<5.0 DLM	<5.0 DLM
Zirconium	µg/L	n/v	<0.1	<0.1	<0.30	0.9	0.9	0.85	1.4	3.5	2.31	0.3	<1	0.4	<1	<1	0.6	<1	<1.50 DLM	0.8	<1.50 DLM	<1.50 DLM

See notes on last page

Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Mine

Sample Location			G6-OB-14			G7-OB1-14			G7-OB2-14			MAC-1	MOSHER SHAFT 1	MW1-BR-14	MW01-OB1-18					MW1-OB-14	MW01-OB2-18	
Sample Date			10-Oct-23	23-Jun-24	19-Aug-24	5-Oct-23	29-May-24	23-Jul-24	5-Oct-23	29-May-24	23-Jul-24	31-Oct-23	19-Oct-23	5-Oct-23	22-Oct-23	22-Oct-23	4-Jun-24	12-Jun-24	25-Jul-24	5-Oct-23	25-Jul-24	25-Jul-24
Sample ID			G6-OB-14	G6-OB-14	G6-OB-14	G7-OB1-14	G7-OB1-14	G7-OB1-14	G7-OB2-14	G7-OB2-14	G7-OB2-14	Mac 1	Mosher Shaft	MW1-BR-14	MW01-OB-18	MW01-OB-18	MW01_BR-18	MW01-OB-18	MW01-OB1-18	MW1-OB-14	DUPLICATE 6 GW	MW01-OB2-18
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	ALS	BV	BV	ALS	BV	BV	ALS	BV	BV	BV	BV	BV	BV	BV	ALS	BV	ALS	ALS
Laboratory Work Order			C3V8570	C4J2357	TY2409199	C3V4922	C4G3628	TY2408000	C3V4922	C4G3628	TY2408000	C3Y3918	C3W8782	C3V4896	C3X4935	C3X4935	C4H0803	C4I2224	TY2408099	C3V4896	TY2408099	TY2408099
Laboratory Sample ID			XGZ404	ZNX935	TY2409199-003	XGE206	ZHY394	TY2408000-004	XGE205	ZHY393	TY2408000-003	XMJ801	XJD236	XGE120	XKL118	XKL117	ZJL535	ZLV918	TY2408099-003	XGE119	TY2408099-010	TY2408099-004
Sample Type	Units	MOE APV																			Field Duplicate	
Metals, Total																						
Aluminum	µg/L	n/v	342	128	2,250	1,920	407	800	6,010	2,600	11,800	737	<5	8.5	<5	28,000	97.4	9,680	49,900	63.3	36,900	45,800
Antimony	µg/L	1,600[A]	<0.1	<0.1	0.64	<0.5	<0.5	<0.10	<1	<0.5	<0.50 DLM	0.8	<1	0.2	<1	3	<0.5	3	28.2	<0.1	3.52	7.16
Arsenic	µg/L	150[A]	1.8	0.6	2.43	1.9	1	1.27	4	2.9	6.73	4.7	**716[A]**	4.7	14	**2,130[A]**	51.1	**1,530[A]**	**6,940[A]**	43.5	**2,390[A]**	**2,330[A]**
Barium	µg/L	2,300[A]	26.6	11.2	34.7	30	12	16.2	77	41	102	49	36	40.5	87	102	63	83	742	36.3	383	454
Beryllium	µg/L	5.3[A]	<0.05	<0.05	0.082	<0.25	<0.25	0.033	<0.5	<0.25	0.524	<0.25	<0.5	<0.05	<0.5	3.1	<0.25	2	2.23	<0.05	1.67	1.92
Bismuth	µg/L	n/v	<0.1	<0.1	<0.100	<0.5	<0.5	<0.050	<1	<0.5	<0.250 DLM	<0.5	<1	<0.1	<1	<1	<0.5	<1	<0.500	<0.1	<0.500	<0.500
Boron	µg/L	3,550[A]	8	5	<20	15	6	<10	40	22	<50 DLM	9	130	110	30	50	38	40	<100	10	<100	<100
Cadmium	µg/L	0.21[A]	0.016	0.006	0.0261	0.073	<0.025	0.0081	**0.23[A]**	0.102	0.192	**0.395[A]**	<0.05	0.006	**0.27[A]**	**2.14[A]**	**0.353[A]**	**1.62[A]**	**0.961[A]**	0.008	**0.541[A]**	**0.437[A]**
Calcium	mg/L	n/v	53.5	41.1	74.4	211	66.6	61.2	547	311	364	119	339	185	1,720	750	1,100	740	571	134	936	868
Cesium	µg/L	n/v	0.05	<0.02	0.200	0.2	<0.1	0.079	0.7	0.3	1.26	<0.1	0.9	0.14	0.3	2.4	0.3	1.4	8.68	<0.02	4.87	5.55
Chromium	µg/L	64[A]	1.7	0.8	7.69	7	<2.5	1.98	22	10	32.3	2.9	<5	<0.5	<5	**161[A]**	<2.5	**91[A]**	**211[A]**	0.5	**182[A]**	**201[A]**
Cobalt	µg/L	5.2[A]	0.48	0.17	1.60	2.64	0.45	0.54	**9.6[A]**	4.24	**10.9[A]**	2.83	1.4	0.78	**10.8[A]**	**31.8[A]**	**5.46[A]**	**14.6[A]**	**24.2[A]**	0.76	**31.0[A]**	**29.3[A]**
Copper	µg/L	6.9[A]	2.2	0.8	5.25	6.6	0.9	1.37	**23[A]**	**11.8[A]**	**44.6[A]**	**41.6[A]**	<1	0.2	2	**651[A]**	3.3	**354[A]**	**325[A]**	0.7	**119[A]**	**109[A]**
Iron	µg/L	n/v	531	230	3,680	4,580	1,380	1,560	12,100	6,620	17,600	9,380	31,100	1,500	140	398,000	3,130	243,000	485,000	12,700	153,000	163,000
Lead	µg/L	2[A]	0.57	0.35	**2.74[A]**	**3.8[A]**	0.59	0.509	**12.2[A]**	**6.45[A]**	**15.8[A]**	**14.1[A]**	<0.5	<0.05	<0.5	**54.7[A]**	<0.25	**35.1[A]**	**44.0[A]**	0.12	**32.8[A]**	**30.8[A]**
Lithium	µg/L	n/v	2	1.3	2.7	5.1	<2.5	1.7	13	5.8	17.9	<2.5	11	5.8	128	47	94.4	23	49.6	3.9	134	123
Magnesium	mg/L	n/v	12.6	10.1	18.3	46.3	12.3	10.4	148	86.5	102	22.8	108	40.1	185	329	219	286	235	24.0	349	336
Manganese	µg/L	n/v	50.8	23.3	105	323	98	101	720	419	614	140	826	247	3,020	7,060	2,050	5,840	5,080	599	2,560	2,270
Mercury	µg/L	0.77[A]	<0.01	<0.01	0.0138	<0.01	<0.01	<0.0050	***<1.5***	***<1.5***	0.0062	<0.01	<0.01	<0.01	***<1.5***	***<1.5***	***<1.5***	<0.1	<0.0050	<0.01	<0.0050	0.0099
Molybdenum	µg/L	730[A]	0.19	0.11	0.286	<0.25	<0.25	0.159	<0.5	<0.25	0.367	<0.25	0.6	2.96	1.7	0.5	0.51	0.8	10.0	0.45	4.61	5.01
Nickel	µg/L	39[A]	1.3	0.4	4.70	5.2	1	1.26	17	7.7	22.9	15.6	<1	1.5	31	**93[A]**	14.5	**46[A]**	**104[A]**	0.8	**84.2[A]**	**86.8[A]**
Phosphorus	µg/L	n/v	64	26	227	650	71	66	2,220	981	1,080	40	<50	9	<50	7,060	<25	1,550	5,010	47	3,550	2,800
Potassium	mg/L	n/v	0.52	0.34	0.834	1.1	0.7	0.852	2.2	1.1	3.33	2.6	13.0	2.33	16.9	16.0	13.5	12.5	15.5	1.37	18.8	23.3
Rubidium	µg/L	n/v	1.09	0.54	3.28	5.4	1.9	2.39	12	6.8	19.6	1.4	21.5	8.29	31	36.6	20.8	26.7	53.0	1.32	64.3	84.5
Selenium	µg/L	5[A]	0.1	0.07	<0.100	<0.25	<0.25	<0.050	<0.5	<0.25	<0.250 DLM	<0.25	<0.5	<0.05	<0.5	<0.5	<0.25	<0.5	<0.500	<0.05	<0.500	<0.500
Silicon	µg/L	n/v	5,790	4,870	9,110	7,460	5,290	6,600	14,500	8,160	26,300	4,440	5,710	5,000	11,400	38,800	10,000	19,400	89,500	9,160	72,200	104,000
Silver	µg/L	0.12[A]	<0.01	<0.01	<0.020	<0.05	<0.05	<0.010	<0.1	<0.05	**0.153[A]**	0.06	<0.1	0.02	<0.1	<0.1	<0.05	<0.1	**0.152[A]**	<0.01	**0.239[A]**	**0.276[A]**
Sodium	mg/L	180[A]	2.93	2.27	1.90	1.87	1.83	2.04	2.7	2.04	3.31	11.7	60.7	61.2	**186[A]**	8.2	133	6.9	6.66	68.0	122	127
Strontium	µg/L	n/v	48	36.7	53.1	139	58.2	57.2	317	183	239	923	3,780	243	2,420	2,030	1,690	2,100	1,530	181	1,610	1,650
Sulfur	µg/L	n/v	-	-	<1,000	-	-	<500	-	-	<2,500 DLM	-	-	-	-	-	-	-	439,000	-	376,000	356,000
Sulfur	mg/L	n/v	0.8	0.7	-	<0.5	<0.5	-	1.8	0.5	-	29	320	110	460	360	380	450	-	<0.5	-	-
Tellurium	µg/L	n/v	<0.1	<0.1	<0.40	<0.5	<0.5	<0.20	<1	<0.5	<1.00 DLM	<0.5	<1	<0.1	<1	<1	<0.5	<1	<2.00	<0.1	<2.00	<2.00
Thallium	µg/L	40[A]	0.01	0.007	0.037	0.06	<0.025	<0.010	0.27	0.1	0.325	0.027	<0.05	0.008	0.06	0.25	0.062	0.14	0.300	<0.005	0.473	0.505
Thorium	µg/L	n/v	<0.2	<0.2	0.71	2	<1	0.45	5	2	6.67	<1	<2	<0.2	<2	<2	<1	<2	14.2	<0.2	18.7	19.7
Tin	µg/L	n/v	<0.1	<0.1	0.49	<0.5	<0.5	<0.10	<1	<0.5	<0.50 DLM	<0.5	<1	<0.1	<1	<1	<0.5	<1	3.28	<0.1	2.01	3.00
Titanium	µg/L	n/v	20.9	6.6	140	111	25.2	59.8	396	106	975	13.5	<5	0.9	<5	45	<2.5	15	1,120	6.2	2,760	3,280
Tungsten	µg/L	n/v	<0.1	<0.1	<0.20	<0.5	<0.5	<0.10	<1	<0.5	<0.50 DLM	2.3	<1	1.2	<1	2	<0.5	1	420	<0.1	32.1	42.4
Uranium	µg/L	33[A]	0.25	0.18	0.236	0.53	0.07	0.061	2.9	1.48	2.88	0.85	2.9	4.41	11.1	3.4	2.93	2.9	4.92	0.1	11.9	11.2
Vanadium	µg/L	20[A]	1.93	1.22	6.27	7.27	1.7	2.45	**22.6[A]**	13.7	**35.5[A]**	2.05	<0.5	<0.05	<0.5	**98.7[A]**	<0.25	**40.6[A]**	**98.0[A]**	1.21	**101[A]**	**108[A]**
Zinc	µg/L	89[A]	5.5	1.9	13.6	13.1	4.2	<3.0	30	19.3	36.5	26.8	<5	0.6	16	**239[A]**	20.6	**141[A]**	**247[A]**	2.4	**144[A]**	**138[A]**
Zirconium	µg/L	n/v	0.2	0.1	0.64	3.1	1.5	1.65	6	6.3	12.9	0.8	<1	0.3	<1	2	<0.5	2	30.6	1.5	11.8	33.3

See notes on last page

Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Mine

Sample Location			MW2-OB-13	MW02-OB-18			MW3-BR-13				MW03-BR-18			MW3-OB-13			MW03-OB-18			MW4-OB-13	MW5-OB1-13	MW6-OB-13	
Sample Date			5-Oct-23	31-Oct-23	29-May-24	25-Jul-24	10-Oct-23	29-May-24	17-Jul-24	17-Jul-24	11-Oct-23	4-Jun-24	17-Jul-24	10-Oct-23	29-May-24	17-Jul-24	11-Oct-23	4-Jun-24	17-Jul-24	10-Oct-23	2-Nov-23	19-Jun-24	25-Jul-24
Sample ID			MW2-OB-13	MW02-OB-18	MW02-OB-18	MW02-OB-18	MW3-BR-13	MW3-BR-13	DUPLICATE 2	MW3-BR-13	MW03-BR-18	MW03-BR-18	MW03-BR-18	MW3-OB-13	MW3-OB-13	MW3-OB-13	MW03-OB-18	MW03_OB-18	MW03-OB-18	MW4-OB-13	MW5-OB1-13	MW6-OB-13	MW6-OB-13
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	BV	ALS	BV	BV	ALS	ALS	BV	BV	ALS	BV	BV	ALS	BV	BV	ALS	BV	BV	BV	ALS
Laboratory Work Order			C3V4896	C3Y3918	C4G3628	TY2408099	C3V8570	C4G3628	TY2407798	TY2407798	C3V9592	C4H0803	TY2407798	C3V8570	C4G3628	TY2407798	C3V9592	C4H0803	TY2407798	C3V8570	C3Y8402	C4I9516	TY2408099
Laboratory Sample ID			XGE121	XMJ803	ZHY395	TY2408099-008	XGZ408	ZHY397	TY2407798-006	TY2407798-004	XHE880	ZJL536	TY2407798-002	XGZ409	ZHY396	TY2407798-003	XHE879	ZJL537	TY2407798-001	XGZ410	XNJ113	ZNI593	TY2408099-011
Sample Type	Units	MOE APV							Field Duplicate														
Field Parameters																							
pH, Field	S.U.	n/v	7.39	6.84	6.96	6.77	6.92	6.96	-	6.91	-	7.86	7.67	7.28	7.35	7.24	-	7.16	7.09	6.51	7.32	6.40	6.35
Temperature, Field	deg C	n/v	14.8	5.8	10.6	17.3	7.4	11.3	-	8.80	-	13.7	14.2	7.8	7.6	7.10	-	13.4	13.9	9.0	5.6	13.0	14.5
General Chemistry																							
Acidity as CaCO3	mg/L	n/v	11	35	34	16.4	50	46	12.9	12.8	<5.0	15	<2.0	21	15	14.9	17	15	12.8	43	7.4	100	13.4
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	250	140	240	312	350	400	355	378	310	330	332	420	410	440	320	360	360	420	210	340	289
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	3.4	<1.0	<1.0	<2.0	<1.0	1.5	<2.0	<2.0	3.1	3.8	6.4	2.2	2.7	<2.0	2.2	2.6	<2.0	1.0	1.2	<1.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	n/v	250	140	240	312	350	400	355	378	320	330	338	420	410	440	320	360	360	420	220	340	289
Ammonia (as N)	mg/L	n/v	<0.050	1.6	1.1	0.484	0.81	0.68	0.628	0.623	0.41	0.46	0.502	0.48	0.35	0.389	<0.050	<0.050	0.0183	2.5	<0.050	0.092	0.0779
Ammonia, Un-ionized (Calculated)	mg/L	n/v	-	-	-	<0.0010	-	-	-	<0.0010	-	-	0.0060	-	-	<0.0010	-	-	<0.0010	-	-	-	<0.0010
Chloride	mg/L	180[A]	2.2	4.2	2.8	3.38	3.1	4.2	5.04	4.68	<1.0	<1.0	0.57	2.4	<1.0	1.33	<1.0	<1.0	0.71	<1.0	4.2	120	81.4
Cyanide	mg/L	0.0052[A]	<0.00050 CYN	**0.0914[A]**	**0.272[A]**	-	<0.00050	<0.00050	-	-	<0.00050 CYN	**0.0403[A]**	-	<0.00050	<0.00050	-	<0.00050 CYN	<0.00050	-	<0.00050	0.00101	<0.00050	-
Cyanide (Free)	mg/L	n/v	0.0073 ICB	<0.002 ICB	0.0022 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.0020	<0.0020	0.0026 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.0020	0.0023 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Lab	µS/cm	n/v	464	3,450	3,100	2,960	654	772	612	645	567	591	555	797	731	655	613	693	625	751	438	1,040	785
Fluoride	mg/L	n/v	<0.10	0.21	0.19	<0.400 DLDS	0.26	0.28	0.182	0.185	0.22	0.27	0.208	0.37	0.40	0.253	0.36	0.36	0.247	0.20	<0.10	<0.10	<0.040 DLDS
Hardness (as CaCO3)	mg/L	n/v	250	2,300	2,100	1,950	360	420	352	355	280	290	299	430	380	380	360	370	373	420	230	320	232
Nitrate (as N)	mg/L	n/v	0.13	<0.10	<0.10	<0.400 DLDS	<0.10	<0.10	<0.020	<0.020	<0.10	<0.10	0.025	<0.10	<0.10	<0.040 DLDS	<0.10	<0.10	<0.040 DLDS	<0.10	<0.10	<0.10	<0.040 DLDS
Nitrate + Nitrite (as N)	mg/L	n/v	0.13	<0.10	<0.10	-	<0.10	<0.10	-	-	0.27	<0.10	-	0.13	<0.10	-	<0.10	<0.10	-	<0.10	<0.10	<0.10	-
Nitrite (as N)	mg/L	n/v	<0.010	<0.010	<0.010	<0.200 DLDS	<0.010	<0.010	<0.010	<0.010	0.204	<0.010	<0.010	0.097	<0.010	<0.020 DLDS	<0.010	<0.010	<0.020 DLDS	0.020	<0.010	<0.010	<0.020 DLDS
pH, lab	S.U.	n/v	8.17	7.13	7.48	7.96	7.44	7.60	7.96	8.00	8.02	8.08	8.33	7.75	7.85	7.97	7.86	7.88	7.85	7.41	7.79	7.40	8.13
Phosphorus, Total	mg/L	n/v	0.021	6.3	9.1 DB	4.78	0.14	0.095	0.122	0.0876	0.16	0.080	0.112	1.4 DB	0.22	1.68	2.5 DB	0.33	0.278	4.0 DB	0.017	0.23	0.310
Sulfate	mg/L	n/v	2.2	2,100	1,900	1,720	3.6	19	3.73	4.70	<1.0	<1.0	<0.30	13	7.0	3.86	20	21	19.7	<1.0	9.3	14	8.62
Total Dissolved Solids	mg/L	n/v	250	3,390	2,980	3,010	320	430	356	386	325	330	296	365	410	443	355	365	395	455	225	560	452
Total Kjeldahl Nitrogen	mg/L	n/v	0.36	2.5	1.7	<0.500 DLM	1.3	0.87	1.04	0.972	0.62	0.68	0.426	1.0	0.49	<0.500 DLM	0.36	0.14	<0.050	2.8	0.22	0.57	1.85
Total Suspended Solids	mg/L	n/v	420	23,000	4,900	36,900	110	44	157	115	200	38	134	4,400	2,000	6,230	2,500	310	491	14,000	4	560	539
Turbidity, Lab	NTU	n/v	2.1	81	170	0.10 TMV	39	100	134	131	4.9	48	89.7	89	100	0.10 TMV	46	110	206	410	4.3	160	319
Metals, Dissolved																							
Aluminum	µg/L	n/v	15.8	<50	<2.5	<20.0 DLM	4.9	3.9	3.0	3.2	1.1	0.9	<1.0	0.6	1.1	<1.0	40.9	0.9	<1.0	9	1.3	9.5	55.9
Antimony	µg/L	1,600[A]	0.3	<10	0.7	<2.00 DLM	<0.1	<0.1	<0.10	<0.10	<0.1	<0.1	<0.10	<0.1	0.2	<0.10	<0.1	<0.1	<0.10	<0.1	<0.1	<0.5	<0.20 DLM
Arsenic	µg/L	150[A]	2.3	**30,400[A]**	**20,800[A]**	**19,700[A]**	55.7	28.9	36.2	35.8	37.9	24.7	25.6	4.1	2.9	3.61	1.3	0.5	0.72	94.7	6.6	1.4	15.7
Barium	µg/L	2,300[A]	24.9	<20	11	15.0	301	286	246	250	83.7	71.1	71.7	96.2	74.3	75.4	37.6	34	33.7	57.8	20.6	71	59.3
Beryllium	µg/L	5.3[A]	<0.05	<5	<0.25	<0.400 DLM	0.06	<0.05	0.046	0.048	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020	<0.05	<0.05	<0.25	<0.040 DLM
Bismuth	µg/L	n/v	<0.1	<10	<0.5	<1.00 DLM	<0.1	<0.1	<0.050	<0.050	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050	<0.1	<0.1	<0.5	<0.100 DLM
Boron	µg/L	3,550[A]	11	2,200	2,080	2,130	14	20	18	19	38	36	36	38	33	34	10	9	<10	18	7	7	<20 DLM
Cadmium	µg/L	0.21[A]	<0.01	***<1***	<0.05	<0.100 DLM	<0.01	<0.01	<0.0050	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	0.06	<0.0100 DLM
Calcium	mg/L	n/v	76.4	562	493	426	118	128	104	105	68.3	71.0	73.1	107	92.2	91.3	106	113	111	138	72.5	-	73.1
Cesium	µg/L	n/v	<0.02	<2	<0.1	<0.200 DLM	1.13	0.9	0.860	0.836	0.14	0.08	0.082	<0.02	<0.02	<0.010	<0.02	<0.02	<0.010	<0.02	<0.02	<0.1	<0.020 DLM
Chromium	µg/L	64[A]	0.9	<50	<2.5	<10.0 DLM	0.5	<0.5	<0.50	<0.50	<0.5	<0.5	<0.50	<0.5	<0.5	<0.50	<0.5	<0.5	<0.50	<0.5	<0.5	<2.5	1.62
Cobalt	µg/L	5.2[A]	0.13	**8[A]**	**6.08[A]**	**6.39[A]**	0.25	0.56	0.52	0.53	<0.05	<0.05	<0.10	0.37	0.48	0.41	<0.05	<0.05	<0.10	0.56	<0.05	4.21	3.21
Copper	µg/L	6.9[A]	1.6	***<10***	<0.5	<4.00 DLM	<0.1	0.3	<0.20	<0.20	0.6	<0.1	<0.20	<0.1	0.6	0.46	0.7	0.3	0.30	0.5	0.8	**76.4[A]**	0.44
Iron	µg/L	n/v	435	3,000	1,490	2,880	13,200	12,000	9,510	9,410	1,970	2,140	2,130	1,370	55	466	953	860	1,050	8,270	1,130	180	10,800
Lead	µg/L	2[A]	0.06	***<5***	<0.25	<1.00 DLM	0.08	<0.05	<0.050	<0.050	<0.05	<0.05	<0.050	0.12	0.05	<0.050	<0.05	<0.05	<0.050	<0.05	<0.05	<0.25	<0.100 DLM
Lithium	µg/L	n/v	1.1	120	118	116	6.5	9.5	7.8	7.8	9.4	8.9	8.9	8.6	16.4	14.2	7.2	6.4	6.4	6.8	1.5	4.7	4.2
Magnesium	mg/L	n/v	14.5	218	219	216	15.9	24.5	22.5	22.6	27.4	26.4	28.2	39.7	35.5	36.8	22.4	22.1	23.2	18.2	11.9	-	12.0
Manganese	µg/L	n/v	49.1	990	698	1,020	345	325	261	263	57.4	51.6	57.1	84.7	73.7	71.0	54.7	51.7	54.1	358	142	2,040	1,440
Mercury	µg/L	0.77[A]	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.0050
Molybdenum	µg/L	730[A]	3.2	18	16.9	9.40	1.12	0.4	0.625	0.582	1.15	1.16	1.05	1.92	1.67	0.954	0.73	0.69	0.642	3.94	0.88	0.51	0.392
Nickel	µg/L	39[A]	2	<10	6.6	14.0	0.4	0.4	<0.50	<0.50	0.1	<0.1	<0.50	0.8	1.3	0.83	<0.1	<0.1	<0.50	2.7	<0.1	2.5	1.30
Phosphorus	µg/L	n/v	<5	<500	<25	<1,000 DLM	69	58	<50	<50	32	56	55	21	5	<50	15	11	<50	226	19	<25	<100 DLM
Potassium	mg/L	n/v	1.74	28	23.0	23.0	2.17	2.49	2.23	2.23	3.85	3.34	3.40	4.51	4.19	3.92	1.85	1.65	1.67	1.13	0.54	-	1.64
Rubidium	µg/L	n/v	5.85	6	6.9	12.5	1.71	1.64	1.44	1.46	1.11	0.94	0.92	1.84	2.01	1.77	1.65	1.29	1.40	0.86	0.39	2.0	1.50
Selenium	µg/L	5[A]	<0.2	***<20***	<1	<1.00 DLM	<0.2	<0.2	0.869 DTSE	0.874 DTSE	<0.2	<0.2	0.114 DTSE	<0.2	<0.2	<0.050	<0.2	<0.2	<0.050	<0.2	<0.2	<1	0.342 DTSE
Silicon	µg/L	n/v	6,720	8,300	7,310	11,400	10,800	11,000	11,000	10,800	7,890	7,920	9,180	8,940	9,750	10,800	6,910	6,330	7,000	9,150	6,780	5,990	5,940
Silver	µg/L	0.12[A]	<0.01	***<1***	<0.05	***<0.200 DLM***	<0.01	<0.01	<0.010	<0.010	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010	<0.01	<0.01	<0.05	<0.020 DLM
Sodium	mg/L	180[A]	5.74	62	64.6	50.1	7.86	9.07	8.33	8.40	13.2	12.6	12.8	16.3	19.2	16.2	3.85	3.65	3.93	8.35	2.38	-	69.8
Strontium	µg/L	n/v	78.7	1,470	1,300	1,400	336	430	399	392	565	547	549	586	524	530	117	117	118	212	112	253	214
Sulfur	µg/L	n/v	-	-	-	645,000	-	-	2,220	2,240	-	-	<500	-	-	1,640	-	-	7,200	-	-	-	3,900
Sulfur	mg/L	n/v	0.7	730	660	-	1.2	5.6	-	-	<0.5	<0.5	-	5.5	3.0	-	7.2	7.4	-	<0.5	3.2	4.9	-
Tellurium	µg/L	n/v	<0.1	<10	<0.5	<4.00 DLM	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20	<0.1	<0.1	<0.5	<0.40 DLM
Thallium	µg/L	40[A]	<0.005	<0.5	<0.025	<0.200 DLM	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.010	<0.005	<0.005	<0.010	<0.005	<0.005	<0.010	<0.005	<0.005	<0.025	<0.020 DLM
Thorium	µg/L	n/v	<0.2	<20	<1	<2.00 DLM	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10	<0.2	<0.2	<1	<0.20 DLM
Tin	µg/L	n/v	0.2	<10	<0.5	<2.00 DLM	<0.1	<0.1	<0.10	<0.10	0.1	<0.1	<0.10	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10	0.1	<0.1	<0.5	<0.20 DLM
Titanium	µg/L	n/v	1.4	<50	<2.5	<6.00 DLM	1.5	1.1	0.40	0.33	<0.5	0.6	<0.30	0.9	0.6	<0.30	0.6	<0.5	<0.30	1.7	0.6	<2.5	1.58
Tungsten	µg/L	n/v	0.2	<10	0.7	<2.00 DLM	2.2	2.4	2.09	2.10	0.5	0.5	0.35	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10	<0.1	0.9	<0.5	<0.20 DLM
Uranium	µg/L	33[A]	0.49	4	7.23	5.97	0.27	0.24	0.248	0.245	0.1	0.08	0.074	0.35	0.91	0.381	0.02	0.01	0.012	0.03	0.02	2.12	1.24
Vanadium	µg/L	20[A]	0.39	<5	<0.25	<10.0 DLM	0.87	0.63	0.56	0.57	<0.05	<0.05	<0.50	0.14	0.07	<0.50	0.09	<0.05	<0.50	0.85	0.19	0.28	4.75
Zinc	µg/L	89[A]	6.4	<50	<2.5	<20.0 DLM	1.8	1.8	1.2	2.1	1	0.9	1.2	0.6	3.1	2.2	0.8	1.7	2.3	1.4	1.8	50.0	2.4
Zirconium	µg/L	n/v	0.2	<10	<0.5	<6.00 DLM	8	5.7	4.76	4.67	0.1	<0.1	<0.30	0.2	0.1	<0.30	0.2	0.1	<0.30	1.4	0.6	<0.5	1.04

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Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
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Sample Location			MW2-OB-13	MW02-OB-18			MW3-BR-13				MW03-BR-18			MW3-OB-13			MW03-OB-18			MW4-OB-13	MW5-OB1-13	MW6-OB-13	
Sample Date			5-Oct-23	31-Oct-23	29-May-24	25-Jul-24	10-Oct-23	29-May-24	17-Jul-24	17-Jul-24	11-Oct-23	4-Jun-24	17-Jul-24	10-Oct-23	29-May-24	17-Jul-24	11-Oct-23	4-Jun-24	17-Jul-24	10-Oct-23	2-Nov-23	19-Jun-24	25-Jul-24
Sample ID			MW2-OB-13	MW02-OB-18	MW02-OB-18	MW02-OB-18	MW3-BR-13	MW3-BR-13	DUPLICATE 2	MW3-BR-13	MW03-BR-18	MW03-BR-18	MW03-BR-18	MW3-OB-13	MW3-OB-13	MW3-OB-13	MW03-OB-18	MW03_OB-18	MW03-OB-18	MW4-OB-13	MW5-OB1-13	MW6-OB-13	MW6-OB-13
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	BV	ALS	BV	BV	ALS	ALS	BV	BV	ALS	BV	BV	ALS	BV	BV	ALS	BV	BV	BV	ALS
Laboratory Work Order			C3V4896	C3Y3918	C4G3628	TY2408099	C3V8570	C4G3628	TY2407798	TY2407798	C3V9592	C4H0803	TY2407798	C3V8570	C4G3628	TY2407798	C3V9592	C4H0803	TY2407798	C3V8570	C3Y8402	C4I9516	TY2408099
Laboratory Sample ID			XGE121	XMJ803	ZHY395	TY2408099-008	XGZ408	ZHY397	TY2407798-006	TY2407798-004	XHE880	ZJL536	TY2407798-002	XGZ409	ZHY396	TY2407798-003	XHE879	ZJL537	TY2407798-001	XGZ410	XNJ113	ZNI593	TY2408099-011
Sample Type									Field Duplicate														
Metals, Total																							
Aluminum	µg/L	n/v	897	1,470	9,950	171,000	259	249	1,150	321	513	330	1,720	6,350	758	34,400	4,760	595	2,780	1,320	8.1	950	5,350
Antimony	µg/L	1,600[A]	0.5	1	1	71.8	0.2	<0.5	0.18	0.14	0.5	0.1	1.07	<0.5	<0.5	<1.00 DLM	<0.5	<0.1	<1.00 DLM	<0.5	<0.1	<0.5	0.44
Arsenic	µg/L	150[A]	6.2	**31,700[A]**	**28,400[A]**	**35,300[A]**	45.3	26.7	36.9	32.2	73.2	27.3	28.8	5.5	3.3	14.5	2.5	2.5	3.03	81.2	6.8	33.5	23.4
Barium	µg/L	2,300[A]	37.8	25	49	1,090	298	280	272	273	90.5	73.4	84.1	182	80	338	88	49.7	56.2	214	20.2	109	123
Beryllium	µg/L	5.3[A]	<0.05	<0.5	1.4	5.28	0.09	<0.25	0.120	0.076	0.12	0.11	0.281	0.54	<0.25	1.28	0.27	<0.05	<0.200 DLM	0.37	<0.05	<0.25	0.292
Bismuth	µg/L	n/v	<0.1	<1	<1	<5.00	<0.1	<0.5	<0.050	<0.050	<0.1	<0.1	<0.050	<0.5	<0.5	<0.500 DLM	<0.5	<0.1	<0.500 DLM	<0.5	<0.1	<0.5	0.101
Boron	µg/L	3,550[A]	10	1,950	2,290	2,170	15	22	19	19	38	36	38	77	36	101	34	11	<100 DLM	58	6	8	<10
Cadmium	µg/L	0.21[A]	0.036	0.11	**1.3[A]**	**4.20[A]**	0.019	<0.025	0.0119	0.0080	0.014	<0.005	0.0110	**0.351[A]**	<0.025	**0.279[A]**	0.14	0.028	<0.0500 DLM	**0.449[A]**	<0.005	0.14	0.110
Calcium	mg/L	n/v	108	589	800	1,090	118	130	118	115	99.3	77.0	81.0	864	129	700	531	161	183	1,270	71.9	118	94.1
Cesium	µg/L	n/v	0.16	0.3	0.4	28.6	1.3	1	1.38	1.07	0.3	0.19	1.10	0.3	<0.1	3.01	0.4	0.07	0.237	<0.1	<0.02	<0.1	0.413
Chromium	µg/L	64[A]	4.5	7	59	**562[A]**	1.8	<2.5	2.99	1.20	2.1	1.5	4.71	24	2.8	**78.1[A]**	12.3	1.8	<5.00 DLM	3.4	<0.5	4.8	13.3
Cobalt	µg/L	5.2[A]	1.4	**9.7[A]**	**24.7[A]**	**206[A]**	0.78	0.82	1.27	0.74	1.28	0.72	4.15	**9.22[A]**	1.31	**18.8[A]**	4.32	0.61	1.37	**9.48[A]**	0.06	**5.68[A]**	**6.66[A]**
Copper	µg/L	6.9[A]	**7[A]**	4	**69[A]**	**611[A]**	1.3	0.6	2.84	1.17	4.8	1.2	**14.0[A]**	**26.4[A]**	2.6	**41.3[A]**	**13.1[A]**	1.8	<5.00 DLM	**9.8[A]**	<0.1	**595[A]**	**19.1[A]**
Iron	µg/L	n/v	1,840	16,500	154,000	1,040,000	11,600	11,900	12,000	10,900	4,790	5,850	11,200	15,800	1,490	40,700	9,370	8,270	5,730	16,100	1,120	24,300	17,400
Lead	µg/L	2[A]	1.6	**7[A]**	**95.7[A]**	**313[A]**	1.99	1.66	1.94	1.07	1.59	0.67	**2.28[A]**	**14.5[A]**	1.29	**19.1[A]**	**6.92[A]**	1.13	1.65	0.75	<0.05	**6.72[A]**	**6.48[A]**
Lithium	µg/L	n/v	2.5	116	132	232	7.4	9.7	7.9	7.4	10	9.2	9.5	22.8	17.7	48.6	15.4	7.5	<10.0 DLM	14.3	1.5	5.5	9.1
Magnesium	mg/L	n/v	20.5	222	300	498	18.6	26.7	26.0	24.4	34.9	27.9	30.9	207	41.8	212	136	35.6	45.9	194	12.0	19.0	17.2
Manganese	µg/L	n/v	92.3	1,290	6,320	13,500	418	327	312	302	123	86.2	130	1,210	151	1,310	525	120	161	2,590	141	2,260	1,550
Mercury	µg/L	0.77[A]	<0.01	***<1.5***	***<1.5***	<0.0050	<0.01	<0.01	<0.0050	<0.0050	<0.01	<0.01	<0.0050	<0.1	<0.1	<0.0050	<0.1	<0.01	<0.0050	<0.1	<0.01	<0.1	<0.0050
Molybdenum	µg/L	730[A]	2.46	19.3	5.1	18.3	0.55	0.4	0.784	0.582	1.19	0.99	1.10	<0.25	0.9	1.55	0.25	0.45	0.626	2.67	0.77	0.32	0.611
Nickel	µg/L	39[A]	5.2	9	**56[A]**	**596[A]**	2	1.1	2.20	0.98	3.6	2.2	11.4	18.8	2.9	**45.8[A]**	9.6	1.3	<5.00 DLM	13.3	0.1	4.3	9.14
Phosphorus	µg/L	n/v	158	250	3,710	10,300	112	93	123	76	150	83	139	2,180	134	2,370	1,430	361	<500 DLM	744	20	120	214
Potassium	mg/L	n/v	1.95	28.2	25.7	63.9	2.36	2.4	2.46	2.38	4.24	3.48	3.76	5.6	3.8	14.2	2.7	1.83	2.54	1.5	0.53	2.4	2.41
Rubidium	µg/L	n/v	8.01	8.5	12.3	192	2.09	1.8	2.88	1.93	2.1	1.25	2.88	11	3.3	55.3	9.4	2.47	5.12	2.6	0.38	2.9	6.48
Selenium	µg/L	5[A]	0.07	<0.5	<0.5	<5.00	0.37	<0.25	<0.050	0.065	<0.05	<0.05	<0.050	<0.25	<0.25	<0.500 DLM	<0.25	<0.05	<0.500 DLM	<0.25	<0.05	<0.25	0.134
Silicon	µg/L	n/v	7,530	9,980	19,500	270,000	10,300	10,900	13,300	11,800	8,590	8,860	14,800	16,600	10,700	82,100	13,800	7,620	12,400	12,000	6,780	6,940	14,600
Silver	µg/L	0.12[A]	0.01	<0.1	<0.1	**1.72[A]**	<0.01	<0.05	**0.257[A]**	0.090	0.02	<0.01	0.070	<0.05	<0.05	**0.157[A]**	<0.05	<0.01	<0.100 DLM	<0.05	<0.01	<0.05	0.094
Sodium	mg/L	180[A]	5.29	66.7	61.8	69.3	8.49	8.86	8.40	8.77	13.4	12.9	13.2	16.2	18.6	21.4	4.41	3.69	4.16	8.71	2.42	82.6	78.3
Strontium	µg/L	n/v	105	1,540	2,050	2,700	370	424	389	424	555	555	584	971	529	998	311	147	163	835	111	297	254
Sulfur	µg/L	n/v	-	-	-	661,000	-	-	1,590	3,310	-	-	<500	-	-	<5,000 DLM	-	-	6,390	-	-	-	3,680
Sulfur	mg/L	n/v	1.0	760	700	-	2.0	5.6	-	-	<0.5	<0.5	-	7	2.3	-	8.3	7.7	-	<5	3.3	5.0	-
Tellurium	µg/L	n/v	<0.1	<1	<1	<20.0	<0.1	<0.5	<0.20	<0.20	<0.1	<0.1	<0.20	<0.5	<0.5	<2.00 DLM	<0.5	<0.1	<2.00 DLM	<0.5	<0.1	<0.5	<0.20
Thallium	µg/L	40[A]	0.02	<0.05	0.13	1.47	0.005	<0.025	0.017	<0.010	0.011	<0.005	0.014	0.126	0.027	0.456	0.154	0.018	<0.100 DLM	<0.025	<0.005	0.027	0.071
Thorium	µg/L	n/v	<0.2	<2	2	44.4	<0.2	<1	0.88	0.26	0.5	<0.2	0.92	1	<1	16.6	3	0.9	1.38	<1	<0.2	1	1.82
Tin	µg/L	n/v	0.2	<1	<1	<10.0	0.2	<0.5	0.19	0.10	0.3	<0.1	0.20	<0.5	<0.5	1.46	<0.5	<0.1	<1.00 DLM	<0.5	<0.1	<0.5	0.53
Titanium	µg/L	n/v	48.8	33	26	4,210	12	11.1	68.0	17.4	24.9	8.1	64.2	64.8	44.8	2,910	170	37.3	243	8.8	1.4	18.2	202
Tungsten	µg/L	n/v	0.2	4	<1	233	2.7	2.4	2.61	2.38	0.3	0.4	0.58	<0.5	<0.5	<1.00 DLM	<0.5	<0.1	<1.00 DLM	<0.5	0.8	<0.5	0.26
Uranium	µg/L	33[A]	0.67	4.2	7.2	13.4	0.45	0.31	0.434	0.302	0.41	0.28	0.619	2.13	0.9	3.10	0.94	0.13	0.230	0.43	0.02	2.92	2.63
Vanadium	µg/L	20[A]	3.22	3.8	**24.5[A]**	**391[A]**	1.42	1.22	2.78	1.22	2.4	1.78	5.82	**25.1[A]**	2.41	**79.7[A]**	12.1	1.87	6.02	11.1	0.19	10.6	17.0
Zinc	µg/L	89[A]	24.1	53	**392[A]**	**1,380[A]**	9.3	6.3	8.4	3.4	12.4	8.1	18.2	44	7.7	**90.3[A]**	22.1	4.2	<30.0 DLM	15.8	1.4	**146[A]**	31.3
Zirconium	µg/L	n/v	0.6	2	3	113	7.8	5.1	4.48	5.10	0.9	0.8	2.72	2.2	1.2	28.1	1.7	1	<2.00 DLM	4.6	0.6	2.6	1.71

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Sample Location			MW07-18			MW08-18			MW8-OB-14	MW09-18		MW9-OB1-13	MW11-BR-14	MW11-OB-14	MW12-OB-14	MW14-BR-14		MW14-OB-14	MW15-BR-14			MW15-OB-14		
Sample Date			11-Oct-23	6-Jun-24	6-Jun-24	11-Oct-23	11-Oct-23	6-Jun-24	31-Oct-23	11-Oct-23	6-Jun-24	11-Oct-23	2-Nov-23	2-Nov-23	5-Nov-23	18-Oct-23	18-Oct-23	18-Oct-23	5-Oct-23	30-May-24	31-Jul-24	5-Oct-23	30-May-24	31-Jul-24
Sample ID			MW07-18	MW07-18	Duplicate 5	MW08-18	DUPLICATE 3	MW08-18	MW8-OB-14	MW09-18	MW09-18	MW9-OB1-13	MW11-BR-14	MW11-OB-14	MW12-OB-14	MW14-BR-14	Duplicate 4	MW14-OB-14	MW15-BR-14	MW15-BR-14	MW15-BR-14	MW15-OB-14	MW15-OB-14	MW15-OB-14
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	ALS	GGM	GGM	ALS
Laboratory			BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	TY2408373	BV	BV	TY2408373
Laboratory Work Order			C3V9547	C4H5675	C4H5675	C3V9547	C3V9547	C4H5675	C3Y3918	C3V9547	C4H5675	C3V9592	C3Y8402	C3Y8402	C3Z0205	C3W8752	C3W8752	C3W8752	C3V4922	C4G7181	TY2408373	TY2408373-002	C3V4922	C4G7181	TY2408373	TY2408373-001
Laboratory Sample ID			XHE677	ZKL345	ZKL348	XHE678	XHE680	ZKL347	XMJ805	XHE679	ZKL346	XHE881	XNJ115	XNJ116	XNS488	XJD053	XJD055	XJD054	XGE200	ZIS039			XGE199	ZIS038		
Sample Type	Units	MOE APV			Field Duplicate		Field Duplicate										Field Duplicate									
Field Parameters																										
pH, Field	S.U.	n/v	-	6.77	-	-	-	7.14	7.38	-	6.90	-	7.22	7.22	7.55	7.46	0.00	7.06	7.69	7.69	7.49	7.42	7.62	7.45
Temperature, Field	deg C	n/v	-	18.8	-	-	-	16.3	6.6	-	18.2	-	7.4	6.4	7.1	6.6	0.00	8.0	14.8	12.4	11.9	10.3	9.9	11.3
General Chemistry																										
Acidity as CaCO3	mg/L	n/v	96	51	51	25	22	12	18	29	23	9.2	19	8.2	6.8	<5.0	5.0	18	<5.0	5.4	<2.0	<5.0	5.6	4.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	610	620	640	200	200	240	310	380	390	290	370	180	190	230	220	320	180	190	208	220	230	268
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	1.2	2.2	2.1	<1.0	<1.0	<1.0	2.3	1.2	2.1	2.4	1.7	1.0	1.6	3.2	3.3	2.9	2.1	2.2	7.6	2.7	2.3	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	n/v	620	620	640	200	200	250	310	380	390	300	370	180	190	230	230	320	180	190	216	230	230	268
Ammonia (as N)	mg/L	n/v	0.21	0.28	0.25	2.3	2.4	2.1	0.12	0.51	1.8	0.28	<0.050	<0.050	<0.050	0.33	0.32	<0.050	0.096	<0.050	0.0822	0.057	<0.050	0.0533
Ammonia, Un-ionized (Calculated)	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.0010	-	-	<0.0010
Chloride	mg/L	180[A]	13	14	15	14	15	19	<1.0	2.8	6.3	<1.0	2.1	1.7	<1.0	1.3	1.1	<1.0	<1.0	<1.0	0.34	1.2	1.2	1.36
Cyanide	mg/L	0.0052[A]	**0.0321[A]**	**0.0227[A]**	**0.0539[A]**	**0.0128[A]**	**0.0140[A]**	**0.0177[A]**	0.00180	**0.0377[A]**	0.00344	<0.00050 CYN	0.00089	<0.00050	<0.00050 CYN	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	-	<0.00050	<0.00050	-
Cyanide (Free)	mg/L	n/v	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002	<0.002 ICB	0.0021 ICB	<0.002 ICB	<0.002 ICB	0.0021 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	4.0	3.9	6.50
Electrical Conductivity, Lab	µS/cm	n/v	2,240	2,030	2,050	2,850	2,840	2,860	557	2,910	2,380	539	686	364	382	426	423	583	353	364	350	441	443	385
Fluoride	mg/L	n/v	0.14	0.12	0.13	0.56	0.55	0.63	0.59	0.27	0.35	0.41	0.18	0.22	0.11	0.48	0.48	0.59	0.16	0.16	0.084	<0.10	<0.10	0.026
Hardness (as CaCO3)	mg/L	n/v	1,300	1,300	1,400	1,200	1,100	740	280	1,400	1,200	240	340	150	190	130	130	290	190	200	174	240	260	218
Nitrate (as N)	mg/L	n/v	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.51	<0.10	<0.10	<0.10	0.16	<0.10	1.33	<0.10	0.49	<0.10	<0.10	<0.020	<0.10	<0.10	<0.020
Nitrate + Nitrite (as N)	mg/L	n/v	<0.10	<0.10	<0.10	0.20	0.21	<0.10	<0.10	0.74	<0.10	<0.10	<0.10	0.16	<0.10	1.33	<0.10	0.49	<0.10	<0.10	-	<0.10	<0.10	-
Nitrite (as N)	mg/L	n/v	<0.010	0.030	<0.010	0.152	0.161	<0.010	<0.010	0.228	0.014	0.066	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.050	<0.010	<0.010	<0.010	<0.010	<0.010
pH, lab	S.U.	n/v	7.33	7.58	7.54	7.45	7.41	7.49	7.89	7.52	7.77	7.94	7.70	7.78	7.95	8.17	8.19	7.99	8.10	8.10	8.36	8.11	8.02	8.00
Phosphorus, Total	mg/L	n/v	1.4	6.0	6.3	2.5	2.3	4.3	1.2 DB	0.42	1.7	0.063	<0.0010	0.093	0.060	0.064	0.053	0.050	0.0028	0.0019	0.0075	0.054	0.025	0.126
Sulfate	mg/L	n/v	740	620	620	1,400	1,400	1,400	<1.0	1,400	1,100	<1.0	8.3	9.9	11	<1.0	<1.0	6.5	11	12	11.8	10	9.9	7.99
Total Dissolved Solids	mg/L	n/v	1,450	1,510	1,090	2,190	2,360	2,240	285	2,240	980	250	380	230	225	285	205	310	180	215	198	235	205	263
Total Kjeldahl Nitrogen	mg/L	n/v	0.63	0.64	0.68	2.8	2.9	2.5	0.39	1.1	4.6	0.35	0.26	0.40	<0.10	0.53	0.51	0.15	0.18	<0.10	0.128	0.16	0.13	1.43
Total Suspended Solids	mg/L	n/v	12,000	34,000	30,000	240	210	3,700	17,000	97	9,500	430	3	41	3,100	100	50	400	5	5	8.6	260	120	27,400
Turbidity, Lab	NTU	n/v	62	220	170	65	87	210	30	32	120	4.7	0.5	7.8	3.5	3.6	7.5	4.2	0.9	1.4	4.52	5.3	55	0.10 TMV
Metals, Dissolved																										
Aluminum	µg/L	n/v	<5	2,280	2,340	312	228	25	4	<5	12.3	0.9	6.6	22.2	0.7	7.4	7.4	2	3.7	2.4	3.4	1.6	1.8	2.9
Antimony	µg/L	1,600[A]	<1	1.5	1	<1	<1	<1	<0.1	<1	<0.5	<0.1	0.2	0.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10
Arsenic	µg/L	150[A]	**1,730[A]**	**1,540[A]**	**1,650[A]**	**11,800[A]**	**11,700[A]**	**7,920[A]**	5.2	**840[A]**	**978[A]**	2.7	5.9	3.4	0.5	6.3	6.1	0.2	0.6	0.5	0.84	1.2	0.9	0.88
Barium	µg/L	2,300[A]	140	116	116	22	21	12	28.9	53	33	42	56	104	22.3	33.5	32.8	31.3	10.4	13.9	11.9	28.8	27.9	32.2
Beryllium	µg/L	5.3[A]	<0.5	<0.25	<0.5	<0.5	<0.5	<0.5	<0.05	<0.5	<0.25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020
Bismuth	µg/L	n/v	<1	<0.5	<1	<1	<1	<1	<0.1	<1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050
Boron	µg/L	3,550[A]	10	13	20	140	130	70	46	60	17	58	23	6	6	60	60	18	10	10	10	6	6	<10
Cadmium	µg/L	0.21[A]	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.01	<0.1	<0.05	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050
Calcium	mg/L	n/v	371	388	409	294	283	184	69.3	266	253	48.5	102	49.5	55.0	29.9	29.5	78.4	55.7	59.5	50.9	72.5	77.3	64.5
Cesium	µg/L	n/v	<0.2	0.5	0.5	<0.2	<0.2	<0.2	<0.02	<0.2	<0.1	<0.02	<0.02	<0.02	<0.02	0.04	0.03	<0.02	0.07	0.05	0.055	<0.02	<0.02	<0.010
Chromium	µg/L	64[A]	<5	12.6	14	<5	<5	<5	<0.5	<5	<2.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.4	<0.5	<0.5	<0.50	<0.5	<0.5	<0.50
Cobalt	µg/L	5.2[A]	**7.8[A]**	**10.9[A]**	**12.1[A]**	3.4	3.1	2.2	0.9	2.7	0.93	0.16	**6.49[A]**	0.65	<0.05	0.44	0.45	<0.05	0.16	0.13	0.24	0.37	0.46	0.50
Copper	µg/L	6.9[A]	<1	**9.5[A]**	**12[A]**	1	<1	<1	0.2	<1	<0.5	0.7	1.6	6.9	0.2	<0.1	0.5	0.3	<0.1	0.3	0.78	0.4	0.3	0.80
Iron	µg/L	n/v	15,200	22,300	26,100	22,800	21,500	16,000	209	6,300	7,600	1,110	144	90	12	189	211	<5	395	71	289	10	10	<10
Lead	µg/L	2[A]	<0.5	**3.59[A]**	**4.4[A]**	1.5	0.9	<0.5	<0.05	<0.5	<0.25	<0.05	0.12	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050
Lithium	µg/L	n/v	12	11.9	13	121	120	73	8.5	111	120	7.1	<0.5	<0.5	2.5	2.8	2.7	7.5	1.4	0.9	1.0	1.5	1.3	1.3
Magnesium	mg/L	n/v	90.5	84.7	97.0	104	102	67.6	26.0	190	134	28.7	19.7	5.42	13.0	14.3	14.4	22.4	11.3	12.3	11.5	13.5	15.5	13.9
Manganese	µg/L	n/v	1,320	1,600	1,820	744	699	449	144	577	496	23	1,680	272	6.8	57.7	58.7	0.8	75.7	60.3	85.8	22.7	36.3	39.7
Mercury	µg/L	0.77[A]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050
Molybdenum	µg/L	730[A]	<0.5	0.27	<0.5	10	9.9	6.1	5.96	4.1	2.72	1.26	10.3	3.1	0.82	2.07	2.05	1.85	0.73	0.68	0.579	0.56	0.47	0.434
Nickel	µg/L	39[A]	5	19.2	21	5	4	3	3.2	6	6	0.4	4.3	1.1	<0.1	0.4	0.4	0.2	<0.1	0.2	<0.50	0.6	0.4	<0.50
Phosphorus	µg/L	n/v	<50	269	350	50	<50	<50	10	<50	90	69	<5	6	<5	42	41	<5	<5	<5	<50	<5	<5	<50
Potassium	mg/L	n/v	10.4	9.5	9.6	37.3	36.5	24.3	3.68	29.7	19.3	3.26	1.99	2.18	1.80	3.01	2.97	3.02	1.59	1.82	1.59	1.64	1.81	1.62
Rubidium	µg/L	n/v	7.1	11.8	12.7	12.9	12.2	6.9	0.84	9.8	10.5	0.81	4.8	1.36	2.28	1.41	1.43	1.57	3.05	2.91	3.06	2.51	2.5	2.86
Selenium	µg/L	5[A]	<2	<1	<2	<2	<2	<2	<0.2	<2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	<0.2	<0.2	<0.050	<0.2	<0.2	0.052
Silicon	µg/L	n/v	13,000	12,400	13,100	6,070	5,820	3,180	7,570	8,410	11,200	8,110	7,010	3,810	4,290	5,700	5,690	7,050	6,980	7,100	7,040	4,910	4,770	4,770
Silver	µg/L	0.12[A]	<0.1	<0.05	<0.1	<0.1	<0.1	<0.1	<0.01	<0.1	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010
Sodium	mg/L	180[A]	23.6	18.5	20.5	**315[A]**	**308[A]**	**201[A]**	12.1	179	116	24.7	15.7	32.3	1.95	48.2	47.3	14.5	3.08	3.42	3.03	1.66	1.94	1.72
Strontium	µg/L	n/v	938	930	950	2,210	2,180	1,530	190	2,130	1,890	365	280	89.5	46.8	187	184	216	156	160	157	69.9	69	65.1
Sulfur	µg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,960	-	-	2,910
Sulfur	mg/L	n/v	230	190	200	490	490	340	0.5	490	380	<0.5	1.7	2.6	3.9	<0.5	<0.5	1.8	3.9	4.2	-	3.7	3.2	-
Tellurium	µg/L	n/v	<1	<0.5	<1	<1	<1	<1	<0.1	<1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20
Thallium	µg/L	40[A]	<0.05	0.042	<0.05	<0.05	<0.05	<0.05	0.006	<0.05	<0.025	<0.005	0.008	0.009	0.013	<0.005	<0.005	0.008	<0.005	<0.005	<0.010	<0.005	0.007	0.012
Thorium	µg/L	n/v	<2	1	<2	<2	<2	<2	<0.2	<2	<1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10
Tin	µg/L	n/v	<1	<0.5	<1	<1	<1	<1	<0.1	<1	<0.5	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10
Titanium	µg/L	n/v	<5	152	149	13	10	<5	0.9	<5	<2.5	0.6	0.8	1.8	<0.5	0.5	<0.5	<0.5	0.6	<0.5	<0.30	<0.5	<0.5	<0.30
Tungsten	µg/L	n/v	<1	1.5	<1	1	1	<1	<0.1	<1	0.6	5.1	2.8	0.2	<0.1	4.7	4.6	<0.1	0.6	0.6	0.62	0.4	0.4	0.37
Uranium	µg/L	33[A]	0.8	1.24	1.4	2.4	2.4	1.4	1.59	5.7	17.3	0.06	3.26	2.51	0.96	0.15	0.15	1.02	0.25	0.29	0.266	0.67	0.61	0.646
Vanadium	µg/L	20[A]	<0.5	9.44	10.8	1.3	0.9	<0.5	0.12	<0.5	0.39	0.08	0.65	1	0.19	0.19	0.19	0.27	0.07	0.13	<0.50	0.3	0.24	<0.50
Zinc	µg/L	89[A]	<5	17.2	21	<5	<5	<5	1.1	<5	<2.5	1.2	1.4	1.9	4.8	<0.5	2.1	0.9	1.6	2.1	3.2	2.4	1.3	1.5
Zirconium	µg/L	n/v	<1	2.2	2	<1	<1	<1	0.1	<1	<0.5	<0.1	0.8	0.6	<0.1	0.3	0.3	<0.1	0.2	0.1	<0.30	<0.1	<0.1	<0.30

See notes on last page

Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Mine

Sample Location			MW07-18			MW08-18			MW8-OB-14	MW09-18		MW9-OB1-13	MW11-BR-14	MW11-OB-14	MW12-OB-14	MW14-BR-14		MW14-OB-14	MW15-BR-14			MW15-OB-14		
Sample Date			11-Oct-23	6-Jun-24	6-Jun-24	11-Oct-23	11-Oct-23	6-Jun-24	31-Oct-23	11-Oct-23	6-Jun-24	11-Oct-23	2-Nov-23	2-Nov-23	5-Nov-23	18-Oct-23	18-Oct-23	18-Oct-23	5-Oct-23	30-May-24	31-Jul-24	5-Oct-23	30-May-24	31-Jul-24
Sample ID			MW07-18	MW07-18	Duplicate 5	MW08-18	DUPLICATE 3	MW08-18	MW8-OB-14	MW09-18	MW09-18	MW9-OB1-13	MW11-BR-14	MW11-OB-14	MW12-OB-14	MW14-BR-14	Duplicate 4	MW14-OB-14	MW15-BR-14	MW15-BR-14	MW15-BR-14	MW15-OB-14	MW15-OB-14	MW15-OB-14
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	ALS	GGM	GGM	ALS
Laboratory			BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	TY2408373	BV	BV	TY2408373
Laboratory Work Order			C3V9547	C4H5675	C4H5675	C3V9547	C3V9547	C4H5675	C3Y3918	C3V9547	C4H5675	C3V9592	C3Y8402	C3Y8402	C3Z0205	C3W8752	C3W8752	C3W8752	C3V4922	C4G7181	TY2408373	TY2408373-002	C3V4922	C4G7181	TY2408373	TY2408373-001
Laboratory Sample ID			XHE677	ZKL345	ZKL348	XHE678	XHE680	ZKL347	XMJ805	XHE679	ZKL346	XHE881	XNJ115	XNJ116	XNS488	XJD053	XJD055	XJD054	XGE200	ZIS039			XGE199	ZIS038		
Sample Type					Field Duplicate		Field Duplicate										Field Duplicate									
Metals, Total																										
Aluminum	µg/L	n/v	5,130	600	6	3,800	3,010	6,830	2,440	435	621	109	13.8	279	633	451	241	565	26.4	17.2	177	509	185	77,100
Antimony	µg/L	1,600[A]	<1	<1	4	<1	<1	<1	<0.5	<1	1	<0.1	0.1	1.1	<0.1	0.2	0.2	0.2	0.1	0.1	0.25	<0.1	<0.1	1.78
Arsenic	µg/L	150[A]	**1,970[A]**	**246[A]**	44	**12,600[A]**	**12,600[A]**	**10,600[A]**	13.1	**1,020[A]**	**774[A]**	3	4.1	8.2	1.2	6.4	6.3	1.1	0.8	1	1.66	1.6	1.2	32.3
Barium	µg/L	2,300[A]	142	191	305	41	37	53	64	50	30	43.9	61.1	186	32.8	40.5	36.8	42.3	13.5	13.8	17.8	36.4	26.5	663
Beryllium	µg/L	5.3[A]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.25	<0.5	<0.25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.11	<0.05	<0.05	<0.020	<0.05	<0.05	2.94
Bismuth	µg/L	n/v	<1	<1	<1	<1	<1	<1	<0.5	<1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.050	<0.1	<0.1	0.610
Boron	µg/L	3,550[A]	20	40	10	110	110	100	64	60	5	58	25	7	9	60	61	19	10	9	12	7	7	125
Cadmium	µg/L	0.21[A]	0.12	**0.51[A]**	**0.3[A]**	<0.05	0.07	0.13	0.137	<0.05	0.153	<0.005	0.009	0.019	0.022	0.011	0.007	0.028	<0.005	0.008	0.0078	0.059	0.025	**0.946[A]**
Calcium	mg/L	n/v	478	1,250	1,290	307	284	336	362	247	144	55.2	108	44.7	99.3	35.4	33.9	84.7	53.9	54.7	54.4	94.4	80.0	1,530
Cesium	µg/L	n/v	1.3	0.6	0.4	0.9	0.6	1.5	0.2	<0.2	0.1	0.03	<0.02	0.03	0.07	0.14	0.09	0.05	0.07	0.05	0.082	0.09	0.03	7.06
Chromium	µg/L	64[A]	36	<5	<5	29	22	50	7.8	<5	<2.5	<0.5	<0.5	0.8	2.2	2.6	1.2	2.5	<0.5	<0.5	1.10	1.8	0.8	**188[A]**
Cobalt	µg/L	5.2[A]	**14.6[A]**	**33.2[A]**	**31.8[A]**	**8.7[A]**	**6.8[A]**	**14[A]**	4.75	2.9	1.25	0.29	2.94	0.77	0.66	0.85	0.63	0.66	0.21	0.18	0.37	0.79	0.53	**44.9[A]**
Copper	µg/L	6.9[A]	**30[A]**	**8[A]**	3	**11[A]**	**8[A]**	**17[A]**	**11[A]**	1	6.5	0.8	2.7	6.1	1.9	1	0.6	1.8	0.3	0.2	0.55	5.5	3.2	**177[A]**
Iron	µg/L	n/v	38,000	18,000	80	39,900	32,600	56,800	4,450	7,690	5,080	1,270	142	518	1,040	992	540	789	388	339	718	825	303	91,200
Lead	µg/L	2[A]	**10.7[A]**	<0.5	<0.5	**18.3[A]**	**12.2[A]**	**28.5[A]**	**4.66[A]**	**2.6[A]**	**5.08[A]**	0.44	0.18	0.97	0.83	0.9	0.63	1.44	0.07	0.08	0.132	0.64	0.21	**42.4[A]**
Lithium	µg/L	n/v	17	13	11	128	126	125	13.8	108	64.9	7.3	<0.5	0.5	3.6	3.4	3.1	8.9	1.3	1	1.0	2.5	1.7	95.9
Magnesium	mg/L	n/v	120	228	72.0	106	100	123	115	178	77.6	30.2	20.6	5.33	27.2	15.6	15.2	24.8	11.3	11.7	11.3	18.2	16.8	390
Manganese	µg/L	n/v	2,100	4,470	4,430	1,400	1,040	1,900	528	624	323	37.4	1,530	121	72.4	78.5	66.7	34.3	71.1	67.5	95.8	45.2	34.7	2,300
Mercury	µg/L	0.77[A]	<0.1	***<1.5***	***<1.5***	<0.1	<0.1	<0.1	0.03	<0.01	<0.1	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050
Molybdenum	µg/L	730[A]	<0.5	<0.5	0.7	7.8	8.2	6	2.25	3	2.28	1.3	13.2	2.48	0.7	1.98	1.98	1.44	0.74	0.66	0.654	0.4	0.42	1.58
Nickel	µg/L	39[A]	33	**84[A]**	**104[A]**	38	27	**62[A]**	9.2	7	9.9	0.6	1.7	1.7	1.4	1.6	1	0.9	0.1	0.2	0.53	2.1	1	**123[A]**
Phosphorus	µg/L	n/v	900	<50	<50	710	360	1,030	1,050	160	1,050	66	7	31	194	79	63	63	<5	<5	<50	93	33	5,420
Potassium	mg/L	n/v	12.7	14.8	17.8	33.1	33.1	33.6	4.0	27.9	12.8	3.31	2.16	2.21	2.03	3.13	3.08	3.28	1.62	1.71	1.60	1.74	1.77	21.4
Rubidium	µg/L	n/v	24.3	39.9	45	19.5	17.6	24	4.4	10	11.4	1	5.07	1.71	3.22	2.22	1.9	2.35	3.22	2.83	3.12	3.57	2.78	116
Selenium	µg/L	5[A]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.25	<0.5	<0.25	<0.05	0.09	0.08	<0.05	<0.05	<0.05	0.24	<0.05	<0.05	<0.050	<0.05	<0.05	0.774
Silicon	µg/L	n/v	18,600	10,200	8,330	10,100	9,220	13,600	11,500	8,740	9,150	8,620	7,140	4,130	5,020	6,060	5,940	11,800	6,770	6,500	7,690	5,400	4,740	160,000
Silver	µg/L	0.12[A]	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.1	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	**0.555[A]**
Sodium	mg/L	180[A]	22.1	18.9	17.5	**309[A]**	**308[A]**	**320[A]**	12.4	170	56.9	24.7	19.3	38.8	2.05	46.0	46.2	18.3	3.05	3.24	3.09	1.69	1.91	12.0
Strontium	µg/L	n/v	1,160	1,590	1,410	2,140	2,100	2,170	337	2,050	959	368	308	89.8	73.5	191	199	232	158	155	162	85.9	72.1	1,090
Sulfur	µg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,900	-	-	<5,000 DLM
Sulfur	mg/L	n/v	250	210	210	530	530	480	0.7	500	180	<0.5	2.2	2.7	4.0	<0.5	<0.5	1.9	4.1	4.5	-	3.7	3.3	-
Tellurium	µg/L	n/v	<1	<1	<1	<1	<1	<1	<0.5	<1	<0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.20	<0.1	<0.1	<2.00 DLM
Thallium	µg/L	40[A]	0.1	0.21	0.19	0.07	<0.05	0.13	0.084	<0.05	0.098	<0.005	0.006	0.012	0.028	0.012	0.009	0.018	<0.005	0.005	<0.010	0.02	0.017	0.929
Thorium	µg/L	n/v	2	<2	<2	2	<2	3	2	<2	<1	<0.2	<0.2	<0.2	0.5	<0.2	<0.2	1.5	<0.2	<0.2	<0.10	0.2	<0.2	41.4
Tin	µg/L	n/v	<1	<1	<1	<1	<1	<1	<0.5	<1	<0.5	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.12	<0.1	<0.1	2.84
Titanium	µg/L	n/v	328	<5	<5	159	143	281	110	16	24.3	7.7	1.1	11.8	45	27.4	15	34.2	1.8	1.2	17.4	34.2	12.8	6,050
Tungsten	µg/L	n/v	<1	<1	<1	2	2	2	<0.5	<1	<0.5	4.2	3.1	0.1	<0.1	3.7	4.3	<0.1	0.6	0.6	0.71	0.1	0.2	2.05
Uranium	µg/L	33[A]	1.3	0.4	3.7	3.6	3.2	4	2.22	5.2	10.7	0.11	3.56	2.39	1.32	0.26	0.21	1.6	0.27	0.29	0.278	0.76	0.63	6.26
Vanadium	µg/L	20[A]	**28.3[A]**	<0.5	<0.5	14	10.7	**26.2[A]**	7.86	2.3	3.08	0.49	0.73	1.56	1.93	1.51	0.91	1.24	0.25	0.29	0.92	2.34	1.01	**186[A]**
Zinc	µg/L	89[A]	43	74	22	42	29	76	21.8	8	30.4	5.6	1.1	3.7	13.4	6.2	4.8	5.1	3.7	3.3	5.8	18.2	11.3	**448[A]**
Zirconium	µg/L	n/v	3	<1	<1	2	2	2	1.7	1	1.4	0.3	0.5	1	0.5	1.2	0.9	0.4	0.4	0.3	0.40	0.5	0.2	60.6

See notes on last page

Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Mine

Sample Location			MW17-OB-14	MW18-BR-21			MW19-BR-21			MW19-OB-21				MW20-BR-21					MW20-OB-21	
Sample Date			11-Oct-23	5-Oct-23	3-Jun-24	25-Jul-24	11-Oct-23	3-Jun-24	25-Jul-24	11-Oct-23	3-Jun-24	3-Jun-24	25-Jul-24	5-Oct-23	5-Oct-23	1-May-24	10-Jul-24	10-Jul-24	1-May-24	10-Jul-24
Sample ID			MW17-OB-14	MW18-BR-21	MW18-BR-21	MW18-BR-21	MW19-BR-21	MW19-BR-21	MW19-BR-21	MW19-OB-21	MW19-OB-21	Duplicate 2	MW19-OB-21	MW20-BR-21	Duplicate 1	MW20-BR-21	DUPLICATE 1	MW20-BR-21	MW20-OB-21	MW20-OB-21
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	BV	ALS	BV	BV	ALS	BV	BV	BV	ALS	BV	BV	BV	ALS	ALS	BV	ALS
Laboratory Work Order			C3V9592	C3V4896	C4G9053	TY2408099	C3V9592	C4G9053	TY2408099	C3V9592	C4G9053	C4G9053	TY2408099	C3V4922	C3V4922	C4D2249	TY2407474	TY2407474	C4D2249	TY2407474
Laboratory Sample ID			XHE883	XGE122	ZJC450	TY2408099-007	XHE878	ZJC451	TY2408099-005	XHE877	ZJC452	ZJC454	TY2408099-006	XGE198	XGE207	ZBL990	TY2407474-005	TY2407474-001	ZBL991	TY2407474-002
Sample Type	Units	MOE APV										Field Duplicate			Field Duplicate		Field Duplicate			
Field Parameters																				
pH, Field	S.U.	n/v	-	7.93	8.49	8.19	-	7.88	7.63	-	7.05	-	6.83	12.12	-	12.35	-	12.5	8.91	8.78
Temperature, Field	deg C	n/v	-	15.2	12.2	18.2	-	9.7	14.5	-	8.3	-	11.5	9.6	-	8.0	-	8.20	6.2	11.0
General Chemistry																				
Acidity as CaCO3	mg/L	n/v	26	<5.0	<5.0	<2.0	13	15	3.6	35	47	11.0	7.1	<5.0	<5.0	<5.0	<2.0	<2.0	<5.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	390	160	170	115	240	250	240	330	380	250	402	<1.0	1.1	2.0	<50.0 DLM	<50.0 DLM	180	202
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	1.3	2.6	3.7	<2.0	1.3	1.8	<2.0	<1.0	1.6	2.3	9.6	83	160	180	615	670	11	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	790	750	480	438	460	<1.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	n/v	390	170	170	115	240	250	240	330	390	250	412	870	910	660	1,050	1,130	190	202
Ammonia (as N)	mg/L	n/v	<0.050	<0.050	<0.050	0.0133	1.0	0.85	0.421	0.26	0.37	0.87	0.277	1.8	1.9	1.6	1.38	1.37	<0.050	0.0229
Ammonia, Un-ionized (Calculated)	mg/L	n/v	-	-	-	<0.0010	-	-	0.0047	-	-	-	<0.0010	-	-	-	-	1.37	-	0.0025
Chloride	mg/L	180[A]	**630[A]**	<1.0	2.3	5.41	120	140	126	**480[A]**	**650[A]**	130	**415[A]**	8.1	5.8	3.1	4.17	4.41	<1.0	0.88
Cyanide	mg/L	0.0052[A]	0.00148 CYN	<0.00050 CYN	0.00343	-	0.00127 CYN	0.00068	-	**0.00551[A]**	**0.00774[A]**	<0.00050	-	<0.00050 CYN	<0.00050 CYN	<0.00050	-	-	<0.00050	-
Cyanide (Free)	mg/L	n/v	0.0028 ICB	0.0045 ICB	<0.002 ICB	<0.0020	0.0028 ICB	<0.002 ICB	<0.0020	0.0021 ICB	<0.002 ICB	<0.002 ICB	<0.0020	0.0028 ICB	0.0033 ICB	<0.002 ICB	<0.0050	<0.0050	<0.002 ICB	<0.0050
Dissolved Organic Carbon (DOC)	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Lab	µS/cm	n/v	2,880	327	349	260	950	962	877	2,490	3,400	944	2,310	3,830	3,840	3,110	1,400	1,480	382	408
Fluoride	mg/L	n/v	<0.10	0.11	0.13	0.123	0.21	0.23	0.117	0.13	<0.10	0.21	<0.400 DLDS	0.23	0.23	0.29	<0.400 DLDS	<0.400 DLDS	0.16	0.060
Hardness (as CaCO3)	mg/L	n/v	580	120	91	90.8	400	390	411	740	910	400	442	730	730	630	642	627	190	188
Nitrate (as N)	mg/L	n/v	0.10	<0.10	<0.10	<0.020	<0.10	<0.10	<0.040 DLDS	<0.10	<0.10	<0.10	<0.400 DLDS	<0.10	<0.10	<0.10	<0.400 DLDS	<0.400 DLDS	0.93	0.773
Nitrate + Nitrite (as N)	mg/L	n/v	0.11	<0.10	<0.10	-	<0.10	<0.10	-	<0.10	<0.10	<0.10	-	<0.10	<0.10	<0.10	-	-	0.93	-
Nitrite (as N)	mg/L	n/v	0.011	<0.010	<0.010	<0.010	<0.010	<0.010	<0.020 DLDS	0.010	<0.010	<0.010	<0.200 DLDS	<0.010	<0.010	0.016	<0.200 DLDS	<0.200 DLDS	<0.010	<0.010
pH, lab	S.U.	n/v	7.55	8.22	8.37	8.21	7.77	7.88	8.06	7.48	7.64	7.98	8.32	12.2	12.2	12.0	11.8	11.8	8.80	8.23
Phosphorus, Total	mg/L	n/v	0.015	0.077	0.074	0.0512	0.035	0.040	0.0477	1.1	0.30	0.026	0.362	0.0039	0.098	0.0057	0.0093	0.0139	0.026	0.285
Sulfate	mg/L	n/v	22	11	18	17.8	28	25	25.4	170	410	26	150	4.3	4.2	1.9	<6.00 DLDS	<6.00 DLDS	27	23.7
Total Dissolved Solids	mg/L	n/v	1,190	190	185	173	530	605	582	1,550	2,270	585	1,180	1,040	1,020	880	813	883	250	281
Total Kjeldahl Nitrogen	mg/L	n/v	0.15	0.26	0.20	0.438	1.2	1.1	0.741	0.59	0.75	1.1	1.22	2.2	2.5	2.2	2.14	2.14	<0.10	0.659
Total Suspended Solids	mg/L	n/v	86	210	73	130	51	45	99.6	1,600	710	40	1,230	440	550	120	20.7	24.5	100	338
Turbidity, Lab	NTU	n/v	0.9	31	20	77.5	33	120	78.7	34	85	44	392	19	2.3	4.0	11.0	14.9	6.9	136
Metals, Dissolved																				
Aluminum	µg/L	n/v	<2.5	2.8	3.3	1.8	3.3	61.4	<5.0 DLM	5	7.2	3.7	5.1	255	257	301	338	314	<2.5	3.6
Antimony	µg/L	1,600[A]	<0.5	0.2	0.1	0.36	<0.1	0.9	<0.50 DLM	<1	<0.5	0.6	<0.50 DLM	<0.5	0.5	<0.5	<0.50 DLM	<0.50 DLM	<0.5	0.15
Arsenic	µg/L	150[A]	0.5	47.9	74.6	66.0	80.5	41.8	43.9	**496[A]**	**611[A]**	41.1	**580[A]**	1.4	1.6	1.6	1.72	1.54	<0.5	0.40
Barium	µg/L	2,300[A]	50	48.4	33.3	36.0	160	139	171	57	81	145	40.8	613	617	429	473	485	9	10.7
Beryllium	µg/L	5.3[A]	<0.25	<0.05	<0.05	<0.020	<0.05	<0.05	<0.100 DLM	<0.5	<0.25	<0.05	<0.100 DLM	<0.25	<0.25	<0.25	<0.100 DLM	<0.100 DLM	<0.25	<0.020
Bismuth	µg/L	n/v	<0.5	<0.1	<0.1	<0.050	<0.1	<0.1	<0.250 DLM	<1	<0.5	<0.1	<0.250 DLM	<0.5	<0.5	<0.5	<0.250 DLM	<0.250 DLM	<0.5	<0.050
Boron	µg/L	3,550[A]	7	16	9	<10	31	31	<50 DLM	30	38	32	<50 DLM	<5	<5	<5	<50 DLM	<50 DLM	<5	<10
Cadmium	µg/L	0.21[A]	<0.05	<0.01	<0.01	0.0239	<0.01	<0.01	<0.0250 DLM	<0.1	<0.05	<0.01	<0.0250 DLM	<0.05	<0.05	<0.05	<0.0250 DLM	<0.0250 DLM	<0.05	<0.0050
Calcium	mg/L	n/v	181	39.4	30.0	29.2	97.7	93.2	97.5	202	254	95.2	120	293	290	250	257	251	53.1	53.2
Cesium	µg/L	n/v	<0.1	0.04	0.04	0.045	1.44	1.38	1.28	<0.2	<0.1	1.4	<0.050 DLM	0.1	0.1	<0.1	0.102	0.102	<0.1	<0.010
Chromium	µg/L	64[A]	<2.5	<0.5	<0.5	<0.50	<0.5	1	<2.50 DLM	<5	<2.5	<0.5	<2.50 DLM	<2.5	<2.5	<2.5	<2.50 DLM	<2.50 DLM	<2.5	0.95
Cobalt	µg/L	5.2[A]	1.6	0.17	0.17	1.13	1.22	1.9	1.32	**6.9[A]**	**11.2[A]**	1.71	**5.58[A]**	<0.25	<0.25	<0.25	<0.50 DLM	<0.50 DLM	<0.25	<0.10
Copper	µg/L	6.9[A]	0.8	0.3	0.3	0.46	0.5	0.8	<1.00 DLM	1	1.2	0.2	5.52	2.2	2.4	2.4	2.41	2.84	<0.5	1.46
Iron	µg/L	n/v	<25	93	134	14	3,520	1,180	8,340 DTC	940	1,930	1,130	788	<25	<25	<25	<50 DLM	<50 DLM	<25	<10
Lead	µg/L	2[A]	<0.25	0.23	0.2	0.437	<0.05	0.15	<0.250 DLM	<0.5	1.09	<0.05	<0.250 DLM	0.72	0.72	0.66	0.589	0.566	<0.25	<0.050
Lithium	µg/L	n/v	<2.5	11.9	6	5.5	8.4	8.6	7.6	<5	5.2	8.6	<5.0 DLM	23.2	22.9	22.8	26.6	26.0	<2.5	1.4
Magnesium	mg/L	n/v	30.7	5.26	3.96	4.35	38.4	38.1	40.7	56.6	66.3	39.2	34.6	<0.025	<0.025	<0.025	<0.0250 DLM	<0.0250 DLM	13.1	13.4
Manganese	µg/L	n/v	1,580	94.9	83.4	90.0	321	230	370	2,260	2,840	240	1,650	<1	<1	<1	<0.50 DLM	<0.50 DLM	<1	3.53
Mercury	µg/L	0.77[A]	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	0.0080	<0.01	<0.01	<0.01	-	-	<0.01	-
Molybdenum	µg/L	730[A]	0.38	5.05	8.72	7.83	1.66	1.78	1.15	0.7	0.97	1.7	1.19	31.9	32.5	28.4	29.1	29.7	0.3	2.10
Nickel	µg/L	39[A]	2.5	0.7	0.4	1.32	0.7	12.5	<2.50 DLM	3	4.8	9.7	2.55	10	10.7	13.4	13.6	12.9	<0.5	<0.50
Phosphorus	µg/L	n/v	<25	<5	<5	<50	9	6	<250 DLM	<50	<25	<5	<250 DLM	<25	<25	<25	<250 DLM	<250 DLM	<25	<50
Potassium	mg/L	n/v	0.6	7.26	4.21	3.91	5.03	6.31	5.02	10.7	12.4	6.47	8.20	20.0	20.2	14.7	15.2	14.6	1.0	1.66
Rubidium	µg/L	n/v	1.3	2.51	1.64	1.71	3.87	5.93	3.96	0.2	0.4	5.73	<1.00 DLM	37.9	38.5	27.4	28.7	27.7	0.6	1.00
Selenium	µg/L	5[A]	<1	<0.2	<0.2	0.073	<0.2	<0.2	<0.250 DLM	<2	<1	<0.2	<0.250 DLM	<1	<1	<1	<0.250 DLM	<0.250 DLM	<1	0.965
Silicon	µg/L	n/v	5,300	9,420	7,730	7,510	7,460	7,020	8,120	6,120	6,880	7,130	6,870	627	644	731	792	812	4,500	5,060
Silver	µg/L	0.12[A]	<0.05	<0.01	<0.01	<0.010	<0.01	<0.01	<0.050 DLM	<0.1	<0.05	<0.01	<0.050 DLM	<0.05	<0.05	<0.05	<0.050 DLM	<0.050 DLM	<0.05	<0.010
Sodium	mg/L	180[A]	**388[A]**	23.2	17.5	15.0	13.8	19.0	13.2	**260[A]**	**432[A]**	19.2	**315[A]**	130	130	93.3	95.1	92.3	2.51	14.6
Strontium	µg/L	n/v	307	1,580	1,190	1,080	1,070	1,040	1,080	936	1,110	1,050	561	1,660	1,700	1,190	1,220	1,220	49.8	59.9
Sulfur	µg/L	n/v	-	-	-	6,290	-	-	9,360	-	-	-	57,000	-	-	-	<2,500 DLM	<2,500 DLM	-	8,300
Sulfur	mg/L	n/v	8.3	5.5	6.2	-	10	10	-	65	170	10	-	1.5	1.8	1.1	-	-	5.4	-
Tellurium	µg/L	n/v	<0.5	<0.1	<0.1	<0.20	<0.1	<0.1	<1.00 DLM	<1	<0.5	<0.1	<1.00 DLM	<0.5	<0.5	<0.5	<1.00 DLM	<1.00 DLM	<0.5	<0.20
Thallium	µg/L	40[A]	<0.025	<0.005	<0.005	<0.010	<0.005	<0.005	<0.050 DLM	<0.05	<0.025	<0.005	<0.050 DLM	<0.025	<0.025	<0.025	<0.050 DLM	<0.050 DLM	<0.025	<0.010
Thorium	µg/L	n/v	<1	<0.2	<0.2	<0.10	<0.2	<0.2	<0.50 DLM	<2	<1	<0.2	<0.50 DLM	<1	<1	<1	<0.50 DLM	<0.50 DLM	<1	<0.10
Tin	µg/L	n/v	<0.5	<0.1	<0.1	<0.10	0.1	0.7	<0.50 DLM	<1	<0.5	0.3	<0.50 DLM	<0.5	<0.5	0.5	<0.50 DLM	<0.50 DLM	<0.5	0.11
Titanium	µg/L	n/v	<2.5	0.8	<0.5	<0.30	0.7	1.6	<1.50 DLM	<5	<2.5	0.6	<1.50 DLM	<2.5	<2.5	<2.5	<1.50 DLM	<1.50 DLM	<2.5	<0.30
Tungsten	µg/L	n/v	<0.5	4.1	2.5	3.61	4.7	3.9	5.01	<1	<0.5	4.2	<0.50 DLM	7	7	5.8	5.22	5.38	<0.5	0.49
Uranium	µg/L	33[A]	0.54	28.1	5.79	4.85	1.12	2.48	0.880	0.4	0.45	2.11	0.306	<0.05	<0.05	<0.05	<0.050 DLM	<0.050 DLM	0.3	0.288
Vanadium	µg/L	20[A]	0.36	1.75	0.65	0.75	0.05	0.15	<2.50 DLM	<0.5	0.42	<0.05	<2.50 DLM	0.76	0.82	0.77	<2.50 DLM	<2.50 DLM	0.28	<0.50
Zinc	µg/L	89[A]	<2.5	**337[A]**	**359[A]**	**339[A]**	1.1	75.7	11.4	<5	3.3	9.7	<5.0 DLM	**846[A]**	**858[A]**	**1,100[A]**	**1,100[A]**	**1,070[A]**	78.3	**214[A]**
Zirconium	µg/L	n/v	<0.5	2.7	1.4	0.72	0.2	0.2	<1.50 DLM	1	1.8	0.2	<1.50 DLM	<0.5	<0.5	<0.5	<1.50 DLM	<1.50 DLM	<0.5	<0.30

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Sample Location			MW17-OB-14	MW18-BR-21			MW19-BR-21			MW19-OB-21				MW20-BR-21					MW20-OB-21	
Sample Date			11-Oct-23	5-Oct-23	3-Jun-24	25-Jul-24	11-Oct-23	3-Jun-24	25-Jul-24	11-Oct-23	3-Jun-24	3-Jun-24	25-Jul-24	5-Oct-23	5-Oct-23	1-May-24	10-Jul-24	10-Jul-24	1-May-24	10-Jul-24
Sample ID			MW17-OB-14	MW18-BR-21	MW18-BR-21	MW18-BR-21	MW19-BR-21	MW19-BR-21	MW19-BR-21	MW19-OB-21	MW19-OB-21	Duplicate 2	MW19-OB-21	MW20-BR-21	Duplicate 1	MW20-BR-21	DUPLICATE 1	MW20-BR-21	MW20-OB-21	MW20-OB-21
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	BV	ALS	BV	BV	ALS	BV	BV	BV	ALS	BV	BV	BV	ALS	ALS	BV	ALS
Laboratory Work Order			C3V9592	C3V4896	C4G9053	TY2408099	C3V9592	C4G9053	TY2408099	C3V9592	C4G9053	C4G9053	TY2408099	C3V4922	XGE207	C4D2249	TY2407474	TY2407474	C4D2249	TY2407474
Laboratory Sample ID			XHE883	XGE122	ZJC450	TY2408099-007	XHE878	ZJC451	TY2408099-005	XHE877	ZJC452	ZJC454	TY2408099-006	XGE198	Field Duplicate	ZBL990	TY2407474-005 Field Duplicate	TY2407474-001	ZBL991	TY2407474-002
Sample Type	Units	MOE APV																		
Metals, Total																				
Aluminum	µg/L	n/v	133	852	940	1,530	385	417	1,080	3,950	3,740	348	10,900	247	395	385	399	927	214	3,400
Antimony	µg/L	1,600[A]	0.2	0.4	0.4	1.47	0.1	0.1	0.75	<1	<0.5	0.4	1.26	0.6	0.7	0.6	0.63	0.70	<0.5	<1.00 DLM
Arsenic	µg/L	150[A]	1.1	59.4	91.1	90.0	59.4	39.7	54.4	**744[A]**	**744[A]**	57.9	**1,200[A]**	2.5	2.2	3.4	3.62	4.04	1.1	3.58
Barium	µg/L	2,300[A]	46.3	69.5	52.9	47.5	158	170	166	81	90	160	78.5	746	627	474	480	488	12	36.7
Beryllium	µg/L	5.3[A]	<0.05	<0.05	<0.05	0.056	<0.05	<0.05	0.043	<0.5	<0.25	<0.05	0.251	<0.25	<0.25	<0.05	<0.100 DLM	<0.100 DLM	<0.25	<0.200 DLM
Bismuth	µg/L	n/v	<0.1	<0.1	<0.1	0.108	<0.1	<0.1	<0.050	<1	<0.5	<0.1	0.115	<0.5	<0.5	<0.1	<0.250 DLM	<0.250 DLM	<0.5	<0.500 DLM
Boron	µg/L	3,550[A]	7	13	11	10	30	30	32	30	42	32	36	<5	<5	3	<50 DLM	<50 DLM	5	<100 DLM
Cadmium	µg/L	0.21[A]	0.045	0.083	0.102	**0.439[A]**	0.006	0.008	0.0169	**0.4[A]**	0.186	0.01	**0.324[A]**	<0.025	<0.025	0.005	<0.0250 DLM	0.0422	<0.025	<0.0500 DLM
Calcium	mg/L	n/v	154	49.7	40.4	36.7	110	102	102	316	314	102	225	323	311	242	264	290	60.3	96.5
Cesium	µg/L	n/v	0.04	0.73	0.75	1.34	1.28	1.34	1.54	0.5	0.3	1.41	1.07	0.2	0.2	0.11	0.117	0.148	<0.1	0.294
Chromium	µg/L	64[A]	0.7	2.5	2.3	4.22	1.8	2.1	4.59	22	8.7	2.1	34.5	<2.5	<2.5	0.7	<2.50 DLM	4.56	<2.5	11.4
Cobalt	µg/L	5.2[A]	1.05	**5.87[A]**	**7.06[A]**	**10.4[A]**	1.44	1.48	2.52	**24.3[A]**	**16.8[A]**	1.71	**20.2[A]**	<0.25	<0.25	0.15	<0.50 DLM	0.93	<0.25	1.77
Copper	µg/L	6.9[A]	3.6	**10.4[A]**	**10[A]**	**27.6[A]**	0.8	0.8	4.29	**313[A]**	**201[A]**	1.2	**1,020[A]**	2.7	2.6	2.8	2.91	**8.53[A]**	1	**7.29[A]**
Iron	µg/L	n/v	268	2,200	2,580	3,510	6,240	6,070	5,890	10,800	6,720	3,740	17,000	68	254	211	300	1,280	394	6,170
Lead	µg/L	2[A]	1	**12.5[A]**	**15.5[A]**	**14.0[A]**	0.37	0.62	0.942	**10.5[A]**	**4.08[A]**	0.65	**10.0[A]**	0.97	1.31	0.9	0.946	1.99	0.43	**2.98[A]**
Lithium	µg/L	n/v	3.1	12.9	7.6	7.4	8.7	8.6	8.9	10	7.5	9	10.9	21.1	23.3	24.4	23.0	23.5	<2.5	<10.0 DLM
Magnesium	mg/L	n/v	26.5	5.88	5.44	5.58	38.9	38.9	41.5	89.3	80.6	39.6	61.0	0.115	1.29	0.209	0.202	4.93	14.3	26.1
Manganese	µg/L	n/v	784	169	150	144	393	372	382	2,600	3,060	307	2,040	2	11	3.6	3.81	44.5	16	107
Mercury	µg/L	0.77[A]	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	0.03	0.28	<0.01	0.722	<0.01	<0.01	<0.01	-	-	<0.01	-
Molybdenum	µg/L	730[A]	0.78	4.54	7.17	9.39	1.83	1.03	1.58	0.7	0.76	1.39	2.10	33.2	32	29.8	28.2	26.8	0.43	2.23
Nickel	µg/L	39[A]	1.6	8.1	9.8	11.7	2.5	3.1	11.2	24	12.2	8	27.5	7.5	10.4	13.4	15.7	16.7	0.5	<5.00 DLM
Phosphorus	µg/L	n/v	18	73	40	<50	35	44	50	660	206	35	542	<25	<25	15	<250 DLM	<250 DLM	34	<500 DLM
Potassium	mg/L	n/v	0.60	7.09	4.55	4.68	5.09	5.00	6.48	11.0	13.4	6.02	10.8	23.1	19.6	15.8	15.6	15.6	1.2	2.89
Rubidium	µg/L	n/v	1.97	2.78	2.03	2.55	3.91	3.8	5.45	4.5	2.4	4.93	8.27	45.8	38.1	29.7	30.3	30.9	1.1	6.37
Selenium	µg/L	5[A]	<0.05	0.13	0.16	0.075	0.14	0.34	<0.050	<0.5	<0.25	0.14	0.283	<0.25	<0.25	0.2	0.284	0.328	0.96	1.04
Silicon	µg/L	n/v	5,910	10,700	8,960	10,800	8,150	7,580	9,300	9,980	9,390	7,840	18,100	784	1,470	1,240	1,290	2,030	5,090	11,700
Silver	µg/L	0.12[A]	0.01	<0.01	<0.01	**0.506[A]**	<0.01	<0.01	**0.229[A]**	<0.1	0.07	<0.01	**2.68[A]**	<0.05	<0.05	<0.01	<0.050 DLM	**0.349[A]**	<0.05	<0.100 DLM
Sodium	mg/L	180[A]	**292[A]**	20.2	16.9	18.0	14.0	13.2	17.0	**247[A]**	**440[A]**	17.3	**336[A]**	124	124	91.0	97.4	101	2.74	15.9
Strontium	µg/L	n/v	234	1,760	1,360	1,210	1,060	1,110	1,070	1,020	1,150	1,060	663	2,080	1,720	1,260	1,240	1,300	56.2	89.0
Sulfur	µg/L	n/v	-	-	-	6,880	-	-	10,200	-	-	-	67,600	-	-	-	<2,500 DLM	<2,500 DLM	-	6,720
Sulfur	mg/L	n/v	5.9	5.6	6.7	-	10	9.9	-	67	170	10	-	1.8	1.8	1.1	-	-	6.1	-
Tellurium	µg/L	n/v	<0.1	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20	<1	<0.5	<0.1	<0.20	<0.5	<0.5	<0.1	<1.00 DLM	<1.00 DLM	<0.5	<2.00 DLM
Thallium	µg/L	40[A]	0.021	0.02	0.021	0.026	<0.005	<0.005	<0.010	0.52	0.19	<0.005	0.658	<0.025	<0.025	0.018	<0.050 DLM	0.067	<0.025	<0.100 DLM
Thorium	µg/L	n/v	0.3	0.3	<0.2	0.45	<0.2	<0.2	0.30	2	1	<0.2	3.02	<1	<1	<0.2	<0.50 DLM	<0.50 DLM	<1	1.72
Tin	µg/L	n/v	<0.1	0.3	0.5	0.80	0.4	0.4	1.02	<1	<0.5	0.6	1.66	0.6	0.8	0.8	0.80	0.89	<0.5	3.22
Titanium	µg/L	n/v	10.1	6.1	5.6	12.8	2.7	3.7	9.53	197	117	3.9	481	<2.5	5.5	6.1	<4.95 DLM	35.5	12.6	219
Tungsten	µg/L	n/v	<0.1	7.6	4.3	6.04	5.6	5.3	5.47	<1	<0.5	4.2	0.43	8.7	6.4	4.7	5.47	11.7	<0.5	1.52
Uranium	µg/L	33[A]	1.13	27.8	11.4	6.57	1.09	0.47	1.75	0.9	0.62	1.48	0.900	<0.05	0.05	0.01	<0.050 DLM	0.122	0.39	0.817
Vanadium	µg/L	20[A]	0.76	3.69	3.26	3.74	0.62	0.69	1.84	14.3	6.91	0.56	**22.9[A]**	0.66	1.19	1.03	<2.50 DLM	2.68	0.78	8.27
Zinc	µg/L	89[A]	1.8	**3,130[A]**	**4,400[A]**	**3,620[A]**	65.3	85.4	**147[A]**	31	16.2	84.4	42.8	**1,580[A]**	**2,800[A]**	**2,420[A]**	**2,480[A]**	**2,490[A]**	**197[A]**	**1,150[A]**
Zirconium	µg/L	n/v	0.6	5.3	4.4	3.20	0.5	0.4	0.69	6	5.4	0.4	9.26	<0.5	<0.5	<0.1	<1.00 DLM	<1.00 DLM	<0.5	2.15

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Sample Location			MW21-BR-21			MW22-OB-21			MW23-04	MW23-OB-21				MW24-BR-21			MW24-OB-21		
Sample Date			2-Nov-23	3-Jun-24	24-Jul-24	1-Nov-23	5-Jun-24	25-Jul-24	31-Oct-23	2-Nov-23	25-May-24	23-Jul-24	1-Oct-24	5-Oct-23	2-Jun-24	24-Jul-24	5-Oct-23	2-Jun-24	24-Jul-24
Sample ID			MW21-BR-21	MW21-BR-21	MW21-BR-21 (MW-F)	MW22-OB-21	MW22-OB-21	MW22-OB-21	MW23-04	MW23-OB-21	MW23-OB-21	MW23-OB-21 (MW-G)	MW23-OB-21 (MW-G)	MW24-BR-21	MW24-BR-21	MW24-BR-21 (MW-N)	MW24-OB-21	MW24-OB-21	MW24-OB-21 (MW-N)
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	ALS	BV	BV	ALS	BV	BV	BV	ALS	ALS	BV	BV	ALS	BV	BV	ALS
Laboratory Work Order			C3Y8402	C4G9053	TY2408060	C3Y5682	C4H5525	TY2408099	C3Y3918	C3Y8402	C4F9239	TY2408000	TY2411154	C3V4922	C4G7292	TY2408060	C3V4922	C4G7292	TY2408060
Laboratory Sample ID			XNJ112	ZJC453	TY2408060-007	XMT583	ZKK842	TY2408099-009	XMJ802	XNJ111	ZHA048	TY2408000-005	TY2411154-002	XGE203	ZIS869	TY2408060-003	XGE204	ZIS870	TY2408060-004
Sample Type	Units	MOE APV																	
Field Parameters																			
pH, Field	S.U.	n/v	6.43	6.83	6.35	-	7.73	7.51	7.58	7.22	7.37	7.22	7.22	7.92	-	8.80	7.88	-	7.83
Temperature, Field	deg C	n/v	7.9	8.1	15.8	-	7.6	11.3	6.3	7.1	11.2	8.40	10.7	9.2	-	12.5	13.0	-	24.8
General Chemistry																			
Acidity as CaCO3	mg/L	n/v	90	18	40.2	10	<5.0	<2.0	5.0	14	<5.0	2.3	<2.0	<5.0	<5.0	<2.0	<5.0	<5.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	300	130	231	250	210	252	210	260	280	302	438	190	180	210	170	180	496
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	<1.0	<1.0	<2.0	2.7	3.1	<2.0	1.4	1.4	3.7	<2.0	<2.0	3.5	4.4	5.6	2.3	1.9	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	n/v	300	130	231	260	220	252	210	270	280	302	438	190	180	216	180	180	496
Ammonia (as N)	mg/L	n/v	0.32	0.28	0.274	0.17	0.055	0.191	0.086	0.15	0.12	0.169	0.187	0.64	0.21	0.281	0.29	0.055	0.174
Ammonia, Un-ionized (Calculated)	mg/L	n/v	-	-	<0.0010	-	-	0.0013	-	-	0.0006	<0.0010	<0.0010	-	-	0.0350	-	-	0.0063
Chloride	mg/L	180[A]	70	54	115	<1.0	<1.0	0.66	<1.0	1.7	3.6	2.72	4.14	3.8	2.3	2.41	<1.0	<1.0	0.24
Cyanide	mg/L	0.0052[A]	<0.00050 CYN	<0.00050	-	0.00060	<0.00050	-	<0.00050	<0.00050	<0.00050	-	<0.0020	<0.00050 CYN	<0.00050	-	<0.00050 CYN	<0.00050	-
Cyanide (Free)	mg/L	n/v	0.0021 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0020	<0.0020	0.0063 ICB	<0.0020	<0.0020	0.0068 ICB	<0.0020	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	n/v	-	-	-	-	-	-	1.4	-	4.1	-	-	-	-	-	-	-	-
Electrical Conductivity, Lab	µS/cm	n/v	855	551	876	469	398	432	395	510	538	501	513	441	414	408	329	326	319
Fluoride	mg/L	n/v	<0.10	<0.10	<0.040 DLDS	0.63	0.65	0.308	<0.10	0.11	0.13	0.084	0.093	0.54	0.50	0.389	0.38	0.37	0.227
Hardness (as CaCO3)	mg/L	n/v	420	200	445	240	200	226	210	260	270	246	260	120	110	106	170	170	170
Nitrate (as N)	mg/L	n/v	0.85	1.95	0.419	<0.10	<0.10	<0.020	<0.10	<0.10	<0.10	<0.020	<0.020	<0.10	<0.10	0.046	<0.10	<0.10	<0.020
Nitrate + Nitrite (as N)	mg/L	n/v	0.85	1.95	-	<0.10	<0.10	-	<0.10	<0.10	<0.10	-	-	<0.10	0.21	-	<0.10	<0.10	-
Nitrite (as N)	mg/L	n/v	<0.010	<0.010	<0.020 DLDS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.052	0.152	0.014	<0.010	<0.010	<0.010
pH, lab	S.U.	n/v	7.16	7.46	7.18	8.05	8.19	8.20	7.86	7.76	8.14	8.12	8.10	8.30	8.42	8.35	8.15	8.06	8.05
Phosphorus, Total	mg/L	n/v	0.0085	0.0058	0.102	0.026	0.16	1.13	1.2 DB	0.0046	0.029	1.84	0.0488	0.040	0.076	0.184	0.57	2.4	1.02
Sulfate	mg/L	n/v	28	50	80.8	<1.0	<1.0	<0.30	3.3	8.1	6.2	10.2	16.1	37	36	38.0	3.2	3.7	2.07
Total Dissolved Solids	mg/L	n/v	540	280	758	245	200	296	215	240	290	358	324	235	230	250	140	190	306
Total Kjeldahl Nitrogen	mg/L	n/v	0.85	0.51	1.69	0.32	0.23	0.544	0.75	0.32	0.21	0.718	0.451	0.79	0.22	0.523	1.1	0.53	0.500
Total Suspended Solids	mg/L	n/v	36	67	3,590	140	380	1,260	36,000	35	26	2,170	112	410	310	428	70,000	32,000	77,500
Turbidity, Lab	NTU	n/v	6.6	150	0.10 TMV	7.7	24	281	39	5.0	5.0	2,310	29.8	14	28	231	110	150	0.10 TMV
Metals, Dissolved																			
Aluminum	µg/L	n/v	61	11.8	30.4	1.9	0.8	1.2	4	3.6	19.2	3.9	2.9	4.6	11.7	4.6	2.3	14.2	1.3
Antimony	µg/L	1,600[A]	<1	1.2	1.38	<0.1	<0.1	<0.10	0.2	<0.1	0.2	0.13	0.3	0.1	0.2	0.14	<0.1	<0.1	<0.10
Arsenic	µg/L	150[A]	9	1.5	2.85	3.8	2.4	2.50	0.9	1.8	1.6	1.68	1.92	1.7	2	0.70	0.8	0.4	0.70
Barium	µg/L	2,300[A]	13	5.9	13.5	46.9	31.8	41.1	14.2	28.2	28.1	26.4	29.7	17.5	12.6	10.3	31.5	28.8	38.5
Beryllium	µg/L	5.3[A]	<0.5	<0.05	<0.020	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.020	<0.02	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020
Bismuth	µg/L	n/v	<1	<0.1	<0.050	<0.1	<0.1	<0.050	<0.1	<0.1	<0.1	<0.050	<0.05	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050
Boron	µg/L	3,550[A]	<10	4	<10	28	23	25	9	10	8	<10	13	53	49	44	15	13	14
Cadmium	µg/L	0.21[A]	<0.1	0.09	0.159	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.0050	<0.005	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050
Calcium	mg/L	n/v	130	62.1	138	55.9	45.5	51.4	62.1	79.7	81.0	72.5	76.9	30.5	25.2	21.3	48.0	47.9	46.5
Cesium	µg/L	n/v	<0.2	0.08	0.216	<0.02	<0.02	<0.010	0.06	0.03	0.03	0.017	0.028	0.03	<0.02	0.024	<0.02	<0.02	0.010
Chromium	µg/L	64[A]	<5	<0.5	0.77	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.50
Cobalt	µg/L	5.2[A]	**153[A]**	**18.3[A]**	**46.6 DTC[A]**	0.2	0.12	0.12	3.33	0.65	0.6	0.63	0.58	0.07	0.08	<0.10	<0.05	<0.05	<0.10
Copper	µg/L	6.9[A]	2	3.8	**7.57[A]**	0.6	<0.1	0.31	1	0.4	0.4	0.60	0.28	0.5	0.7	0.31	0.8	0.5	0.31
Iron	µg/L	n/v	14,300	868	16,200	2,960	3,220	1,510	<5	398	906	636	444	50	8	<10	962	1,570	921
Lead	µg/L	2[A]	<0.5	<0.05	0.130	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050
Lithium	µg/L	n/v	<5	0.6	<1.0	11.6	8.8	11.0	1.7	2.2	2	2.2	2.8	9.2	9.4	8.5	3.7	3.1	2.8
Magnesium	mg/L	n/v	22.4	10.9	24.5	24.3	22.1	23.8	13.2	15.6	17.6	15.7	16.6	11.5	12.3	12.9	11.8	13.2	13.0
Manganese	µg/L	n/v	11,800	1,420	3,170 DTC	73.2	66.4	54.4	125	439	484	461	482	225	181	174	51.2	80.6	65.0
Mercury	µg/L	0.77[A]	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.0050	<0.005	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050
Molybdenum	µg/L	730[A]	0.9	1.11	0.548	12.1	11.7	8.63	1.59	1.28	0.87	1.64	2.02	40.6	21.6	20.8	0.72	0.58	0.680 DTC
Nickel	µg/L	39[A]	25	21.9	**45.1[A]**	1.3	0.7	<0.50	6.2	1.3	1	1.10	1.08	0.5	0.6	<0.50	<0.1	0.3	<0.50
Phosphorus	µg/L	n/v	<50	<5	<50	11	<5	<50	<5	<5	<5	<50	<50	<5	<5	<50	20	<5	<50
Potassium	mg/L	n/v	0.5	0.38	0.628	4.82	4.66	4.06	2.70	0.79	0.74	0.866	1.06	4.05	4.63	4.70	1.69	1.56	1.66
Rubidium	µg/L	n/v	1.3	0.82	1.42	1.28	0.97	1.04	5.5	1.37	1.19	1.71	1.91	4.5	4.58	4.87	1.48	1.29	1.88
Selenium	µg/L	5[A]	<2	<0.2	0.132	<0.2	<0.2	<0.050	<0.2	<0.2	<0.2	<0.050	0.292	0.3	<0.2	0.227	<0.2	<0.2	<0.050
Silicon	µg/L	n/v	7,150	4,450	6,410	7,330	5,050	7,970	4,200	6,080	5,360	5,900	6,430	3,460	2,640	2,800	6,990	4,830	5,880
Silver	µg/L	0.12[A]	<0.1	<0.01	0.018	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010
Sodium	mg/L	180[A]	14.8	8.11	17.2	7.59	7.79	6.52	1.62	7.83	5.97	12.2	15.9	49.8	52.5	57.7	4.71	4.96	4.91
Strontium	µg/L	n/v	154	79.5	173	264	211	274	60.5	159	173	154	175	176	153	152	156	159	168
Sulfur	µg/L	n/v	-	-	30,700	-	-	<500	-	-	-	3,360	3,840	-	-	13,500	-	-	<500
Sulfur	mg/L	n/v	8.5	12	-	<0.5	<0.5	-	1.4	2.4	-	-	-	14	12	-	1.1	0.8	-
Tellurium	µg/L	n/v	<1	<0.1	<0.20	<0.1	<0.1	<0.20	<0.1	<0.1	<0.1	<0.20	<0.2	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20
Thallium	µg/L	40[A]	<0.05	0.02	0.016	<0.005	<0.005	<0.010	0.031	<0.005	<0.005	<0.010	<0.01	<0.005	<0.005	<0.010	<0.005	<0.005	<0.010
Thorium	µg/L	n/v	<2	<0.2	<0.10	<0.2	<0.2	<0.10	<0.2	<0.2	-	<0.10	<0.1	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10
Tin	µg/L	n/v	<1	<0.1	0.12	<0.1	<0.1	<0.10	<0.1	<0.1	<0.1	<0.10	<0.1	<0.1	0.1	<0.10	<0.1	<0.1	<0.10
Titanium	µg/L	n/v	<5	<0.5	0.71	0.6	<0.5	<0.30	<0.5	0.5	1	<0.30	<0.3	<0.5	<0.5	<0.30	0.6	1.4	<0.30
Tungsten	µg/L	n/v	<1	0.6	<0.10	0.3	0.3	0.20	0.2	1.2	0.9	1.21	1.57	92.8	27.7	15.7	0.4	0.3	0.16
Uranium	µg/L	33[A]	1.5	1.08	2.24	0.19	0.1	0.092	0.29	0.65	0.65	0.652	0.82	8.67	6.31	5.23	0.05	0.04	0.041
Vanadium	µg/L	20[A]	1	0.06	<0.50	0.06	<0.05	<0.50	0.18	0.15	0.17	<0.50	<0.5	0.1	<0.05	<0.50	0.17	0.12	<0.50
Zinc	µg/L	89[A]	**104[A]**	**187[A]**	**264[A]**	3.6	0.9	2.7	0.6	6	16	3.9	6.2	2.1	7.1	2.6	4.5	7.8	1.6
Zirconium	µg/L	n/v	2	0.4	0.47	<0.1	<0.1	<0.30	<0.1	0.5	0.6	0.48	0.45	<0.1	<0.1	<0.30	<0.1	<0.1	<0.30

See notes on last page

Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Mine

Sample Location			MW21-BR-21			MW22-OB-21			MW23-04	MW23-OB-21				MW24-BR-21			MW24-OB-21		
Sample Date			2-Nov-23	3-Jun-24	24-Jul-24	1-Nov-23	5-Jun-24	25-Jul-24	31-Oct-23	2-Nov-23	25-May-24	23-Jul-24	1-Oct-24	5-Oct-23	2-Jun-24	24-Jul-24	5-Oct-23	2-Jun-24	24-Jul-24
Sample ID			MW21-BR-21	MW21-BR-21	MW21-BR-21 (MW-F)	MW22-OB-21	MW22-OB-21	MW22-OB-21	MW23-04	MW23-OB-21	MW23-OB-21	MW23-OB-21 (MW-G)	MW23-OB-21 (MW-G)	MW24-BR-21	MW24-BR-21	MW24-BR-21 (MW-N)	MW24-OB-21	MW24-OB-21	MW24-OB-21 (MW-N)
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	ALS	BV	BV	ALS	BV	BV	BV	ALS	ALS	BV	BV	ALS	BV	BV	ALS
Laboratory Work Order			C3Y8402	C4G9053	TY2408060	C3Y5682	C4H5525	TY2408099	C3Y3918	C3Y8402	C4F9239	TY2408000	TY2411154	C3V4922	C4G7292	TY2408060	C3V4922	C4G7292	TY2408060
Laboratory Sample ID			XNJ112	ZJC453	TY2408060-007	XMT583	ZKK842	TY2408099-009	XMJ802	XNJ111	ZHA048	TY2408000-005	TY2411154-002	XGE203	ZIS869	TY2408060-003	XGE204	ZIS870	TY2408060-004
Sample Type	Units	MOE APV																	
Metals, Total																			
Aluminum	µg/L	n/v	70	64.2	990	202	1,610	5,500	8,520	81.3	495	48,700	379	286	1,780	2,530	1,540	73.3	363
Antimony	µg/L	1,600[A]	<1	2	9.42	<0.1	<0.1	0.38	<1	<0.1	0.4	1.71	0.38	0.2	0.2	0.44	<1	<0.5	<0.10
Arsenic	µg/L	150[A]	10	2.6	25.4	12.2	4.4	8.95	11	2.9	5	36.5	2.24	4	11.1	6.55	4	1.1	0.65
Barium	µg/L	2,300[A]	14	8.3	37.8	48	46	85.8	122	29	40.7	352	31.3	24.4	49.4	46.9	155	217	30.7
Beryllium	µg/L	5.3[A]	<0.5	<0.05	0.312	<0.05	0.07	0.218	0.5	<0.05	0.07	2.00	0.022	<0.05	0.07	0.110	<0.5	<0.25	<0.020
Bismuth	µg/L	n/v	<1	<0.1	<0.100 DLM	<0.1	<0.1	<0.050	<1	<0.1	<0.1	0.738	<0.05	<0.1	<0.1	<0.100 DLM	<1	<0.5	<0.050
Boron	µg/L	3,550[A]	<10	4	<20 DLM	24	28	33	50	11	11	<50 DLM	13	50	48	59	70	17	14
Cadmium	µg/L	0.21[A]	0.07	0.178	**0.978[A]**	<0.005	0.032	0.0590	**0.71[A]**	<0.005	0.019	**0.888[A]**	0.008	0.008	0.03	0.0390	**0.22[A]**	0.142	0.0076
Calcium	mg/L	n/v	128	65.9	113	60.8	119	166	686	80.2	86.2	286	80.4	31.9	40.2	31.9	1,180	1,110	53.5
Cesium	µg/L	n/v	<0.2	0.08	0.334	0.02	0.14	0.428	1.5	0.04	0.07	2.79	0.06	0.06	0.28	0.297	<0.2	<0.1	0.046
Chromium	µg/L	64[A]	<5	4.8	14.6	1.1	6.5	15.2	43	<0.5	2.4	**180[A]**	1.5	1.2	6.7	7.89	<5	<2.5	1.00
Cobalt	µg/L	5.2[A]	**150[A]**	**18.9[A]**	**10.9[A]**	0.39	1.57	3.47	**94.6[A]**	0.73	1.29	**59.5[A]**	0.94	0.28	1.6	1.59	**9.6[A]**	4.53	0.30
Copper	µg/L	6.9[A]	**8[A]**	**22.9[A]**	**158[A]**	0.5	2.7	**7.90[A]**	**79[A]**	0.8	2.9	**214[A]**	1.8	2.4	**8.4[A]**	**7.83[A]**	<1	<0.5	1.92
Iron	µg/L	n/v	15,300	14,900	105,000	3,380	7,150	9,270	11,500	691	6,800	85,700	1,160	5,280	12,600	12,400	12,300	2,240	1,100
Lead	µg/L	2[A]	<0.5	0.42	**5.39[A]**	0.26	1.57	**3.40[A]**	**21.3[A]**	0.09	0.92	**41.7[A]**	0.288	0.33	1.43	1.61	1.6	<0.25	0.374
Lithium	µg/L	n/v	<5	0.6	<2.0 DLM	11.9	11.4	16.1	13	2.3	2.7	49.1	2.7	9.2	11.2	13.8	15	6	4.0
Magnesium	mg/L	n/v	22.3	10.6	20.1	24.8	43.7	58.3	157	15.7	17.5	85.2	16.9	11.7	14.0	16.6	256	22.3	14.1
Manganese	µg/L	n/v	11,300	1,440	280	85.5	201	298	1,530	437	522	2,100	505	280	498	402	1,600	1,800	81.4
Mercury	µg/L	0.77[A]	<0.01	<0.01	0.0484	<0.01	<0.01	<0.0050	0.10	<0.01	<0.01	0.0106	<0.005	<0.01	<0.1	<0.0050	***<1.5***	***<1.5***	<0.0050
Molybdenum	µg/L	730[A]	0.8	0.4	5.21	11.7	10.6	8.86	<0.5	1.3	1.01	5.25	2.2	36.9	13.6	24.0	0.5	0.67	0.497
Nickel	µg/L	39[A]	26	28.4	**56.4[A]**	1.8	4.4	8.94	**72[A]**	1.4	3.5	**148[A]**	1.86	1.1	4.9	5.37	17	8.3	0.75
Phosphorus	µg/L	n/v	<50	<5	<100 DLM	39	350	456	1,270	7	78	1,810	<50	41	101	<100 DLM	1,030	<25	<50
Potassium	mg/L	n/v	0.5	0.36	1.14	4.61	5.31	6.10	4.2	0.83	0.89	6.56	1.11	4.24	5.17	5.82	3.1	3.8	1.60
Rubidium	µg/L	n/v	1.3	0.83	3.08	1.6	3.44	8.60	16.5	1.49	1.69	36.6	2.36	5.16	8.73	10.4	9.4	10.2	1.96
Selenium	µg/L	5[A]	<0.5	0.16	0.664	<0.05	<0.05	<0.050	<0.5	<0.05	0.08	0.268	<0.05	0.18	0.13	0.281	<0.5	<0.25	<0.050
Silicon	µg/L	n/v	7,090	4,980	10,900	6,870	8,040	18,500	12,700	6,310	6,720	69,100	7,060	4,110	5,720	8,460	11,400	6,350	6,390
Silver	µg/L	0.12[A]	<0.1	0.03	**0.252[A]**	<0.01	<0.01	0.030	<0.1	<0.01	<0.01	**6.59[A]**	0.067	<0.01	**0.24[A]**	**0.741[A]**	<0.1	<0.05	<0.010
Sodium	mg/L	180[A]	14.8	7.79	17.1	7.26	8.58	7.94	2.0	8.75	8.07	16.1	17.8	45.6	49.0	61.3	4.9	4.94	4.98
Strontium	µg/L	n/v	152	80.6	158	265	244	345	418	163	185	398	170	185	196	199	781	854	174
Sulfur	µg/L	n/v	-	-	31,500	-	-	<500	-	-	-	4,090	3,850	-	-	14,600	-	-	560
Sulfur	mg/L	n/v	8.6	13	-	<0.5	<0.5	-	2.3	2.6	-	-	-	13	2.2	-	<5	89	-
Tellurium	µg/L	n/v	<1	<0.1	<0.40 DLM	<0.1	<0.1	<0.20	<1	<0.1	<0.1	<1.00 DLM	<0.2	<0.1	<0.1	<0.40 DLM	<1	<0.5	<0.20
Thallium	µg/L	40[A]	<0.05	0.024	0.046	0.005	0.035	0.081	0.24	<0.005	0.02	0.923	<0.01	0.012	0.043	0.041	0.09	0.108	<0.010
Thorium	µg/L	n/v	<2	<0.2	0.71	<0.2	0.9	2.61	<2	<0.2	-	14.0	0.1	<0.2	0.4	0.75	<2	<1	0.19
Tin	µg/L	n/v	<1	0.4	2.13	0.3	0.3	1.02	<1	<0.1	0.3	1.84	<0.1	0.5	0.6	1.36	<1	<0.5	<0.10
Titanium	µg/L	n/v	<5	1.8	34.4	15.6	102	458	46	3.6	9.8	2,770	25.7	18.2	97.6	130	<5	<2.5	24.8
Tungsten	µg/L	n/v	<1	0.1	2.61	0.3	0.1	0.31	<1	1.3	2.5	36.4	2.66	77.5	13	28.3	<1	<0.5	0.14
Uranium	µg/L	33[A]	1.6	1.64	3.81	0.23	0.38	0.686	1.6	0.66	0.69	3.69	0.776	7.73	5.61	7.54	0.4	3.16	0.125
Vanadium	µg/L	20[A]	1.1	0.37	3.11	0.65	4.78	13.6	**22.4[A]**	0.35	1.61	**116[A]**	1.14	1.04	4.97	5.37	9.8	<0.25	0.99
Zinc	µg/L	89[A]	**136[A]**	**394[A]**	**1,220[A]**	55.9	83.5	**176[A]**	67	33.3	**563[A]**	**4,350[A]**	30.4	**579[A]**	**1,170[A]**	**746[A]**	**1,870[A]**	**1,310[A]**	17.2
Zirconium	µg/L	n/v	2	0.7	2.06	0.5	1.2	4.13	2	0.6	1.5	9.94	0.8	0.1	0.3	0.56	<1	<0.5	0.40

See notes on last page

Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
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Greenstone Mine

Sample Location			MW25-BR-21				MW25-OB-21			MW26-OB2-23 (MW-O)			MW26-OB2-23 (MW-O)	MW26-OB1-23 (MW-O)		MW26-OB1-23 (MW-O)		MW27-BR-23		
Sample Date			5-Oct-23	3-Jun-24	24-Jul-24	24-Jul-24	5-Oct-23	3-Jun-24	24-Jul-24	4-Jun-24	4-Jun-24	25-Jul-24	23-Oct-23	4-Jun-24	25-Jul-24	23-Oct-23	23-Oct-23	25-May-24	16-Jul-24	1-Oct-24
Sample ID			MW25-BR-21	MW25-BR-21	DUPLICATE 4 GW	MW25-BR-21 (MW-E)	MW25-OB-21	MW25-OB-21	MW25-OB-21 (MW-E)	MW26-BR-21	Duplicate3	MW26-BR-21	MW26-BR-23	MW26-OB-21	MW26-OB-21	MW26-OB-23	Duplicate 7	MW27-BR-23	MW27-BR-23	MW27-BR-23 (MW-P)
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	ALS	ALS	BV	BV	ALS	BV	BV	ALS	BV	BV	ALS	BV	BV	BV	ALS	ALS
Laboratory Work Order			C3V4922	C4G9053	TY2408060	TY2408060	C3V4922	C4G9053	TY2408060	C4H0803	C4H0803	TY2408099	C3X4915	C4H0803	TY2408099	C3X4915	C3X4915	C4F9239	TY2407741	TY2411154
Laboratory Sample ID			XGE202	ZJC448	TY2408060-008	TY2408060-006	XGE201	ZJC449	TY2408060-005	ZJL534	ZJL532	TY2408099-012	XKL041	ZJL533	TY2408099-013	XKL040	XKL042	ZHA049	TY2407741-005	TY2411154-001
Sample Type	Units	MOE APV			Field Duplicate						Field Duplicate						Field Duplicate			
Field Parameters																				
pH, Field	S.U.	n/v	7.88	7.93	-	7.85	7.45	7.51	7.46	8.21	0	7.65	7.91	7.39	7.32	7.31	-	6.13	7.02	7.03
Temperature, Field	deg C	n/v	8.1	6.9	-	8.40	10.6	8.3	11.0	8.7	0	10.3	8.4	10.9	15.0	9.1	-	6.7	15.8	12.4
General Chemistry																				
Acidity as CaCO3	mg/L	n/v	<5.0	5.0	<2.0	<2.0	8.0	5.0	<2.0	<5.0	<5.0	<2.0	<5.0	12	6.0	8.0	9.4	45	24.4	9.5
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	230	240	258	267	220	220	254	230	240	259	220	310	260	310	320	420	469	496
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	3.0	3.2	<2.0	<2.0	2.8	2.4	<2.0	2.7	2.3	13.2	2.6	2.1	<2.0	2.5	1.8	2.8	<2.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<2.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	n/v	230	240	258	267	220	220	254	230	240	272	220	310	260	310	320	420	469	496
Ammonia (as N)	mg/L	n/v	0.17	0.16	0.189	0.218	<0.050	<0.050	0.0184	0.29	0.30	0.434	0.34	<0.050	0.0893	0.11	<0.050	0.065	0.0430	0.137
Ammonia, Un-ionized (Calculated)	mg/L	n/v	-	-	-	0.0025	-	-	<0.0010	-	-	0.0036	-	-	<0.0010	-	-	<0.0004	<0.0010	<0.0010
Chloride	mg/L	180[A]	<1.0	<1.0	0.29	0.30	<1.0	<1.0	0.33	1.8	2.0	1.25	5.2	1.5	2.61	3.9	<1.0	120	120	133
Cyanide	mg/L	0.0052[A]	<0.00050	<0.00050	-	-	<0.00050	<0.00050	-	<0.00050	<0.00050	-	<0.00050	<0.00050	-	<0.00050	<0.00050	<0.00050	<0.0020	***<0.100 DLM***
Cyanide (Free)	mg/L	n/v	<0.002 ICB	<0.002 ICB	<0.0020	<0.0020	<0.002 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0020	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31	-	-
Electrical Conductivity, Lab	µS/cm	n/v	425	425	401	402	413	410	393	414	430	431	436	582	467	589	587	1,210	1,250	1,190
Fluoride	mg/L	n/v	0.22	0.21	0.105	0.105	0.15	0.15	0.093	0.50	0.49	0.235	0.47	0.28	0.182	0.24	0.26	<0.10	<0.200 DLDS	<0.200 DLDS
Hardness (as CaCO3)	mg/L	n/v	210	200	219	223	220	210	225	170	170	174	170	310	287	320	320	560	588	590
Nitrate (as N)	mg/L	n/v	<0.10	<0.10	<0.020	<0.020	<0.10	<0.10	<0.020	<0.10	<0.10	<0.020	<0.10	<0.10	<0.020	<0.10	<0.10	<0.10	<0.200 DLDS	<0.200 DLDS
Nitrate + Nitrite (as N)	mg/L	n/v	<0.10	<0.10	-	-	<0.10	<0.10	-	<0.10	<0.10	-	<0.10	<0.10	-	<0.10	<0.10	<0.10	-	-
Nitrite (as N)	mg/L	n/v	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.100 DLDS	0.166
pH, lab	S.U.	n/v	8.15	8.16	8.28	8.27	8.13	8.07	8.18	8.11	8.01	8.46	8.11	7.86	7.95	7.93	7.78	7.85	8.12	7.82
Phosphorus, Total	mg/L	n/v	0.015	0.011	0.0236	0.0234	0.25	0.043	0.146	0.058	0.062	0.185	0.066	0.038	0.322	0.20	0.15	0.039	0.131	0.162
Sulfate	mg/L	n/v	1.4	<1.0	<0.30	<0.30	3.7	2.2	1.87	<1.0	<1.0	<0.30	2.9	4.3	3.88	5.2	2.4	32	22.7	4.12
Total Dissolved Solids	mg/L	n/v	200	215	248	229	195	220	240	215	265	289	225	305	318	265	285	775	1,000	964
Total Kjeldahl Nitrogen	mg/L	n/v	0.28	0.25	0.248	0.283	0.22	<0.10	0.107	0.47	0.49	0.634	0.63	0.10	0.673	0.49	0.22	0.38	0.657	0.845
Total Suspended Solids	mg/L	n/v	38	23	20.5	24.9	120	2,800	985	150	66	524	350	130	324	420	290	560	110	134
Turbidity, Lab	NTU	n/v	20	50	49.0	49.7	8.3	94	273	180	68	336	35	80	131	19	4.6	8.6	249	406
Metals, Dissolved																				
Aluminum	µg/L	n/v	0.7	0.7	<1.0	<1.0	1.2	0.6	<1.0	1.5	1	1.3	2	0.9	1.4	1.6	1.2	42.2	4.2	6.8
Antimony	µg/L	1,600[A]	<0.1	<0.1	<0.10	<0.10	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10	0.2	<0.1	<0.10	<0.1	<0.1	1.5	0.72	0.15
Arsenic	µg/L	150[A]	0.4	0.3	0.28	0.31	1	0.5	0.72	1.2	1.1	1.28	1.4	0.8	1.63	2.1	2.3	14.3	9.28	4.49
Barium	µg/L	2,300[A]	41.7	40.1	40.8	41.2	29.3	23.9	27.9	45.2	44.7	45.9	56.7	22.6	23.2	28.6	28.9	108	151	150
Beryllium	µg/L	5.3[A]	<0.05	<0.05	<0.020	<0.020	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.020	<0.02
Bismuth	µg/L	n/v	<0.1	<0.1	<0.050	<0.050	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050	<0.1	<0.1	<0.1	<0.050	<0.05
Boron	µg/L	3,550[A]	29	27	28	27	10	8	<10	55	56	54	53	11	14	15	15	9	15	14
Cadmium	µg/L	0.21[A]	<0.01	<0.01	<0.0050	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	0.0057	<0.01	<0.01	<0.0050	<0.01	<0.01	0.02	0.0062	<0.005
Calcium	mg/L	n/v	56.4	53.8	57.4	58.7	63.7	60.7	64.7	33.9	34.0	32.6	37.4	89.3	79.6	90.7	90.0	173	186	183
Cesium	µg/L	n/v	<0.02	<0.02	0.013	0.013	<0.02	<0.02	<0.010	<0.02	<0.02	<0.010	<0.02	<0.02	<0.010	<0.02	<0.02	0.04	0.055	0.076
Chromium	µg/L	64[A]	<0.5	<0.5	<0.50	<0.50	<0.5	<0.5	<0.50	<0.5	<0.5	<0.50	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.50	<0.5
Cobalt	µg/L	5.2[A]	<0.05	<0.05	<0.10	<0.10	0.17	0.15	0.11	0.26	0.24	0.53	0.48	0.94	0.97	0.91	0.95	**556[A]**	**304[A]**	**19.9[A]**
Copper	µg/L	6.9[A]	0.9	0.4	0.33	<0.20	0.2	0.6	0.32	0.1	<0.1	<0.20	0.8	0.3	0.60	2	0.2	5.7	1.53	0.47
Iron	µg/L	n/v	4,530	5,340	4,750	5,140	1,460	1,580	3,800	503	553	841	246	51	114	12	<5	890	16,200	33,600
Lead	µg/L	2[A]	<0.05	<0.05	<0.050	<0.050	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050	<0.05	<0.05	0.33	<0.050	<0.05
Lithium	µg/L	n/v	5.3	5.1	5.1	4.9	1.7	1.3	1.3	8.6	8.7	9.2	9.1	5.4	6.1	6.9	6.9	5.1	8.0	6.7
Magnesium	mg/L	n/v	17.0	16.5	18.4	18.5	14.3	13.9	15.4	19.5	20.3	22.6	18.9	22.1	21.5	22.0	22.1	31.5	30.0	32.4
Manganese	µg/L	n/v	389	380	387	382	113	115	127	24.9	24.7	22.9	28.6	260	253	246	264	20,100	16,300	14,400
Mercury	µg/L	0.77[A]	<0.01	<0.01	<0.0050	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.0050	<0.005
Molybdenum	µg/L	730[A]	1.45	1.06	0.846	0.805	1.58	0.69	0.651	28.9	26.3	23.3	17.8	1.44	1.31	2.87	2.67	33.5	16.7	11
Nickel	µg/L	39[A]	0.1	<0.1	<0.50	<0.50	0.3	0.3	<0.50	0.2	0.2	<0.50	1.3	0.6	0.78	0.8	0.8	**147[A]**	**51.5[A]**	2.78
Phosphorus	µg/L	n/v	7	7	<50	<50	<5	<5	<50	26	28	<50	11	<5	<50	<5	<5	23	<50	132
Potassium	mg/L	n/v	2.95	2.81	2.94	2.98	1.62	1.24	1.36	3.47	3.58	3.37	3.85	1.96	1.88	3.16	3.06	1.96	3.41	3.73
Rubidium	µg/L	n/v	3.53	3.5	3.74	3.80	2.57	1.94	2.23	1.29	1.28	1.20	1.5	0.97	1.04	1.8	1.77	1.21	2.00	2.51
Selenium	µg/L	5[A]	<0.2	<0.2	<0.050	<0.050	<0.2	<0.2	<0.050	<0.2	<0.2	<0.050	<0.2	<0.2	<0.050	<0.2	<0.2	<0.2	0.064	0.342
Silicon	µg/L	n/v	5,460	4,350	5,100	5,160	6,100	4,880	5,910	4,830	5,060	5,930	4,970	6,570	7,780	7,820	7,290	5,030	5,970	6,770
Silver	µg/L	0.12[A]	<0.01	<0.01	<0.010	<0.010	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010	<0.01	<0.01	0.02	<0.010	<0.01
Sodium	mg/L	180[A]	9.78	9.53	9.67	9.71	4.87	3.65	4.05	25.6	27.3	25.1	27.2	5.04	5.23	5.47	5.43	9.89	15.0	12.0
Strontium	µg/L	n/v	539	547	555	570	59.8	58.8	61.9	252	260	287	243	151	163	134	134	347	393	385
Sulfur	µg/L	n/v	-	-	<500	<500	-	-	580	-	-	<500	-	-	1,530	-	-	-	11,200	2,330
Sulfur	mg/L	n/v	<0.5	<0.5	-	-	1.4	1.0	-	<0.5	<0.5	-	1.3	1.8	-	2.0	2.0	-	-	-
Tellurium	µg/L	n/v	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20	<0.1	<0.1	<0.1	<0.20	<0.2
Thallium	µg/L	40[A]	<0.005	<0.005	<0.010	<0.010	<0.005	<0.005	<0.010	<0.005	<0.005	<0.010	<0.005	0.01	<0.010	0.019	0.017	<0.005	0.015	<0.01
Thorium	µg/L	n/v	<0.2	<0.2	<0.10	<0.10	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10	<0.2	<0.2	-	<0.10	<0.1
Tin	µg/L	n/v	<0.1	<0.1	<0.10	<0.10	<0.1	<0.1	<0.10	0.6	0.5	0.27	0.3	<0.1	0.18	0.2	<0.1	0.3	0.34	<0.1
Titanium	µg/L	n/v	<0.5	<0.5	<0.30	<0.30	0.6	<0.5	<0.30	<0.5	<0.5	<0.30	<0.5	<0.5	<0.30	<0.5	<0.5	1.9	<0.30	<0.3
Tungsten	µg/L	n/v	3	3.2	2.45	2.37	<0.1	<0.1	<0.10	132	115	73.8	156	0.2	0.17	0.3	0.3	109	299	377
Uranium	µg/L	33[A]	0.37	0.05	0.097	0.094	0.22	0.13	0.116	0.1	0.08	0.035	0.15	1.1	1.01	1.38	1.46	5.41	1.86	0.416
Vanadium	µg/L	20[A]	<0.05	<0.05	<0.50	<0.50	0.05	<0.05	<0.50	<0.05	<0.05	<0.50	0.12	0.07	<0.50	0.23	0.19	0.88	<0.50	0.62
Zinc	µg/L	89[A]	4.3	10.1	2.2	1.0	9.6	**156[A]**	3.8	0.8	<0.5	1.1	2	1.5	1.4	3.1	1.7	32.3	**12,600[A]**	28
Zirconium	µg/L	n/v	<0.1	<0.1	<0.30	<0.30	<0.1	<0.1	<0.30	<0.1	<0.1	<0.30	<0.1	<0.1	<0.30	<0.1	<0.1	1.1	0.38	0.62

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Sample Location			MW25-BR-21				MW25-OB-21			MW26-OB2-23 (MW-O)			MW26-OB2-23 (MW-O)	MW26-OB1-23 (MW-O)		MW26-OB1-23 (MW-O)		MW27-BR-23		
Sample Date			5-Oct-23	3-Jun-24	24-Jul-24	24-Jul-24	5-Oct-23	3-Jun-24	24-Jul-24	4-Jun-24	4-Jun-24	25-Jul-24	23-Oct-23	4-Jun-24	25-Jul-24	23-Oct-23	23-Oct-23	25-May-24	16-Jul-24	1-Oct-24
Sample ID			MW25-BR-21	MW25-BR-21	DUPLICATE 4 GW	MW25-BR-21 (MW-E)	MW25-OB-21	MW25-OB-21	MW25-OB-21 (MW-E)	MW26-BR-21	Duplicate3	MW26-BR-21	MW26-BR-23	MW26-OB-21	MW26-OB-21	MW26-OB-23	Duplicate 7	MW27-BR-23	MW27-BR-23	MW27-BR-23 (MW-P)
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	ALS	ALS	BV	BV	ALS	BV	BV	ALS	BV	BV	ALS	BV	BV	BV	ALS	ALS
Laboratory Work Order			C3V4922	C4G9053	TY2408060	TY2408060	C3V4922	C4G9053	TY2408060	C4H0803	C4H0803	TY2408099	C3X4915	C4H0803	TY2408099	C3X4915	C3X4915	C4F9239	TY2407741	TY2411154
Laboratory Sample ID			XGE202	ZJC448	TY2408060-008	TY2408060-006	XGE201	ZJC449	TY2408060-005	ZJL534	ZJL532	TY2408099-012	XKL041	ZJL533	TY2408099-013	XKL040	XKL042	ZHA049	TY2407741-005	TY2411154-001
Sample Type	Units	MOE APV			Field Duplicate						Field Duplicate						Field Duplicate			
Metals, Total																				
Aluminum	µg/L	n/v	39.7	28	95.8	91.0	792	303	3,250	603	372	7,460	1,620	333	1,900	1,390	863	43.5	826	136
Antimony	µg/L	1,600[A]	<0.1	<0.1	0.16	0.16	<0.1	<0.1	<1.00 DLM	<0.1	<0.1	0.21	0.2	<0.1	0.38	<0.1	<0.1	1.3	1.18	0.49
Arsenic	µg/L	150[A]	0.7	0.7	0.70	0.81	2	2.1	3.97	1.1	1.5	2.96	1.7	1.3	3.74	3.4	2.2	13.6	13.6	5.42
Barium	µg/L	2,300[A]	43.8	41.1	42.2	42.8	42.6	32.7	57.2	46.9	47.3	100	71.9	26.1	37.7	42.9	37.6	109	170	154
Beryllium	µg/L	5.3[A]	<0.05	<0.05	<0.020	<0.020	0.07	<0.05	<0.200 DLM	<0.05	<0.05	0.268	0.07	<0.05	0.060	0.06	<0.05	<0.25	0.054	<0.02
Bismuth	µg/L	n/v	<0.1	<0.1	<0.050	<0.050	<0.1	<0.1	<0.500 DLM	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050	<0.1	<0.1	<0.5	<0.050	<0.05
Boron	µg/L	3,550[A]	28	27	30	26	14	9	<100 DLM	54	54	62	50	12	15	17	15	11	17	15
Cadmium	µg/L	0.21[A]	<0.005	<0.005	0.0053	<0.0050	0.053	0.015	0.0538	<0.005	<0.005	<0.0750	0.016	0.01	0.0259	0.037	0.024	<0.025	0.129	0.0259
Calcium	mg/L	n/v	55.8	54.9	61.3	59.9	123	85.9	162	43.2	40.2	101	63.9	100	103	136	117	183	192	190
Cesium	µg/L	n/v	<0.02	<0.02	0.021	0.020	0.13	0.06	0.234	0.07	0.05	0.688	0.17	0.04	0.160	0.13	0.09	<0.1	0.156	0.104
Chromium	µg/L	64[A]	<0.5	<0.5	<0.50	<0.50	3.1	1.2	7.66	2.8	1.7	22.2	7.7	1	4.49	3.9	2.6	<2.5	4.76	1.78
Cobalt	µg/L	5.2[A]	<0.05	<0.05	<0.10	<0.10	1.38	0.62	2.09	0.98	0.7	**7.18[A]**	2.38	1.4	1.94	1.82	1.67	**515[A]**	**303[A]**	**22.4[A]**
Copper	µg/L	6.9[A]	0.2	0.2	<0.50	<0.50	3.8	1.7	6.81	4.9	2.7	**44.0[A]**	**26.4[A]**	1.2	4.27	4.9	2.8	**11.7[A]**	**18.3[A]**	5.55
Iron	µg/L	n/v	5,320	6,990	6,930	7,100	6,890	6,960	12,200	1,980	1,370	11,200	3,730	536	2,300	1,860	1,260	1,410	21,500	37,600
Lead	µg/L	2[A]	0.12	0.11	0.183	0.816	1.73	0.69	**2.67[A]**	0.46	0.27	**3.80[A]**	1.41	0.39	1.25	1.51	0.93	0.43	1.61	0.588
Lithium	µg/L	n/v	5.3	5.1	5.1	3.9	3.2	1.9	<10.0 DLM	9.5	9.2	19.2	11.3	6.2	8.0	9.8	8.3	5.1	9.0	6.3
Magnesium	mg/L	n/v	17.0	17.2	18.7	19.7	30.7	21.9	42.0	22.7	21.6	39.4	23.5	25.3	29.6	36.4	31.3	29.8	31.8	33.3
Manganese	µg/L	n/v	394	399	399	435	219	160	270	56.1	44.7	259	113	308	280	256	277	19,900	16,200	15,200
Mercury	µg/L	0.77[A]	<0.01	<0.01	<0.0050	<0.0050	<0.01	<0.01	<0.0050	<0.01	0.04	0.0068	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.0050	<0.005
Molybdenum	µg/L	730[A]	1.36	0.99	0.763	0.704	0.36	0.29	0.718	28.8	27.8	25.4	17	1.03	1.46	1.31	1.34	29.1	17.5	9.39
Nickel	µg/L	39[A]	0.2	0.1	<0.50	<0.50	2.4	1.1	<5.00 DLM	2.2	1.5	15.3	6.8	1.4	3.15	3.2	2.5	**137[A]**	**56.1[A]**	3.86
Phosphorus	µg/L	n/v	16	18	<50	<50	306	116	569	71	52	334	103	49	149	175	118	31	139	208
Potassium	mg/L	n/v	2.98	2.92	2.97	2.99	1.78	1.34	2.30	3.60	3.64	5.66	4.23	2.07	2.53	3.35	2.98	1.8	3.83	3.84
Rubidium	µg/L	n/v	3.66	3.68	4.20	4.12	4.44	2.62	6.56	2.41	1.99	12.4	4.77	1.63	3.54	4.29	3.3	1.1	2.82	2.91
Selenium	µg/L	5[A]	0.2	0.27	<0.050	<0.050	0.16	0.05	<0.500 DLM	<0.05	0.05	<0.050	<0.05	<0.05	<0.050	0.07	0.07	<0.25	0.079	0.073
Silicon	µg/L	n/v	5,500	4,640	5,640	5,680	7,400	5,950	14,100	6,000	5,490	20,800	7,270	7,200	11,200	8,950	8,570	5,450	7,740	6,840
Silver	µg/L	0.12[A]	<0.01	<0.01	<0.010	<0.010	<0.01	<0.01	<0.100 DLM	<0.01	<0.01	**7.14[A]**	**1.06[A]**	0.01	0.056	0.02	0.02	<0.05	**1.70[A]**	**0.48[A]**
Sodium	mg/L	180[A]	9.83	9.94	9.68	10.0	4.84	3.86	4.26	26.9	26.8	26.6	27.4	5.23	5.58	5.81	5.40	9.36	17.9	13.9
Strontium	µg/L	n/v	552	556	575	576	95.1	73.8	121	268	262	360	252	163	174	159	148	328	428	385
Sulfur	µg/L	n/v	-	-	<500	<500	-	-	<5,000 DLM	-	-	<500	-	-	1,760	-	-	-	11,200	1,960
Sulfur	mg/L	n/v	0.6	<0.5	-	-	1.5	1.1	-	<0.5	<0.5	-	1.5	1.7	-	2.2	2.0	-	-	-
Tellurium	µg/L	n/v	<0.1	<0.1	<0.20	<0.20	<0.1	<0.1	<2.00 DLM	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20	<0.1	<0.1	<0.5	<0.20	<0.2
Thallium	µg/L	40[A]	0.009	0.005	<0.010	<0.010	0.029	0.017	<0.100 DLM	0.008	0.008	0.078	0.028	0.018	0.039	0.047	0.038	<0.025	0.088	<0.01
Thorium	µg/L	n/v	<0.2	<0.2	<0.10	<0.10	0.7	0.3	2.10	<0.2	<0.2	3.25	0.9	<0.2	0.70	0.3	0.2	-	0.76	0.14
Tin	µg/L	n/v	0.2	0.1	0.23	0.22	0.2	0.1	<1.00 DLM	0.4	0.8	2.17	0.3	<0.1	2.37	0.4	0.1	<0.5	1.43	0.5
Titanium	µg/L	n/v	2.6	1.8	4.68	4.35	52.7	22.6	281	35.4	23.2	520	85.2	20	130	67	50.2	<2.5	29.5	4.87
Tungsten	µg/L	n/v	2.8	2.7	2.27	2.14	<0.1	<0.1	<1.00 DLM	104	128	126	164	0.1	0.36	<0.1	0.1	107	369	389
Uranium	µg/L	33[A]	0.4	0.14	0.158	0.153	0.35	0.22	0.452	0.14	0.14	0.602	0.4	1.14	1.26	1.63	1.6	4.87	2.24	0.454
Vanadium	µg/L	20[A]	0.15	0.09	<0.50	<0.50	2.82	1.18	7.91	1.8	1.12	18.0	4.49	0.86	4.08	3.46	2.39	0.93	3.00	1.43
Zinc	µg/L	89[A]	**604[A]**	**456[A]**	**470[A]**	**481[A]**	**591[A]**	**365[A]**	**666[A]**	8.3	5.5	41.6	16.7	4	11.1	10.1	6.3	32.3	**13,900[A]**	**931[A]**
Zirconium	µg/L	n/v	0.1	<0.1	<0.20	<0.20	0.7	0.4	3.48	0.9	0.7	5.16	1.4	0.3	1.20	0.5	0.4	1	1.35	0.82

See notes on last page

Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Mine

Sample Location			MW28-BR-23			MW5-OB2-23		MW7-BR-23		MWS-14-01		MWS-14-02 (BR)			MWS-14-02 (OB)				MWS-14-03 OB1		
Sample Date			11-Jun-24	23-Jul-24	23-Jul-24	19-Oct-23	2-Nov-23	24-Oct-23	22-Sep-24	11-Oct-23	22-Sep-24	10-Oct-23	26-Jun-24	19-Aug-24	10-Oct-23	10-Oct-23	26-Jun-24	19-Aug-24	12-Oct-23	17-Jun-24	25-Jul-24
Sample ID			MW28-BR-23	DUPLICATE 3 GW	MW28-BR-23 (MW-Q)	MW5-OB2-23	MW5-OB2-23	MW7-BR-23	MW7-BR-23	MWS-14-01	MWS-14-01	MWS-14-02-BR	MWS-14-02 BR	MWS-14-02 BR	MWS-14-02-OB	Duplicate 2	MWS-14-02 OB	MWS-14-02 OB	MWS-14-03-OB1	MWS-14-03-OB1	MWS-14-03 OB1
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	ALS	ALS	BV	BV	BV	ALS	BV	ALS	BV	BV	ALS	BV	BV	BV	ALS	BV	BV	ALS
Laboratory Work Order			C4I1781	TY2408000	TY2408000	C3W8782	C3Y8402	C3X5415	TY2410770	C3V9592	TY2410770	C3V8570	C4K1225	TY2409199	C3V8570	C3V8570	C4K1225	TY2409199	C3V9672	C4I5776	TY2408099
Laboratory Sample ID			ZLS543	TY2408000-006	TY2408000-001	XJD235	XNJ114	XKN799	TY2410770-001	XHE882	TY2410770-002	XGZ406	ZPS805	TY2409199-001	XGZ405	XGZ401	ZPS806	TY2409199-002	XHF390	ZMP135	TY2408099-014
Sample Type	Units	MOE APV		Field Duplicate												Field Duplicate					
Field Parameters																					
pH, Field	S.U.	n/v	6.99	-	7.03	7.63	7.60	7.68	8.06	-	7.19	7.08	7.23	7.28	7.05	-	7.40	7.30	-	8.34	8.04
Temperature, Field	deg C	n/v	5.9	-	7.50	6.4	5.5	8.9	10.9	-	9.80	7.3	11.6	9.80	8.4	-	12.2	8.40	-	8.9	12.6
General Chemistry																					
Acidity as CaCO3	mg/L	n/v	24	2.3	3.2	6.6	-	5.2	<2.0	19	10.9	10	13	2.4	8.6	12	8.4	4.1	<5.0	<5.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	350	348	362	250	-	230	294	370	348	290	290	300	270	280	260	302	180	170	171
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	2.1	<2.0	<2.0	2.8	-	2.1	5.4	2.3	<2.0	2.0	1.6	<2.0	2.4	2.3	1.9	<2.0	1.8	2.6	7.8
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<2.0	<2.0	<1.0	-	<1.0	<2.0	<1.0	<2.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	n/v	350	348	362	250	-	230	299	370	348	290	290	300	270	290	260	302	180	170	179
Ammonia (as N)	mg/L	n/v	0.13	0.0308	0.0571	0.30	-	0.34	0.281	0.13	0.343	0.17	0.095	0.219	<0.050	<0.050	<0.050	0.0541	1.5	0.34	0.302
Ammonia, Un-ionized (Calculated)	mg/L	n/v	-	-	<0.0010	-	-	-	0.0063	-	<0.0010	-	-	<0.0010	-	-	-	<0.0010	-	-	0.0073
Chloride	mg/L	180[A]	3.3	8.36	9.39	8.8	-	<1.0	1.70	<1.0	0.14	<1.0	<1.0	0.40	<1.0	<1.0	<1.0	0.28	1.6	<1.0	1.43
Cyanide	mg/L	0.0052[A]	<0.00050	-	-	<0.00050	-	<0.00050	<0.0020	<0.00050 CYN	<0.0020	<0.00050 CYN	<0.00050	-	<0.00050	<0.00050	<0.00050	-	<0.00050	<0.00050	-
Cyanide (Free)	mg/L	n/v	<0.002	<0.0020	<0.0020	<0.002 ICB	-	<0.002 ICB	<0.0020	0.0026 ICB	<0.0020	0.0035 ICB	-	<0.0020	<0.002 ICB	<0.002 ICB	-	<0.0020	<0.002 ICB	<0.002 ICB	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Lab	µS/cm	n/v	701	576	591	494	-	490	481	682	563	540	547	522	512	542	509	491	338	311	311
Fluoride	mg/L	n/v	0.19	0.056	0.060	0.31	-	0.29	0.336	0.56	0.631	0.32	0.29	0.233	0.33	0.32	0.31	0.228	0.54	0.57	0.308
Hardness (as CaCO3)	mg/L	n/v	310	310	301	230	-	230	243	320	319	290	290	277	280	300	280	270	110	140	109
Nitrate (as N)	mg/L	n/v	<0.10	<0.020	<0.020	<0.10	-	<0.10	<0.020	<0.10	<0.020	<0.10	<0.10	<0.020	<0.10	<0.10	<0.10	<0.020	<0.10	<0.10	<0.020
Nitrate + Nitrite (as N)	mg/L	n/v	<0.10	-	-	<0.10	-	<0.10	-	<0.10	-	<0.10	<0.10	-	<0.10	<0.10	<0.10	-	<0.10	<0.10	-
Nitrite (as N)	mg/L	n/v	<0.010	<0.010	<0.010	<0.010	-	<0.010	<0.010	0.043	0.014	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH, lab	S.U.	n/v	7.80	8.16	8.20	8.08	-	7.99	8.31	7.82	7.88	7.86	7.78	8.08	7.97	7.94	7.88	7.85	8.03	8.22	8.44
Phosphorus, Total	mg/L	n/v	0.010	0.0067	0.0125	0.22	-	0.098	0.132	0.23	0.999	0.017	0.016	0.0339	0.066	0.051	0.024	1.12	0.026 DB	0.37 DB	0.0646
Sulfate	mg/L	n/v	27	4.65	4.72	4.2	-	26	39.1	2.2	1.51	4.9	6.5	5.60	7.4	7.0	11	9.12	<1.0	<1.0	<0.30
Total Dissolved Solids	mg/L	n/v	470	364	365	285	-	270	289	340	402	225	320	288	245	245	300	335	140	220	190
Total Kjeldahl Nitrogen	mg/L	n/v	0.22	0.122	0.131	0.69	-	0.35	0.854	0.13	0.630	0.25	0.13	0.287	0.14	0.11	<0.10	0.380	1.5	0.39	0.469
Total Suspended Solids	mg/L	n/v	53	3.5	8.1	1,300	-	220	225	860	1,900	6	6	16.3	120	120	62	3,810	180	130	116
Turbidity, Lab	NTU	n/v	20	4.17	13.3	26	-	11	183	24	1,120	5.4	9.5	18.7	8.4	36	17	2,080	50	370	96.7
Metals, Dissolved																					
Aluminum	µg/L	n/v	6.6	4.2	4.3	<2.5	-	4.6	5.7	101	7.6	1.7	1.8	2.5	0.9	0.6	0.6	1.2	1.2	688	1.8
Antimony	µg/L	1,600[A]	0.1	0.25	0.25	<0.5	-	0.3	<0.1	0.1	<0.1	<0.1	<0.1	<0.10	0.2	<0.1	<0.1	<0.10	<0.1	<0.5	<0.10
Arsenic	µg/L	150[A]	1.3	20.8 DTC	21.3 DTC	2.6	-	1	2.02	2.1	2.46	1.6	1.6	2.47	1	0.4	0.4	0.63	0.3	0.6	0.63
Barium	µg/L	2,300[A]	137	93.4	95.0	40	-	20.2	20.5	46.9	45.4	33.7	31.7	32.4	36.9	35.3	32.2	33.3	19.8	27	18.9
Beryllium	µg/L	5.3[A]	<0.05	<0.020	<0.020	<0.25	-	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.020	<0.05	<0.25	<0.020
Bismuth	µg/L	n/v	<0.1	<0.050	<0.050	<0.5	-	<0.1	<0.05	<0.1	<0.05	<0.1	<0.1	<0.050	<0.1	<0.1	<0.1	<0.050	<0.1	<0.5	<0.050
Boron	µg/L	3,550[A]	21	13	13	30	-	30	30	34	32	21	16	20	13	12	10	13	24	34	27
Cadmium	µg/L	0.21[A]	<0.01	<0.0050	<0.0050	<0.05	-	<0.01	<0.005	<0.01	<0.005	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.05	<0.0255 DLM
Calcium	mg/L	n/v	86.9	90.4	86.9	65.2	-	57.6	51.4	84.9	84.6	82.5	81.9	75.5	81.5	86.2	78.3	75.3	21.4	30.1	21.7
Cesium	µg/L	n/v	0.31	0.073	0.066	<0.1	-	0.37	0.234	<0.02	<0.01	0.03	0.03	0.024	<0.02	<0.02	<0.02	<0.010	<0.02	<0.1	<0.010
Chromium	µg/L	64[A]	<0.5	<0.50	<0.50	<2.5	-	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.50	<0.5	<2.5	<0.50
Cobalt	µg/L	5.2[A]	0.31	**31.2 DTC[A]**	**31.3 DTC[A]**	<0.25	-	0.08	<0.1	0.76	0.57	<0.05	0.08	0.10	0.06	<0.05	<0.05	0.13	0.14	0.5	0.12
Copper	µg/L	6.9[A]	0.1	<0.20	<0.20	0.6	-	<0.1	0.29	1	<0.2	0.1	0.4	0.80	0.9	<0.1	0.6	0.69	0.7	2.4	3.24 DTC
Iron	µg/L	n/v	162	798 DTC	824 DTC	40	-	176	1,830	329	412	1,110	1,210	1,470	276	408	410	361	1,460	2,020	231
Lead	µg/L	2[A]	<0.05	<0.050	<0.050	<0.25	-	<0.05	<0.05	0.12	<0.05	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05	<0.050	0.09	0.83	<0.050
Lithium	µg/L	n/v	4.3	3.0	3.0	13.5	-	12	14	8.3	8.2	8.1	7	7.0	6.6	7.1	6.1	6.0	5	4.9	4.2
Magnesium	mg/L	n/v	21.6	20.4	20.4	17.2	-	20.3	27.8	26.9	26.1	21.4	21.2	21.6	19.3	20.4	19.9	20.0	12.5	14.8	13.3
Manganese	µg/L	n/v	122	1,200	1,180	71	-	95.6	135	229	205	100	105	120	43.4	40	42.9	55.8	96.8	76	46.3
Mercury	µg/L	0.77[A]	<0.01	<0.0050	<0.0050	<0.01	-	<0.01	<0.005	<0.01	<0.005	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050
Molybdenum	µg/L	730[A]	1.22	1.74	1.70	1.15	-	14.3	16	3.41	2.98	1.22	1.14	1.11	1.6	1.19	1.5	1.68	24.5	8.21	25.2
Nickel	µg/L	39[A]	0.8	25.2 DTC	25.5 DTC	<0.5	-	1	<0.5	1.6	1.05	<0.1	<0.1	<0.50	0.4	0.1	0.2	<0.50	0.3	1	<0.50
Phosphorus	µg/L	n/v	<5	<50	<50	<25	-	7	<50	18	<50	21	19	<50	17	13	11	<50	<5	<25	<50
Potassium	mg/L	n/v	0.85	1.03	1.03	3.1	-	6.14	7.25	3.15	3.03	2.28	2.10	2.05	2.35	2.26	2.17	2.17	2.22	2.0	1.77
Rubidium	µg/L	n/v	1.51	0.94	0.96	1.2	-	7.21	6.49	1.8	1.51	1.14	1.07	1.06	1.62	1.29	1.26	1.50	1.36	1.9	0.96
Selenium	µg/L	5[A]	<0.2	0.051	<0.050	<1	-	<0.2	0.099	<0.2	0.309 DTSE	<0.2	<0.2	0.070	<0.2	<0.2	<0.2	<0.050	<0.2	<1	<0.050
Silicon	µg/L	n/v	6,930	6,280	6,260	8,140	-	5,080	2,930	6,710	7,510	7,940	7,290	7,980	6,450	6,930	5,960	6,740	2,600	3,950	2,360
Silver	µg/L	0.12[A]	<0.01	<0.010	<0.010	<0.05	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.010	<0.01	<0.05	<0.010
Sodium	mg/L	180[A]	12.2	5.76	5.74	10.7	-	15.7	17.8	24.8	25.6	8.01	6.04	6.02	5.23	4.07	5.87	8.09	30.2	28.8	27.3
Strontium	µg/L	n/v	288	186	179	183	-	295	293	238	225	173	168	158	124	132	125	111	135	156	156
Sulfur	µg/L	n/v	-	1,850	1,800	-	-	-	14,600	-	830	-	-	2,300	-	-	-	3,300	-	-	<500
Sulfur	mg/L	n/v	1.8	-	-	1.6	-	9.5	-	1.0	-	2.3	2.3	-	3.3	2.9	2.9	-	<0.5	<0.5	-
Tellurium	µg/L	n/v	<0.1	<0.20	<0.20	<0.5	-	<0.1	<0.2	<0.1	<0.2	<0.1	<0.1	<0.20	<0.1	<0.1	<0.1	<0.20	<0.1	<0.5	<0.20
Thallium	µg/L	40[A]	<0.005	<0.010	<0.010	<0.025	-	<0.005	<0.01	0.01	<0.01	<0.005	<0.005	<0.010	<0.005	<0.005	<0.005	<0.010	<0.005	<0.025	<0.010
Thorium	µg/L	n/v	<0.2	<0.10	<0.10	<1	-	<0.2	<0.1	<0.2	<0.1	<0.2	<0.2	<0.10	<0.2	<0.2	<0.2	<0.10	<0.2	<1	<0.10
Tin	µg/L	n/v	<0.1	0.15	0.16	<0.5	-	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.10	0.1	<0.1	<0.1	<0.10	0.2	<0.5	0.13
Titanium	µg/L	n/v	1.5	<0.30	<0.30	<2.5	-	<0.5	<0.3	8.4	<1.5 DLM	0.6	0.6	<0.30	0.5	0.6	<0.5	<0.30	<0.5	23.4	<0.30
Tungsten	µg/L	n/v	3.2	1.17	1.18	<0.5	-	126	192	<0.1	0.18	0.7	0.4	0.47	<0.1	<0.1	<0.1	<0.10	1.2	1.3	6.02
Uranium	µg/L	33[A]	1.04	1.68	1.71	<0.05	-	0.09	0.088	1.12	0.809	0.32	0.22	0.226	0.9	0.26	0.92	1.60	0.02	0.29	0.057
Vanadium	µg/L	20[A]	<0.05	<0.50	<0.50	<0.25	-	0.11	<0.5	0.35	<0.5	0.19	0.24	<0.50	<0.05	<0.05	<0.05	<0.50	<0.05	0.94	<0.50
Zinc	µg/L	89[A]	**8,540[A]**	10.0 DTC	10.3 DTC	**3,390[A]**	-	**2,720[A]**	2.7	3.6	1.1	0.6	1.9	2.7	6.1	1.9	2.5	2.6	2.1	5.4	1.8
Zirconium	µg/L	n/v	0.6	0.46	0.46	<0.5	-	<0.1	<0.3	0.4	<0.3	0.2	0.3	<0.30	<0.1	<0.1	<0.1	<0.30	<0.1	0.6	<0.30

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Summary of Groundwater Analytical Results - Groundwater
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Sample Location			MW28-BR-23			MW5-OB2-23		MW7-BR-23		MWS-14-01		MWS-14-02 (BR)			MWS-14-02 (OB)				MWS-14-03 OB1		
Sample Date			11-Jun-24	23-Jul-24	23-Jul-24	19-Oct-23	2-Nov-23	24-Oct-23	22-Sep-24	11-Oct-23	22-Sep-24	10-Oct-23	26-Jun-24	19-Aug-24	10-Oct-23	10-Oct-23	26-Jun-24	19-Aug-24	12-Oct-23	17-Jun-24	25-Jul-24
Sample ID			MW28-BR-23	DUPLICATE 3 GW	MW28-BR-23 (MW-Q)	MW5-OB2-23	MW5-OB2-23	MW7-BR-23	MW7-BR-23	MWS-14-01	MWS-14-01	MWS-14-02-BR	MWS-14-02 BR	MWS-14-02 BR	MWS-14-02-OB	Duplicate 2	MWS-14-02 OB	MWS-14-02 OB	MWS-14-03-OB1	MWS-14-03-OB1	MWS-14-03 OB1
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	ALS	ALS	BV	BV	BV	ALS	BV	ALS	BV	BV	ALS	BV	BV	BV	ALS	BV	BV	ALS
Laboratory Work Order			C4I1781	TY2408000	TY2408000	C3W8782	C3Y8402	C3X5415	TY2410770	C3V9592	TY2410770	C3V8570	C4K1225	TY2409199	C3V8570	C3V8570	C4K1225	TY2409199	C3V9672	C4I5776	TY2408099
Laboratory Sample ID			ZLS543	TY2408000-006	TY2408000-001	XJD235	XNJ114	XKN799	TY2410770-001	XHE882	TY2410770-002	XGZ406	ZPS805	TY2409199-001	XGZ405	XGZ401	ZPS806	TY2409199-002	XHF390	ZMP135	TY2408099-014
Sample Type				Field Duplicate												Field Duplicate					
Metals, Total																					
Aluminum	µg/L	n/v	80.8	62.0	75.9	1,780	-	1,180	8,060	2,320	3,490	21	8.6	404	234	219	91.7	7,960	439	2,670	891
Antimony	µg/L	1,600[A]	0.2	0.38	0.40	<0.5	-	0.2	0.63	0.1	0.36	<0.1	<0.1	0.72	0.1	<0.1	0.2	<0.50	<0.1	<0.5	0.19
Arsenic	µg/L	150[A]	4.6	4.85	7.75	12.6	-	2.4	13.3	4.3	4.99	1.7	2.5	11.6	1.2	0.8	0.9	3.09	0.5	1.7	0.76
Barium	µg/L	2,300[A]	142	84.3	96.6	61	-	26.7	64.4	70.8	79.7	33.6	32.8	49.1	38.9	38.7	34.2	98.6	26.1	81	29.1
Beryllium	µg/L	5.3[A]	<0.05	<0.020	<0.020	<0.25	-	<0.05	0.113	0.11	0.131	<0.05	<0.05	0.026	<0.05	<0.05	<0.05	0.383	<0.05	0.63	0.036
Bismuth	µg/L	n/v	<0.1	<0.050	<0.050	<0.5	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.050	<0.1	<0.1	<0.1	<0.250	<0.1	<0.5	<0.050
Boron	µg/L	3,550[A]	22	13	14	32	-	31	39	35	36	20	15	20	12	12	10	<50	25	34	28
Cadmium	µg/L	0.21[A]	<0.005	<0.0050	<0.0050	0.037	-	0.007	0.0377	0.083	0.0655	<0.005	<0.005	0.0231	0.013	<0.005	0.005	0.0854	0.007	0.084	<0.0325
Calcium	mg/L	n/v	89.4	97.7	91.8	116	-	57.0	68.9	172	140	78.6	79.1	80.9	91.7	91.1	78.7	277	26.3	93.2	26.6
Cesium	µg/L	n/v	0.33	0.059	0.072	0.2	-	0.58	0.903	0.22	0.336	0.03	0.03	0.146	0.04	0.03	<0.02	0.658	0.06	0.3	0.072
Chromium	µg/L	64[A]	<0.5	<0.50	<0.50	5.5	-	5.1	32.9	7.4	10.8	<0.5	<0.5	2.28	1	0.9	0.5	19.8	1.4	9.9	2.08
Cobalt	µg/L	5.2[A]	0.38	**12.8[A]**	**16.1[A]**	1.74	-	0.91	**5.72[A]**	3.17	3.24	0.06	0.1	0.38	0.34	0.26	0.13	4.93	0.46	3.95	0.57
Copper	µg/L	6.9[A]	0.8	<0.50	<0.50	6.2	-	5.2	**26.4[A]**	**13.8[A]**	**14.5[A]**	0.2	0.1	3.22	1.1	0.7	0.6	**13.7[A]**	1.8	**15[A]**	1.76
Iron	µg/L	n/v	485	386	518	3,100	-	2,130	17,200	3,420	5,050	1,130	1,500	4,670	643	686	324	10,300	3,450	14,500	2,280
Lead	µg/L	2[A]	0.51	0.069	0.076	**2.02[A]**	-	0.87	**3.97[A]**	**2.96[A]**	**2.54[A]**	<0.05	0.81	0.763	0.35	0.28	0.22	**5.43[A]**	0.64	**8.18[A]**	1.83
Lithium	µg/L	n/v	4.6	2.9	3.3	16.6	-	12.6	23.6	11.8	12.6	8.1	7.1	7.5	7	7.2	5.8	15.1	5.6	10.9	5.3
Magnesium	mg/L	n/v	22.0	20.5	20.0	28.5	-	22.6	38.5	45.4	40.4	20.9	21.8	22.8	22.8	22.9	19.6	85.2	13.4	31.0	14.0
Manganese	µg/L	n/v	125	898	938	191	-	131	338	422	387	102	115	130	74	63.4	34.3	410	125	419	78.5
Mercury	µg/L	0.77[A]	<0.01	<0.0050	<0.0050	<0.1	-	<0.01	<0.005	<0.1	<0.005	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.0050	<0.01	***<1.5***	<0.0050
Molybdenum	µg/L	730[A]	0.84	1.97	2.16	0.73	-	13.1	20.9	1.93	3.14	1.17	1.14	8.51	1.55	1.25	1.92	1.98	14.6	<0.25	26.3
Nickel	µg/L	39[A]	1	8.95	11.8	4.4	-	3.5	18.4	8.3	8.14	0.3	0.1	1.09	1	0.7	0.7	11.8	1.2	8.4	1.39
Phosphorus	µg/L	n/v	6	<50	<50	167	-	68	306	375	327	20	20	94	65	58	22	772	34	120	<50
Potassium	mg/L	n/v	0.85	0.824	0.873	3.4	-	6.14	9.09	3.65	3.90	2.26	2.18	2.27	2.39	2.36	2.32	4.24	2.51	3.1	2.09
Rubidium	µg/L	n/v	1.61	0.89	0.88	4.5	-	7.29	13	5.77	7.06	1.15	1.09	1.82	2.13	1.94	1.8	12.6	2.14	7.2	2.09
Selenium	µg/L	5[A]	0.08	<0.050	<0.050	<0.25	-	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05	<0.250	<0.05	<0.25	<0.050
Silicon	µg/L	n/v	7,070	6,360	6,570	10,900	-	6,450	17,100	10,200	14,600	7,570	6,840	8,870	6,430	6,590	5,720	20,800	3,320	8,190	4,320
Silver	µg/L	0.12[A]	<0.01	0.018	0.019	<0.05	-	**1.71[A]**	**14.7[A]**	<0.01	0.049	<0.01	<0.01	0.020	<0.01	<0.01	<0.01	<0.050	<0.01	<0.05	<0.010
Sodium	mg/L	180[A]	12.2	5.49	5.20	10.7	-	16.8	20.9	25.0	26.4	7.87	6.35	20.0	5.43	4.69	7.61	10.5	31.2	28.4	27.0
Strontium	µg/L	n/v	275	177	182	219	-	324	372	288	275	176	172	174	134	138	112	239	155	246	159
Sulfur	µg/L	n/v	-	1,910	2,010	-	-	-	17,400	-	<1,000	-	-	2,230	-	-	-	2,790	-	-	<500
Sulfur	mg/L	n/v	5.6	-	-	1.7	-	8.6	-	1.2	-	2.2	2.4	-	3.4	3.1	3.2	-	<0.5	<0.5	-
Tellurium	µg/L	n/v	<0.1	<0.20	<0.20	<0.5	-	<0.1	<0.4	<0.1	<0.4	<0.1	<0.1	<0.20	<0.1	<0.1	<0.1	<1.00	<0.1	<0.5	<0.20
Thallium	µg/L	40[A]	<0.005	<0.010	<0.010	0.036	-	0.008	0.095	0.088	0.083	<0.005	<0.005	<0.010	0.009	0.008	0.009	0.122	0.006	0.05	<0.010
Thorium	µg/L	n/v	<0.2	<0.10	<0.10	<1	-	0.3	1.44	1.2	1.55	<0.2	<0.2	0.18	<0.2	<0.2	<0.2	3.96	<0.2	1	0.58
Tin	µg/L	n/v	0.1	0.19	0.31	<0.5	-	1.1	2.42	0.1	0.5	<0.1	<0.1	0.39	0.1	<0.1	0.1	0.52	0.1	<0.5	0.28
Titanium	µg/L	n/v	4.7	1.28	1.65	90	-	45.1	594	127	248	1.8	1	22.9	18.7	17.5	7	683	24	55.9	54.4
Tungsten	µg/L	n/v	1.9	1.61	1.60	<0.5	-	133	282	<0.1	0.26	0.7	0.4	1.16	<0.1	<0.1	<0.1	<0.50	0.2	<0.5	5.42
Uranium	µg/L	33[A]	1.13	1.48	1.58	0.26	-	0.18	0.663	1.5	1.22	0.37	0.2	0.310	1.25	0.72	1.82	3.02	0.14	2.39	0.220
Vanadium	µg/L	20[A]	0.23	<0.50	<0.50	4.89	-	2.66	16.4	6.3	8.48	0.3	0.37	2.86	0.79	0.71	0.35	19.1	0.87	7.55	1.54
Zinc	µg/L	89[A]	**9,150[A]**	<3.0	<3.0	**3,260[A]**	-	**2,870[A]**	**2,050[A]**	20	21	1.6	2.1	19.1	7.9	4.9	6.4	26.5	3.2	30	4.4
Zirconium	µg/L	n/v	1.8	1.04	0.96	0.7	-	0.8	3.2	1.1	1.81	0.3	0.3	0.50	0.4	0.4	0.3	4.47	0.3	0.5	0.52

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Sample Location			MWS-14-03 OB2			MWS-14-04				MWS-14-06	MWS-14-07 BR				MWS-14-07 OB			
Sample Date			12-Oct-23	12-Jun-24	25-Jul-24	31-Oct-23	31-Oct-23	11-Jun-24	16-Jul-24	12-Oct-23	18-Oct-23	18-Oct-23	29-May-24	10-Jul-24	18-Oct-23	29-May-24	29-May-24	10-Jul-24
Sample ID			MWS14-03-OB2	MWS14-03-OB2	MWS-14-03 OB2	MWS-14-04	Duplicate 8	MWS-14-04	MWS-14-04	MWS-14-06	MWS-14-07BR	Duplicate 9	MWS-14-07-BR	MWS-14-07 BR	MWS-14-07OB	MWS-14-07-OB	Duplicate 1	MWS-14-07 OB
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	ALS	BV	BV	BV	ALS	BV	BV	BV	BV	ALS	BV	BV	BV	ALS
Laboratory Work Order			C3V9672	C4I2224	TY2408099	C3Y3918	C3Y3918	C4I1781	TY2407741	C3V9672	C3W8750	C3W8750	C4G3628	TY2407474	C3W8750	C4G3628	C4G3628	TY2407474
Laboratory Sample ID			XHF391	ZLV919	TY2408099-015	XMJ804	XMJ806	ZLS542	TY2407741-004	XHF392	XJD039	XJD037	ZHY392	TY2407474-004	XJD038	ZHY391	ZHY398	TY2407474-003
Sample Type	Units	MOE APV					Field Duplicate					Field Duplicate					Field Duplicate	
Field Parameters																		
pH, Field	S.U.	n/v	-	7.66	7.50	7.53	-	7.13	7.37	-	6.96	0	7.14	8.12	6.92	6.95	-	8.07
Temperature, Field	deg C	n/v	-	12.8	12.7	4.9	-	5.8	6.50	-	6.7	0	14.3	7.10	7.7	7.9	-	7.80
General Chemistry																		
Acidity as CaCO3	mg/L	n/v	10	6.6	2.6	13	19	25	7.6	17	26	15	14	4.8	14	13	14	6.3
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	270	260	298	320	320	340	346	280	370	320	320	338	290	300	300	299
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	2.2	2.9	<2.0	1.7	1.7	1.6	15.4	1.2	3.0	2.2	1.7	<2.0	1.3	1.6	1.5	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	n/v	270	260	298	320	320	340	361	280	380	320	320	338	290	300	300	299
Ammonia (as N)	mg/L	n/v	0.52	0.40	0.226	<0.050	<0.050	<0.050	0.157	<0.050	0.12	<0.050	0.078	0.116	<0.050	<0.050	<0.050	<0.0050
Ammonia, Un-ionized (Calculated)	mg/L	n/v	-	-	0.0016	-	-	-	<0.0010	-	-	-	-	0.0022	-	-	-	<0.0010
Chloride	mg/L	180[A]	<1.0	<1.0	0.52	1.8	2.4	4.2	2.52	83	<1.0	1.1	<1.0	0.64	<1.0	<1.0	<1.0	0.62
Cyanide	mg/L	0.0052[A]	<0.00050	<0.00050	-	0.00080	<0.00050	0.00081	<0.0020	<0.00050	<0.00050	<0.00050	<0.00050	-	<0.00050	<0.00050	<0.00050	-
Cyanide (Free)	mg/L	n/v	<0.002 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0050
Dissolved Organic Carbon (DOC)	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-	2.6	2.5	-	4.56
Electrical Conductivity, Lab	µS/cm	n/v	497	487	429	616	611	633	654	1,070	695	600	592	630	532	548	548	535
Fluoride	mg/L	n/v	0.44	0.42	0.429	0.16	0.17	0.13	0.081	0.12	0.11	<0.10	<0.10	0.057	<0.10	<0.10	<0.10	0.049
Hardness (as CaCO3)	mg/L	n/v	210	200	215	330	330	310	361	390	250	280	260	253	280	300	300	294
Nitrate (as N)	mg/L	n/v	0.12	0.18	0.082	0.11	0.12	<0.10	<0.040 DLDS	<0.10	<0.10	<0.10	<0.10	<0.020	<0.10	<0.10	<0.10	0.021
Nitrate + Nitrite (as N)	mg/L	n/v	0.18	0.18	-	0.11	0.12	<0.10	-	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10	<0.10	-
Nitrite (as N)	mg/L	n/v	0.055	<0.010	<0.010	<0.010	<0.010	<0.010	<0.020 DLDS	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH, lab	S.U.	n/v	7.94	8.08	8.08	7.76	7.76	7.69	8.39	7.65	7.93	7.87	7.76	8.07	7.69	7.77	7.72	7.95
Phosphorus, Total	mg/L	n/v	1.6	1.6 DB	1.18	0.058	0.061	0.016	0.0764	0.085	0.0049	0.0012	0.0043	0.0103	0.0079	0.0025	<0.0010	0.200
Sulfate	mg/L	n/v	1.6	4.1	1.19	15	15	4.2	31.1	140	14	10	11	12.2	5.4	6.7	6.9	4.56
Total Dissolved Solids	mg/L	n/v	245	290	300	305	325	395	432	540	405	340	360	346	295	295	280	395
Total Kjeldahl Nitrogen	mg/L	n/v	0.62	0.70	<0.500 DLM	0.11	0.21	0.13	0.167	0.26	0.41	0.14	0.17	0.309	0.18	0.16	<0.10	0.155
Total Suspended Solids	mg/L	n/v	700	9,100	4,200	93	86	44	56.6	4,200	67	200	6	154	32	8	3	38.3
Turbidity, Lab	NTU	n/v	62	100	3,340	17	11	3.9	48.6	31	16	1.9	4.9	12.5	0.2	5.8	0.9	48.9
Metals, Dissolved																		
Aluminum	µg/L	n/v	<0.5	1.0	<1.0	1.2	0.8	3.8	<1.0	1.5	2.9	1.7	2.6	3.6	1.4	1.2	2.5	1.8
Antimony	µg/L	1,600[A]	<0.1	0.4	0.10	0.3	0.4	0.4	0.16	<0.1	<0.1	0.1	0.2	0.11	<0.1	<0.1	<0.1	<0.10
Arsenic	µg/L	150[A]	5	2.5	2.91	2.7	3	5.2	4.39	18.1	2.7	1.4	1.5	2.89	1.2	1.3	1.4	1.73
Barium	µg/L	2,300[A]	21.7	29.1	25.5	137	138	56	172	59.4	19.5	17.2	19.3	20.7	17.6	16.5	16.6	18.8
Beryllium	µg/L	5.3[A]	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	<0.020
Bismuth	µg/L	n/v	<0.1	<0.1	<0.050	<0.1	<0.1	<0.1	<0.050	<0.1	<0.1	<0.1	<0.1	<0.050	<0.1	<0.1	<0.1	<0.050
Boron	µg/L	3,550[A]	19	23	18	21	20	11	17	30	20	8	21	26	5	5	4	<10
Cadmium	µg/L	0.21[A]	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	0.0206	<0.01	<0.01	<0.01	<0.01	<0.0050	0.01	<0.01	<0.01	0.0068
Calcium	mg/L	n/v	56.2	49.4	56.5	94.3	93.5	93.2	102	122	75.7	84.0	77.6	74.8	83.9	90.2	91.1	87.2
Cesium	µg/L	n/v	0.02	0.02	0.011	0.28	0.27	0.04	0.270	0.15	0.12	0.07	0.1	0.100	0.06	0.05	0.05	0.036
Chromium	µg/L	64[A]	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5	<0.50
Cobalt	µg/L	5.2[A]	0.07	0.32	<0.10	0.07	0.08	**12.8[A]**	1.18	3.54	0.6	0.38	0.5	0.76	0.07	0.13	0.12	0.12
Copper	µg/L	6.9[A]	0.7	0.4	0.23	1.4	0.7	1.8	0.62	0.3	0.3	0.7	0.9	0.36	2.5	1.2	1	1.46
Iron	µg/L	n/v	270	<5	286	43	24	230	2,030	3,390	1,030	355	606	1,200	7	28	22	<10
Lead	µg/L	2[A]	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05	<0.05	<0.050	<0.05	<0.05	<0.05	<0.050
Lithium	µg/L	n/v	7.7	9.7	7.5	3.9	3.9	2.9	4.3	3.2	2.7	1.8	2.5	2.9	1.5	1.5	1.5	1.9
Magnesium	mg/L	n/v	18.1	18.9	17.9	23.4	23.0	19.4	25.9	21.8	15.9	17.2	16.9	15.9	17.7	18.6	18.4	18.4
Manganese	µg/L	n/v	74.8	58.7	68.6	24	21.6	818	208	1,120	135	49.7	125	164	9	8.2	7.5	16.3
Mercury	µg/L	0.77[A]	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	-
Molybdenum	µg/L	730[A]	2.12	2.96	2.06 DTC	2.36	2.39	2.11	1.72	2.34	2.71	1	2.48	3.08	0.41	0.41	0.39	0.693
Nickel	µg/L	39[A]	0.3	1.1	<0.50	0.7	0.7	14.9	1.06	1.7	2.3	2.7	2.5	2.16	2	2.3	2.1	1.56
Phosphorus	µg/L	n/v	24	10	<50	<5	<5	<5	<50	<5	<5	<5	<5	<50	<5	<5	<5	<50
Potassium	mg/L	n/v	1.00	16.20	1.17	0.96	0.96	0.77	0.900	3.02	1.58	1.36	1.55	1.69	1.17	1.04	1.03	1.56
Rubidium	µg/L	n/v	1.09	2.25	0.99	1.46	1.51	0.91	1.44	3.33	2.98	2.98	2.67	2.79	3.22	2.59	2.52	2.45
Selenium	µg/L	5[A]	<0.2	<0.2	<0.050	<0.2	<0.2	<0.2	<0.050	<0.2	<0.2	<0.2	<0.2	0.225 DTSE	<0.2	<0.2	<0.2	0.095
Silicon	µg/L	n/v	8,300	8,370	8,760	7,070	7,080	5,880	7,820	5,830	5,350	5,140	5,440	6,060	4,690	4,960	4,950	5,540
Silver	µg/L	0.12[A]	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.01	<0.010	<0.01	<0.01	<0.01	<0.010
Sodium	mg/L	180[A]	25.1	37.1	22.6	6.37	6.28	5.23	6.72	26.8	39.0	11.4	40.2	49.5	2.23	2.55	2.44	6.65
Strontium	µg/L	n/v	226	217	203	271	271	178	305	325	103	86.1	101	108	73.3	75.7	74.6	76.9
Sulfur	µg/L	n/v	-	-	<500	-	-	-	11,800	-	-	-	-	4,880	-	-	-	1,920
Sulfur	mg/L	n/v	<0.5	0.6	-	5.9	6.1	5.2	-	30	4.2	2.8	4.1	-	1.9	2.1	2.1	-
Tellurium	µg/L	n/v	<0.1	<0.1	<0.20	<0.1	<0.1	<0.1	<0.20	<0.1	<0.1	<0.1	<0.1	<0.20	<0.1	<0.1	<0.1	<0.20
Thallium	µg/L	40[A]	<0.005	0.019	<0.010	<0.005	<0.005	<0.005	0.014	0.009	<0.005	<0.005	<0.005	<0.010	0.008	0.005	0.005	<0.010
Thorium	µg/L	n/v	<0.2	<0.2	<0.10	<0.2	<0.2	<0.2	<0.10	<0.2	<0.2	<0.2	<0.2	<0.10	<0.2	<0.2	<0.2	<0.10
Tin	µg/L	n/v	<0.1	<0.1	<0.10	0.1	<0.1	<0.1	<0.10	<0.1	<0.1	<0.1	<0.1	<0.10	<0.1	<0.1	<0.1	<0.10
Titanium	µg/L	n/v	<0.5	0.5	<0.30	0.7	0.5	<0.5	<0.30	<0.5	<0.5	<0.5	<0.5	<0.30	<0.5	<0.5	<0.5	<0.30
Tungsten	µg/L	n/v	0.2	<0.1	<0.10	0.6	0.6	1.7	1.65	0.8	1.9	0.8	1.9	2.09	<0.1	<0.1	<0.1	<0.10
Uranium	µg/L	33[A]	0.39	1.60	0.307	2.25	2.24	1.77	1.04	2.83	1.22	0.66	1.3	1.37	0.39	0.41	0.4	0.423
Vanadium	µg/L	20[A]	0.06	1.69	<0.50	0.06	<0.05	0.3	<0.50	0.18	0.29	0.13	0.16	<0.50	0.1	0.11	0.11	<0.50
Zinc	µg/L	89[A]	1.5	<0.5	1.0	4.3	3.5	2.4	**6,150[A]**	**156[A]**	1.9	2.1	5.7	4.6	2.8	1.9	1.4	2.3
Zirconium	µg/L	n/v	<0.1	<0.1	<0.30	0.5	0.5	1.1	0.62	0.8	0.9	0.3	0.7	0.76	0.2	0.2	0.2	<0.30

See notes on last page

Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Mine

Sample Location			MWS-14-03 OB2			MWS-14-04				MWS-14-06	MWS-14-07 BR				MWS-14-07 OB			
Sample Date			12-Oct-23	12-Jun-24	25-Jul-24	31-Oct-23	31-Oct-23	11-Jun-24	16-Jul-24	12-Oct-23	18-Oct-23	18-Oct-23	29-May-24	10-Jul-24	18-Oct-23	29-May-24	29-May-24	10-Jul-24
Sample ID			MWS14-03-OB2	MWS14-03-OB2	MWS-14-03 OB2	MWS-14-04	Duplicate 8	MWS-14-04	MWS-14-04	MWS-14-06	MWS-14-07BR	Duplicate 9	MWS-14-07-BR	MWS-14-07 BR	MWS-14-07OB	MWS-14-07-OB	Duplicate 1	MWS-14-07 OB
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	ALS	BV	BV	BV	ALS	BV	BV	BV	BV	ALS	BV	BV	BV	ALS
Laboratory Work Order			C3V9672	C4I2224	TY2408099	C3Y3918	C3Y3918	C4I1781	TY2407741	C3V9672	C3W8750	C3W8750	C4G3628	TY2407474	C3W8750	C4G3628	C4G3628	TY2407474
Laboratory Sample ID			XHF391	ZLV919	TY2408099-015	XMJ804	XMJ806	ZLS542	TY2407741-004	XHF392	XJD039	XJD037	ZHY392	TY2407474-004	XJD038	ZHY391	ZHY398	TY2407474-003
Sample Type	Units	MOE APV					Field Duplicate					Field Duplicate					Field Duplicate	
Metals, Total																		
Aluminum	µg/L	n/v	2,210	4,000	19,500	741	751	204	1,390	1,060	14.5	15.9	9.7	66.0	149	14.9	3.9	1,570
Antimony	µg/L	1,600[A]	0.1	<0.5	<1.00 DLM	0.9	0.5	0.6	0.88	<0.5	0.2	0.2	0.3	0.60	0.1	<0.1	<0.1	0.46
Arsenic	µg/L	150[A]	6.7	6.9	15.4	**167[A]**	5.5	13.5	8.80	17.9	4.7	2.3	2.5	4.90	8.1	2	1.3	11.2
Barium	µg/L	2,300[A]	67.3	157	519	133	170	62.6	217	81	22.3	17.6	19.8	23.6	24.9	16.2	15.9	33.8
Beryllium	µg/L	5.3[A]	0.56	3.37	3.23	0.13	0.17	<0.05	0.171	<0.25	<0.05	<0.05	<0.05	<0.020	<0.05	<0.05	<0.05	0.041
Bismuth	µg/L	n/v	<0.1	<0.5	1.45	<0.1	<0.1	<0.1	<0.050	<0.5	<0.1	<0.1	<0.1	<0.050	<0.1	<0.1	<0.1	<0.100 DLM
Boron	µg/L	3,550[A]	24	39	<100 DLM	24	19	12	19	31	28	10	25	28	6	4	4	<20 DLM
Cadmium	µg/L	0.21[A]	0.053	0.126	**0.264[A]**	0.022	0.015	<0.005	0.0127	0.047	<0.005	0.007	0.008	0.0284	0.025	0.014	0.01	0.0863
Calcium	mg/L	n/v	113	287	333	87.8	101	94.2	106	133	68.3	80.9	74.5	73.0	86.0	88.9	89.5	108
Cesium	µg/L	n/v	0.24	0.3	1.80	0.67	0.89	0.07	1.44	0.3	0.12	0.08	0.1	0.096	0.08	0.05	0.05	0.338
Chromium	µg/L	64[A]	3.7	6.5	31.8	2.2	2.3	0.9	3.84	<2.5	0.5	<0.5	<0.5	0.81	0.7	<0.5	<0.5	6.48
Cobalt	µg/L	5.2[A]	1.69	5.07	**9.81[A]**	0.78	1.19	**24.7[A]**	2.51	5	0.88	0.52	0.61	1.92	0.93	0.28	0.11	**5.75[A]**
Copper	µg/L	6.9[A]	4	**8[A]**	**24.6[A]**	**8.3[A]**	6.7	1	5.76	4.9	1.8	2.6	2.9	**10.9[A]**	4.4	2.7	2.2	**17.4[A]**
Iron	µg/L	n/v	3,550	13,700	25,300	1,800	1,760	696	6,110	7,860	1,780	521	870	1,010	587	74	19	3,190
Lead	µg/L	2[A]	**8.84[A]**	**19.5[A]**	**47.3[A]**	**3.05[A]**	**5.38[A]**	0.49	**4.95[A]**	**4.52[A]**	0.13	0.14	0.14	0.595	0.41	0.06	<0.05	**2.36[A]**
Lithium	µg/L	n/v	12.2	18.7	32.3	4.9	4.7	3.3	5.2	4.4	3.2	2	2.8	2.4	1.8	1.5	1.5	3.4
Magnesium	mg/L	n/v	31.8	71.5	87.0	24.5	23.9	20.6	27.4	24.5	15.1	17.5	16.8	17.1	18.1	18.8	18.4	26.1
Manganese	µg/L	n/v	232	727	918	47.8	85.5	897	240	1,240	196	61.8	155	173	290	42.3	12.7	580
Mercury	µg/L	0.77[A]	<0.1	***<1.5***	0.0098	<0.01	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	-
Molybdenum	µg/L	730[A]	1.4	0.51	1.24	2.07	0.81	2.71	2.49	0.94	4.08	1.24	2.94	4.10	0.6	0.37	0.35	0.973
Nickel	µg/L	39[A]	4.2	10.2	22.0	3.7	4.6	33.9	5.58	5.2	2.2	2.9	2.6	4.81	3	2.5	2.2	12.1
Phosphorus	µg/L	n/v	464	1,680	1,490	50	43	19	78	129	8	<5	5	<50	18	<5	<5	151
Potassium	mg/L	n/v	2.41	3.8	6.84	1.29	1.03	0.87	1.17	3.0	1.70	1.42	1.78	1.85	1.58	1.04	1.00	1.98
Rubidium	µg/L	n/v	6.83	12.6	33.7	2.34	2.68	1.07	3.35	5.2	2.98	3	2.71	2.91	3.37	2.56	2.65	5.12
Selenium	µg/L	5[A]	<0.05	<0.25	<0.500 DLM	0.81	0.42	<0.05	1.33	0.4	<0.05	0.09	0.06	0.077	0.08	0.09	0.09	0.184
Silicon	µg/L	n/v	11,700	18,800	47,000	8,060	8,070	5,980	10,800	7,570	5,190	4,980	5,380	5,840	5,070	4,790	4,970	8,150
Silver	µg/L	0.12[A]	<0.01	<0.05	**0.216[A]**	**0.37[A]**	**0.6[A]**	<0.01	**0.332[A]**	<0.05	<0.05	<0.01	<0.01	0.015	<0.01	<0.01	<0.01	0.030
Sodium	mg/L	180[A]	37.7	49.4	38.1	6.83	6.21	4.79	7.07	25.7	58.8	14.8	50.3	59.2	4.60	2.46	2.05	6.87
Strontium	µg/L	n/v	264	413	582	268	275	177	318	323	112	89.6	102	98.4	77.6	74.9	76	96.9
Sulfur	µg/L	n/v	-	-	<5,000 DLM	-	-	-	12,000	-	-	-	-	5,300	-	-	-	1,830
Sulfur	mg/L	n/v	1.1	2.8	-	10	6.3	1.7	-	34	5.2	2.9	4.7	-	2.2	2.2	2.2	-
Tellurium	µg/L	n/v	<0.1	<0.5	<2.00 DLM	<0.1	<0.1	<0.1	<0.20	<0.5	<0.1	<0.1	<0.1	<0.20	<0.1	<0.1	<0.1	<0.40 DLM
Thallium	µg/L	40[A]	0.045	0.049	0.437	0.007	0.014	<0.005	0.028	0.034	<0.005	<0.005	<0.005	<0.010	0.011	0.007	0.005	0.027
Thorium	µg/L	n/v	5.6	2	47.5	0.7	1	<0.2	0.94	<1	<0.2	<0.2	<0.2	<0.10	<0.2	<0.2	<0.2	0.51
Tin	µg/L	n/v	<0.1	<0.5	<1.00 DLM	0.2	0.2	0.2	0.27	<0.5	0.3	0.2	0.2	0.48	0.2	<0.1	<0.1	0.97
Titanium	µg/L	n/v	73.2	79.3	308	32.4	37.8	2.3	76.2	44	1.8	1.6	0.6	4.07	11.3	1.2	<0.5	116
Tungsten	µg/L	n/v	<0.1	<0.5	<1.00 DLM	0.7	0.4	2.3	2.83	<0.5	3.1	1.1	2.3	2.80	<0.1	<0.1	<0.1	<0.20 DLM
Uranium	µg/L	33[A]	3.36	7.47	14.8	2.8	2.64	2.67	1.49	3.59	1.69	0.77	1.4	2.09	0.42	0.38	0.37	0.609
Vanadium	µg/L	20[A]	4.44	13.4	**32.6[A]**	1.62	2.1	0.85	3.50	2.2	0.54	0.25	0.27	0.66	0.6	0.14	0.11	5.05
Zinc	µg/L	89[A]	13.5	32.6	78.7	19.4	8.4	3.6	**6,180[A]**	**2,600[A]**	2.9	3.5	6.9	25.3	6.7	1.9	1.4	23.3
Zirconium	µg/L	n/v	1	1	<2.00 DLM	5.9	5.8	0.8	15.4	2.3	1.3	0.4	0.8	0.78	0.4	0.2	0.2	0.97

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Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
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Sample Location			SEEP 3	SEEP 6		SEEP 9		SEEP 10	Field Blank			Trip Blank		
Sample Date			19-Oct-23	1-Nov-23	1-Nov-23	19-Oct-23	19-Oct-23	24-Oct-23	10-Oct-23	6-Jun-24	24-Jul-24	11-Oct-23	5-Jun-24	17-Jul-24
Sample ID			Seep 3	SEEP 6	Duplicate 10	Seep 9	Duplicate 5	Seep 10	Field Blank	Field blank	FIELD BLANK 1 GW	TRIP BLANK	TRIP BLANK	TRAVEL BLANK 1
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	BV	BV	BV	BV	BV	BV	ALS	BV	BV	ALS
Laboratory Work Order			C3W8782	C3Y5682	C3Y5682	C3W8782	C3W8782	C3X5415	C3V8570	C4H5675	TY2408060	C3V9592	C4H5525	TY2407798
Laboratory Sample ID			XJD241	XMT582	XMT581	XJD238	XJD242	XKN801	XGZ411	ZKL349	TY2408060-002	XHE884	ZKK841	TY2407798-005
Sample Type	Units	MOE APV			Field Duplicate		Field Duplicate		Field Blank	Field Blank	Field Blank	Trip Blank	Trip Blank	Trip Blank
Field Parameters														
pH, Field	S.U.	n/v	6.94	-	0	7.84	-	6.83	-	-	-	-	-	-
Temperature, Field	deg C	n/v	8.6	-	0	7.2	-	6.3	-	-	-	-	-	-
General Chemistry														
Acidity as CaCO3	mg/L	n/v	13	78	84	8.0	9.0	42	<5.0	<5.0	<2.0	<5.0	<5.0	<2.0
Alkalinity, Bicarbonate (as CaCO3)	mg/L	n/v	150	460	460	250	250	370	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0
Alkalinity, Carbonate (as CaCO3)	mg/L	n/v	<1.0	<1.0	1.1	2.4	2.4	1.6	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0
Alkalinity, Hydroxide (as CaCO3)	mg/L	n/v	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0
Alkalinity, Total (as CaCO3)	mg/L	n/v	150	460	460	260	250	370	<1.0	<1.0	<2.0	<1.0	<1.0	<2.0
Ammonia (as N)	mg/L	n/v	0.45	0.93	0.91	0.084	0.071	0.37	<0.050	<0.050	0.0270	<0.050	<0.050	<0.0050
Ammonia, Un-ionized (Calculated)	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Chloride	mg/L	180[A]	3.7	2.6	2.3	10	10	**410[A]**	<1.0	<1.0	<0.10	<1.0	<1.0	<0.10
Cyanide	mg/L	0.0052[A]	0.00080	**0.0140[A]**	**0.0150[A]**	0.00173	0.00278	**0.134[A]**	<0.00050	0.00089	-	<0.00050	<0.00050	-
Cyanide (Free)	mg/L	n/v	<0.002 ICB	0.0059 ICB	0.0066 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.002 ICB	<0.0020	<0.002 ICB	<0.002 ICB	<0.0020
Dissolved Organic Carbon (DOC)	mg/L	n/v	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity, Lab	µS/cm	n/v	336	3,640	3,630	3,130	3,130	4,200	1	0.9	<1.0	1	1.1	1.1
Fluoride	mg/L	n/v	<0.10	0.24	0.21	0.17	0.16	0.16	<0.10	<0.10	<0.020	<0.10	<0.10	<0.020
Hardness (as CaCO3)	mg/L	n/v	170	2,400	2,500	2,100	2,100	1,800	<1.0	<1.0	<0.50	<1.0	<1.0	<0.50
Nitrate (as N)	mg/L	n/v	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.020	<0.10	<0.10	<0.020
Nitrate + Nitrite (as N)	mg/L	n/v	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10	-
Nitrite (as N)	mg/L	n/v	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pH, lab	S.U.	n/v	7.47	7.34	7.40	8.00	8.01	7.66	5.84	6.06	5.73	5.81	5.91	5.51
Phosphorus, Total	mg/L	n/v	0.028	0.47	0.43	0.047	0.25	47 DB	<0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010
Sulfate	mg/L	n/v	15	2,000	2,000	1,800	1,800	1,400	<1.0	<1.0	<0.30	<1.0	<1.0	<0.30
Total Dissolved Solids	mg/L	n/v	270	3,610	3,660	2,960	2,690	3,390	<10	<10	<10	<10	<10	<10
Total Kjeldahl Nitrogen	mg/L	n/v	0.71	1.8	1.6	0.94	0.94	1.6	<0.10	<0.10	<0.050	<0.10	<0.10	<0.050
Total Suspended Solids	mg/L	n/v	18	32	34	10	20	5,600	<1	<1	<3.0	<1	<1	<3.0
Turbidity, Lab	NTU	n/v	3.6	37	55	7.5	8.6	24	0.1	<0.1	<0.10	0.1	<0.1	<0.10
Metals, Dissolved														
Aluminum	µg/L	n/v	5.3	<25	<2.5	<5	<5	2.6	<0.5	<0.5	<1.0	0.8	0.5	<1.0
Antimony	µg/L	1,600[A]	<0.5	<5	<0.5	<1	<1	<0.5	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10
Arsenic	µg/L	150[A]	110	**5,470[A]**	**5,400[A]**	**1,070[A]**	**1,020[A]**	**1,350[A]**	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10
Barium	µg/L	2,300[A]	15	20	19	11	11	44	<0.2	<0.2	0.26 RRV	<0.2	<0.2	<0.10
Beryllium	µg/L	5.3[A]	<0.25	<2.5	<0.25	<0.5	<0.5	<0.25	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020
Bismuth	µg/L	n/v	<0.5	<5	<0.5	<1	<1	<0.5	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050
Boron	µg/L	3,550[A]	5	140	144	120	120	64	<1	<1	<10	<1	<1	<10
Cadmium	µg/L	0.21[A]	<0.05	***<0.5***	<0.05	<0.1	<0.1	<0.05	<0.01	<0.01	<0.0050	<0.01	<0.01	<0.0050
Calcium	mg/L	n/v	51.3	538	557	446	453	454	<0.02	<0.02	<0.050	<0.02	<0.02	<0.050
Cesium	µg/L	n/v	<0.1	<1	<0.1	<0.2	<0.2	<0.1	<0.02	<0.02	<0.010	<0.02	<0.02	<0.010
Chromium	µg/L	64[A]	<2.5	<25	<2.5	<5	<5	<2.5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.50
Cobalt	µg/L	5.2[A]	0.48	**16.4[A]**	**17.5[A]**	3.2	3.3	1.07	<0.05	<0.05	<0.10	<0.05	<0.05	<0.10
Copper	µg/L	6.9[A]	1.1	<5	<0.5	<1	<1	0.6	<0.1	<0.1	1.65 RRV	<0.1	<0.1	<0.20
Iron	µg/L	n/v	1,510	8,190	8,930	190	170	961	<5	<5	<10	<5	<5	<10
Lead	µg/L	2[A]	<0.25	***<2.5***	<0.25	<0.5	<0.5	<0.25	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050
Lithium	µg/L	n/v	<2.5	28	29.4	17	16	10.7	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0
Magnesium	mg/L	n/v	10.4	254	262	245	247	170	<0.005	<0.005	<0.0050	<0.005	<0.005	<0.0050
Manganese	µg/L	n/v	151	1,090	1,170	146	150	649	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10
Mercury	µg/L	0.77[A]	<0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.0050	<0.01	<0.01	-
Molybdenum	µg/L	730[A]	<0.25	3	4.81	1.1	1.1	<0.25	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050
Nickel	µg/L	39[A]	1.2	6	11	2	2	0.7	<0.1	<0.1	<0.50	<0.1	<0.1	<0.50
Phosphorus	µg/L	n/v	<25	<250	<25	<50	<50	28	<5	<5	<50	<5	<5	<50
Potassium	mg/L	n/v	0.8	45	48.4	33.0	32.3	29.8	<0.02	<0.02	<0.050	<0.02	<0.02	<0.050
Rubidium	µg/L	n/v	1.9	6	6.6	7.1	7.2	6.7	<0.02	<0.02	<0.20	<0.02	<0.02	<0.20
Selenium	µg/L	5[A]	<1	***<10***	<1	<2	<2	<1	<0.2	<0.2	<0.050	<0.2	<0.2	<0.050
Silicon	µg/L	n/v	2,740	8,920	9,680	7,110	7,160	8,840	<5	<5	<50	<5	<5	<50
Silver	µg/L	0.12[A]	<0.05	***<0.5***	<0.05	<0.1	<0.1	<0.05	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010
Sodium	mg/L	180[A]	2.51	13.1	13.8	13.8	13.8	**342[A]**	<0.01	<0.01	0.073 RRV	<0.01	<0.01	<0.050
Strontium	µg/L	n/v	58.4	3,590	3,820	2,740	2,720	2,320	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20
Sulfur	µg/L	n/v	-	-	-	-	-	-	-	-	<500	-	-	<500
Sulfur	mg/L	n/v	5.1	680	680	620	620	480	<0.5	<0.5	-	<0.5	<0.5	-
Tellurium	µg/L	n/v	<0.5	<5	<0.5	<1	<1	<0.5	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20
Thallium	µg/L	40[A]	<0.025	<0.25	<0.025	<0.05	<0.05	<0.025	<0.005	<0.005	<0.010	<0.005	<0.005	<0.010
Thorium	µg/L	n/v	<1	<10	<1	<2	<2	<1	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10
Tin	µg/L	n/v	<0.5	<5	<0.5	<1	<1	<0.5	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10
Titanium	µg/L	n/v	<2.5	<25	<2.5	<5	<5	<2.5	<0.5	<0.5	<0.30	<0.5	<0.5	<0.30
Tungsten	µg/L	n/v	<0.5	<5	<0.5	<1	<1	0.5	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10
Uranium	µg/L	33[A]	0.08	0.6	0.71	0.7	0.7	0.09	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010
Vanadium	µg/L	20[A]	<0.25	<2.5	<0.25	<0.5	<0.5	<0.25	<0.05	<0.05	<0.50	<0.05	<0.05	<0.50
Zinc	µg/L	89[A]	10.8	<25	<2.5	<5	<5	3.3	0.6	<0.5	<1.0	<0.5	<0.5	<1.0
Zirconium	µg/L	n/v	<0.5	<5	<0.5	<1	<1	<0.5	<0.1	<0.1	<0.30	<0.1	<0.1	<0.30

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Table C-5-1
Summary of Groundwater Analytical Results - Groundwater
2024 Fish and Fish Habitat Federal EIS Follow-Up Monitoring Report
Greenstone Mine

Sample Location			SEEP 3	SEEP 6		SEEP 9		SEEP 10	Field Blank			Trip Blank		
Sample Date			19-Oct-23	1-Nov-23	1-Nov-23	19-Oct-23	19-Oct-23	24-Oct-23	10-Oct-23	6-Jun-24	24-Jul-24	11-Oct-23	5-Jun-24	17-Jul-24
Sample ID			Seep 3	SEEP 6	Duplicate 10	Seep 9	Duplicate 5	Seep 10	Field Blank	Field blank	FIELD BLANK 1 GW	TRIP BLANK	TRIP BLANK	TRAVEL BLANK 1
Sampling Company			GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM	GGM
Laboratory			BV	BV	BV	BV	BV	BV	BV	BV	ALS	BV	BV	ALS
Laboratory Work Order			C3W8782	C3Y5682	C3Y5682	C3W8782	C3W8782	C3X5415	C3V8570	C4H5675	TY2408060	C3V9592	C4H5525	TY2407798
Laboratory Sample ID			XJD241	XMT582	XMT581	XJD238	XJD242	XKN801	XGZ411	ZKL349	TY2408060-002	XHE884	ZKK841	TY2407798-005
Sample Type	Units	MOE APV			Field Duplicate		Field Duplicate		Field Blank	Field Blank	Field Blank	Trip Blank	Trip Blank	Trip Blank
Metals, Total														
Aluminum	µg/L	n/v	8.6	4.9	<2.5	22	277	465	<0.5	<0.5	<3.0	<0.5	<0.5	<3.0
Antimony	µg/L	1,600[A]	0.2	<0.5	<0.5	<1	<1	<1	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10
Arsenic	µg/L	150[A]	148	**7,590[A]**	**6,570[A]**	**1,680[A]**	**3,700[A]**	**59,700[A]**	<0.1	<0.1	<0.10	<0.1	<0.1	0.23 RRV
Barium	µg/L	2,300[A]	16.3	20	19	10	17	235	<0.2	<0.2	0.26 RRV	<0.2	<0.2	<0.10
Beryllium	µg/L	5.3[A]	<0.05	<0.25	<0.25	<0.5	<0.5	<0.5	<0.05	<0.05	<0.020	<0.05	<0.05	<0.020
Bismuth	µg/L	n/v	<0.1	<0.5	<0.5	<1	<1	<1	<0.1	<0.1	<0.050	<0.1	<0.1	<0.050
Boron	µg/L	3,550[A]	5	131	131	120	110	70	<1	<1	<10	<1	<1	<10
Cadmium	µg/L	0.21[A]	<0.005	<0.025	<0.025	<0.05	<0.05	0.06	<0.005	<0.005	<0.0050	<0.005	<0.005	<0.0050
Calcium	mg/L	n/v	54.1	565	550	457	479	527	<0.02	<0.02	<0.050	<0.02	<0.02	<0.050
Cesium	µg/L	n/v	<0.02	<0.1	<0.1	<0.2	<0.2	<0.2	<0.02	<0.02	<0.010	<0.02	<0.02	<0.010
Chromium	µg/L	64[A]	<0.5	<2.5	<2.5	<5	<5	<5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.50
Cobalt	µg/L	5.2[A]	0.5	**17.5[A]**	**17.2[A]**	3.4	3.9	4.1	<0.05	<0.05	<0.10	<0.05	<0.05	<0.10
Copper	µg/L	6.9[A]	0.6	<0.5	<0.5	<1	2	4	<0.1	<0.1	1.56 RRV	0.1	<0.1	<0.50
Iron	µg/L	n/v	2,130	11,000	10,000	2,140	6,800	180,000	<5	<5	<10	<5	<5	<10
Lead	µg/L	2[A]	0.08	<0.25	<0.25	<0.5	0.6	1.8	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050
Lithium	µg/L	n/v	1.3	29.8	29.8	17	18	12	<0.5	<0.5	<1.0	<0.5	<0.5	<1.0
Magnesium	mg/L	n/v	11.2	270	267	241	249	167	<0.005	<0.005	<0.0050	<0.005	<0.005	<0.0050
Manganese	µg/L	n/v	156	1,200	1,150	156	190	1,890	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10
Mercury	µg/L	0.77[A]	<0.1	<0.01	<0.01	<0.01	<0.01	***<1.5***	<0.01	<0.01	<0.0050	<0.01	<0.01	-
Molybdenum	µg/L	730[A]	0.13	4.72	4.61	1.1	1.2	<0.5	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050
Nickel	µg/L	39[A]	1.2	11.4	11.2	2	3	6	<0.1	<0.1	<0.50	<0.1	<0.1	<0.50
Phosphorus	µg/L	n/v	19	<25	<25	<50	<50	1,800	<5	<5	<50	<5	<5	<50
Potassium	mg/L	n/v	0.91	48.2	47.6	32.2	34.1	28.0	<0.02	<0.02	<0.050	<0.02	<0.02	<0.050
Rubidium	µg/L	n/v	2.05	6.7	6.5	6.8	8.1	6.8	<0.02	<0.02	<0.20	<0.02	<0.02	<0.20
Selenium	µg/L	5[A]	0.07	<0.25	<0.25	<0.5	<0.5	<0.5	<0.05	<0.05	<0.050	<0.05	<0.05	<0.050
Silicon	µg/L	n/v	3,240	9,680	9,650	7,500	8,180	14,200	<5	<5	<100	<5	<5	<100
Silver	µg/L	0.12[A]	<0.01	<0.05	<0.05	<0.1	<0.1	<0.1	<0.01	<0.01	<0.010	<0.01	<0.01	<0.010
Sodium	mg/L	180[A]	2.75	13.6	13.4	13.6	14.4	**292[A]**	<0.01	<0.01	0.073 RRV	<0.01	<0.01	<0.050
Strontium	µg/L	n/v	62.6	4,040	3,890	2,710	2,860	3,020	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20
Sulfur	µg/L	n/v	-	-	-	-	-	-	-	-	<500	-	-	<500
Sulfur	mg/L	n/v	5.2	720	700	630	610	500	<0.5	<0.5	-	<0.5	<0.5	-
Tellurium	µg/L	n/v	<0.1	<0.5	<0.5	<1	<1	<1	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20
Thallium	µg/L	40[A]	<0.005	<0.025	<0.025	<0.05	<0.05	<0.05	<0.005	<0.005	<0.010	<0.005	<0.005	<0.010
Thorium	µg/L	n/v	<0.2	<1	<1	<2	<2	<2	<0.2	<0.2	<0.10	<0.2	<0.2	<0.10
Tin	µg/L	n/v	<0.1	<0.5	<0.5	<1	<1	<1	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10
Titanium	µg/L	n/v	<0.5	<2.5	<2.5	<5	15	14	<0.5	<0.5	<0.30	<0.5	<0.5	<0.30
Tungsten	µg/L	n/v	<0.1	<0.5	<0.5	<1	<1	2	<0.1	<0.1	<0.10	<0.1	<0.1	<0.10
Uranium	µg/L	33[A]	0.09	0.7	0.7	0.7	0.7	0.2	<0.01	<0.01	<0.010	<0.01	0.01	<0.010
Vanadium	µg/L	20[A]	0.12	<0.25	<0.25	<0.5	0.9	3.5	<0.05	<0.05	<0.50	<0.05	<0.05	<0.50
Zinc	µg/L	89[A]	3.9	<2.5	<2.5	<5	10	37	<0.5	<0.5	<3.0	<0.5	<0.5	<3.0
Zirconium	µg/L	n/v	<0.1	<0.5	<0.5	<1	<1	2	<0.1	<0.1	<0.20	<0.1	<0.1	<0.20

Notes:

MOE APV	MOE - Aquatic Protection Values (APV) to Protect Aquatic Biota Exposed to Contaminants from Migration of Contaminated Groundwater to Surface Water.
[A]	Aquatic Toxicity Data Screening - Table 3.1 - Aquatic Protection Values
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
-	Placeholder for negative vaules when importing with Equis
AS	Detection limit raised due to sample matrix.
CYN	SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.
DB	Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids/Electrical Conductivity.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
DTSE	Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.
ICB	Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
MI	Detection limits raised due to matrix interference.
RRV	Reported result verified by repeat analysis.
TMV	Turbidity exceeded upper limit of the nephelometric method. Minimum value reproted.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 779566

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/19
Report #: R7868413
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V4896
Received: 2023/10/06, 16:58

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	4	N/A	2023/10/17	ATL SOP-00205	SM 24 2310B m
Alkalinity	4	N/A	2023/10/17	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	4	N/A	2023/10/17	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	4	N/A	2023/10/17	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	4	N/A	2023/10/17	CAM SOP-00414	SM 23 2510 m
Fluoride	4	2023/10/12	2023/10/17	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2023/10/18	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	4	2023/10/12	2023/10/13	CAM SOP-00453	EPA 7470 m
Mercury (low level)	4	2023/10/12	2023/10/13	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	4	2023/10/12	2023/10/17	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	4	N/A	2023/10/17	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	4	N/A	2023/10/17	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	4	2023/10/15	2023/10/17	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	4	N/A	2023/10/17	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	4	2023/10/17	2023/10/17	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	4	2023/10/17	2023/10/18	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	4	N/A	2023/10/13	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	4	N/A	2023/10/18	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	4	2023/10/12	2023/10/17	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (4)	4	N/A	2023/10/11		Field pH Meter
Sulphate by Automated Turbidimetry	4	N/A	2023/10/16	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	4	2023/10/12	2023/10/13	CAM SOP-00428	SM 23 2540C m
Field Temperature (4)	4	N/A	2023/10/11		Field Thermometer
Total Kjeldahl Nitrogen in Water	3	2023/10/12	2023/10/13	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	1	2023/10/12	2023/10/16	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	2	2023/10/13	2023/10/13	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	2	2023/10/13	2023/10/16	CAM SOP-00428	SM 23 2540D m
Turbidity	4	N/A	2023/10/12	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 779566

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/19
Report #: R7868413
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V4896

Received: 2023/10/06, 16:58

(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C3V4896
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGE119	XGE120			XGE121	XGE122		
Sampling Date		2023/10/05 13:40	2023/10/05 14:04			2023/10/05 14:36	2023/10/05 15:16		
COC Number		779566	779566			779566	779566		
	UNITS	MW1-OB-14	MW1-BR-14	RDL	QC Batch	MW2-OB-13	MW18-BR-21	RDL	QC Batch
Calculated Parameters									
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	370	320	1.0	8972318	250	160	1.0	8972318
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.7	2.7	1.0	8972318	3.4	2.6	1.0	8972318
Hardness (CaCO3)	mg/L	430	680	1.0	8972316	250	120	1.0	8972316
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	<1.0	1.0	8972318	<1.0	<1.0	1.0	8972318
Field Measurements									
Field Temperature	Celsius	14.9	15.2	N/A	ONSITE	14.8	15.2	N/A	ONSITE
Field Measured pH	pH	6.80	7.37		ONSITE	7.39	7.93		ONSITE
Inorganics									
Acidity	mg/L	53	16	5.0	8984954	11	<5.0	5.0	8984954
Total Ammonia-N	mg/L	<0.050	<0.050	0.050	8976800	<0.050	<0.050	0.050	8976800
Conductivity	mS/cm	1.12	1.45	0.001	8977717	0.464	0.327	0.001	8977717
Free Cyanide (CN)	ug/L	5.9 (1)	4.9 (1)	2.0	8987987	7.3 (1)	4.5 (1)	2.0	8987987
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050 (2)	<0.00050 (2)	0.00050	8987901	<0.00050 (2)	<0.00050 (2)	0.00050	8987901
Total Dissolved Solids	mg/L	580	915	10	8975742	250	190	10	8975742
Fluoride (F-)	mg/L	0.10	<0.10	0.10	8977716	<0.10	0.11	0.10	8977716
Total Kjeldahl Nitrogen (TKN)	mg/L	0.28	0.34	0.10	8976184	0.36	0.26	0.10	8976184
pH	pH	7.69	7.94		8977719	8.17	8.22		8977719
Total Phosphorus (P)	mg/L	0.026	0.0027	0.0010	8990095	0.021	0.077	0.0010	8990095
Total Suspended Solids	mg/L	99	11	1	8978039	420	210	3	8978073
Dissolved Sulphate (SO4)	mg/L	1.4	330	1.0	8977682	2.2	11	1.0	8977682
Turbidity	NTU	190	15	0.1	8977320	2.1	31	0.1	8977320
Alkalinity (Total as CaCO3)	mg/L	370	320	1.0	8977715	250	170	1.0	8977715
Dissolved Chloride (Cl-)	mg/L	140	97	1.0	8977676	2.2	<1.0	1.0	8977676
Nitrite (N)	mg/L	<0.010	0.012	0.010	8976708	<0.010	<0.010	0.010	8977686
Nitrate (N)	mg/L	<0.10	<0.10	0.10	8976708	0.13	<0.10	0.10	8977686
Nitrate + Nitrite (N)	mg/L	<0.10	<0.10	0.10	8976708	0.13	<0.10	0.10	8977686

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4896
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE119			XGE119			XGE120		
Sampling Date		2023/10/05 13:40			2023/10/05 13:40			2023/10/05 14:04		
COC Number		779566			779566			779566		
	UNITS	MW1-OB-14	RDL	QC Batch	MW1-OB-14 Lab-Dup	RDL	QC Batch	MW1-BR-14	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0041	0.0005	8985096				0.0006	0.0005	8985096
. Aluminum (Al)	mg/L	0.0633	0.0005	8985100	0.0629	0.0005	8985100	0.0085	0.0005	8985100
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	8985096				0.0001	0.0001	8985096
. Antimony (Sb)	mg/L	<0.0001	0.0001	8985100	<0.0001	0.0001	8985100	0.0002	0.0001	8985100
Dissolved Arsenic (As)	mg/L	0.0262	0.0001	8985096				0.0020	0.0001	8985096
. Arsenic (As)	mg/L	0.0435	0.0001	8985100	0.0430	0.0001	8985100	0.0047	0.0001	8985100
Dissolved Barium (Ba)	mg/L	0.0319	0.0002	8985096				0.0402	0.0002	8985096
. Barium (Ba)	mg/L	0.0363	0.0002	8985100	0.0354	0.0002	8985100	0.0405	0.0002	8985100
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	8985096				<0.00005	0.00005	8985096
. Beryllium (Be)	mg/L	<0.00005	0.00005	8985100	<0.00005	0.00005	8985100	<0.00005	0.00005	8985100
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	8985096				<0.0001	0.0001	8985096
. Bismuth (Bi)	mg/L	<0.0001	0.0001	8985100	<0.0001	0.0001	8985100	<0.0001	0.0001	8985100
Dissolved Boron (B)	mg/L	0.011	0.001	8985096				0.111	0.001	8985096
. Boron (B)	mg/L	0.010	0.001	8985100	0.010	0.001	8985100	0.110	0.001	8985100
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	8985096				<0.00001	0.00001	8985096
. Cadmium (Cd)	mg/L	0.000008	0.000005	8985100	0.000006	0.000005	8985100	0.000006	0.000005	8985100
Dissolved Calcium (Ca)	mg/L	131	0.1	8985096				202	0.1	8985096
. Calcium (Ca)	mg/L	134	0.1	8985100	133	0.1	8985100	185	0.1	8985100
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	8985096				0.00013	0.00002	8985096
. Cesium (Cs)	mg/L	<0.00002	0.00002	8985100	<0.00002	0.00002	8985100	0.00014	0.00002	8985100
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	8985096				<0.0005	0.0005	8985096
. Chromium (Cr)	mg/L	0.0005	0.0005	8985100	0.0005	0.0005	8985100	<0.0005	0.0005	8985100
Dissolved Cobalt (Co)	mg/L	0.00070	0.00005	8985096				0.00085	0.00005	8985096
. Cobalt (Co)	mg/L	0.00076	0.00005	8985100	0.00079	0.00005	8985100	0.00078	0.00005	8985100
Dissolved Copper (Cu)	mg/L	0.0009	0.0001	8985096				<0.0001	0.0001	8985096
. Copper (Cu)	mg/L	0.0007	0.0001	8985100	0.0008	0.0001	8985100	0.0002	0.0001	8985100
Dissolved Iron (Fe)	mg/L	9.83	0.025	8985096				0.675	0.005	8985096
. Iron (Fe)	mg/L	12.7	0.025	8985100	12.7	0.025	8985100	1.50	0.005	8985100
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	8985096				<0.00005	0.00005	8985096
. Lead (Pb)	mg/L	0.00012	0.00005	8985100	0.00013	0.00005	8985100	<0.00005	0.00005	8985100

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4896
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE119			XGE119			XGE120		
Sampling Date		2023/10/05 13:40			2023/10/05 13:40			2023/10/05 14:04		
COC Number		779566			779566			779566		
	UNITS	MW1-OB-14	RDL	QC Batch	MW1-OB-14 Lab-Dup	RDL	QC Batch	MW1-BR-14	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0037	0.0005	8985096				0.0046	0.0005	8985096
. Lithium (Li)	mg/L	0.0039	0.0005	8985100	0.0038	0.0005	8985100	0.0058	0.0005	8985100
Dissolved Magnesium (Mg)	mg/L	24.2	0.005	8985096				42.9	0.025	8985096
. Magnesium (Mg)	mg/L	24.0	0.005	8985100	24.1	0.005	8985100	40.1	0.025	8985100
Dissolved Manganese (Mn)	mg/L	0.585	0.0002	8985096				0.248	0.0002	8985096
. Manganese (Mn)	mg/L	0.599	0.0002	8985100	0.600	0.0002	8985100	0.247	0.0002	8985100
Mercury (Hg)	ug/L	<0.01	0.01	8976029				<0.01	0.01	8976029
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8976040				<0.01	0.01	8976040
Dissolved Molybdenum (Mo)	mg/L	0.00053	0.00005	8985096				0.00116	0.00005	8985096
. Molybdenum (Mo)	mg/L	0.00045	0.00005	8985100	0.00045	0.00005	8985100	0.00296	0.00005	8985100
Dissolved Nickel (Ni)	mg/L	0.0007	0.0001	8985096				0.0018	0.0001	8985096
. Nickel (Ni)	mg/L	0.0008	0.0001	8985100	0.0008	0.0001	8985100	0.0015	0.0001	8985100
Dissolved Phosphorus (P)	mg/L	0.008	0.005	8985096				<0.005	0.005	8985096
. Phosphorus (P)	mg/L	0.047	0.005	8985100	0.046	0.005	8985100	0.009	0.005	8985100
Dissolved Potassium (K)	mg/L	1.38	0.02	8985096				2.40	0.02	8985096
. Potassium (K)	mg/L	1.37	0.02	8985100	1.37	0.02	8985100	2.33	0.02	8985100
Dissolved Rubidium (Rb)	mg/L	0.00116	0.00002	8985096				0.00957	0.00002	8985096
. Rubidium (Rb)	mg/L	0.00132	0.00002	8985100	0.00128	0.00002	8985100	0.00829	0.00002	8985100
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	8985096				<0.0002	0.0002	8985096
. Selenium (Se)	mg/L	<0.00005	0.00005	8985100	<0.00005	0.00005	8985100	<0.00005	0.00005	8985100
Dissolved Silicon (Si)	mg/L	9.04	0.025	8985096				5.03	0.025	8985096
. Silicon (Si)	mg/L	9.16	0.025	8985100	9.07	0.025	8985100	5.00	0.025	8985100
Dissolved Silver (Ag)	mg/L	0.00001	0.00001	8985096				0.00001	0.00001	8985096
. Silver (Ag)	mg/L	<0.00001	0.00001	8985100	<0.00001	0.00001	8985100	0.00002	0.00001	8985100
Dissolved Sodium (Na)	mg/L	69.4	0.05	8985096				59.4	0.01	8985096
. Sodium (Na)	mg/L	68.0	0.05	8985100	68.1	0.05	8985100	61.2	0.05	8985100
Dissolved Strontium (Sr)	mg/L	0.174	0.0001	8985096				0.246	0.0001	8985096
. Strontium (Sr)	mg/L	0.181	0.0001	8985100	0.181	0.0001	8985100	0.243	0.0001	8985100
Dissolved Sulphur (S)	mg/L	<0.5	0.5	8976942				110	0.5	8976942
Total Sulphur (S)	mg/L	<0.5	0.5	8982373				110	0.5	8982373
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	8985096				<0.0001	0.0001	8985096

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE119			XGE119			XGE120		
Sampling Date		2023/10/05 13:40			2023/10/05 13:40			2023/10/05 14:04		
COC Number		779566			779566			779566		
	UNITS	MW1-OB-14	RDL	QC Batch	MW1-OB-14 Lab-Dup	RDL	QC Batch	MW1-BR-14	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	8985100	<0.0001	0.0001	8985100	<0.0001	0.0001	8985100
Dissolved Thallium (Tl)	mg/L	0.000006	0.000005	8985096				0.000009	0.000005	8985096
. Thallium (Tl)	mg/L	<0.000005	0.000005	8985100	<0.000005	0.000005	8985100	0.000008	0.000005	8985100
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	8985096				<0.0002	0.0002	8985096
. Thorium (Th)	mg/L	<0.0002	0.0002	8985100	<0.0002	0.0002	8985100	<0.0002	0.0002	8985100
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	8985096				<0.0001	0.0001	8985096
. Tin (Sn)	mg/L	<0.0001	0.0001	8985100	<0.0001	0.0001	8985100	<0.0001	0.0001	8985100
Dissolved Titanium (Ti)	mg/L	0.0009	0.0005	8985096				0.0006	0.0005	8985096
. Titanium (Ti)	mg/L	0.0062	0.0005	8985100	0.0063	0.0005	8985100	0.0009	0.0005	8985100
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	8985096				0.0007	0.0001	8985096
. Tungsten (W)	mg/L	<0.0001	0.0001	8985100	<0.0001	0.0001	8985100	0.0012	0.0001	8985100
Dissolved Uranium (U)	mg/L	0.00009	0.00001	8985096				0.00365	0.00001	8985096
. Uranium (U)	mg/L	0.00010	0.00001	8985100	0.00010	0.00001	8985100	0.00441	0.00001	8985100
Dissolved Vanadium (V)	mg/L	0.00053	0.00005	8985096				<0.00005	0.00005	8985096
. Vanadium (V)	mg/L	0.00121	0.00005	8985100	0.00122	0.00005	8985100	<0.00005	0.00005	8985100
Dissolved Zinc (Zn)	mg/L	0.0018	0.0005	8985096				<0.0005	0.0005	8985096
. Zinc (Zn)	mg/L	0.0024	0.0005	8985100	0.0026	0.0005	8985100	0.0006	0.0005	8985100
Dissolved Zirconium (Zr)	mg/L	0.0008	0.0001	8985096				0.0004	0.0001	8985096
. Zirconium (Zr)	mg/L	0.0015	0.0001	8985100	0.0015	0.0001	8985100	0.0003	0.0001	8985100

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE121		XGE122		
Sampling Date		2023/10/05 14:36		2023/10/05 15:16		
COC Number		779566		779566		
	UNITS	MW2-OB-13	RDL	MW18-BR-21	RDL	QC Batch
Metals						
Dissolved Aluminum (Al)	mg/L	0.0158	0.0005	0.0028	0.0005	8985096
. Aluminum (Al)	mg/L	0.897	0.0005	0.852	0.0005	8985100
Dissolved Antimony (Sb)	mg/L	0.0003	0.0001	0.0002	0.0001	8985096
. Antimony (Sb)	mg/L	0.0005	0.0001	0.0004	0.0001	8985100
Dissolved Arsenic (As)	mg/L	0.0023	0.0001	0.0479	0.0001	8985096
. Arsenic (As)	mg/L	0.0062	0.0001	0.0594	0.0005	8985100
Dissolved Barium (Ba)	mg/L	0.0249	0.0002	0.0484	0.0002	8985096
. Barium (Ba)	mg/L	0.0378	0.0002	0.0695	0.0002	8985100
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	8985096
. Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	8985100
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	8985096
. Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	8985100
Dissolved Boron (B)	mg/L	0.011	0.001	0.016	0.001	8985096
. Boron (B)	mg/L	0.010	0.001	0.013	0.001	8985100
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00001	0.00001	8985096
. Cadmium (Cd)	mg/L	0.000036	0.000005	0.000083	0.000005	8985100
Dissolved Calcium (Ca)	mg/L	76.4	0.1	39.4	0.1	8985096
. Calcium (Ca)	mg/L	108	0.1	49.7	0.1	8985100
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	0.00004	0.00002	8985096
. Cesium (Cs)	mg/L	0.00016	0.00002	0.00073	0.00002	8985100
Dissolved Chromium (Cr)	mg/L	0.0009	0.0005	<0.0005	0.0005	8985096
. Chromium (Cr)	mg/L	0.0045	0.0005	0.0025	0.0005	8985100
Dissolved Cobalt (Co)	mg/L	0.00013	0.00005	0.00017	0.00005	8985096
. Cobalt (Co)	mg/L	0.00140	0.00005	0.00587	0.00005	8985100
Dissolved Copper (Cu)	mg/L	0.0016	0.0001	0.0003	0.0001	8985096
. Copper (Cu)	mg/L	0.0070	0.0001	0.0104	0.0001	8985100
Dissolved Iron (Fe)	mg/L	0.435	0.005	0.093	0.005	8985096
. Iron (Fe)	mg/L	1.84	0.005	2.20	0.005	8985100
Dissolved Lead (Pb)	mg/L	0.00006	0.00005	0.00023	0.00005	8985096
. Lead (Pb)	mg/L	0.00160	0.00005	0.0125	0.00005	8985100
Dissolved Lithium (Li)	mg/L	0.0011	0.0005	0.0119	0.0005	8985096

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE121		XGE122		
Sampling Date		2023/10/05 14:36		2023/10/05 15:16		
COC Number		779566		779566		
	UNITS	MW2-OB-13	RDL	MW18-BR-21	RDL	QC Batch
. Lithium (Li)	mg/L	0.0025	0.0005	0.0129	0.0005	8985100
Dissolved Magnesium (Mg)	mg/L	14.5	0.005	5.26	0.005	8985096
. Magnesium (Mg)	mg/L	20.5	0.005	5.88	0.005	8985100
Dissolved Manganese (Mn)	mg/L	0.0491	0.0002	0.0949	0.0002	8985096
. Manganese (Mn)	mg/L	0.0923	0.0002	0.169	0.0002	8985100
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	8976029
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	8976040
Dissolved Molybdenum (Mo)	mg/L	0.00320	0.00005	0.00505	0.00005	8985096
. Molybdenum (Mo)	mg/L	0.00246	0.00005	0.00454	0.00005	8985100
Dissolved Nickel (Ni)	mg/L	0.0020	0.0001	0.0007	0.0001	8985096
. Nickel (Ni)	mg/L	0.0052	0.0001	0.0081	0.0001	8985100
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	<0.005	0.005	8985096
. Phosphorus (P)	mg/L	0.158	0.005	0.073	0.005	8985100
Dissolved Potassium (K)	mg/L	1.74	0.02	7.26	0.02	8985096
. Potassium (K)	mg/L	1.95	0.02	7.09	0.02	8985100
Dissolved Rubidium (Rb)	mg/L	0.00585	0.00002	0.00251	0.00002	8985096
. Rubidium (Rb)	mg/L	0.00801	0.00002	0.00278	0.00002	8985100
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	<0.0002	0.0002	8985096
. Selenium (Se)	mg/L	0.00007	0.00005	0.00013	0.00005	8985100
Dissolved Silicon (Si)	mg/L	6.72	0.025	9.42	0.025	8985096
. Silicon (Si)	mg/L	7.53	0.025	10.7	0.025	8985100
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	8985096
. Silver (Ag)	mg/L	0.00001	0.00001	<0.00001	0.00001	8985100
Dissolved Sodium (Na)	mg/L	5.74	0.01	23.2	0.01	8985096
. Sodium (Na)	mg/L	5.29	0.01	20.2	0.01	8985100
Dissolved Strontium (Sr)	mg/L	0.0787	0.0001	1.58	0.0001	8985096
. Strontium (Sr)	mg/L	0.105	0.0001	1.76	0.0001	8985100
Dissolved Sulphur (S)	mg/L	0.7	0.5	5.5	0.5	8976942
Total Sulphur (S)	mg/L	1.0	0.5	5.6	0.5	8982373
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	8985096
. Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	8985100
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	<0.000005	0.000005	8985096

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE121		XGE122		
Sampling Date		2023/10/05 14:36		2023/10/05 15:16		
COC Number		779566		779566		
	UNITS	MW2-OB-13	RDL	MW18-BR-21	RDL	QC Batch
. Thallium (Tl)	mg/L	0.000020	0.000005	0.000020	0.000005	8985100
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	8985096
. Thorium (Th)	mg/L	<0.0002	0.0002	0.0003	0.0002	8985100
Dissolved Tin (Sn)	mg/L	0.0002	0.0001	<0.0001	0.0001	8985096
. Tin (Sn)	mg/L	0.0002	0.0001	0.0003	0.0001	8985100
Dissolved Titanium (Ti)	mg/L	0.0014	0.0005	0.0008	0.0005	8985096
. Titanium (Ti)	mg/L	0.0488	0.0005	0.0061	0.0005	8985100
Dissolved Tungsten (W)	mg/L	0.0002	0.0001	0.0041	0.0001	8985096
. Tungsten (W)	mg/L	0.0002	0.0001	0.0076	0.0001	8985100
Dissolved Uranium (U)	mg/L	0.00049	0.00001	0.0281	0.00001	8985096
. Uranium (U)	mg/L	0.00067	0.00001	0.0278	0.00001	8985100
Dissolved Vanadium (V)	mg/L	0.00039	0.00005	0.00175	0.00005	8985096
. Vanadium (V)	mg/L	0.00322	0.00005	0.00369	0.00005	8985100
Dissolved Zinc (Zn)	mg/L	0.0064	0.0005	0.337	0.0005	8985096
. Zinc (Zn)	mg/L	0.0241	0.0005	3.13	0.0025	8985100
Dissolved Zirconium (Zr)	mg/L	0.0002	0.0001	0.0027	0.0001	8985096
. Zirconium (Zr)	mg/L	0.0006	0.0001	0.0053	0.0001	8985100

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGE119
Sample ID: MW1-OB-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8977676	N/A	2023/10/17	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8987987	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8987901	2023/10/17	2023/10/17	Ming Dong
Total Phosphorus Low Level Total	KONE	8990095	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8976708	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8977682	N/A	2023/10/16	Massarat Jan
Total Dissolved Solids	BAL	8975742	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978039	2023/10/13	2023/10/16	Shaneil Hall
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE119 Dup
Sample ID: MW1-OB-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul

Bureau Veritas ID: XGE120
Sample ID: MW1-BR-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8977676	N/A	2023/10/17	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4896
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

TEST SUMMARY

Bureau Veritas ID: XGE120
Sample ID: MW1-BR-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8987987	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8987901	2023/10/17	2023/10/17	Ming Dong
Total Phosphorus Low Level Total	KONE	8990095	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8976708	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8977682	N/A	2023/10/16	Massarat Jan
Total Dissolved Solids	BAL	8975742	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/16	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978039	2023/10/13	2023/10/16	Shaneil Hall
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE121
Sample ID: MW2-OB-13
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8977676	N/A	2023/10/17	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8987987	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8987901	2023/10/17	2023/10/17	Ming Dong
Total Phosphorus Low Level Total	KONE	8990095	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4896
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

TEST SUMMARY

Bureau Veritas ID: XGE121
Sample ID: MW2-OB-13
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	8977686	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8977682	N/A	2023/10/16	Massarat Jan
Total Dissolved Solids	BAL	8975742	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978073	2023/10/13	2023/10/13	Darshan Patel
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE122
Sample ID: MW18-BR-21
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8977676	N/A	2023/10/17	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8987987	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8987901	2023/10/17	2023/10/17	Ming Dong
Total Phosphorus Low Level Total	KONE	8990095	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8977686	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8977682	N/A	2023/10/16	Massarat Jan
Total Dissolved Solids	BAL	8975742	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978073	2023/10/13	2023/10/13	Darshan Patel
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.7°C
Package 2	1.7°C
Package 3	1.3°C
Package 4	5.7°C
Package 5	3.7°C

Sample XGE119 [MW1-OB-14] : TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
Acidity sample contained headspace.

Sample XGE120 [MW1-BR-14] : TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
Acidity sample contained headspace.

Sample XGE121 [MW2-OB-13] : TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Sample XGE122 [MW18-BR-21] : TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4896
Report Date: 2023/10/19

QUALITY ASSURANCE REPORT

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Reagent Blank		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS	% Recovery	QC Limits
8975742	Total Dissolved Solids	2023/10/13			98	90 - 110	<10	mg/L	5.3	20				
8976029	Mercury (Hg)	2023/10/13	98	75 - 125	97	80 - 120	<0.01	ug/L	NC	20	<0.01	ug/L		
8976040	Dissolved Mercury (Hg)	2023/10/13	99	75 - 125	94	80 - 120	<0.01	ug/L	NC	20				
8976184	Total Kjeldahl Nitrogen (TKN)	2023/10/13	NC	80 - 120	94	80 - 120	<0.10	mg/L	0.45	20			94	80 - 120
8976708	Nitrate (N)	2023/10/18	95	80 - 120	96	80 - 120	<0.10	mg/L	2.7	20				
8976708	Nitrite (N)	2023/10/18	100	80 - 120	107	80 - 120	<0.010	mg/L	NC	20				
8976800	Total Ammonia-N	2023/10/13	100	75 - 125	104	80 - 120	<0.050	mg/L	2.3	20				
8976942	Dissolved Sulphur (S)	2023/10/17	NC	80 - 120	98	80 - 120	<0.5	mg/L	0.14	25				
8977320	Turbidity	2023/10/12			100	80 - 120	<0.1	NTU	2.5	20				
8977676	Dissolved Chloride (Cl-)	2023/10/17	94	80 - 120	98	80 - 120	<1.0	mg/L	0.89	20				
8977682	Dissolved Sulphate (SO4)	2023/10/16	NC	75 - 125	98	80 - 120	<1.0	mg/L	0.48	20				
8977686	Nitrate (N)	2023/10/18	103	80 - 120	104	80 - 120	<0.10	mg/L	NC	20				
8977686	Nitrite (N)	2023/10/18	109	80 - 120	107	80 - 120	<0.010	mg/L	NC	20				
8977715	Alkalinity (Total as CaCO3)	2023/10/17			95	85 - 115	<1.0	mg/L	1.2	20				
8977716	Fluoride (F-)	2023/10/17	104	80 - 120	100	80 - 120	<0.10	mg/L	3.3	20				
8977717	Conductivity	2023/10/17			97	85 - 115	<0.001	mS/cm	0.24	10				
8977719	pH	2023/10/17			102	98 - 103			0.18	N/A				
8978039	Total Suspended Solids	2023/10/16			95	85 - 115	<1	mg/L	0	20				
8978073	Total Suspended Solids	2023/10/13			100	85 - 115	<1	mg/L	13	20				
8982373	Total Sulphur (S)	2023/10/17	98	80 - 120	94	80 - 120	<0.5	mg/L						
8984954	Acidity	2023/10/17	56 (1)	80 - 120	103	80 - 120	<5.0	mg/L	0	25				
8985096	Dissolved Aluminum (Al)	2023/10/17	98	80 - 120	104	80 - 120	<0.0005	mg/L	0.12	20				
8985096	Dissolved Antimony (Sb)	2023/10/17	97	80 - 120	103	80 - 120	<0.0001	mg/L	4.9	20				
8985096	Dissolved Arsenic (As)	2023/10/17	92	80 - 120	100	80 - 120	<0.0001	mg/L	0.42	20				
8985096	Dissolved Barium (Ba)	2023/10/17	91	80 - 120	99	80 - 120	<0.0002	mg/L	1.6	20				
8985096	Dissolved Beryllium (Be)	2023/10/17	83	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20				
8985096	Dissolved Bismuth (Bi)	2023/10/17	81	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20				
8985096	Dissolved Boron (B)	2023/10/17	NC	80 - 120	103	80 - 120	<0.001	mg/L	0.36	20				
8985096	Dissolved Cadmium (Cd)	2023/10/17	86	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Reagent Blank		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS	% Recovery	QC Limits
8985096	Dissolved Calcium (Ca)	2023/10/17	NC	80 - 120	103	80 - 120	<0.02	mg/L	1.8	20				
8985096	Dissolved Cesium (Cs)	2023/10/17	92	80 - 120	101	80 - 120	<0.00002	mg/L	NC	N/A				
8985096	Dissolved Chromium (Cr)	2023/10/17	93	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20				
8985096	Dissolved Cobalt (Co)	2023/10/17	90	80 - 120	99	80 - 120	<0.00005	mg/L	3.8	20				
8985096	Dissolved Copper (Cu)	2023/10/17	93	80 - 120	99	80 - 120	<0.0001	mg/L	8.0	20				
8985096	Dissolved Iron (Fe)	2023/10/17	92	80 - 120	102	80 - 120	<0.005	mg/L	2.2	20				
8985096	Dissolved Lead (Pb)	2023/10/17	81	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20				
8985096	Dissolved Lithium (Li)	2023/10/17	89	80 - 120	102	80 - 120	<0.0005	mg/L	0.26	20				
8985096	Dissolved Magnesium (Mg)	2023/10/17	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.0078	20				
8985096	Dissolved Manganese (Mn)	2023/10/17	90	80 - 120	100	80 - 120	<0.0002	mg/L	2.4	20				
8985096	Dissolved Molybdenum (Mo)	2023/10/17	103	80 - 120	101	80 - 120	<0.00005	mg/L	2.5	20				
8985096	Dissolved Nickel (Ni)	2023/10/17	86	80 - 120	99	80 - 120	<0.0001	mg/L	14	20				
8985096	Dissolved Phosphorus (P)	2023/10/17	104	80 - 120	103	80 - 120	<0.005	mg/L	NC	20				
8985096	Dissolved Potassium (K)	2023/10/17	NC	80 - 120	101	80 - 120	<0.02	mg/L	1.1	20				
8985096	Dissolved Rubidium (Rb)	2023/10/17	89	80 - 120	99	80 - 120	<0.00002	mg/L	0.66	N/A				
8985096	Dissolved Selenium (Se)	2023/10/17	91	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20				
8985096	Dissolved Silicon (Si)	2023/10/17	NC	80 - 120	104	80 - 120	<0.005	mg/L	0.72	20				
8985096	Dissolved Silver (Ag)	2023/10/17	79 (2)	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20				
8985096	Dissolved Sodium (Na)	2023/10/17	NC	80 - 120	101	80 - 120	0.01, RDL=0.01	mg/L	0.33	20				
8985096	Dissolved Strontium (Sr)	2023/10/17	NC	80 - 120	99	80 - 120	<0.0001	mg/L	0.0085	20				
8985096	Dissolved Tellurium (Te)	2023/10/17	85	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20				
8985096	Dissolved Thallium (Tl)	2023/10/17	82	80 - 120	99	80 - 120	<0.000005	mg/L	NC	20				
8985096	Dissolved Thorium (Th)	2023/10/17	90	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20				
8985096	Dissolved Tin (Sn)	2023/10/17	96	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20				
8985096	Dissolved Titanium (Ti)	2023/10/17	93	80 - 120	104	80 - 120	<0.0005	mg/L	NC	20				
8985096	Dissolved Tungsten (W)	2023/10/17	93	80 - 120	101	80 - 120	<0.0001	mg/L	5.0	20				
8985096	Dissolved Uranium (U)	2023/10/17	92	80 - 120	105	80 - 120	<0.00001	mg/L	2.7	20				
8985096	Dissolved Vanadium (V)	2023/10/17	98	80 - 120	101	80 - 120	<0.00005	mg/L	0.91	20				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Reagent Blank		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS	% Recovery	QC Limits
8985096	Dissolved Zinc (Zn)	2023/10/17	79 (2)	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20				
8985096	Dissolved Zirconium (Zr)	2023/10/17	107	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Aluminum (Al)	2023/10/17	NC	80 - 120	101	80 - 120	<0.0005	mg/L	0.74	20				
8985100	. Antimony (Sb)	2023/10/17	125 (2)	80 - 120	107	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Arsenic (As)	2023/10/17	NC	80 - 120	99	80 - 120	<0.0001	mg/L	1.2	20				
8985100	. Barium (Ba)	2023/10/17	112	80 - 120	102	80 - 120	<0.0002	mg/L	2.6	20				
8985100	. Beryllium (Be)	2023/10/17	106	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20				
8985100	. Bismuth (Bi)	2023/10/17	103	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Boron (B)	2023/10/17	110	80 - 120	98	80 - 120	<0.001	mg/L	2.4	20				
8985100	. Cadmium (Cd)	2023/10/17	111	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20				
8985100	. Calcium (Ca)	2023/10/17	NC	80 - 120	101	80 - 120	<0.02	mg/L	0.43	20				
8985100	. Cesium (Cs)	2023/10/17	116	80 - 120	104	80 - 120	<0.00002	mg/L	NC	20				
8985100	. Chromium (Cr)	2023/10/17	112	80 - 120	98	80 - 120	<0.0005	mg/L	3.7	20				
8985100	. Cobalt (Co)	2023/10/17	108	80 - 120	98	80 - 120	<0.00005	mg/L	4.0	20				
8985100	. Copper (Cu)	2023/10/17	111	80 - 120	100	80 - 120	<0.0001	mg/L	6.3	20				
8985100	. Iron (Fe)	2023/10/17	NC	80 - 120	101	80 - 120	<0.005	mg/L	0.30	20				
8985100	. Lead (Pb)	2023/10/17	100	80 - 120	96	80 - 120	<0.00005	mg/L	1.6	20				
8985100	. Lithium (Li)	2023/10/17	114	80 - 120	104	80 - 120	<0.0005	mg/L	0.99	20				
8985100	. Magnesium (Mg)	2023/10/17	NC	80 - 120	97	80 - 120	<0.005	mg/L	0.21	20				
8985100	. Manganese (Mn)	2023/10/17	NC	80 - 120	99	80 - 120	<0.0002	mg/L	0.20	20				
8985100	. Molybdenum (Mo)	2023/10/17	128 (2)	80 - 120	102	80 - 120	<0.00005	mg/L	1.1	20				
8985100	. Nickel (Ni)	2023/10/17	105	80 - 120	97	80 - 120	<0.0001	mg/L	10	20				
8985100	. Phosphorus (P)	2023/10/17	123 (2)	80 - 120	101	80 - 120	<0.005	mg/L	2.3	20				
8985100	. Potassium (K)	2023/10/17	116	80 - 120	100	80 - 120	<0.02	mg/L	0.49	20				
8985100	. Rubidium (Rb)	2023/10/17	112	80 - 120	100	80 - 120	<0.00002	mg/L	2.5	20				
8985100	. Selenium (Se)	2023/10/17	109	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20				
8985100	. Silicon (Si)	2023/10/17	NC	80 - 120	101	80 - 120	<0.005	mg/L	1.0	20				
8985100	. Silver (Ag)	2023/10/17	79 (2)	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20				
8985100	. Sodium (Na)	2023/10/17	NC	80 - 120	98	80 - 120	<0.01	mg/L	0.17	20				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Reagent Blank		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS	% Recovery	QC Limits
8985100	. Strontium (Sr)	2023/10/17	NC	80 - 120	100	80 - 120	<0.0001	mg/L	0.088	20				
8985100	. Tellurium (Te)	2023/10/17	110	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Thallium (Tl)	2023/10/17	102	80 - 120	97	80 - 120	<0.000005	mg/L	NC	20				
8985100	. Thorium (Th)	2023/10/17	112	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20				
8985100	. Tin (Sn)	2023/10/17	123 (2)	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Titanium (Ti)	2023/10/17	112	80 - 120	101	80 - 120	<0.0005	mg/L	0.46	20				
8985100	. Tungsten (W)	2023/10/17	111	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Uranium (U)	2023/10/17	113	80 - 120	103	80 - 120	<0.00001	mg/L	5.0	20				
8985100	. Vanadium (V)	2023/10/17	119	80 - 120	100	80 - 120	<0.00005	mg/L	1.1	20				
8985100	. Zinc (Zn)	2023/10/17	97	80 - 120	96	80 - 120	<0.0005	mg/L	7.9	20				
8985100	. Zirconium (Zr)	2023/10/17	132 (2)	80 - 120	105	80 - 120	<0.0001	mg/L	2.8	20				
8987901	Strong Acid Dissoc. Cyanide (CN)		94	80 - 120	102	80 - 120	<0.00050	mg/L	NC	20				
8987987	Free Cyanide (CN)	2023/10/17	84	80 - 120	87	80 - 120	<2.0	ug/L						
8990095	Total Phosphorus (P)	2023/10/18	105	80 - 120	92	80 - 120	<0.0010	mg/L	NC	20			86	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Reagent Blank: A blank matrix containing all reagents used in the analytical procedure. Used to determine any analytical contamination.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, probable matrix interference.

(2) Matrix Spike exceeds acceptance limits, probable matrix interference

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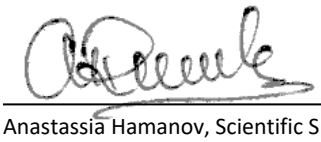
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4896
Report Date: 2023/10/19

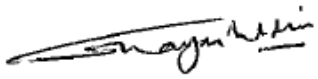
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

VALIDATION SIGNATURE PAGE

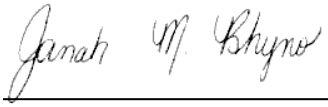
The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Janah Rhyno, Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 779745

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/19
Report #: R7868450
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V4922
Received: 2023/10/06, 16:58

Sample Matrix: Water
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	10	N/A	2023/10/17	ATL SOP-00205	SM 24 2310B m
Alkalinity	10	N/A	2023/10/17	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	10	N/A	2023/10/17	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	6	N/A	2023/10/16	CAM SOP-00463	SM 23 4500-Cl E m
Chloride by Automated Colourimetry	4	N/A	2023/10/17	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	10	N/A	2023/10/17	CAM SOP-00414	SM 23 2510 m
Dissolved Organic Carbon (DOC) (3)	3	N/A	2023/10/17	CAM SOP-00446	SM 23 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	3	N/A	2023/10/13	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	3	2023/10/13	2023/10/15	CAM SOP-00316	CCME PHC-CWS m
Fluoride	10	2023/10/12	2023/10/17	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	10	N/A	2023/10/18	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2023/10/16	2023/10/16	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	10	2023/10/12	2023/10/13	CAM SOP-00453	EPA 7470 m
Mercury (low level)	8	2023/10/12	2023/10/13	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	10	2023/10/12	2023/10/17	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	10	N/A	2023/10/17	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	6	N/A	2023/10/17	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	4	N/A	2023/10/18	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	10	2023/10/15	2023/10/17	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	10	N/A	2023/10/17	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	7	2023/10/15	2023/10/15	CAL SOP-00270	SM 23 4500-CN m
Cyanide, Strong Acid Dissociable (SAD) (2)	3	2023/10/17	2023/10/17	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	10	2023/10/17	2023/10/18	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	10	N/A	2023/10/13	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (5)	10	N/A	2023/10/18	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	10	2023/10/12	2023/10/17	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (6)	10	N/A	2023/10/11		Field pH Meter
Sulphate by Automated Turbidimetry	6	N/A	2023/10/14	CAM SOP-00464	SM 23 4500-SO42- E m
Sulphate by Automated Turbidimetry	4	N/A	2023/10/16	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	10	2023/10/12	2023/10/13	CAM SOP-00428	SM 23 2540C m

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 779745

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/19
Report #: R7868450
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V4922
Received: 2023/10/06, 16:58

Sample Matrix: Water
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Field Temperature (6)	10	N/A	2023/10/11		Field Thermometer
Total Kjeldahl Nitrogen in Water	8	2023/10/12	2023/10/13	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	2	2023/10/12	2023/10/16	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	1	2023/10/14	2023/10/16	CAM SOP-00428	SM 23 2540D m
Total Suspended Solids	1	2023/10/17	2023/10/17	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	2	2023/10/13	2023/10/13	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	6	2023/10/13	2023/10/16	CAM SOP-00428	SM 23 2540D m
Turbidity	10	N/A	2023/10/12	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(6) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C3V4922
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGE198			XGE198			XGE199		
Sampling Date		2023/10/05 10:08			2023/10/05 10:08			2023/10/05 12:20		
COC Number		779745			779745			779745		
	UNITS	MW20-BR-21	RDL	QC Batch	MW20-BR-21 Lab-Dup	RDL	QC Batch	MW15-OB-14	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8972318				220	1.0	8972318
Carb. Alkalinity (calc. as CaCO3)	mg/L	83	1.0	8972318				2.7	1.0	8972318
Hardness (CaCO3)	mg/L	730	1.0	8972316				240	1.0	8972316
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	790	1.0	8972318				<1.0	1.0	8972318
Field Measurements										
Field Temperature	Celsius	9.6	N/A	ONSITE				10.3	N/A	ONSITE
Field Measured pH	pH	12.12		ONSITE				7.42		ONSITE
Inorganics										
Acidity	mg/L	<5.0	5.0	8984954				<5.0	5.0	8984954
Total Ammonia-N	mg/L	1.8	0.050	8976800	1.7	0.050	8976800	0.057	0.050	8976800
Conductivity	mS/cm	3.83	0.001	8977717				0.441	0.001	8977717
Free Cyanide (CN)	ug/L	2.8 (1)	2.0	8990770				<2.0 (1)	2.0	8990770
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050 (2)	0.00050	8990768				<0.00050	0.00050	8990768
Total Dissolved Solids	mg/L	1040	10	8975742				235	10	8975748
Fluoride (F-)	mg/L	0.23	0.10	8977716				<0.10	0.10	8977716
Total Kjeldahl Nitrogen (TKN)	mg/L	2.2	0.10	8976184	2.2	0.10	8976184	0.16	0.10	8976184
Dissolved Organic Carbon	mg/L							4.0	0.40	8982138
pH	pH	12.2		8977719				8.11		8977719
Total Phosphorus (P)	mg/L	0.0039	0.0010	8990769				0.054	0.0010	8990769
Total Suspended Solids	mg/L	440	3	8978073				260	2	8978038
Dissolved Sulphate (SO4)	mg/L	4.3	1.0	8977682				10	1.0	8976667
Turbidity	NTU	19	0.1	8977320				5.3	0.1	8977320
Alkalinity (Total as CaCO3)	mg/L	870	1.0	8977715				230	1.0	8977715
Dissolved Chloride (Cl-)	mg/L	8.1	1.0	8977676				1.2	1.0	8976655
Nitrite (N)	mg/L	<0.010	0.010	8977686	<0.010	0.010	8977686	<0.010	0.010	8976708
Nitrate (N)	mg/L	<0.10	0.10	8977686	<0.10	0.10	8977686	<0.10	0.10	8976708

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4922
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGE198			XGE198			XGE199		
Sampling Date		2023/10/05 10:08			2023/10/05 10:08			2023/10/05 12:20		
COC Number		779745			779745			779745		
	UNITS	**MW20-BR-21**	**RDL**	**QC Batch**	**MW20-BR-21 Lab-Dup**	**RDL**	**QC Batch**	**MW15-OB-14**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8977686	<0.10	0.10	8977686	<0.10	0.10	8976708

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C3V4922
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGE199			XGE200			XGE201		
Sampling Date		2023/10/05 12:20			2023/10/05 12:52			2023/10/05 14:05		
COC Number		779745			779745			779745		
	UNITS	MW15-OB-14 Lab-Dup	RDL	QC Batch	MW15-BR-14	RDL	QC Batch	MW25-OB-21	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				180	1.0	8972318	220	1.0	8972318
Carb. Alkalinity (calc. as CaCO3)	mg/L				2.1	1.0	8972318	2.8	1.0	8972318
Hardness (CaCO3)	mg/L				190	1.0	8972316	220	1.0	8972316
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	8972318	<1.0	1.0	8972318
Field Measurements										
Field Temperature	Celsius				14.8	N/A	ONSITE	10.6	N/A	ONSITE
Field Measured pH	pH				7.69		ONSITE	7.45		ONSITE
Inorganics										
Acidity	mg/L	5.0	5.0	8984954	<5.0	5.0	8984954	8.0	5.0	8984954
Total Ammonia-N	mg/L				0.096	0.050	8976800	<0.050	0.050	8976800
Conductivity	mS/cm				0.353	0.001	8977717	0.413	0.001	8977717
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	8990770	<2.0 (1)	2.0	8990770
Strong Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	8990768	<0.00050	0.00050	8990768
Total Dissolved Solids	mg/L				180	10	8975742	195	10	8975742
Fluoride (F-)	mg/L				0.16	0.10	8977716	0.15	0.10	8977716
Total Kjeldahl Nitrogen (TKN)	mg/L				0.18	0.10	8976184	0.22	0.10	8976184
pH	pH				8.10		8977719	8.13		8977719
Total Phosphorus (P)	mg/L				0.0028	0.0010	8990769	0.25	0.0050	8990769
Total Suspended Solids	mg/L				5	1	8978038	120	1	8978038
Dissolved Sulphate (SO4)	mg/L				11	1.0	8977682	3.7	1.0	8977682
Turbidity	NTU				0.9	0.1	8977320	8.3	0.1	8977320
Alkalinity (Total as CaCO3)	mg/L				180	1.0	8977715	220	1.0	8977715
Dissolved Chloride (Cl-)	mg/L				<1.0	1.0	8977676	<1.0	1.0	8977676
Nitrite (N)	mg/L				0.050	0.010	8977686	<0.010	0.010	8976708
Nitrate (N)	mg/L				<0.10	0.10	8977686	<0.10	0.10	8976708
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	8977686	<0.10	0.10	8976708

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Bureau Veritas Job #: C3V4922
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGE202			XGE202			XGE203		
Sampling Date		2023/10/05 14:35			2023/10/05 14:35			2023/10/05 15:18		
COC Number		779745			779745			779745		
	UNITS	MW25-BR-21	RDL	QC Batch	MW25-BR-21 Lab-Dup	RDL	QC Batch	MW24-BR-21	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	230	1.0	8972318				190	1.0	8972318
Carb. Alkalinity (calc. as CaCO3)	mg/L	3.0	1.0	8972318				3.5	1.0	8972318
Hardness (CaCO3)	mg/L	210	1.0	8972316				120	1.0	8972316
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8972318				<1.0	1.0	8972318
Field Measurements										
Field Temperature	Celsius	8.1	N/A	ONSITE				9.2	N/A	ONSITE
Field Measured pH	pH	7.88		ONSITE				7.92		ONSITE
Inorganics										
Acidity	mg/L	<5.0	5.0	8984954				<5.0	5.0	8984954
Total Ammonia-N	mg/L	0.17	0.050	8976800				0.64	0.050	8976800
Conductivity	mS/cm	0.425	0.001	8977717	0.426	0.001	8977717	0.441	0.001	8977717
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	8990770				6.3 (1)	2.0	8990770
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8990768				<0.00050 (2)	0.00050	8987901
Total Dissolved Solids	mg/L	200	10	8975748				235	10	8975748
Fluoride (F-)	mg/L	0.22	0.10	8977716	0.22	0.10	8977716	0.54	0.10	8977716
Total Kjeldahl Nitrogen (TKN)	mg/L	0.28	0.10	8976184				0.79	0.10	8976184
pH	pH	8.15		8977719	8.17		8977719	8.30		8977719
Total Phosphorus (P)	mg/L	0.015	0.0010	8990769				0.040	0.0010	8990769
Total Suspended Solids	mg/L	38	1	8978038				410	5	8978038
Dissolved Sulphate (SO4)	mg/L	1.4	1.0	8976667				37	1.0	8976667
Turbidity	NTU	20	0.1	8977320	20	0.1	8977320	14	0.1	8977320
Alkalinity (Total as CaCO3)	mg/L	230	1.0	8977715	230	1.0	8977715	190	1.0	8977715
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	8976655				3.8	1.0	8976655
Nitrite (N)	mg/L	<0.010	0.010	8976708				0.052	0.010	8976708
Nitrate (N)	mg/L	<0.10	0.10	8976708				<0.10	0.10	8976708
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8976708				<0.10	0.10	8976708

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Bureau Veritas Job #: C3V4922
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGE204			XGE205			XGE206		
Sampling Date		2023/10/05 15:45			2023/10/05 16:39			2023/10/05 17:08		
COC Number		779745			779745			779745		
	UNITS	MW24-OB-21	RDL	QC Batch	G7-OB2-14	RDL	QC Batch	G7-OB1-14	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	170	1.0	8972318	200	1.0	8972318	160	1.0	8972318
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.3	1.0	8972318	6.5	1.0	8972318	1.9	1.0	8972318
Hardness (CaCO3)	mg/L	170	1.0	8972316	200	1.0	8972316	150	1.0	8972316
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8972318	<1.0	1.0	8972318	<1.0	1.0	8972318
Field Measurements										
Field Temperature	Celsius	13.0	N/A	ONSITE	12.1	N/A	ONSITE	12.3	N/A	ONSITE
Field Measured pH	pH	7.88		ONSITE	7.55		ONSITE	7.73		ONSITE
Inorganics										
Acidity	mg/L	<5.0	5.0	8984954	<5.0	5.0	8984954	<5.0	5.0	8984954
Total Ammonia-N	mg/L	0.29	0.050	8976800	0.055	0.050	8976800	<0.050	0.050	8976800
Conductivity	mS/cm	0.329	0.001	8977717	0.355	0.001	8977717	0.289	0.001	8977717
Free Cyanide (CN)	ug/L	6.8 (1)	2.0	8990770	<2.0 (1)	2.0	8990770	2.8 (1)	2.0	8990770
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050 (2)	0.00050	8987901	<0.00050	0.00050	8987901	<0.00050 (2)	0.00050	8990768
Total Dissolved Solids	mg/L	140	10	8975742	190	10	8975742	180	10	8975748
Fluoride (F-)	mg/L	0.38	0.10	8977716	0.18	0.10	8977716	0.12	0.10	8977716
Total Kjeldahl Nitrogen (TKN)	mg/L	1.1	0.50	8976184	0.68	0.20	8976184	0.24	0.10	8976184
Dissolved Organic Carbon	mg/L				6.0	0.40	8982138	4.8	0.40	8982138
pH	pH	8.15		8977719	8.54		8977719	8.10		8977719
Total Phosphorus (P)	mg/L	0.57	0.010	8990769	0.78	0.010	8990769	0.32	0.0050	8990769
Total Suspended Solids	mg/L	70000	200	8985658	32000	100	8978150	190	3	8978073
Dissolved Sulphate (SO4)	mg/L	3.2	1.0	8976667	<1.0	1.0	8976667	<5.0 (3)	5.0	8977682
Turbidity	NTU	110	0.1	8977320	150	0.1	8977320	340	0.1	8977320
Alkalinity (Total as CaCO3)	mg/L	180	1.0	8977715	210	1.0	8977715	160	1.0	8977715
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	8976655	1.2	1.0	8976655	3.1	1.0	8977676
Nitrite (N)	mg/L	<0.010	0.010	8976708	0.012	0.010	8976708	<0.010	0.010	8977686
Nitrate (N)	mg/L	<0.10	0.10	8976708	<0.10	0.10	8976708	<0.10	0.10	8977686

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.
(3) Detection Limit was raised due to matrix interferences.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4922
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGE204			XGE205			XGE206		
Sampling Date		2023/10/05 15:45			2023/10/05 16:39			2023/10/05 17:08		
COC Number		779745			779745			779745		
	UNITS	**MW24-OB-21**	**RDL**	**QC Batch**	**G7-OB2-14**	**RDL**	**QC Batch**	**G7-OB1-14**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8976708	<0.10	0.10	8976708	<0.10	0.10	8977686

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGE207		
Sampling Date		2023/10/05 08:00		
COC Number		779745		
	UNITS	**Duplicate 1**	**RDL**	**QC Batch**
Calculated Parameters				
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	1.1	1.0	8972318
Carb. Alkalinity (calc. as CaCO3)	mg/L	160	1.0	8972318
Hardness (CaCO3)	mg/L	730	1.0	8972316
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	750	1.0	8972318
Field Measurements				
Field Temperature	Celsius	-	N/A	ONSITE
Field Measured pH	pH	-		ONSITE
Inorganics				
Acidity	mg/L	<5.0	5.0	8984954
Total Ammonia-N	mg/L	1.9	0.050	8976800
Conductivity	mS/cm	3.84	0.001	8977717
Free Cyanide (CN)	ug/L	3.3 (1)	2.0	8990770
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050 (2)	0.00050	8990768
Total Dissolved Solids	mg/L	1020	10	8975748
Fluoride (F-)	mg/L	0.23	0.10	8977716
Total Kjeldahl Nitrogen (TKN)	mg/L	2.5	0.10	8976184
pH	pH	12.2		8977719
Total Phosphorus (P)	mg/L	0.098	0.0010	8990769
Total Suspended Solids	mg/L	550	5	8978038
Dissolved Sulphate (SO4)	mg/L	4.2	1.0	8976667
Turbidity	NTU	2.3	0.1	8977320
Alkalinity (Total as CaCO3)	mg/L	910	1.0	8977715
Dissolved Chloride (Cl-)	mg/L	5.8	1.0	8976655
Nitrite (N)	mg/L	<0.010	0.010	8976708
Nitrate (N)	mg/L	<0.10	0.10	8976708

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4922
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGE207		
Sampling Date		2023/10/05 08:00		
COC Number		779745		
	UNITS	**Duplicate 1**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8976708

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE198		XGE199		XGE200		
Sampling Date		2023/10/05 10:08		2023/10/05 12:20		2023/10/05 12:52		
COC Number		779745		779745		779745		
	UNITS	MW20-BR-21	RDL	MW15-OB-14	RDL	MW15-BR-14	RDL	QC Batch
Metals								
Dissolved Aluminum (Al)	mg/L	0.255	0.0025	0.0016	0.0005	0.0037	0.0005	8985096
. Aluminum (Al)	mg/L	0.247	0.0025	0.509	0.0005	0.0264	0.0005	8985100
Dissolved Antimony (Sb)	mg/L	<0.0005	0.0005	<0.0001	0.0001	<0.0001	0.0001	8985096
. Antimony (Sb)	mg/L	0.0006	0.0005	<0.0001	0.0001	0.0001	0.0001	8985100
Dissolved Arsenic (As)	mg/L	0.0014	0.0005	0.0012	0.0001	0.0006	0.0001	8985096
. Arsenic (As)	mg/L	0.0025	0.0005	0.0016	0.0001	0.0008	0.0001	8985100
Dissolved Barium (Ba)	mg/L	0.613	0.001	0.0288	0.0002	0.0104	0.0002	8985096
. Barium (Ba)	mg/L	0.746	0.001	0.0364	0.0002	0.0135	0.0002	8985100
Dissolved Beryllium (Be)	mg/L	<0.00025	0.00025	<0.00005	0.00005	<0.00005	0.00005	8985096
. Beryllium (Be)	mg/L	<0.00025	0.00025	<0.00005	0.00005	<0.00005	0.00005	8985100
Dissolved Bismuth (Bi)	mg/L	<0.0005	0.0005	<0.0001	0.0001	<0.0001	0.0001	8985096
. Bismuth (Bi)	mg/L	<0.0005	0.0005	<0.0001	0.0001	<0.0001	0.0001	8985100
Dissolved Boron (B)	mg/L	<0.005	0.005	0.006	0.001	0.010	0.001	8985096
. Boron (B)	mg/L	<0.005	0.005	0.007	0.001	0.010	0.001	8985100
Dissolved Cadmium (Cd)	mg/L	<0.00005	0.00005	<0.00001	0.00001	<0.00001	0.00001	8985096
. Cadmium (Cd)	mg/L	<0.000025	0.000025	0.000059	0.000005	<0.000005	0.000005	8985100
Dissolved Calcium (Ca)	mg/L	293	0.2	72.5	0.1	55.7	0.1	8985096
. Calcium (Ca)	mg/L	323	0.2	94.4	0.1	53.9	0.1	8985100
Dissolved Cesium (Cs)	mg/L	0.0001	0.0001	<0.00002	0.00002	0.00007	0.00002	8985096
. Cesium (Cs)	mg/L	0.0002	0.0001	0.00009	0.00002	0.00007	0.00002	8985100
Dissolved Chromium (Cr)	mg/L	<0.0025	0.0025	<0.0005	0.0005	<0.0005	0.0005	8985096
. Chromium (Cr)	mg/L	<0.0025	0.0025	0.0018	0.0005	<0.0005	0.0005	8985100
Dissolved Cobalt (Co)	mg/L	<0.00025	0.00025	0.00037	0.00005	0.00016	0.00005	8985096
. Cobalt (Co)	mg/L	<0.00025	0.00025	0.00079	0.00005	0.00021	0.00005	8985100
Dissolved Copper (Cu)	mg/L	0.0022	0.0005	0.0004	0.0001	<0.0001	0.0001	8985096
. Copper (Cu)	mg/L	0.0027	0.0005	0.0055	0.0001	0.0003	0.0001	8985100
Dissolved Iron (Fe)	mg/L	<0.025	0.025	0.010	0.005	0.395	0.005	8985096
. Iron (Fe)	mg/L	0.068	0.025	0.825	0.005	0.388	0.005	8985100
Dissolved Lead (Pb)	mg/L	0.00072	0.00025	<0.00005	0.00005	<0.00005	0.00005	8985096
. Lead (Pb)	mg/L	0.00097	0.00025	0.00064	0.00005	0.00007	0.00005	8985100
Dissolved Lithium (Li)	mg/L	0.0232	0.0025	0.0015	0.0005	0.0014	0.0005	8985096

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE198		XGE199		XGE200		
Sampling Date		2023/10/05 10:08		2023/10/05 12:20		2023/10/05 12:52		
COC Number		779745		779745		779745		
	UNITS	MW20-BR-21	RDL	MW15-OB-14	RDL	MW15-BR-14	RDL	QC Batch
. Lithium (Li)	mg/L	0.0211	0.0025	0.0025	0.0005	0.0013	0.0005	8985100
Dissolved Magnesium (Mg)	mg/L	<0.025	0.025	13.5	0.005	11.3	0.005	8985096
. Magnesium (Mg)	mg/L	0.115	0.025	18.2	0.005	11.3	0.005	8985100
Dissolved Manganese (Mn)	mg/L	<0.001	0.001	0.0227	0.0002	0.0757	0.0002	8985096
. Manganese (Mn)	mg/L	0.002	0.001	0.0452	0.0002	0.0711	0.0002	8985100
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	<0.01	0.01	8976029
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	<0.01	0.01	8976040
Dissolved Molybdenum (Mo)	mg/L	0.0319	0.00025	0.00056	0.00005	0.00073	0.00005	8985096
. Molybdenum (Mo)	mg/L	0.0332	0.00025	0.00040	0.00005	0.00074	0.00005	8985100
Dissolved Nickel (Ni)	mg/L	0.0100	0.0005	0.0006	0.0001	<0.0001	0.0001	8985096
. Nickel (Ni)	mg/L	0.0075	0.0005	0.0021	0.0001	0.0001	0.0001	8985100
Dissolved Phosphorus (P)	mg/L	<0.025	0.025	<0.005	0.005	<0.005	0.005	8985096
. Phosphorus (P)	mg/L	<0.025	0.025	0.093	0.005	<0.005	0.005	8985100
Dissolved Potassium (K)	mg/L	20.0	0.1	1.64	0.02	1.59	0.02	8985096
. Potassium (K)	mg/L	23.1	0.1	1.74	0.02	1.62	0.02	8985100
Dissolved Rubidium (Rb)	mg/L	0.0379	0.0001	0.00251	0.00002	0.00305	0.00002	8985096
. Rubidium (Rb)	mg/L	0.0458	0.0001	0.00357	0.00002	0.00322	0.00002	8985100
Dissolved Selenium (Se)	mg/L	<0.001	0.001	<0.0002	0.0002	<0.0002	0.0002	8985096
. Selenium (Se)	mg/L	<0.00025	0.00025	<0.00005	0.00005	<0.00005	0.00005	8985100
Dissolved Silicon (Si)	mg/L	0.627	0.025	4.91	0.005	6.98	0.025	8985096
. Silicon (Si)	mg/L	0.784	0.025	5.40	0.025	6.77	0.025	8985100
Dissolved Silver (Ag)	mg/L	<0.00005	0.00005	<0.00001	0.00001	<0.00001	0.00001	8985096
. Silver (Ag)	mg/L	<0.00005	0.00005	<0.00001	0.00001	<0.00001	0.00001	8985100
Dissolved Sodium (Na)	mg/L	130	0.05	1.66	0.01	3.08	0.01	8985096
. Sodium (Na)	mg/L	124	0.05	1.69	0.01	3.05	0.01	8985100
Dissolved Strontium (Sr)	mg/L	1.66	0.0005	0.0699	0.0001	0.156	0.0001	8985096
. Strontium (Sr)	mg/L	2.08	0.0005	0.0859	0.0001	0.158	0.0001	8985100
Dissolved Sulphur (S)	mg/L	1.5	0.5	3.7	0.5	3.9	0.5	8976942
Total Sulphur (S)	mg/L	1.8	0.5	3.7	0.5	4.1	0.5	8982373
Dissolved Tellurium (Te)	mg/L	<0.0005	0.0005	<0.0001	0.0001	<0.0001	0.0001	8985096
. Tellurium (Te)	mg/L	<0.0005	0.0005	<0.0001	0.0001	<0.0001	0.0001	8985100
Dissolved Thallium (Tl)	mg/L	<0.000025	0.000025	<0.000005	0.000005	<0.000005	0.000005	8985096

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE198		XGE199		XGE200		
Sampling Date		2023/10/05 10:08		2023/10/05 12:20		2023/10/05 12:52		
COC Number		779745		779745		779745		
	UNITS	MW20-BR-21	RDL	MW15-OB-14	RDL	MW15-BR-14	RDL	QC Batch
. Thallium (Tl)	mg/L	<0.000025	0.000025	0.000020	0.000005	<0.000005	0.000005	8985100
Dissolved Thorium (Th)	mg/L	<0.001	0.001	<0.0002	0.0002	<0.0002	0.0002	8985096
. Thorium (Th)	mg/L	<0.001	0.001	0.0002	0.0002	<0.0002	0.0002	8985100
Dissolved Tin (Sn)	mg/L	<0.0005	0.0005	<0.0001	0.0001	<0.0001	0.0001	8985096
. Tin (Sn)	mg/L	0.0006	0.0005	<0.0001	0.0001	<0.0001	0.0001	8985100
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	<0.0005	0.0005	0.0006	0.0005	8985096
. Titanium (Ti)	mg/L	<0.0025	0.0025	0.0342	0.0005	0.0018	0.0005	8985100
Dissolved Tungsten (W)	mg/L	0.0070	0.0005	0.0004	0.0001	0.0006	0.0001	8985096
. Tungsten (W)	mg/L	0.0087	0.0005	0.0001	0.0001	0.0006	0.0001	8985100
Dissolved Uranium (U)	mg/L	<0.00005	0.00005	0.00067	0.00001	0.00025	0.00001	8985096
. Uranium (U)	mg/L	<0.00005	0.00005	0.00076	0.00001	0.00027	0.00001	8985100
Dissolved Vanadium (V)	mg/L	0.00076	0.00025	0.00030	0.00005	0.00007	0.00005	8985096
. Vanadium (V)	mg/L	0.00066	0.00025	0.00234	0.00005	0.00025	0.00005	8985100
Dissolved Zinc (Zn)	mg/L	0.846	0.0025	0.0024	0.0005	0.0016	0.0005	8985096
. Zinc (Zn)	mg/L	1.58	0.0025	0.0182	0.0005	0.0037	0.0005	8985100
Dissolved Zirconium (Zr)	mg/L	<0.0005	0.0005	<0.0001	0.0001	0.0002	0.0001	8985096
. Zirconium (Zr)	mg/L	<0.0005	0.0005	0.0005	0.0001	0.0004	0.0001	8985100

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE201			XGE201			XGE202		
Sampling Date		2023/10/05 14:05			2023/10/05 14:05			2023/10/05 14:35		
COC Number		779745			779745			779745		
	UNITS	MW25-OB-21	RDL	QC Batch	MW25-OB-21 Lab-Dup	RDL	QC Batch	MW25-BR-21	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0012	0.0005	8985096				0.0007	0.0005	8985096
. Aluminum (Al)	mg/L	0.792	0.0005	8985100				0.0397	0.0005	8985100
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	8985096				<0.0001	0.0001	8985096
. Antimony (Sb)	mg/L	<0.0001	0.0001	8985100				<0.0001	0.0001	8985100
Dissolved Arsenic (As)	mg/L	0.0010	0.0001	8985096				0.0004	0.0001	8985096
. Arsenic (As)	mg/L	0.0020	0.0001	8985100				0.0007	0.0001	8985100
Dissolved Barium (Ba)	mg/L	0.0293	0.0002	8985096				0.0417	0.0002	8985096
. Barium (Ba)	mg/L	0.0426	0.0002	8985100				0.0438	0.0002	8985100
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	8985096				<0.00005	0.00005	8985096
. Beryllium (Be)	mg/L	0.00007	0.00005	8985100				<0.00005	0.00005	8985100
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	8985096				<0.0001	0.0001	8985096
. Bismuth (Bi)	mg/L	<0.0001	0.0001	8985100				<0.0001	0.0001	8985100
Dissolved Boron (B)	mg/L	0.010	0.001	8985096				0.029	0.001	8985096
. Boron (B)	mg/L	0.014	0.001	8985100				0.028	0.001	8985100
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	8985096				<0.00001	0.00001	8985096
. Cadmium (Cd)	mg/L	0.000053	0.000005	8985100				<0.000005	0.000005	8985100
Dissolved Calcium (Ca)	mg/L	63.7	0.1	8985096				56.4	0.1	8985096
. Calcium (Ca)	mg/L	123	0.1	8985100				55.8	0.1	8985100
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	8985096				<0.00002	0.00002	8985096
. Cesium (Cs)	mg/L	0.00013	0.00002	8985100				<0.00002	0.00002	8985100
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	8985096				<0.0005	0.0005	8985096
. Chromium (Cr)	mg/L	0.0031	0.0005	8985100				<0.0005	0.0005	8985100
Dissolved Cobalt (Co)	mg/L	0.00017	0.00005	8985096				<0.00005	0.00005	8985096
. Cobalt (Co)	mg/L	0.00138	0.00005	8985100				<0.00005	0.00005	8985100
Dissolved Copper (Cu)	mg/L	0.0002	0.0001	8985096				0.0009	0.0001	8985096
. Copper (Cu)	mg/L	0.0038	0.0001	8985100				0.0002	0.0001	8985100
Dissolved Iron (Fe)	mg/L	1.46	0.005	8985096				4.53	0.005	8985096
. Iron (Fe)	mg/L	6.89	0.005	8985100				5.32	0.005	8985100
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	8985096				<0.00005	0.00005	8985096
. Lead (Pb)	mg/L	0.00173	0.00005	8985100				0.00012	0.00005	8985100

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE201			XGE201			XGE202		
Sampling Date		2023/10/05 14:05			2023/10/05 14:05			2023/10/05 14:35		
COC Number		779745			779745			779745		
	UNITS	MW25-OB-21	RDL	QC Batch	MW25-OB-21 Lab-Dup	RDL	QC Batch	MW25-BR-21	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0017	0.0005	8985096				0.0053	0.0005	8985096
. Lithium (Li)	mg/L	0.0032	0.0005	8985100				0.0053	0.0005	8985100
Dissolved Magnesium (Mg)	mg/L	14.3	0.005	8985096				17.0	0.005	8985096
. Magnesium (Mg)	mg/L	30.7	0.005	8985100				17.0	0.005	8985100
Dissolved Manganese (Mn)	mg/L	0.113	0.0002	8985096				0.389	0.0002	8985096
. Manganese (Mn)	mg/L	0.219	0.0002	8985100				0.394	0.0002	8985100
Mercury (Hg)	ug/L	<0.01	0.01	8976029				<0.01	0.01	8976029
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8976040	<0.01	0.01	8976040	<0.01	0.01	8976040
Dissolved Molybdenum (Mo)	mg/L	0.00158	0.00005	8985096				0.00145	0.00005	8985096
. Molybdenum (Mo)	mg/L	0.00036	0.00005	8985100				0.00136	0.00005	8985100
Dissolved Nickel (Ni)	mg/L	0.0003	0.0001	8985096				0.0001	0.0001	8985096
. Nickel (Ni)	mg/L	0.0024	0.0001	8985100				0.0002	0.0001	8985100
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	8985096				0.007	0.005	8985096
. Phosphorus (P)	mg/L	0.306	0.005	8985100				0.016	0.005	8985100
Dissolved Potassium (K)	mg/L	1.62	0.02	8985096				2.95	0.02	8985096
. Potassium (K)	mg/L	1.78	0.02	8985100				2.98	0.02	8985100
Dissolved Rubidium (Rb)	mg/L	0.00257	0.00002	8985096				0.00353	0.00002	8985096
. Rubidium (Rb)	mg/L	0.00444	0.00002	8985100				0.00366	0.00002	8985100
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	8985096				<0.0002	0.0002	8985096
. Selenium (Se)	mg/L	0.00016	0.00005	8985100				0.00020	0.00005	8985100
Dissolved Silicon (Si)	mg/L	6.10	0.025	8985096				5.46	0.025	8985096
. Silicon (Si)	mg/L	7.40	0.025	8985100				5.50	0.025	8985100
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	8985096				<0.00001	0.00001	8985096
. Silver (Ag)	mg/L	<0.00001	0.00001	8985100				<0.00001	0.00001	8985100
Dissolved Sodium (Na)	mg/L	4.87	0.01	8985096				9.78	0.01	8985096
. Sodium (Na)	mg/L	4.84	0.01	8985100				9.83	0.01	8985100
Dissolved Strontium (Sr)	mg/L	0.0598	0.0001	8985096				0.539	0.0001	8985096
. Strontium (Sr)	mg/L	0.0951	0.0001	8985100				0.552	0.0001	8985100
Dissolved Sulphur (S)	mg/L	1.4	0.5	8976942	1.4	0.5	8976942	<0.5	0.5	8976942
Total Sulphur (S)	mg/L	1.5	0.5	8982373				0.6	0.5	8982373
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	8985096				<0.0001	0.0001	8985096

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE201			XGE201			XGE202		
Sampling Date		2023/10/05 14:05			2023/10/05 14:05			2023/10/05 14:35		
COC Number		779745			779745			779745		
	UNITS	MW25-OB-21	RDL	QC Batch	MW25-OB-21 Lab-Dup	RDL	QC Batch	MW25-BR-21	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	8985100				<0.0001	0.0001	8985100
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	8985096				<0.000005	0.000005	8985096
. Thallium (Tl)	mg/L	0.000029	0.000005	8985100				0.000009	0.000005	8985100
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	8985096				<0.0002	0.0002	8985096
. Thorium (Th)	mg/L	0.0007	0.0002	8985100				<0.0002	0.0002	8985100
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	8985096				<0.0001	0.0001	8985096
. Tin (Sn)	mg/L	0.0002	0.0001	8985100				0.0002	0.0001	8985100
Dissolved Titanium (Ti)	mg/L	0.0006	0.0005	8985096				<0.0005	0.0005	8985096
. Titanium (Ti)	mg/L	0.0527	0.0025	8985100				0.0026	0.0005	8985100
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	8985096				0.0030	0.0001	8985096
. Tungsten (W)	mg/L	<0.0001	0.0001	8985100				0.0028	0.0001	8985100
Dissolved Uranium (U)	mg/L	0.00022	0.00001	8985096				0.00037	0.00001	8985096
. Uranium (U)	mg/L	0.00035	0.00001	8985100				0.00040	0.00001	8985100
Dissolved Vanadium (V)	mg/L	0.00005	0.00005	8985096				<0.00005	0.00005	8985096
. Vanadium (V)	mg/L	0.00282	0.00005	8985100				0.00015	0.00005	8985100
Dissolved Zinc (Zn)	mg/L	0.0096	0.0005	8985096				0.0043	0.0005	8985096
. Zinc (Zn)	mg/L	0.591	0.0005	8985100				0.604	0.0005	8985100
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	8985096				<0.0001	0.0001	8985096
. Zirconium (Zr)	mg/L	0.0007	0.0001	8985100				0.0001	0.0001	8985100

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE203			XGE204		XGE205		
Sampling Date		2023/10/05 15:18			2023/10/05 15:45		2023/10/05 16:39		
COC Number		779745			779745		779745		
	UNITS	MW24-BR-21	RDL	QC Batch	MW24-OB-21	RDL	G7-OB2-14	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0046	0.0005	8985096	0.0023	0.0005	0.0060	0.0005	8985096
. Aluminum (Al)	mg/L	0.286	0.0005	8985100	1.54	0.005	6.01	0.005	8985100
Dissolved Antimony (Sb)	mg/L	0.0001	0.0001	8985096	<0.0001	0.0001	<0.0001	0.0001	8985096
. Antimony (Sb)	mg/L	0.0002	0.0001	8985100	<0.001	0.001	<0.001	0.001	8985100
Dissolved Arsenic (As)	mg/L	0.0017	0.0001	8985096	0.0008	0.0001	0.0008	0.0001	8985096
. Arsenic (As)	mg/L	0.0040	0.0001	8985100	0.004	0.001	0.004	0.001	8985100
Dissolved Barium (Ba)	mg/L	0.0175	0.0002	8985096	0.0315	0.0002	0.0197	0.0002	8985096
. Barium (Ba)	mg/L	0.0244	0.0002	8985100	0.155	0.002	0.077	0.002	8985100
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	8985096	<0.00005	0.00005	<0.00005	0.00005	8985096
. Beryllium (Be)	mg/L	<0.00005	0.00005	8985100	<0.0005	0.0005	<0.0005	0.0005	8985100
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	8985096	<0.0001	0.0001	<0.0001	0.0001	8985096
. Bismuth (Bi)	mg/L	<0.0001	0.0001	8985100	<0.001	0.001	<0.001	0.001	8985100
Dissolved Boron (B)	mg/L	0.053	0.001	8985096	0.015	0.001	0.007	0.001	8985096
. Boron (B)	mg/L	0.050	0.001	8985100	0.07	0.01	0.04	0.01	8985100
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	8985096	<0.00001	0.00001	<0.00001	0.00001	8985096
. Cadmium (Cd)	mg/L	0.000008	0.000005	8985100	0.00022	0.00005	0.00023	0.00005	8985100
Dissolved Calcium (Ca)	mg/L	30.5	0.02	8985096	48.0	0.02	61.8	0.1	8985096
. Calcium (Ca)	mg/L	31.9	0.02	8985100	1180	2	547	1	8985100
Dissolved Cesium (Cs)	mg/L	0.00003	0.00002	8985096	<0.00002	0.00002	<0.00002	0.00002	8985096
. Cesium (Cs)	mg/L	0.00006	0.00002	8985100	<0.0002	0.0002	0.0007	0.0002	8985100
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	8985096	<0.0005	0.0005	<0.0005	0.0005	8985096
. Chromium (Cr)	mg/L	0.0012	0.0005	8985100	<0.005	0.005	0.022	0.005	8985100
Dissolved Cobalt (Co)	mg/L	0.00007	0.00005	8985096	<0.00005	0.00005	<0.00005	0.00005	8985096
. Cobalt (Co)	mg/L	0.00028	0.00005	8985100	0.0096	0.0005	0.0096	0.0005	8985100
Dissolved Copper (Cu)	mg/L	0.0005	0.0001	8985096	0.0008	0.0001	0.0003	0.0001	8985096
. Copper (Cu)	mg/L	0.0024	0.0001	8985100	<0.001	0.001	0.023	0.001	8985100
Dissolved Iron (Fe)	mg/L	0.050	0.005	8985096	0.962	0.005	0.640	0.005	8985096
. Iron (Fe)	mg/L	5.28	0.005	8985100	12.3	0.05	12.1	0.05	8985100
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	8985096	<0.00005	0.00005	<0.00005	0.00005	8985096
. Lead (Pb)	mg/L	0.00033	0.00005	8985100	0.0016	0.0005	0.0122	0.0005	8985100
Dissolved Lithium (Li)	mg/L	0.0092	0.0005	8985096	0.0037	0.0005	0.0014	0.0005	8985096

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE203			XGE204		XGE205		
Sampling Date		2023/10/05 15:18			2023/10/05 15:45		2023/10/05 16:39		
COC Number		779745			779745		779745		
	UNITS	MW24-BR-21	RDL	QC Batch	MW24-OB-21	RDL	G7-OB2-14	RDL	QC Batch
. Lithium (Li)	mg/L	0.0092	0.0005	8985100	0.015	0.005	0.013	0.005	8985100
Dissolved Magnesium (Mg)	mg/L	11.5	0.005	8985096	11.8	0.005	11.4	0.005	8985096
. Magnesium (Mg)	mg/L	11.7	0.005	8985100	256	0.05	148	0.05	8985100
Dissolved Manganese (Mn)	mg/L	0.225	0.0002	8985096	0.0512	0.0002	0.0447	0.0002	8985096
. Manganese (Mn)	mg/L	0.280	0.0002	8985100	1.60	0.002	0.720	0.002	8985100
Mercury (Hg)	mg/L				<0.0015	0.0015	<0.0015	0.0015	8982919
Mercury (Hg)	ug/L	<0.01	0.01	8976029					
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8976040	<0.01	0.01	<0.01	0.01	8976040
Dissolved Molybdenum (Mo)	mg/L	0.0406	0.00005	8985096	0.00072	0.00005	0.00020	0.00005	8985096
. Molybdenum (Mo)	mg/L	0.0369	0.00005	8985100	0.0005	0.0005	<0.0005	0.0005	8985100
Dissolved Nickel (Ni)	mg/L	0.0005	0.0001	8985096	<0.0001	0.0001	<0.0001	0.0001	8985096
. Nickel (Ni)	mg/L	0.0011	0.0001	8985100	0.017	0.001	0.017	0.001	8985100
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	8985096	0.020	0.005	0.011	0.005	8985096
. Phosphorus (P)	mg/L	0.041	0.005	8985100	1.03	0.05	2.22	0.05	8985100
Dissolved Potassium (K)	mg/L	4.05	0.02	8985096	1.69	0.02	0.98	0.02	8985096
. Potassium (K)	mg/L	4.24	0.02	8985100	3.1	0.2	2.2	0.2	8985100
Dissolved Rubidium (Rb)	mg/L	0.00450	0.00002	8985096	0.00148	0.00002	0.00193	0.00002	8985096
. Rubidium (Rb)	mg/L	0.00516	0.00002	8985100	0.0094	0.0002	0.0120	0.0002	8985100
Dissolved Selenium (Se)	mg/L	0.0003	0.0002	8985096	<0.0002	0.0002	<0.0002	0.0002	8985096
. Selenium (Se)	mg/L	0.00018	0.00005	8985100	<0.0005	0.0005	<0.0005	0.0005	8985100
Dissolved Silicon (Si)	mg/L	3.46	0.005	8985096	6.99	0.025	5.36	0.025	8985096
. Silicon (Si)	mg/L	4.11	0.005	8985100	11.4	0.05	14.5	0.05	8985100
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	8985096	<0.00001	0.00001	<0.00001	0.00001	8985096
. Silver (Ag)	mg/L	<0.00001	0.00001	8985100	<0.0001	0.0001	<0.0001	0.0001	8985100
Dissolved Sodium (Na)	mg/L	49.8	0.01	8985096	4.71	0.01	2.40	0.01	8985096
. Sodium (Na)	mg/L	45.6	0.01	8985100	4.9	0.1	2.7	0.1	8985100
Dissolved Strontium (Sr)	mg/L	0.176	0.0001	8985096	0.156	0.0001	0.0694	0.0001	8985096
. Strontium (Sr)	mg/L	0.185	0.0001	8985100	0.781	0.001	0.317	0.001	8985100
Dissolved Sulphur (S)	mg/L	14	0.5	8976942	1.1	0.5	0.7	0.5	8976942
Total Sulphur (S)	mg/L	13	0.5	8982373	<5	5	1.8	0.5	8982373
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	8985096	<0.0001	0.0001	<0.0001	0.0001	8985096
. Tellurium (Te)	mg/L	<0.0001	0.0001	8985100	<0.001	0.001	<0.001	0.001	8985100

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QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE203			XGE204		XGE205		
Sampling Date		2023/10/05 15:18			2023/10/05 15:45		2023/10/05 16:39		
COC Number		779745			779745		779745		
	UNITS	MW24-BR-21	RDL	QC Batch	MW24-OB-21	RDL	G7-OB2-14	RDL	QC Batch
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	8985096	<0.000005	0.000005	<0.000005	0.000005	8985096
. Thallium (Tl)	mg/L	0.000012	0.000005	8985100	0.00009	0.00005	0.00027	0.00005	8985100
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	8985096	<0.0002	0.0002	<0.0002	0.0002	8985096
. Thorium (Th)	mg/L	<0.0002	0.0002	8985100	<0.002	0.002	0.005	0.002	8985100
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	8985096	<0.0001	0.0001	<0.0001	0.0001	8985096
. Tin (Sn)	mg/L	0.0005	0.0001	8985100	<0.001	0.001	<0.001	0.001	8985100
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	8985096	0.0006	0.0005	0.0014	0.0005	8985096
. Titanium (Ti)	mg/L	0.0182	0.0005	8985100	<0.005	0.005	0.396	0.005	8985100
Dissolved Tungsten (W)	mg/L	0.0928	0.0005	8985096	0.0004	0.0001	<0.0001	0.0001	8985096
. Tungsten (W)	mg/L	0.0775	0.0005	8985100	<0.001	0.001	<0.001	0.001	8985100
Dissolved Uranium (U)	mg/L	0.00867	0.00001	8985096	0.00005	0.00001	0.00004	0.00001	8985096
. Uranium (U)	mg/L	0.00773	0.00001	8985100	0.0004	0.0001	0.0029	0.0001	8985100
Dissolved Vanadium (V)	mg/L	0.00010	0.00005	8985096	0.00017	0.00005	0.00118	0.00005	8985096
. Vanadium (V)	mg/L	0.00104	0.00005	8985100	0.0098	0.0005	0.0226	0.0005	8985100
Dissolved Zinc (Zn)	mg/L	0.0021	0.0005	8985096	0.0045	0.0005	0.0006	0.0005	8985096
. Zinc (Zn)	mg/L	0.579	0.0005	8985100	1.87	0.005	0.030	0.005	8985100
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	8985096	<0.0001	0.0001	0.0014	0.0001	8985096
. Zirconium (Zr)	mg/L	0.0001	0.0001	8985100	<0.001	0.001	0.006	0.001	8985100

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE206		XGE207		
Sampling Date		2023/10/05 17:08		2023/10/05 08:00		
COC Number		779745		779745		
	UNITS	G7-OB1-14	RDL	Duplicate 1	RDL	QC Batch
Metals						
Dissolved Aluminum (Al)	mg/L	0.0024	0.0005	0.257	0.0025	8985096
. Aluminum (Al)	mg/L	1.92	0.0025	0.395	0.0025	8985100
Dissolved Antimony (Sb)	mg/L	0.0001	0.0001	0.0005	0.0005	8985096
. Antimony (Sb)	mg/L	<0.0005	0.0005	0.0007	0.0005	8985100
Dissolved Arsenic (As)	mg/L	0.0009	0.0001	0.0016	0.0005	8985096
. Arsenic (As)	mg/L	0.0019	0.0005	0.0022	0.0005	8985100
Dissolved Barium (Ba)	mg/L	0.0102	0.0002	0.617	0.001	8985096
. Barium (Ba)	mg/L	0.030	0.001	0.627	0.001	8985100
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00025	0.00025	8985096
. Beryllium (Be)	mg/L	<0.00025	0.00025	<0.00025	0.00025	8985100
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0005	0.0005	8985096
. Bismuth (Bi)	mg/L	<0.0005	0.0005	<0.0005	0.0005	8985100
Dissolved Boron (B)	mg/L	0.006	0.001	<0.005	0.005	8985096
. Boron (B)	mg/L	0.015	0.005	<0.005	0.005	8985100
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00005	0.00005	8985096
. Cadmium (Cd)	mg/L	0.000073	0.000025	<0.000025	0.000025	8985100
Dissolved Calcium (Ca)	mg/L	48.3	0.1	290	0.2	8985096
. Calcium (Ca)	mg/L	211	0.1	311	0.2	8985100
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	0.0001	0.0001	8985096
. Cesium (Cs)	mg/L	0.0002	0.0001	0.0002	0.0001	8985100
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0025	0.0025	8985096
. Chromium (Cr)	mg/L	0.0070	0.0025	<0.0025	0.0025	8985100
Dissolved Cobalt (Co)	mg/L	<0.00005	0.00005	<0.00025	0.00025	8985096
. Cobalt (Co)	mg/L	0.00264	0.00025	<0.00025	0.00025	8985100
Dissolved Copper (Cu)	mg/L	0.0004	0.0001	0.0024	0.0005	8985096
. Copper (Cu)	mg/L	0.0066	0.0005	0.0026	0.0005	8985100
Dissolved Iron (Fe)	mg/L	0.568	0.005	<0.025	0.025	8985096
. Iron (Fe)	mg/L	4.58	0.025	0.254	0.025	8985100
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	0.00072	0.00025	8985096
. Lead (Pb)	mg/L	0.00380	0.00025	0.00131	0.00025	8985100
Dissolved Lithium (Li)	mg/L	0.0008	0.0005	0.0229	0.0025	8985096

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE206		XGE207		
Sampling Date		2023/10/05 17:08		2023/10/05 08:00		
COC Number		779745		779745		
	UNITS	G7-OB1-14	RDL	Duplicate 1	RDL	QC Batch
. Lithium (Li)	mg/L	0.0051	0.0025	0.0233	0.0025	8985100
Dissolved Magnesium (Mg)	mg/L	8.05	0.005	<0.025	0.025	8985096
. Magnesium (Mg)	mg/L	46.3	0.025	1.29	0.025	8985100
Dissolved Manganese (Mn)	mg/L	0.0621	0.0002	<0.001	0.001	8985096
. Manganese (Mn)	mg/L	0.323	0.001	0.011	0.001	8985100
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	8976029
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	8976040
Dissolved Molybdenum (Mo)	mg/L	0.00023	0.00005	0.0325	0.00025	8985096
. Molybdenum (Mo)	mg/L	<0.00025	0.00025	0.0320	0.00025	8985100
Dissolved Nickel (Ni)	mg/L	0.0001	0.0001	0.0107	0.0005	8985096
. Nickel (Ni)	mg/L	0.0052	0.0005	0.0104	0.0005	8985100
Dissolved Phosphorus (P)	mg/L	0.015	0.005	<0.025	0.025	8985096
. Phosphorus (P)	mg/L	0.650	0.025	<0.025	0.025	8985100
Dissolved Potassium (K)	mg/L	0.66	0.02	20.2	0.1	8985096
. Potassium (K)	mg/L	1.1	0.1	19.6	0.1	8985100
Dissolved Rubidium (Rb)	mg/L	0.00109	0.00002	0.0385	0.0001	8985096
. Rubidium (Rb)	mg/L	0.0054	0.0001	0.0381	0.0001	8985100
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	<0.001	0.001	8985096
. Selenium (Se)	mg/L	<0.00025	0.00025	<0.00025	0.00025	8985100
Dissolved Silicon (Si)	mg/L	4.80	0.005	0.644	0.025	8985096
. Silicon (Si)	mg/L	7.46	0.025	1.47	0.025	8985100
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00005	0.00005	8985096
. Silver (Ag)	mg/L	<0.00005	0.00005	<0.00005	0.00005	8985100
Dissolved Sodium (Na)	mg/L	1.88	0.01	130	0.05	8985096
. Sodium (Na)	mg/L	1.87	0.05	124	0.05	8985100
Dissolved Strontium (Sr)	mg/L	0.0499	0.0001	1.70	0.0005	8985096
. Strontium (Sr)	mg/L	0.139	0.0005	1.72	0.0005	8985100
Dissolved Sulphur (S)	mg/L	<0.5	0.5	1.8	0.5	8976942
Total Sulphur (S)	mg/L	<0.5	0.5	1.8	0.5	8982373
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0005	0.0005	8985096
. Tellurium (Te)	mg/L	<0.0005	0.0005	<0.0005	0.0005	8985100
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	<0.000025	0.000025	8985096

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGE206		XGE207		
Sampling Date		2023/10/05 17:08		2023/10/05 08:00		
COC Number		779745		779745		
	UNITS	G7-OB1-14	RDL	Duplicate 1	RDL	QC Batch
. Thallium (Tl)	mg/L	0.000060	0.000025	<0.000025	0.000025	8985100
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.001	0.001	8985096
. Thorium (Th)	mg/L	0.002	0.001	<0.001	0.001	8985100
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	<0.0005	0.0005	8985096
. Tin (Sn)	mg/L	<0.0005	0.0005	0.0008	0.0005	8985100
Dissolved Titanium (Ti)	mg/L	0.0008	0.0005	<0.0025	0.0025	8985096
. Titanium (Ti)	mg/L	0.111	0.0025	0.0055	0.0025	8985100
Dissolved Tungsten (W)	mg/L	0.0001	0.0001	0.0070	0.0005	8985096
. Tungsten (W)	mg/L	<0.0005	0.0005	0.0064	0.0005	8985100
Dissolved Uranium (U)	mg/L	<0.00001	0.00001	<0.00005	0.00005	8985096
. Uranium (U)	mg/L	0.00053	0.00005	0.00005	0.00005	8985100
Dissolved Vanadium (V)	mg/L	0.00050	0.00005	0.00082	0.00025	8985096
. Vanadium (V)	mg/L	0.00727	0.00025	0.00119	0.00025	8985100
Dissolved Zinc (Zn)	mg/L	0.0011	0.0005	0.858	0.0025	8985096
. Zinc (Zn)	mg/L	0.0131	0.0025	2.80	0.0025	8985100
Dissolved Zirconium (Zr)	mg/L	0.0009	0.0001	<0.0005	0.0005	8985096
. Zirconium (Zr)	mg/L	0.0031	0.0005	<0.0005	0.0005	8985100

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		XGE199	XGE205	XGE206		
Sampling Date		2023/10/05 12:20	2023/10/05 16:39	2023/10/05 17:08		
COC Number		779745	779745	779745		
	UNITS	MW15-OB-14	G7-OB2-14	G7-OB1-14	RDL	QC Batch
BTEX & F1 Hydrocarbons						
F1 (C6-C10)	ug/L	<25	<25	<25	25	8979459
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	8979534
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	8979534
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	8979534
Reached Baseline at C50	ug/L	Yes	Yes	Yes		8979534
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	98	102	100		8979459
4-Bromofluorobenzene	%	101	100	100		8979459
D10-o-Xylene	%	120	116	113		8979459
D4-1,2-Dichloroethane	%	98	99	99		8979459
o-Terphenyl	%	89	90	86		8979534

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4922
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: XGE198
Sample ID: MW20-BR-21
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8977676	N/A	2023/10/17	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8990770	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8990768	2023/10/15	2023/10/15	Ming Dong
Total Phosphorus Low Level Total	KONE	8990769	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8977686	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8977682	N/A	2023/10/16	Massarat Jan
Total Dissolved Solids	BAL	8975742	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978073	2023/10/13	2023/10/13	Darshan Patel
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE198 Dup
Sample ID: MW20-BR-21
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8977686	N/A	2023/10/18	Chandra Nandlal
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi

Bureau Veritas ID: XGE199
Sample ID: MW15-OB-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGE199
Sample ID: MW15-OB-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	8976655	N/A	2023/10/16	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Dissolved Organic Carbon (DOC)	TOCV/NDIR	8982138	N/A	2023/10/17	Gyulshen Idriz
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8979459	N/A	2023/10/13	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8979534	2023/10/13	2023/10/15	Anna Stuglik-Rolland
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8990770	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8990768	2023/10/15	2023/10/15	Ming Dong
Total Phosphorus Low Level Total	KONE	8990769	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8976708	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8976667	N/A	2023/10/14	Alina Dobreanu
Total Dissolved Solids	BAL	8975748	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978038	2023/10/13	2023/10/16	Razieh Tabesh
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE199 Dup
Sample ID: MW15-OB-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau

Bureau Veritas ID: XGE200
Sample ID: MW15-BR-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8977676	N/A	2023/10/17	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGE200
Sample ID: MW15-BR-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8990770	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8990768	2023/10/15	2023/10/15	Ming Dong
Total Phosphorus Low Level Total	KONE	8990769	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8977686	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8977682	N/A	2023/10/16	Massarat Jan
Total Dissolved Solids	BAL	8975742	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978038	2023/10/13	2023/10/16	Razieh Tabesh
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE201
Sample ID: MW25-OB-21
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8977676	N/A	2023/10/17	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8990770	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8990768	2023/10/15	2023/10/15	Ming Dong
Total Phosphorus Low Level Total	KONE	8990769	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur

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TEST SUMMARY

Bureau Veritas ID: XGE201
Sample ID: MW25-OB-21
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	8976708	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8977682	N/A	2023/10/16	Massarat Jan
Total Dissolved Solids	BAL	8975742	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978038	2023/10/13	2023/10/16	Razieh Tabesh
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE201 Dup
Sample ID: MW25-OB-21
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai

Bureau Veritas ID: XGE202
Sample ID: MW25-BR-21
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8976655	N/A	2023/10/16	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8990770	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8990768	2023/10/15	2023/10/15	Ming Dong
Total Phosphorus Low Level Total	KONE	8990769	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8976708	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8976667	N/A	2023/10/14	Alina Dobreanu

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGE202
Sample ID: MW25-BR-21
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	8975748	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978038	2023/10/13	2023/10/16	Razieh Tabesh
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE202 Dup
Sample ID: MW25-BR-21
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE203
Sample ID: MW24-BR-21
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8976655	N/A	2023/10/16	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8990770	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8987901	2023/10/17	2023/10/17	Ming Dong
Total Phosphorus Low Level Total	KONE	8990769	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8976708	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8976667	N/A	2023/10/14	Alina Dobreanu
Total Dissolved Solids	BAL	8975748	2023/10/12	2023/10/13	Razieh Tabesh

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGE203 **Collected:** 2023/10/05
Sample ID: MW24-BR-21 **Shipped:**
Matrix: Water **Received:** 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978038	2023/10/13	2023/10/16	Razieh Tabesh
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE204 **Collected:** 2023/10/05
Sample ID: MW24-OB-21 **Shipped:**
Matrix: Water **Received:** 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8976655	N/A	2023/10/16	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Mercury in Water by CVAA	CV/AA	8982919	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8990770	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8987901	2023/10/17	2023/10/17	Ming Dong
Total Phosphorus Low Level Total	KONE	8990769	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8976708	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8976667	N/A	2023/10/14	Alina Dobreanu
Total Dissolved Solids	BAL	8975742	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/16	Rajni Tyagi
Total Suspended Solids	BAL	8985658	2023/10/17	2023/10/17	Darshan Patel
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE205 **Collected:** 2023/10/05
Sample ID: G7-OB2-14 **Shipped:**
Matrix: Water **Received:** 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGE205
Sample ID: G7-OB2-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8976655	N/A	2023/10/16	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Dissolved Organic Carbon (DOC)	TOCV/NDIR	8982138	N/A	2023/10/17	Gyulshen Idriz
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8979459	N/A	2023/10/13	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8979534	2023/10/13	2023/10/15	Anna Stuglik-Rolland
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Mercury in Water by CVAA	CV/AA	8982919	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8990770	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8987901	2023/10/17	2023/10/17	Ming Dong
Total Phosphorus Low Level Total	KONE	8990769	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8976708	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8976667	N/A	2023/10/14	Alina Dobreanu
Total Dissolved Solids	BAL	8975742	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/16	Rajni Tyagi
Total Suspended Solids	BAL	8978150	2023/10/14	2023/10/16	Razieh Tabesh
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE206
Sample ID: G7-OB1-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8977676	N/A	2023/10/17	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Dissolved Organic Carbon (DOC)	TOCV/NDIR	8982138	N/A	2023/10/17	Gyulshen Idriz
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8979459	N/A	2023/10/13	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8979534	2023/10/13	2023/10/15	Anna Stuglik-Rolland
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4922
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: XGE206
Sample ID: G7-OB1-14
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/17	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8990770	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8990768	2023/10/15	2023/10/15	Ming Dong
Total Phosphorus Low Level Total	KONE	8990769	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8977686	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8977682	N/A	2023/10/16	Massarat Jan
Total Dissolved Solids	BAL	8975748	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978073	2023/10/13	2023/10/13	Darshan Patel
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

Bureau Veritas ID: XGE207
Sample ID: Duplicate 1
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8984954	N/A	2023/10/17	Brent Boudreau
Alkalinity	AT	8977715	N/A	2023/10/17	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8972318	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8976655	N/A	2023/10/16	Massarat Jan
Conductivity	AT	8977717	N/A	2023/10/17	Surinder Rai
Fluoride	ISE	8977716	2023/10/12	2023/10/17	Surinder Rai
Hardness (calculated as CaCO3)		8972316	N/A	2023/10/18	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8976040	2023/10/12	2023/10/13	Thuy Linh Nguyen
Mercury (low level)	CV/AA	8976029	2023/10/12	2023/10/13	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8976942	2023/10/12	2023/10/17	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8985096	N/A	2023/10/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8985100	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8982373	2023/10/15	2023/10/17	Suban Kanapathippllai
Cyanide (Free)	SPEC	8990770	N/A	2023/10/17	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8990768	2023/10/15	2023/10/15	Ming Dong
Total Phosphorus Low Level Total	KONE	8990769	2023/10/17	2023/10/18	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8976800	N/A	2023/10/13	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8976708	N/A	2023/10/18	Chandra Nandlal
pH	AT	8977719	2023/10/12	2023/10/17	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V4922
Report Date: 2023/10/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: XGE207
Sample ID: Duplicate 1
Matrix: Water

Collected: 2023/10/05
Shipped:
Received: 2023/10/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sulphate by Automated Turbidimetry	KONE	8976667	N/A	2023/10/14	Alina Dobreanu
Total Dissolved Solids	BAL	8975748	2023/10/12	2023/10/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/11	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	8976184	2023/10/12	2023/10/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8978038	2023/10/13	2023/10/16	Razieh Tabesh
Turbidity	AT	8977320	N/A	2023/10/12	Kien Tran

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.7°C
Package 2	1.7°C
Package 3	1.3°C
Package 4	5.7°C
Package 5	3.7°C

TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XGE198 [MW20-BR-21] : TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample XGE199 [MW15-OB-14] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Sample XGE200 [MW15-BR-14] : Acidity sample contained headspace.

Sample XGE201 [MW25-OB-21] : Acidity sample contained headspace.

Sample XGE202 [MW25-BR-21] : Acidity sample contained headspace.

Sample XGE203 [MW24-BR-21] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Sample XGE204 [MW24-OB-21] : Metal Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
Acidity sample contained headspace.

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XGE205 [G7-OB2-14] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Acidity sample contained headspace.

Sample XGE206 [G7-OB1-14] : TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample XGE207 [Duplicate 1] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Reagent Blank		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS	% Recovery	QC Limits
8979459	1,4-Difluorobenzene	2023/10/13	97	70 - 130	99	70 - 130	99	%						
8979459	4-Bromofluorobenzene	2023/10/13	102	70 - 130	98	70 - 130	100	%						
8979459	D10-o-Xylene	2023/10/13	106	70 - 130	112	70 - 130	112	%						
8979459	D4-1,2-Dichloroethane	2023/10/13	96	70 - 130	94	70 - 130	96	%						
8979534	o-Terphenyl	2023/10/15	92	60 - 130	94	60 - 130	92	%						
8975742	Total Dissolved Solids	2023/10/13			98	90 - 110	<10	mg/L	5.3	20				
8975748	Total Dissolved Solids	2023/10/13			95	90 - 110	<10	mg/L	0.59	20				
8976029	Mercury (Hg)	2023/10/13	98	75 - 125	97	80 - 120	<0.01	ug/L	NC	20	<0.01	ug/L		
8976040	Dissolved Mercury (Hg)	2023/10/13	99	75 - 125	94	80 - 120	<0.01	ug/L	NC	20				
8976184	Total Kjeldahl Nitrogen (TKN)	2023/10/13	NC	80 - 120	94	80 - 120	<0.10	mg/L	0.45	20			94	80 - 120
8976655	Dissolved Chloride (Cl-)	2023/10/16	97	80 - 120	100	80 - 120	<1.0	mg/L	1.6	20				
8976667	Dissolved Sulphate (SO4)	2023/10/14	NC	75 - 125	100	80 - 120	<1.0	mg/L	0.049	20				
8976708	Nitrate (N)	2023/10/18	95	80 - 120	96	80 - 120	<0.10	mg/L	2.7	20				
8976708	Nitrite (N)	2023/10/18	100	80 - 120	107	80 - 120	<0.010	mg/L	NC	20				
8976800	Total Ammonia-N	2023/10/13	100	75 - 125	104	80 - 120	<0.050	mg/L	2.3	20				
8976942	Dissolved Sulphur (S)	2023/10/17	NC	80 - 120	98	80 - 120	<0.5	mg/L	0.14	25				
8977320	Turbidity	2023/10/12			100	80 - 120	<0.1	NTU	2.5	20				
8977676	Dissolved Chloride (Cl-)	2023/10/17	94	80 - 120	98	80 - 120	<1.0	mg/L	0.89	20				
8977682	Dissolved Sulphate (SO4)	2023/10/16	NC	75 - 125	98	80 - 120	<1.0	mg/L	0.48	20				
8977686	Nitrate (N)	2023/10/18	103	80 - 120	104	80 - 120	<0.10	mg/L	NC	20				
8977686	Nitrite (N)	2023/10/18	109	80 - 120	107	80 - 120	<0.010	mg/L	NC	20				
8977715	Alkalinity (Total as CaCO3)	2023/10/17			95	85 - 115	<1.0	mg/L	1.2	20				
8977716	Fluoride (F-)	2023/10/17	104	80 - 120	100	80 - 120	<0.10	mg/L	3.3	20				
8977717	Conductivity	2023/10/17			97	85 - 115	<0.001	mS/cm	0.24	10				
8977719	pH	2023/10/17			102	98 - 103			0.18	N/A				
8978038	Total Suspended Solids	2023/10/16			95	85 - 115	<1	mg/L	0	20				
8978073	Total Suspended Solids	2023/10/13			100	85 - 115	<1	mg/L	13	20				
8978150	Total Suspended Solids	2023/10/16			101	85 - 115	<10	mg/L	8.0	20				
8979459	F1 (C6-C10)	2023/10/13	96	60 - 140	101	60 - 140	<25	ug/L	NC	30				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Reagent Blank		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS	% Recovery	QC Limits
8979534	F2 (C10-C16 Hydrocarbons)	2023/10/15	98	60 - 130	102	60 - 130	<100	ug/L	7.1	30				
8979534	F3 (C16-C34 Hydrocarbons)	2023/10/15	95	60 - 130	102	60 - 130	<200	ug/L	NC	30				
8979534	F4 (C34-C50 Hydrocarbons)	2023/10/15	95	60 - 130	102	60 - 130	<200	ug/L	NC	30				
8982138	Dissolved Organic Carbon	2023/10/17	91	80 - 120	94	80 - 120	<0.40	mg/L	3.4	20				
8982373	Total Sulphur (S)	2023/10/17	98	80 - 120	94	80 - 120	<0.5	mg/L						
8982919	Mercury (Hg)	2023/10/16	100	75 - 125	99	80 - 120	<0.00010	mg/L	NC	20				
8984954	Acidity	2023/10/17	56 (1)	80 - 120	103	80 - 120	<5.0	mg/L	0	25				
8985096	Dissolved Aluminum (Al)	2023/10/17	98	80 - 120	104	80 - 120	<0.0005	mg/L	0.12	20				
8985096	Dissolved Antimony (Sb)	2023/10/17	97	80 - 120	103	80 - 120	<0.0001	mg/L	4.9	20				
8985096	Dissolved Arsenic (As)	2023/10/17	92	80 - 120	100	80 - 120	<0.0001	mg/L	0.42	20				
8985096	Dissolved Barium (Ba)	2023/10/17	91	80 - 120	99	80 - 120	<0.0002	mg/L	1.6	20				
8985096	Dissolved Beryllium (Be)	2023/10/17	83	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20				
8985096	Dissolved Bismuth (Bi)	2023/10/17	81	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20				
8985096	Dissolved Boron (B)	2023/10/17	NC	80 - 120	103	80 - 120	<0.001	mg/L	0.36	20				
8985096	Dissolved Cadmium (Cd)	2023/10/17	86	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20				
8985096	Dissolved Calcium (Ca)	2023/10/17	NC	80 - 120	103	80 - 120	<0.02	mg/L	1.8	20				
8985096	Dissolved Cesium (Cs)	2023/10/17	92	80 - 120	101	80 - 120	<0.00002	mg/L	NC	N/A				
8985096	Dissolved Chromium (Cr)	2023/10/17	93	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20				
8985096	Dissolved Cobalt (Co)	2023/10/17	90	80 - 120	99	80 - 120	<0.00005	mg/L	3.8	20				
8985096	Dissolved Copper (Cu)	2023/10/17	93	80 - 120	99	80 - 120	<0.0001	mg/L	8.0	20				
8985096	Dissolved Iron (Fe)	2023/10/17	92	80 - 120	102	80 - 120	<0.005	mg/L	2.2	20				
8985096	Dissolved Lead (Pb)	2023/10/17	81	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20				
8985096	Dissolved Lithium (Li)	2023/10/17	89	80 - 120	102	80 - 120	<0.0005	mg/L	0.26	20				
8985096	Dissolved Magnesium (Mg)	2023/10/17	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.0078	20				
8985096	Dissolved Manganese (Mn)	2023/10/17	90	80 - 120	100	80 - 120	<0.0002	mg/L	2.4	20				
8985096	Dissolved Molybdenum (Mo)	2023/10/17	103	80 - 120	101	80 - 120	<0.00005	mg/L	2.5	20				
8985096	Dissolved Nickel (Ni)	2023/10/17	86	80 - 120	99	80 - 120	<0.0001	mg/L	14	20				
8985096	Dissolved Phosphorus (P)	2023/10/17	104	80 - 120	103	80 - 120	<0.005	mg/L	NC	20				
8985096	Dissolved Potassium (K)	2023/10/17	NC	80 - 120	101	80 - 120	<0.02	mg/L	1.1	20				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Reagent Blank		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS	% Recovery	QC Limits
8985096	Dissolved Rubidium (Rb)	2023/10/17	89	80 - 120	99	80 - 120	<0.00002	mg/L	0.66	N/A				
8985096	Dissolved Selenium (Se)	2023/10/17	91	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20				
8985096	Dissolved Silicon (Si)	2023/10/17	NC	80 - 120	104	80 - 120	<0.005	mg/L	0.72	20				
8985096	Dissolved Silver (Ag)	2023/10/17	79 (2)	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20				
8985096	Dissolved Sodium (Na)	2023/10/17	NC	80 - 120	101	80 - 120	0.01, RDL=0.01	mg/L	0.33	20				
8985096	Dissolved Strontium (Sr)	2023/10/17	NC	80 - 120	99	80 - 120	<0.0001	mg/L	0.0085	20				
8985096	Dissolved Tellurium (Te)	2023/10/17	85	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20				
8985096	Dissolved Thallium (Tl)	2023/10/17	82	80 - 120	99	80 - 120	<0.000005	mg/L	NC	20				
8985096	Dissolved Thorium (Th)	2023/10/17	90	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20				
8985096	Dissolved Tin (Sn)	2023/10/17	96	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20				
8985096	Dissolved Titanium (Ti)	2023/10/17	93	80 - 120	104	80 - 120	<0.0005	mg/L	NC	20				
8985096	Dissolved Tungsten (W)	2023/10/17	93	80 - 120	101	80 - 120	<0.0001	mg/L	5.0	20				
8985096	Dissolved Uranium (U)	2023/10/17	92	80 - 120	105	80 - 120	<0.00001	mg/L	2.7	20				
8985096	Dissolved Vanadium (V)	2023/10/17	98	80 - 120	101	80 - 120	<0.00005	mg/L	0.91	20				
8985096	Dissolved Zinc (Zn)	2023/10/17	79 (2)	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20				
8985096	Dissolved Zirconium (Zr)	2023/10/17	107	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Aluminum (Al)	2023/10/17	NC	80 - 120	101	80 - 120	<0.0005	mg/L	0.74	20				
8985100	. Antimony (Sb)	2023/10/17	125 (2)	80 - 120	107	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Arsenic (As)	2023/10/17	NC	80 - 120	99	80 - 120	<0.0001	mg/L	1.2	20				
8985100	. Barium (Ba)	2023/10/17	112	80 - 120	102	80 - 120	<0.0002	mg/L	2.6	20				
8985100	. Beryllium (Be)	2023/10/17	106	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20				
8985100	. Bismuth (Bi)	2023/10/17	103	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Boron (B)	2023/10/17	110	80 - 120	98	80 - 120	<0.001	mg/L	2.4	20				
8985100	. Cadmium (Cd)	2023/10/17	111	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20				
8985100	. Calcium (Ca)	2023/10/17	NC	80 - 120	101	80 - 120	<0.02	mg/L	0.43	20				
8985100	. Cesium (Cs)	2023/10/17	116	80 - 120	104	80 - 120	<0.00002	mg/L	NC	20				
8985100	. Chromium (Cr)	2023/10/17	112	80 - 120	98	80 - 120	<0.0005	mg/L	3.7	20				
8985100	. Cobalt (Co)	2023/10/17	108	80 - 120	98	80 - 120	<0.00005	mg/L	4.0	20				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Reagent Blank		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS	% Recovery	QC Limits
8985100	. Copper (Cu)	2023/10/17	111	80 - 120	100	80 - 120	<0.0001	mg/L	6.3	20				
8985100	. Iron (Fe)	2023/10/17	NC	80 - 120	101	80 - 120	<0.005	mg/L	0.30	20				
8985100	. Lead (Pb)	2023/10/17	100	80 - 120	96	80 - 120	<0.00005	mg/L	1.6	20				
8985100	. Lithium (Li)	2023/10/17	114	80 - 120	104	80 - 120	<0.0005	mg/L	0.99	20				
8985100	. Magnesium (Mg)	2023/10/17	NC	80 - 120	97	80 - 120	<0.005	mg/L	0.21	20				
8985100	. Manganese (Mn)	2023/10/17	NC	80 - 120	99	80 - 120	<0.0002	mg/L	0.20	20				
8985100	. Molybdenum (Mo)	2023/10/17	128 (2)	80 - 120	102	80 - 120	<0.00005	mg/L	1.1	20				
8985100	. Nickel (Ni)	2023/10/17	105	80 - 120	97	80 - 120	<0.0001	mg/L	10	20				
8985100	. Phosphorus (P)	2023/10/17	123 (2)	80 - 120	101	80 - 120	<0.005	mg/L	2.3	20				
8985100	. Potassium (K)	2023/10/17	116	80 - 120	100	80 - 120	<0.02	mg/L	0.49	20				
8985100	. Rubidium (Rb)	2023/10/17	112	80 - 120	100	80 - 120	<0.00002	mg/L	2.5	20				
8985100	. Selenium (Se)	2023/10/17	109	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20				
8985100	. Silicon (Si)	2023/10/17	NC	80 - 120	101	80 - 120	<0.005	mg/L	1.0	20				
8985100	. Silver (Ag)	2023/10/17	79 (2)	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20				
8985100	. Sodium (Na)	2023/10/17	NC	80 - 120	98	80 - 120	<0.01	mg/L	0.17	20				
8985100	. Strontium (Sr)	2023/10/17	NC	80 - 120	100	80 - 120	<0.0001	mg/L	0.088	20				
8985100	. Tellurium (Te)	2023/10/17	110	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Thallium (Tl)	2023/10/17	102	80 - 120	97	80 - 120	<0.000005	mg/L	NC	20				
8985100	. Thorium (Th)	2023/10/17	112	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20				
8985100	. Tin (Sn)	2023/10/17	123 (2)	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Titanium (Ti)	2023/10/17	112	80 - 120	101	80 - 120	<0.0005	mg/L	0.46	20				
8985100	. Tungsten (W)	2023/10/17	111	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20				
8985100	. Uranium (U)	2023/10/17	113	80 - 120	103	80 - 120	<0.00001	mg/L	5.0	20				
8985100	. Vanadium (V)	2023/10/17	119	80 - 120	100	80 - 120	<0.00005	mg/L	1.1	20				
8985100	. Zinc (Zn)	2023/10/17	97	80 - 120	96	80 - 120	<0.0005	mg/L	7.9	20				
8985100	. Zirconium (Zr)	2023/10/17	132 (2)	80 - 120	105	80 - 120	<0.0001	mg/L	2.8	20				
8985658	Total Suspended Solids	2023/10/17			95	85 - 115	<10	mg/L	NC	20				
8987901	Strong Acid Dissoc. Cyanide (CN)		94	80 - 120	102	80 - 120	<0.00050	mg/L	NC	20				
8990768	Strong Acid Dissoc. Cyanide (CN)	2023/10/15	92	80 - 120	102	80 - 120	<0.00050	mg/L						

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Reagent Blank		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS	% Recovery	QC Limits
8990769	Total Phosphorus (P)	2023/10/18	NC	80 - 120	99	80 - 120	<0.0010	mg/L					92	80 - 120
8990770	Free Cyanide (CN)	2023/10/17	90	80 - 120	84	80 - 120	<2.0	ug/L						

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Reagent Blank: A blank matrix containing all reagents used in the analytical procedure. Used to determine any analytical contamination.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, probable matrix interference.

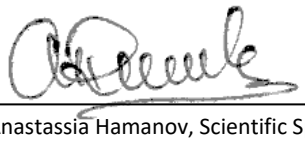
(2) Matrix Spike exceeds acceptance limits, probable matrix interference

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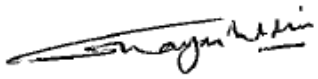
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

VALIDATION SIGNATURE PAGE

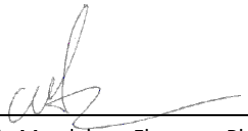
The analytical data and all QC contained in this report were reviewed and validated by:



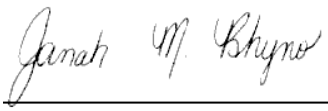
Anastassia Hamanov, Scientific Specialist



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Maria Magdalena Florescu, Ph.D., P.Chem., QP, Inorganics Manager



Janah Rhyno, Scientific Specialist

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 781362

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/23
Report #: R7875318
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V8570
Received: 2023/10/11, 15:20

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	1	N/A	2023/10/18	ATL SOP-00205	SM 24 2310B m
Acidity (CaCO3) in water (1)	8	N/A	2023/10/19	ATL SOP-00205	SM 24 2310B m
Alkalinity	9	N/A	2023/10/17	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	9	N/A	2023/10/18	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	9	N/A	2023/10/18	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	9	N/A	2023/10/17	CAM SOP-00414	SM 23 2510 m
Fluoride	9	2023/10/14	2023/10/17	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	9	N/A	2023/10/19	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2023/10/18	2023/10/18	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	9	2023/10/16	2023/10/17	CAM SOP-00453	EPA 7470 m
Mercury (low level)	6	2023/10/16	2023/10/16	CAM SOP-00453	EPA 7470 m
Mercury (low level)	1	2023/10/16	2023/10/17	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	9	2023/10/17	2023/10/18	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	9	N/A	2023/10/19	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	7	N/A	2023/10/18	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	2	N/A	2023/10/19	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	9	2023/10/18	2023/10/19	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	9	N/A	2023/10/19	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	9	2023/10/19	2023/10/19	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	9	2023/10/19	2023/10/20	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	9	N/A	2023/10/20	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	9	N/A	2023/10/19	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	9	2023/10/14	2023/10/17	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (4)	7	N/A	2023/10/13		Field pH Meter
Sulphate by Automated Turbidimetry	9	N/A	2023/10/18	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	9	2023/10/16	2023/10/17	CAM SOP-00428	SM 23 2540C m
Field Temperature (4)	7	N/A	2023/10/13		Field Thermometer
Total Kjeldahl Nitrogen in Water	8	2023/10/17	2023/10/18	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	1	2023/10/17	2023/10/19	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	1	2023/10/21	2023/10/22	CAM SOP-00428	SM 23 2540D m

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 781362

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/23
Report #: R7875318
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V8570
Received: 2023/10/11, 15:20

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Low Level Total Suspended Solids	4	2023/10/18	2023/10/19	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	4	2023/10/19	2023/10/20	CAM SOP-00428	SM 23 2540D m
Turbidity	9	N/A	2023/10/17	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C3V8570
Report Date: 2023/10/23

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGZ401			XGZ403			XGZ403		
Sampling Date		2023/10/10 08:00			2023/10/10 15:00			2023/10/10 15:00		
COC Number		781362			781362			781362		
	UNITS	Duplicate 2	RDL	QC Batch	G6-BR-14	RDL	QC Batch	G6-BR-14 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	280	1.0	8978398	290	1.0	8978398			
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.3	1.0	8978398	2.3	1.0	8978398			
Hardness (CaCO3)	mg/L	300	1.0	8980793	280	1.0	8980793			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8978398	<1.0	1.0	8978398			
Field Measurements										
Field Temperature	Celsius				7.9	N/A	ONSITE			
Field Measured pH	pH				7.12		ONSITE			
Inorganics										
Acidity	mg/L	12	5.0	8991213	8.4	5.0	8991213			
Total Ammonia-N	mg/L	<0.050	0.050	8988746	0.36	0.050	8988746			
Conductivity	mS/cm	0.542	0.001	8981975	0.535	0.001	8981975	0.539	0.001	8981975
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	8997198	<2.0 (1)	2.0	8997198			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8997197	<0.00050	0.00050	8993851			
Total Dissolved Solids	mg/L	245	10	8983453	235	10	8983453			
Fluoride (F-)	mg/L	0.32	0.10	8981979	0.32	0.10	8981979	0.32	0.10	8981979
Total Kjeldahl Nitrogen (TKN)	mg/L	0.11	0.10	8987663	0.48	0.10	8987663			
pH	pH	7.94		8981978	7.92		8981978	7.90		8981978
Total Phosphorus (P)	mg/L	0.051	0.0010	8997196	0.033	0.0010	8997196	0.034	0.0010	8997196
Total Suspended Solids	mg/L	120	1	8986400	11	1	8988588			
Dissolved Sulphate (SO4)	mg/L	7.0	1.0	8981897	<1.0	1.0	8981897			
Turbidity	NTU	36	0.1	8981960	3.3	0.1	8981960	2.7	0.1	8981960
Alkalinity (Total as CaCO3)	mg/L	290	1.0	8981973	290	1.0	8981973	300	1.0	8981973
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	8981900	<1.0	1.0	8981900			
Nitrite (N)	mg/L	<0.010	0.010	8981891	0.049	0.010	8981363			
Nitrate (N)	mg/L	<0.10	0.10	8981891	<0.10	0.10	8981363			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8981891	<0.10	0.10	8981363			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8570
Report Date: 2023/10/23

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGZ404			XGZ404			XGZ405		
Sampling Date		2023/10/10 14:45			2023/10/10 14:45			2023/10/10 13:35		
COC Number		781362			781362			781362		
	UNITS	G6-OB-14	RDL	QC Batch	G6-OB-14 Lab-Dup	RDL	QC Batch	MWS-14-02-OB	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	140	1.0	8978398				270	1.0	8978398
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.2	1.0	8978398				2.4	1.0	8978398
Hardness (CaCO3)	mg/L	150	1.0	8980793				280	1.0	8980793
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8978398				<1.0	1.0	8978398
Field Measurements										
Field Temperature	Celsius	9.5	N/A	ONSITE				8.4	N/A	ONSITE
Field Measured pH	pH	7.49		ONSITE				7.05		ONSITE
Inorganics										
Acidity	mg/L	<5.0	5.0	8991213				8.6	5.0	8991213
Total Ammonia-N	mg/L	<0.050	0.050	8988746				<0.050	0.050	8988746
Conductivity	mS/cm	0.275	0.001	8981975				0.512	0.001	8981975
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	8997198				<2.0 (1)	2.0	8997198
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8993851				<0.00050	0.00050	8993851
Total Dissolved Solids	mg/L	105	10	8983457				245	10	8983453
Fluoride (F-)	mg/L	<0.10	0.10	8981979				0.33	0.10	8981979
Total Kjeldahl Nitrogen (TKN)	mg/L	<0.10	0.10	8987663				0.14	0.10	8987663
pH	pH	7.94		8981978				7.97		8981978
Total Phosphorus (P)	mg/L	0.052	0.0010	8997196				0.066	0.0010	8997191
Total Suspended Solids	mg/L	140	1	8986400	150	1	8986400	120	1	8988588
Dissolved Sulphate (SO4)	mg/L	2.2	1.0	8981897				7.4	1.0	8981897
Turbidity	NTU	1.5	0.1	8981960				8.4	0.1	8981960
Alkalinity (Total as CaCO3)	mg/L	140	1.0	8981973				270	1.0	8981973
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	8981900				<1.0	1.0	8981900
Nitrite (N)	mg/L	<0.010	0.010	8981891				<0.010	0.010	8981891
Nitrate (N)	mg/L	<0.10	0.10	8981891				<0.10	0.10	8981891
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8981891				<0.10	0.10	8981891

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8570
Report Date: 2023/10/23

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGZ406			XGZ408			XGZ409		
Sampling Date		2023/10/10 14:00			2023/10/10 10:04			2023/10/10 11:52		
COC Number		781362			781362			781362		
	UNITS	MWS-14-02-BR	RDL	QC Batch	MW3-BR-13	RDL	QC Batch	MW3-OB-13	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	290	1.0	8978398	350	1.0	8978398	420	1.0	8978398
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.0	1.0	8978398	<1.0	1.0	8978398	2.2	1.0	8978398
Hardness (CaCO3)	mg/L	290	1.0	8980793	360	1.0	8980793	430	1.0	8980793
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8978398	<1.0	1.0	8978398	<1.0	1.0	8978398
Field Measurements										
Field Temperature	Celsius	7.3	N/A	ONSITE	7.4	N/A	ONSITE	7.8	N/A	ONSITE
Field Measured pH	pH	7.08		ONSITE	6.92		ONSITE	7.28		ONSITE
Inorganics										
Acidity	mg/L	10	5.0	8991213	50	5.0	8988645	21	5.0	8991213
Total Ammonia-N	mg/L	0.17	0.050	8988746	0.81	0.050	8988746	0.48	0.050	8988746
Conductivity	mS/cm	0.540	0.001	8981975	0.654	0.001	8981975	0.797	0.001	8981975
Free Cyanide (CN)	ug/L	3.5 (1)	2.0	8997198	<2.0 (1)	2.0	8997198	<2.0 (1)	2.0	8997198
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050 (2)	0.00050	8993851	<0.00050	0.00050	8993851	<0.00050	0.00050	8993851
Total Dissolved Solids	mg/L	225	10	8983457	320	10	8983453	365	10	8983457
Fluoride (F-)	mg/L	0.32	0.10	8981979	0.26	0.10	8981979	0.37	0.10	8981979
Total Kjeldahl Nitrogen (TKN)	mg/L	0.25	0.10	8987663	1.3	0.10	8987663	1.0	0.10	8987663
pH	pH	7.86		8981978	7.44		8981978	7.75		8981978
Total Phosphorus (P)	mg/L	0.017	0.0010	8997191	0.14	0.0010	8997191	1.4 (3)	0.010	8997196
Total Suspended Solids	mg/L	6	1	8988588	110	3	8988588	4400	5	8986400
Dissolved Sulphate (SO4)	mg/L	4.9	1.0	8981897	3.6	1.0	8981897	13	1.0	8981897
Turbidity	NTU	5.4	0.1	8981960	39	0.1	8981960	89	0.1	8981960
Alkalinity (Total as CaCO3)	mg/L	290	1.0	8981973	350	1.0	8981973	420	1.0	8981973
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	8981900	3.1	1.0	8981900	2.4	1.0	8981900
Nitrite (N)	mg/L	<0.010	0.010	8981363	<0.010	0.010	8981891	0.097	0.010	8981891
Nitrate (N)	mg/L	<0.10	0.10	8981363	<0.10	0.10	8981891	<0.10	0.10	8981891

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.
(3) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8570
Report Date: 2023/10/23

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGZ406			XGZ408			XGZ409		
Sampling Date		2023/10/10 14:00			2023/10/10 10:04			2023/10/10 11:52		
COC Number		781362			781362			781362		
	UNITS	MWS-14-02-BR	RDL	QC Batch	MW3-BR-13	RDL	QC Batch	MW3-OB-13	RDL	QC Batch
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8981363	<0.10	0.10	8981891	0.13	0.10	8981891

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8570
Report Date: 2023/10/23

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGZ409			XGZ410			XGZ411		
Sampling Date		2023/10/10 11:52			2023/10/10 13:28			2023/10/10 08:00		
COC Number		781362			781362			781362		
	UNITS	MW3-OB-13 Lab-Dup	RDL	QC Batch	MW4-OB-13	RDL	QC Batch	Field Blank	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				420	1.0	8978398	<1.0	1.0	8978398
Carb. Alkalinity (calc. as CaCO3)	mg/L				1.0	1.0	8978398	<1.0	1.0	8978398
Hardness (CaCO3)	mg/L				420	1.0	8980793	<1.0	1.0	8980793
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	8978398	<1.0	1.0	8978398
Field Measurements										
Field Temperature	Celsius				9.0	N/A	ONSITE			
Field Measured pH	pH				6.51		ONSITE			
Inorganics										
Acidity	mg/L				43	5.0	8991213	<5.0	5.0	8991213
Total Ammonia-N	mg/L				2.5	0.050	8988746	<0.050	0.050	8988746
Conductivity	mS/cm				0.751	0.001	8981975	0.001	0.001	8981975
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	8997198	<2.0 (1)	2.0	8997198
Strong Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	8993851	<0.00050	0.00050	8997197
Total Dissolved Solids	mg/L	355	10	8983457	455	10	8983453	<10	10	8983457
Fluoride (F-)	mg/L				0.20	0.10	8981979	<0.10	0.10	8981979
Total Kjeldahl Nitrogen (TKN)	mg/L				2.8	0.50	8987663	<0.10	0.10	8987663
pH	pH				7.41		8981978	5.84		8981978
Total Phosphorus (P)	mg/L				4.0 (2)	0.020	8997196	<0.0010	0.0010	8997196
Total Suspended Solids	mg/L				14000	200	8995263	<1	1	8986400
Dissolved Sulphate (SO4)	mg/L				<1.0	1.0	8981897	<1.0	1.0	8981897
Turbidity	NTU				410	0.1	8981960	0.1	0.1	8981960
Alkalinity (Total as CaCO3)	mg/L				420	1.0	8981973	<1.0	1.0	8981973
Dissolved Chloride (Cl-)	mg/L				<1.0	1.0	8981900	<1.0	1.0	8981900
Nitrite (N)	mg/L				0.020	0.010	8981891	<0.010	0.010	8981891
Nitrate (N)	mg/L				<0.10	0.10	8981891	<0.10	0.10	8981891

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8570
Report Date: 2023/10/23

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGZ409			XGZ410			XGZ411		
Sampling Date		2023/10/10 11:52			2023/10/10 13:28			2023/10/10 08:00		
COC Number		781362			781362			781362		
	UNITS	MW3-OB-13 Lab-Dup	RDL	QC Batch	MW4-OB-13	RDL	QC Batch	Field Blank	RDL	QC Batch
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	8981891	<0.10	0.10	8981891

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		XGZ411		
Sampling Date		2023/10/10 08:00		
COC Number		781362		
	UNITS	Field Blank Lab-Dup	RDL	QC Batch
Inorganics				
Acidity	mg/L	<5.0	5.0	8991213

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ401			XGZ401			XGZ403		
Sampling Date		2023/10/10 08:00			2023/10/10 08:00			2023/10/10 15:00		
COC Number		781362			781362			781362		
	UNITS	Duplicate 2	RDL	QC Batch	Duplicate 2 Lab-Dup	RDL	QC Batch	G6-BR-14	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0006	0.0005	8992036	0.0006	0.0005	8992036	0.0008	0.0005	8992036
. Aluminum (Al)	mg/L	0.219	0.0005	8988656				0.0146	0.0005	8988656
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Antimony (Sb)	mg/L	<0.0001	0.0001	8988656				<0.0001	0.0001	8988656
Dissolved Arsenic (As)	mg/L	0.0004	0.0001	8992036	0.0004	0.0001	8992036	0.0011	0.0001	8992036
. Arsenic (As)	mg/L	0.0008	0.0001	8988656				0.0010	0.0001	8988656
Dissolved Barium (Ba)	mg/L	0.0353	0.0002	8992036	0.0349	0.0002	8992036	0.0515	0.0002	8992036
. Barium (Ba)	mg/L	0.0387	0.0002	8988656				0.0525	0.0002	8988656
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	8992036	<0.00005	0.00005	8992036	<0.00005	0.00005	8992036
. Beryllium (Be)	mg/L	<0.00005	0.00005	8988656				<0.00005	0.00005	8988656
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Bismuth (Bi)	mg/L	<0.0001	0.0001	8988656				<0.0001	0.0001	8988656
Dissolved Boron (B)	mg/L	0.012	0.001	8992036	0.012	0.001	8992036	0.032	0.001	8992036
. Boron (B)	mg/L	0.012	0.001	8988656				0.030	0.001	8988656
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	8992036	<0.00001	0.00001	8992036	<0.00001	0.00001	8992036
. Cadmium (Cd)	mg/L	<0.000005	0.000005	8988656				<0.000005	0.000005	8988656
Dissolved Calcium (Ca)	mg/L	86.2	0.1	8992036	85.3	0.1	8992036	74.4	0.1	8992036
. Calcium (Ca)	mg/L	91.1	0.1	8988656				70.1	0.1	8988656
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	8992036	<0.00002	0.00002	8992036	0.00063	0.00002	8992036
. Cesium (Cs)	mg/L	0.00003	0.00002	8988656				0.00067	0.00002	8988656
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	8992036	<0.0005	0.0005	8992036	<0.0005	0.0005	8992036
. Chromium (Cr)	mg/L	0.0009	0.0005	8988656				<0.0005	0.0005	8988656
Dissolved Cobalt (Co)	mg/L	<0.00005	0.00005	8992036	<0.00005	0.00005	8992036	<0.00005	0.00005	8992036
. Cobalt (Co)	mg/L	0.00026	0.00005	8988656				<0.00005	0.00005	8988656
Dissolved Copper (Cu)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036	0.0002	0.0001	8992036
. Copper (Cu)	mg/L	0.0007	0.0001	8988656				<0.0001	0.0001	8988656
Dissolved Iron (Fe)	mg/L	0.408	0.005	8992036	0.408	0.005	8992036	0.782	0.005	8992036
. Iron (Fe)	mg/L	0.686	0.005	8988656				0.800	0.005	8988656
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	8992036	<0.00005	0.00005	8992036	<0.00005	0.00005	8992036

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ401			XGZ401			XGZ403		
Sampling Date		2023/10/10 08:00			2023/10/10 08:00			2023/10/10 15:00		
COC Number		781362			781362			781362		
	UNITS	Duplicate 2	RDL	QC Batch	Duplicate 2 Lab-Dup	RDL	QC Batch	G6-BR-14	RDL	QC Batch
. Lead (Pb)	mg/L	0.00028	0.00005	8988656				<0.00005	0.00005	8988656
Dissolved Lithium (Li)	mg/L	0.0071	0.0005	8992036	0.0072	0.0005	8992036	0.0075	0.0005	8992036
. Lithium (Li)	mg/L	0.0072	0.0005	8988656				0.0075	0.0005	8988656
Dissolved Magnesium (Mg)	mg/L	20.4	0.005	8992036	20.6	0.005	8992036	22.7	0.005	8992036
. Magnesium (Mg)	mg/L	22.9	0.005	8988656				22.4	0.005	8988656
Dissolved Manganese (Mn)	mg/L	0.0400	0.0002	8992036	0.0401	0.0002	8992036	0.0446	0.0002	8992036
. Manganese (Mn)	mg/L	0.0634	0.0002	8988656				0.0453	0.0002	8988656
Mercury (Hg)	ug/L	<0.01	0.01	8983775	<0.01	0.01	8983775	<0.01	0.01	8983775
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8983743	<0.01	0.01	8983743	<0.01	0.01	8983743
Dissolved Molybdenum (Mo)	mg/L	0.00119	0.00005	8992036	0.00120	0.00005	8992036	0.00044	0.00005	8992036
. Molybdenum (Mo)	mg/L	0.00125	0.00005	8988656				0.00042	0.00005	8988656
Dissolved Nickel (Ni)	mg/L	0.0001	0.0001	8992036	0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Nickel (Ni)	mg/L	0.0007	0.0001	8988656				<0.0001	0.0001	8988656
Dissolved Phosphorus (P)	mg/L	0.013	0.005	8992036	0.013	0.005	8992036	0.042	0.005	8992036
. Phosphorus (P)	mg/L	0.058	0.005	8988656				0.042	0.005	8988656
Dissolved Potassium (K)	mg/L	2.26	0.02	8992036	2.25	0.02	8992036	2.23	0.02	8992036
. Potassium (K)	mg/L	2.36	0.02	8988656				2.28	0.02	8988656
Dissolved Rubidium (Rb)	mg/L	0.00129	0.00002	8992036	0.00131	0.00002	8992036	0.00075	0.00002	8992036
. Rubidium (Rb)	mg/L	0.00194	0.00002	8988656				0.00078	0.00002	8988656
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	8992036	<0.0002	0.0002	8992036	<0.0002	0.0002	8992036
. Selenium (Se)	mg/L	<0.00005	0.00005	8988656				<0.00005	0.00005	8988656
Dissolved Silicon (Si)	mg/L	6.93	0.025	8992036	6.85	0.025	8992036	9.06	0.025	8992036
. Silicon (Si)	mg/L	6.59	0.025	8988656				8.48	0.025	8988656
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	8992036	<0.00001	0.00001	8992036	<0.00001	0.00001	8992036
. Silver (Ag)	mg/L	<0.00001	0.00001	8988656				<0.00001	0.00001	8988656
Dissolved Sodium (Na)	mg/L	4.07	0.01	8992036	4.07	0.01	8992036	14.0	0.01	8992036
. Sodium (Na)	mg/L	4.69	0.01	8988656				13.6	0.01	8988656
Dissolved Strontium (Sr)	mg/L	0.132	0.0001	8992036	0.133	0.0001	8992036	0.312	0.0001	8992036
. Strontium (Sr)	mg/L	0.138	0.0001	8988656				0.322	0.0001	8988656
Dissolved Sulphur (S)	mg/L	2.9	0.5	8987479				<0.5	0.5	8987479

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ401			XGZ401			XGZ403		
Sampling Date		2023/10/10 08:00			2023/10/10 08:00			2023/10/10 15:00		
COC Number		781362			781362			781362		
	UNITS	Duplicate 2	RDL	QC Batch	Duplicate 2 Lab-Dup	RDL	QC Batch	G6-BR-14	RDL	QC Batch
Total Sulphur (S)	mg/L	3.1	0.5	8988303				<0.5	0.5	8988303
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Tellurium (Te)	mg/L	<0.0001	0.0001	8988656				<0.0001	0.0001	8988656
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	8992036	<0.000005	0.000005	8992036	<0.000005	0.000005	8992036
. Thallium (Tl)	mg/L	0.000008	0.000005	8988656				<0.000005	0.000005	8988656
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	8992036	<0.0002	0.0002	8992036	<0.0002	0.0002	8992036
. Thorium (Th)	mg/L	<0.0002	0.0002	8988656				<0.0002	0.0002	8988656
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Tin (Sn)	mg/L	<0.0001	0.0001	8988656				<0.0001	0.0001	8988656
Dissolved Titanium (Ti)	mg/L	0.0006	0.0005	8992036	0.0006	0.0005	8992036	0.0010	0.0005	8992036
. Titanium (Ti)	mg/L	0.0175	0.0005	8988656				0.0017	0.0005	8988656
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036	0.0003	0.0001	8992036
. Tungsten (W)	mg/L	<0.0001	0.0001	8988656				0.0003	0.0001	8988656
Dissolved Uranium (U)	mg/L	0.00026	0.00001	8992036	0.00026	0.00001	8992036	0.00002	0.00001	8992036
. Uranium (U)	mg/L	0.00072	0.00001	8988656				0.00002	0.00001	8988656
Dissolved Vanadium (V)	mg/L	<0.00005	0.00005	8992036	<0.00005	0.00005	8992036	<0.00005	0.00005	8992036
. Vanadium (V)	mg/L	0.00071	0.00005	8988656				0.00007	0.00005	8988656
Dissolved Zinc (Zn)	mg/L	0.0019	0.0005	8992036	0.0018	0.0005	8992036	<0.0005	0.0005	8992036
. Zinc (Zn)	mg/L	0.0049	0.0005	8988656				<0.0005	0.0005	8988656
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036	0.0004	0.0001	8992036
. Zirconium (Zr)	mg/L	0.0004	0.0001	8988656				0.0006	0.0001	8988656

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ404			XGZ405		XGZ406		
Sampling Date		2023/10/10 14:45			2023/10/10 13:35		2023/10/10 14:00		
COC Number		781362			781362		781362		
	UNITS	G6-OB-14	RDL	QC Batch	MWS-14-02-OB	QC Batch	MWS-14-02-BR	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0015	0.0005	8992036	0.0009	8992036	0.0017	0.0005	8992036
. Aluminum (Al)	mg/L	0.342	0.0005	8988656	0.234	8988656	0.0210	0.0005	8988656
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	8992036	0.0002	8992036	<0.0001	0.0001	8992036
. Antimony (Sb)	mg/L	<0.0001	0.0001	8988656	0.0001	8988656	<0.0001	0.0001	8988656
Dissolved Arsenic (As)	mg/L	0.0004	0.0001	8992036	0.0010	8992036	0.0016	0.0001	8992036
. Arsenic (As)	mg/L	0.0018	0.0001	8988656	0.0012	8988656	0.0017	0.0001	8988656
Dissolved Barium (Ba)	mg/L	0.0108	0.0002	8992036	0.0369	8992036	0.0337	0.0002	8992036
. Barium (Ba)	mg/L	0.0266	0.0002	8988656	0.0389	8988656	0.0336	0.0002	8988656
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	8992036	<0.00005	8992036	<0.00005	0.00005	8992036
. Beryllium (Be)	mg/L	<0.00005	0.00005	8988656	<0.00005	8988656	<0.00005	0.00005	8988656
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	8992036	<0.0001	8992036	<0.0001	0.0001	8992036
. Bismuth (Bi)	mg/L	<0.0001	0.0001	8988656	<0.0001	8988656	<0.0001	0.0001	8988656
Dissolved Boron (B)	mg/L	0.008	0.001	8992036	0.013	8992036	0.021	0.001	8992036
. Boron (B)	mg/L	0.008	0.001	8988656	0.012	8988656	0.020	0.001	8988656
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	8992036	<0.00001	8992036	<0.00001	0.00001	8992036
. Cadmium (Cd)	mg/L	0.000016	0.000005	8988656	0.000013	8988656	<0.000005	0.000005	8988656
Dissolved Calcium (Ca)	mg/L	42.6	0.02	8992036	81.5	8992036	82.5	0.1	8992036
. Calcium (Ca)	mg/L	53.5	0.1	8988656	91.7	8988656	78.6	0.1	8988656
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	8992036	<0.00002	8992036	0.00003	0.00002	8992036
. Cesium (Cs)	mg/L	0.00005	0.00002	8988656	0.00004	8988656	0.00003	0.00002	8988656
Dissolved Chromium (Cr)	mg/L	0.0007	0.0005	8992036	<0.0005	8992036	<0.0005	0.0005	8992036
. Chromium (Cr)	mg/L	0.0017	0.0005	8988656	0.0010	8988656	<0.0005	0.0005	8988656
Dissolved Cobalt (Co)	mg/L	<0.00005	0.00005	8992036	0.00006	8992036	<0.00005	0.00005	8992036
. Cobalt (Co)	mg/L	0.00048	0.00005	8988656	0.00034	8988656	0.00006	0.00005	8988656
Dissolved Copper (Cu)	mg/L	0.0002	0.0001	8992036	0.0009	8992036	0.0001	0.0001	8992036
. Copper (Cu)	mg/L	0.0022	0.0001	8988656	0.0011	8988656	0.0002	0.0001	8988656
Dissolved Iron (Fe)	mg/L	0.005	0.005	8992036	0.276	8992036	1.11	0.005	8992036
. Iron (Fe)	mg/L	0.531	0.005	8988656	0.643	8988656	1.13	0.005	8988656
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	8992036	<0.00005	8992036	<0.00005	0.00005	8992036
. Lead (Pb)	mg/L	0.00057	0.00005	8988656	0.00035	8988656	<0.00005	0.00005	8988656

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ404			XGZ405		XGZ406		
Sampling Date		2023/10/10 14:45			2023/10/10 13:35		2023/10/10 14:00		
COC Number		781362			781362		781362		
	UNITS	G6-OB-14	RDL	QC Batch	MWS-14-02-OB	QC Batch	MWS-14-02-BR	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0014	0.0005	8992036	0.0066	8992036	0.0081	0.0005	8992036
. Lithium (Li)	mg/L	0.0020	0.0005	8988656	0.0070	8988656	0.0081	0.0005	8988656
Dissolved Magnesium (Mg)	mg/L	9.47	0.005	8992036	19.3	8992036	21.4	0.005	8992036
. Magnesium (Mg)	mg/L	12.6	0.005	8988656	22.8	8988656	20.9	0.005	8988656
Dissolved Manganese (Mn)	mg/L	0.0075	0.0002	8992036	0.0434	8992036	0.100	0.0002	8992036
. Manganese (Mn)	mg/L	0.0508	0.0002	8988656	0.0740	8988656	0.102	0.0002	8988656
Mercury (Hg)	ug/L	<0.01	0.01	8983775	<0.01	8983759	<0.01	0.01	8983775
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8983743	<0.01	8983743	<0.01	0.01	8983743
Dissolved Molybdenum (Mo)	mg/L	0.00022	0.00005	8992036	0.00160	8992036	0.00122	0.00005	8992036
. Molybdenum (Mo)	mg/L	0.00019	0.00005	8988656	0.00155	8988656	0.00117	0.00005	8988656
Dissolved Nickel (Ni)	mg/L	0.0002	0.0001	8992036	0.0004	8992036	<0.0001	0.0001	8992036
. Nickel (Ni)	mg/L	0.0013	0.0001	8988656	0.0010	8988656	0.0003	0.0001	8988656
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	8992036	0.017	8992036	0.021	0.005	8992036
. Phosphorus (P)	mg/L	0.064	0.005	8988656	0.065	8988656	0.020	0.005	8988656
Dissolved Potassium (K)	mg/L	0.42	0.02	8992036	2.35	8992036	2.28	0.02	8992036
. Potassium (K)	mg/L	0.52	0.02	8988656	2.39	8988656	2.26	0.02	8988656
Dissolved Rubidium (Rb)	mg/L	0.00049	0.00002	8992036	0.00162	8992036	0.00114	0.00002	8992036
. Rubidium (Rb)	mg/L	0.00109	0.00002	8988656	0.00213	8988656	0.00115	0.00002	8988656
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	8992036	<0.0002	8992036	<0.0002	0.0002	8992036
. Selenium (Se)	mg/L	0.00010	0.00005	8988656	<0.00005	8988656	<0.00005	0.00005	8988656
Dissolved Silicon (Si)	mg/L	5.60	0.025	8992036	6.45	8992036	7.94	0.025	8992036
. Silicon (Si)	mg/L	5.79	0.025	8988656	6.43	8988656	7.57	0.025	8988656
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	8992036	<0.00001	8992036	<0.00001	0.00001	8992036
. Silver (Ag)	mg/L	<0.00001	0.00001	8988656	<0.00001	8988656	<0.00001	0.00001	8988656
Dissolved Sodium (Na)	mg/L	2.84	0.01	8992036	5.23	8992036	8.01	0.01	8992036
. Sodium (Na)	mg/L	2.93	0.01	8988656	5.43	8988656	7.87	0.01	8988656
Dissolved Strontium (Sr)	mg/L	0.0382	0.0001	8992036	0.124	8992036	0.173	0.0001	8992036
. Strontium (Sr)	mg/L	0.0480	0.0001	8988656	0.134	8988656	0.176	0.0001	8988656
Dissolved Sulphur (S)	mg/L	0.8	0.5	8987479	3.3	8987479	2.3	0.5	8987479
Total Sulphur (S)	mg/L	0.8	0.5	8988303	3.4	8988303	2.2	0.5	8988303
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	8992036	<0.0001	8992036	<0.0001	0.0001	8992036

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ404			XGZ405		XGZ406		
Sampling Date		2023/10/10 14:45			2023/10/10 13:35		2023/10/10 14:00		
COC Number		781362			781362		781362		
	UNITS	G6-OB-14	RDL	QC Batch	MWS-14-02-OB	QC Batch	MWS-14-02-BR	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	8988656	<0.0001	8988656	<0.0001	0.0001	8988656
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	8992036	<0.000005	8992036	<0.000005	0.000005	8992036
. Thallium (Tl)	mg/L	0.000010	0.000005	8988656	0.000009	8988656	<0.000005	0.000005	8988656
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	8992036	<0.0002	8992036	<0.0002	0.0002	8992036
. Thorium (Th)	mg/L	<0.0002	0.0002	8988656	<0.0002	8988656	<0.0002	0.0002	8988656
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	8992036	0.0001	8992036	<0.0001	0.0001	8992036
. Tin (Sn)	mg/L	<0.0001	0.0001	8988656	0.0001	8988656	<0.0001	0.0001	8988656
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	8992036	0.0005	8992036	0.0006	0.0005	8992036
. Titanium (Ti)	mg/L	0.0209	0.0005	8988656	0.0187	8988656	0.0018	0.0005	8988656
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	8992036	<0.0001	8992036	0.0007	0.0001	8992036
. Tungsten (W)	mg/L	<0.0001	0.0001	8988656	<0.0001	8988656	0.0007	0.0001	8988656
Dissolved Uranium (U)	mg/L	0.00020	0.00001	8992036	0.00090	8992036	0.00032	0.00001	8992036
. Uranium (U)	mg/L	0.00025	0.00001	8988656	0.00125	8988656	0.00037	0.00001	8988656
Dissolved Vanadium (V)	mg/L	0.00097	0.00005	8992036	<0.00005	8992036	0.00019	0.00005	8992036
. Vanadium (V)	mg/L	0.00193	0.00005	8988656	0.00079	8988656	0.00030	0.00005	8988656
Dissolved Zinc (Zn)	mg/L	0.0007	0.0005	8992036	0.0061	8992036	0.0006	0.0005	8992036
. Zinc (Zn)	mg/L	0.0055	0.0005	8988656	0.0079	8988656	0.0016	0.0005	8988656
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	8992036	<0.0001	8992036	0.0002	0.0001	8992036
. Zirconium (Zr)	mg/L	0.0002	0.0001	8988656	0.0004	8988656	0.0003	0.0001	8988656

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ406			XGZ408			XGZ409		
Sampling Date		2023/10/10 14:00			2023/10/10 10:04			2023/10/10 11:52		
COC Number		781362			781362			781362		
	UNITS	MWS-14-02-BR Lab-Dup	RDL	QC Batch	MW3-BR-13	RDL	QC Batch	MW3-OB-13	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L				0.0049	0.0005	8992036	0.0006	0.0005	8992036
. Aluminum (Al)	mg/L				0.259	0.0005	8988656	6.35	0.0025	8988656
Dissolved Antimony (Sb)	mg/L				<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Antimony (Sb)	mg/L				0.0002	0.0001	8988656	<0.0005	0.0005	8988656
Dissolved Arsenic (As)	mg/L				0.0557	0.0005	8992036	0.0041	0.0001	8992036
. Arsenic (As)	mg/L				0.0453	0.0005	8988656	0.0055	0.0005	8988656
Dissolved Barium (Ba)	mg/L				0.301	0.0002	8992036	0.0962	0.0002	8992036
. Barium (Ba)	mg/L				0.298	0.0002	8988656	0.182	0.001	8988656
Dissolved Beryllium (Be)	mg/L				0.00006	0.00005	8992036	<0.00005	0.00005	8992036
. Beryllium (Be)	mg/L				0.00009	0.00005	8988656	0.00054	0.00025	8988656
Dissolved Bismuth (Bi)	mg/L				<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Bismuth (Bi)	mg/L				<0.0001	0.0001	8988656	<0.0005	0.0005	8988656
Dissolved Boron (B)	mg/L				0.014	0.001	8992036	0.038	0.001	8992036
. Boron (B)	mg/L				0.015	0.001	8988656	0.077	0.005	8988656
Dissolved Cadmium (Cd)	mg/L				<0.00001	0.00001	8992036	<0.00001	0.00001	8992036
. Cadmium (Cd)	mg/L				0.000019	0.000005	8988656	0.000351	0.000025	8988656
Dissolved Calcium (Ca)	mg/L				118	0.1	8992036	107	0.1	8992036
. Calcium (Ca)	mg/L				118	0.1	8988656	864	1	8988656
Dissolved Cesium (Cs)	mg/L				0.00113	0.00002	8992036	<0.00002	0.00002	8992036
. Cesium (Cs)	mg/L				0.00130	0.00002	8988656	0.0003	0.0001	8988656
Dissolved Chromium (Cr)	mg/L				0.0005	0.0005	8992036	<0.0005	0.0005	8992036
. Chromium (Cr)	mg/L				0.0018	0.0005	8988656	0.0240	0.0025	8988656
Dissolved Cobalt (Co)	mg/L				0.00025	0.00005	8992036	0.00037	0.00005	8992036
. Cobalt (Co)	mg/L				0.00078	0.00005	8988656	0.00922	0.00025	8988656
Dissolved Copper (Cu)	mg/L				<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Copper (Cu)	mg/L				0.0013	0.0001	8988656	0.0264	0.0005	8988656
Dissolved Iron (Fe)	mg/L				13.2	0.025	8992036	1.37	0.005	8992036
. Iron (Fe)	mg/L				11.6	0.025	8988656	15.8	0.025	8988656
Dissolved Lead (Pb)	mg/L				0.00008	0.00005	8992036	0.00012	0.00005	8992036

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ406			XGZ408			XGZ409		
Sampling Date		2023/10/10 14:00			2023/10/10 10:04			2023/10/10 11:52		
COC Number		781362			781362			781362		
	UNITS	MWS-14-02-BR Lab-Dup	RDL	QC Batch	MW3-BR-13	RDL	QC Batch	MW3-OB-13	RDL	QC Batch
. Lead (Pb)	mg/L				0.00199	0.00005	8988656	0.0145	0.00025	8988656
Dissolved Lithium (Li)	mg/L				0.0065	0.0005	8992036	0.0086	0.0005	8992036
. Lithium (Li)	mg/L				0.0074	0.0005	8988656	0.0228	0.0025	8988656
Dissolved Magnesium (Mg)	mg/L				15.9	0.005	8992036	39.7	0.005	8992036
. Magnesium (Mg)	mg/L				18.6	0.005	8988656	207	0.05	8988656
Dissolved Manganese (Mn)	mg/L				0.345	0.0002	8992036	0.0847	0.0002	8992036
. Manganese (Mn)	mg/L				0.418	0.0002	8988656	1.21	0.001	8988656
Mercury (Hg)	mg/L							<0.00010	0.00010	8988641
Mercury (Hg)	ug/L				<0.01	0.01	8983775			
Dissolved Mercury (Hg)	ug/L				<0.01	0.01	8983743	<0.01	0.01	8983743
Dissolved Molybdenum (Mo)	mg/L				0.00112	0.00005	8992036	0.00192	0.00005	8992036
. Molybdenum (Mo)	mg/L				0.00055	0.00005	8988656	<0.00025	0.00025	8988656
Dissolved Nickel (Ni)	mg/L				0.0004	0.0001	8992036	0.0008	0.0001	8992036
. Nickel (Ni)	mg/L				0.0020	0.0001	8988656	0.0188	0.0005	8988656
Dissolved Phosphorus (P)	mg/L				0.069	0.005	8992036	0.021	0.005	8992036
. Phosphorus (P)	mg/L				0.112	0.005	8988656	2.18	0.025	8988656
Dissolved Potassium (K)	mg/L				2.17	0.02	8992036	4.51	0.02	8992036
. Potassium (K)	mg/L				2.36	0.02	8988656	5.6	0.1	8988656
Dissolved Rubidium (Rb)	mg/L				0.00171	0.00002	8992036	0.00184	0.00002	8992036
. Rubidium (Rb)	mg/L				0.00209	0.00002	8988656	0.0110	0.0001	8988656
Dissolved Selenium (Se)	mg/L				<0.0002	0.0002	8992036	<0.0002	0.0002	8992036
. Selenium (Se)	mg/L				0.00037	0.00005	8988656	<0.00025	0.00025	8988656
Dissolved Silicon (Si)	mg/L				10.8	0.025	8992036	8.94	0.025	8992036
. Silicon (Si)	mg/L				10.3	0.025	8988656	16.6	0.025	8988656
Dissolved Silver (Ag)	mg/L				<0.00001	0.00001	8992036	<0.00001	0.00001	8992036
. Silver (Ag)	mg/L				<0.00001	0.00001	8988656	<0.00005	0.00005	8988656
Dissolved Sodium (Na)	mg/L				7.86	0.01	8992036	16.3	0.01	8992036
. Sodium (Na)	mg/L				8.49	0.01	8988656	16.2	0.05	8988656
Dissolved Strontium (Sr)	mg/L				0.336	0.0001	8992036	0.586	0.0001	8992036
. Strontium (Sr)	mg/L				0.370	0.0001	8988656	0.971	0.0005	8988656

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ406			XGZ408			XGZ409		
Sampling Date		2023/10/10 14:00			2023/10/10 10:04			2023/10/10 11:52		
COC Number		781362			781362			781362		
	UNITS	MWS-14-02-BR Lab-Dup	RDL	QC Batch	MW3-BR-13	RDL	QC Batch	MW3-OB-13	RDL	QC Batch
Dissolved Sulphur (S)	mg/L				1.2	0.5	8987479	5.5	0.5	8987479
Total Sulphur (S)	mg/L	2.2	0.5	8988303	2.0	0.5	8988303	7	5	8988303
Dissolved Tellurium (Te)	mg/L				<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Tellurium (Te)	mg/L				<0.0001	0.0001	8988656	<0.0005	0.0005	8988656
Dissolved Thallium (Tl)	mg/L				<0.000005	0.000005	8992036	<0.000005	0.000005	8992036
. Thallium (Tl)	mg/L				0.000005	0.000005	8988656	0.000126	0.000025	8988656
Dissolved Thorium (Th)	mg/L				<0.0002	0.0002	8992036	<0.0002	0.0002	8992036
. Thorium (Th)	mg/L				<0.0002	0.0002	8988656	0.001	0.001	8988656
Dissolved Tin (Sn)	mg/L				<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Tin (Sn)	mg/L				0.0002	0.0001	8988656	<0.0005	0.0005	8988656
Dissolved Titanium (Ti)	mg/L				0.0015	0.0005	8992036	0.0009	0.0005	8992036
. Titanium (Ti)	mg/L				0.0120	0.0005	8988656	0.0648	0.0025	8988656
Dissolved Tungsten (W)	mg/L				0.0022	0.0001	8992036	<0.0001	0.0001	8992036
. Tungsten (W)	mg/L				0.0027	0.0001	8988656	<0.0005	0.0005	8988656
Dissolved Uranium (U)	mg/L				0.00027	0.00001	8992036	0.00035	0.00001	8992036
. Uranium (U)	mg/L				0.00045	0.00001	8988656	0.00213	0.00005	8988656
Dissolved Vanadium (V)	mg/L				0.00087	0.00005	8992036	0.00014	0.00005	8992036
. Vanadium (V)	mg/L				0.00142	0.00005	8988656	0.0251	0.00025	8988656
Dissolved Zinc (Zn)	mg/L				0.0018	0.0005	8992036	0.0006	0.0005	8992036
. Zinc (Zn)	mg/L				0.0093	0.0005	8988656	0.0440	0.0025	8988656
Dissolved Zirconium (Zr)	mg/L				0.0080	0.0001	8992036	0.0002	0.0001	8992036
. Zirconium (Zr)	mg/L				0.0078	0.0001	8988656	0.0022	0.0005	8988656

RDL = Reportable Detection Limit
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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ410			XGZ411		
Sampling Date		2023/10/10 13:28			2023/10/10 08:00		
COC Number		781362			781362		
	UNITS	MW4-OB-13	RDL	QC Batch	Field Blank	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	0.0090	0.0005	8992036	<0.0005	0.0005	8992036
. Aluminum (Al)	mg/L	1.32	0.0025	8988656	<0.0005	0.0005	8988656
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Antimony (Sb)	mg/L	<0.0005	0.0005	8988656	<0.0001	0.0001	8988656
Dissolved Arsenic (As)	mg/L	0.0947	0.0005	8992036	<0.0001	0.0001	8992036
. Arsenic (As)	mg/L	0.0812	0.0005	8988656	<0.0001	0.0001	8988656
Dissolved Barium (Ba)	mg/L	0.0578	0.0002	8992036	<0.0002	0.0002	8992036
. Barium (Ba)	mg/L	0.214	0.001	8988656	<0.0002	0.0002	8988656
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	8992036	<0.00005	0.00005	8992036
. Beryllium (Be)	mg/L	0.00037	0.00025	8988656	<0.00005	0.00005	8988656
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Bismuth (Bi)	mg/L	<0.0005	0.0005	8988656	<0.0001	0.0001	8988656
Dissolved Boron (B)	mg/L	0.018	0.001	8992036	<0.001	0.001	8992036
. Boron (B)	mg/L	0.058	0.005	8988656	<0.001	0.001	8988656
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	8992036	<0.00001	0.00001	8992036
. Cadmium (Cd)	mg/L	0.000449	0.000025	8988656	<0.000005	0.000005	8988656
Dissolved Calcium (Ca)	mg/L	138	0.1	8992036	<0.02	0.02	8992036
. Calcium (Ca)	mg/L	1270	1	8988656	<0.02	0.02	8988656
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	8992036	<0.00002	0.00002	8992036
. Cesium (Cs)	mg/L	<0.0001	0.0001	8988656	<0.00002	0.00002	8988656
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	8992036	<0.0005	0.0005	8992036
. Chromium (Cr)	mg/L	0.0034	0.0025	8988656	<0.0005	0.0005	8988656
Dissolved Cobalt (Co)	mg/L	0.00056	0.00005	8992036	<0.00005	0.00005	8992036
. Cobalt (Co)	mg/L	0.00948	0.00025	8988656	<0.00005	0.00005	8988656
Dissolved Copper (Cu)	mg/L	0.0005	0.0001	8992036	<0.0001	0.0001	8992036
. Copper (Cu)	mg/L	0.0098	0.0005	8988656	<0.0001	0.0001	8988656
Dissolved Iron (Fe)	mg/L	8.27	0.005	8992036	<0.005	0.005	8992036
. Iron (Fe)	mg/L	16.1	0.025	8988656	<0.005	0.005	8988656
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	8992036	<0.00005	0.00005	8992036
. Lead (Pb)	mg/L	0.00075	0.00025	8988656	<0.00005	0.00005	8988656

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ410			XGZ411		
Sampling Date		2023/10/10 13:28			2023/10/10 08:00		
COC Number		781362			781362		
	UNITS	MW4-OB-13	RDL	QC Batch	Field Blank	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0068	0.0005	8992036	<0.0005	0.0005	8992036
. Lithium (Li)	mg/L	0.0143	0.0025	8988656	<0.0005	0.0005	8988656
Dissolved Magnesium (Mg)	mg/L	18.2	0.005	8992036	<0.005	0.005	8992036
. Magnesium (Mg)	mg/L	194	0.025	8988656	<0.005	0.005	8988656
Dissolved Manganese (Mn)	mg/L	0.358	0.0002	8992036	<0.0002	0.0002	8992036
. Manganese (Mn)	mg/L	2.59	0.001	8988656	<0.0002	0.0002	8988656
Mercury (Hg)	mg/L	<0.00010	0.00010	8988641			
Mercury (Hg)	ug/L				<0.01	0.01	8983775
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8983743	<0.01	0.01	8983743
Dissolved Molybdenum (Mo)	mg/L	0.00394	0.00005	8992036	<0.00005	0.00005	8992036
. Molybdenum (Mo)	mg/L	0.00267	0.00025	8988656	<0.00005	0.00005	8988656
Dissolved Nickel (Ni)	mg/L	0.0027	0.0001	8992036	<0.0001	0.0001	8992036
. Nickel (Ni)	mg/L	0.0133	0.0005	8988656	<0.0001	0.0001	8988656
Dissolved Phosphorus (P)	mg/L	0.226	0.005	8992036	<0.005	0.005	8992036
. Phosphorus (P)	mg/L	0.744	0.025	8988656	<0.005	0.005	8988656
Dissolved Potassium (K)	mg/L	1.13	0.02	8992036	<0.02	0.02	8992036
. Potassium (K)	mg/L	1.5	0.1	8988656	<0.02	0.02	8988656
Dissolved Rubidium (Rb)	mg/L	0.00086	0.00002	8992036	<0.00002	0.00002	8992036
. Rubidium (Rb)	mg/L	0.0026	0.0001	8988656	<0.00002	0.00002	8988656
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	8992036	<0.0002	0.0002	8992036
. Selenium (Se)	mg/L	<0.00025	0.00025	8988656	<0.00005	0.00005	8988656
Dissolved Silicon (Si)	mg/L	9.15	0.025	8992036	<0.005	0.005	8992036
. Silicon (Si)	mg/L	12.0	0.025	8988656	<0.005	0.005	8988656
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	8992036	<0.00001	0.00001	8992036
. Silver (Ag)	mg/L	<0.00005	0.00005	8988656	<0.00001	0.00001	8988656
Dissolved Sodium (Na)	mg/L	8.35	0.01	8992036	<0.01	0.01	8992036
. Sodium (Na)	mg/L	8.71	0.05	8988656	<0.01	0.01	8988656
Dissolved Strontium (Sr)	mg/L	0.212	0.0001	8992036	<0.0001	0.0001	8992036
. Strontium (Sr)	mg/L	0.835	0.0005	8988656	<0.0001	0.0001	8988656
Dissolved Sulphur (S)	mg/L	<0.5	0.5	8987479	<0.5	0.5	8987479
Total Sulphur (S)	mg/L	<5	5	8988303	<0.5	0.5	8988303

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ410			XGZ411		
Sampling Date		2023/10/10 13:28			2023/10/10 08:00		
COC Number		781362			781362		
	UNITS	MW4-OB-13	RDL	QC Batch	Field Blank	RDL	QC Batch
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Tellurium (Te)	mg/L	<0.0005	0.0005	8988656	<0.0001	0.0001	8988656
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	8992036	<0.000005	0.000005	8992036
. Thallium (Tl)	mg/L	<0.000025	0.000025	8988656	<0.000005	0.000005	8988656
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	8992036	<0.0002	0.0002	8992036
. Thorium (Th)	mg/L	<0.001	0.001	8988656	<0.0002	0.0002	8988656
Dissolved Tin (Sn)	mg/L	0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Tin (Sn)	mg/L	<0.0005	0.0005	8988656	<0.0001	0.0001	8988656
Dissolved Titanium (Ti)	mg/L	0.0017	0.0005	8992036	<0.0005	0.0005	8992036
. Titanium (Ti)	mg/L	0.0088	0.0025	8988656	<0.0005	0.0005	8988656
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	8992036	<0.0001	0.0001	8992036
. Tungsten (W)	mg/L	<0.0005	0.0005	8988656	<0.0001	0.0001	8988656
Dissolved Uranium (U)	mg/L	0.00003	0.00001	8992036	<0.00001	0.00001	8992036
. Uranium (U)	mg/L	0.00043	0.00005	8988656	<0.00001	0.00001	8988656
Dissolved Vanadium (V)	mg/L	0.00085	0.00005	8992036	<0.00005	0.00005	8992036
. Vanadium (V)	mg/L	0.0111	0.00025	8988656	<0.00005	0.00005	8988656
Dissolved Zinc (Zn)	mg/L	0.0014	0.0005	8992036	0.0006	0.0005	8992036
. Zinc (Zn)	mg/L	0.0158	0.0025	8988656	<0.0005	0.0005	8988656
Dissolved Zirconium (Zr)	mg/L	0.0014	0.0001	8992036	<0.0001	0.0001	8992036
. Zirconium (Zr)	mg/L	0.0046	0.0005	8988656	<0.0001	0.0001	8988656

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8570
Report Date: 2023/10/23

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: XGZ401
Sample ID: Duplicate 2
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8978398	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8981900	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8980793	N/A	2023/10/19	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8988656	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8997198	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997197	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	8997196	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8988746	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8981891	N/A	2023/10/19	Chandra Nandlal
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8981897	N/A	2023/10/18	Alina Dobreanu
Total Dissolved Solids	BAL	8983453	2023/10/16	2023/10/17	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8987663	2023/10/17	2023/10/18	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8986400	2023/10/19	2023/10/20	Shaneil Hall
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XGZ401 Dup
Sample ID: Duplicate 2
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul

Bureau Veritas ID: XGZ403
Sample ID: G6-BR-14
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8978398	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8981900	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGZ403 **Collected:** 2023/10/10
Sample ID: G6-BR-14 **Shipped:**
Matrix: Water **Received:** 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8980793	N/A	2023/10/19	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8988656	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8997198	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8993851	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	8997196	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8988746	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8981363	N/A	2023/10/19	Chandra Nandlal
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	8981897	N/A	2023/10/18	Alina Dobreanu
Total Dissolved Solids	BAL	8983453	2023/10/16	2023/10/17	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	8987663	2023/10/17	2023/10/18	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988588	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XGZ403 Dup **Collected:** 2023/10/10
Sample ID: G6-BR-14 **Shipped:**
Matrix: Water **Received:** 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Total Phosphorus Low Level Total	KONE	8997196	2023/10/19	2023/10/20	Mary Anne Dela Cruz
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XGZ404 **Collected:** 2023/10/10
Sample ID: G6-OB-14 **Shipped:**
Matrix: Water **Received:** 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8978398	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8981900	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGZ404 **Collected:** 2023/10/10
Sample ID: G6-OB-14 **Shipped:**
Matrix: Water **Received:** 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8980793	N/A	2023/10/19	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8988656	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8997198	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8993851	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	8997196	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8988746	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8981891	N/A	2023/10/19	Chandra Nandlal
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	8981897	N/A	2023/10/18	Alina Dobreanu
Total Dissolved Solids	BAL	8983457	2023/10/16	2023/10/17	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	8987663	2023/10/17	2023/10/18	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8986400	2023/10/19	2023/10/20	Shaneil Hall
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XGZ404 Dup **Collected:** 2023/10/10
Sample ID: G6-OB-14 **Shipped:**
Matrix: Water **Received:** 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	8986400	2023/10/19	2023/10/20	Shaneil Hall

Bureau Veritas ID: XGZ405 **Collected:** 2023/10/10
Sample ID: MWS-14-02-OB **Shipped:**
Matrix: Water **Received:** 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8978398	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8981900	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8980793	N/A	2023/10/19	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983759	2023/10/16	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGZ405
Sample ID: MWS-14-02-OB
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8988656	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8997198	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8993851	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8988746	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8981891	N/A	2023/10/19	Chandra Nandlal
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	8981897	N/A	2023/10/18	Alina Dobreanu
Total Dissolved Solids	BAL	8983453	2023/10/16	2023/10/17	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	8987663	2023/10/17	2023/10/18	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988588	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XGZ406
Sample ID: MWS-14-02-BR
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8978398	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8981900	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8980793	N/A	2023/10/19	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8988656	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8997198	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8993851	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8988746	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8981363	N/A	2023/10/19	Chandra Nandlal
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	8981897	N/A	2023/10/18	Alina Dobreanu
Total Dissolved Solids	BAL	8983457	2023/10/16	2023/10/17	Shaneil Hall

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGZ406
Sample ID: MWS-14-02-BR
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	8987663	2023/10/17	2023/10/18	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988588	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XGZ406 Dup
Sample ID: MWS-14-02-BR
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai

Bureau Veritas ID: XGZ408
Sample ID: MW3-BR-13
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8988645	N/A	2023/10/18	Brent Boudreau
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8978398	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8981900	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8980793	N/A	2023/10/19	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8988656	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8997198	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8993851	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8988746	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8981891	N/A	2023/10/19	Chandra Nandlal
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	8981897	N/A	2023/10/18	Alina Dobreanu
Total Dissolved Solids	BAL	8983453	2023/10/16	2023/10/17	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	8987663	2023/10/17	2023/10/18	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988588	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XGZ409
Sample ID: MW3-OB-13
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8978398	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8981900	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8980793	N/A	2023/10/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	8988641	2023/10/18	2023/10/18	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8988656	N/A	2023/10/19	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8997198	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8993851	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	8997196	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8988746	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8981891	N/A	2023/10/19	Chandra Nandlal
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	8981897	N/A	2023/10/18	Alina Dobreanu
Total Dissolved Solids	BAL	8983457	2023/10/16	2023/10/17	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	8987663	2023/10/17	2023/10/18	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8986400	2023/10/19	2023/10/20	Shaneil Hall
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XGZ409 Dup
Sample ID: MW3-OB-13
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	8983457	2023/10/16	2023/10/17	Shaneil Hall

Bureau Veritas ID: XGZ410
Sample ID: MW4-OB-13
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8978398	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8981900	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8570
Report Date: 2023/10/23

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: XGZ410
Sample ID: MW4-OB-13
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8980793	N/A	2023/10/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	8988641	2023/10/18	2023/10/18	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8988656	N/A	2023/10/19	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8997198	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8993851	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	8997196	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8988746	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8981891	N/A	2023/10/19	Chandra Nandlal
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	8981897	N/A	2023/10/18	Alina Dobreanu
Total Dissolved Solids	BAL	8983453	2023/10/16	2023/10/17	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	8987663	2023/10/17	2023/10/19	Kruti Jitesh Patel
Total Suspended Solids	BAL	8995263	2023/10/21	2023/10/22	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XGZ411
Sample ID: Field Blank
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8978398	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8981900	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8980793	N/A	2023/10/19	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8988656	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8997198	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997197	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	8997196	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8988746	N/A	2023/10/20	Prabhjot Kaur

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8570
Report Date: 2023/10/23

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: XGZ411
Sample ID: Field Blank
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	8981891	N/A	2023/10/19	Chandra Nandlal
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8981897	N/A	2023/10/18	Alina Dobreanu
Total Dissolved Solids	BAL	8983457	2023/10/16	2023/10/17	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8987663	2023/10/17	2023/10/18	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8986400	2023/10/19	2023/10/20	Shaneil Hall
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XGZ411 Dup
Sample ID: Field Blank
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.3°C
Package 2	3.7°C
Package 3	3.7°C

TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XGZ403 [G6-BR-14] : Acidity sample contained headspace.

Sample XGZ406 [MWS-14-02-BR] : Acidity sample contained headspace.

Sample XGZ408 [MW3-BR-13] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Sample XGZ409 [MW3-OB-13] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Sample XGZ410 [MW4-OB-13] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XGZ411 [Field Blank] : Acidity sample contained headspace.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8981363	Nitrate (N)	2023/10/19	104	80 - 120	100	80 - 120	<0.10	mg/L	2.2	20		
8981363	Nitrite (N)	2023/10/19	104	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
8981891	Nitrate (N)	2023/10/19	99	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
8981891	Nitrite (N)	2023/10/19	102	80 - 120	108	80 - 120	<0.010	mg/L	13	20		
8981897	Dissolved Sulphate (SO4)	2023/10/18	NC	75 - 125	96	80 - 120	<1.0	mg/L	0.76	20		
8981900	Dissolved Chloride (Cl-)	2023/10/18	NC	80 - 120	92	80 - 120	<1.0	mg/L	4.8	20		
8981960	Turbidity	2023/10/17			101	80 - 120	<0.1	NTU	17	20		
8981973	Alkalinity (Total as CaCO3)	2023/10/17			94	85 - 115	<1.0	mg/L	2.1	20		
8981975	Conductivity	2023/10/17			101	85 - 115	<0.001	mS/cm	0.76	10		
8981978	pH	2023/10/17			102	98 - 103			0.31	N/A		
8981979	Fluoride (F-)	2023/10/17	93	80 - 120	96	80 - 120	<0.10	mg/L	0	20		
8983453	Total Dissolved Solids	2023/10/17			100	90 - 110	<10	mg/L	6.5	20		
8983457	Total Dissolved Solids	2023/10/17			95	90 - 110	<10	mg/L	2.8	20		
8983743	Dissolved Mercury (Hg)	2023/10/17	95	75 - 125	98	80 - 120	<0.01	ug/L	NC	20		
8983759	Mercury (Hg)	2023/10/17	106	75 - 125	97	80 - 120	<0.01	ug/L	NC	20		
8983775	Mercury (Hg)	2023/10/16	98	75 - 125	98	80 - 120	<0.01	ug/L	NC	20		
8986400	Total Suspended Solids	2023/10/20			98	85 - 115	<1	mg/L	5.7	20		
8987479	Dissolved Sulphur (S)	2023/10/18	NC	80 - 120	102	80 - 120	<0.5	mg/L				
8987663	Total Kjeldahl Nitrogen (TKN)	2023/10/18	102	80 - 120	100	80 - 120	<0.10	mg/L	7.7	20	100	80 - 120
8988303	Total Sulphur (S)	2023/10/19	101	80 - 120	98	80 - 120	<0.5	mg/L	0.31	25		
8988588	Total Suspended Solids	2023/10/19			97	85 - 115	<1	mg/L	0	20		
8988641	Mercury (Hg)	2023/10/18	97	75 - 125	101	80 - 120	<0.00010	mg/L	NC	20		
8988645	Acidity	2023/10/18	87	80 - 120	105	80 - 120	<5.0	mg/L	NC	25		
8988656	. Aluminum (Al)	2023/10/18	91	80 - 120	104	80 - 120	<0.0005	mg/L	3.3	20		
8988656	. Antimony (Sb)	2023/10/18	96	80 - 120	106	80 - 120	<0.0001	mg/L	NC	20		
8988656	. Arsenic (As)	2023/10/18	91	80 - 120	101	80 - 120	<0.0001	mg/L	3.1	20		
8988656	. Barium (Ba)	2023/10/18	92	80 - 120	100	80 - 120	<0.0002	mg/L	2.7	20		
8988656	. Beryllium (Be)	2023/10/18	91	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
8988656	. Bismuth (Bi)	2023/10/18	86	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
8988656	. Boron (B)	2023/10/18	92	80 - 120	97	80 - 120	<0.001	mg/L	1.5	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8988656	. Cadmium (Cd)	2023/10/18	92	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20		
8988656	. Calcium (Ca)	2023/10/18	NC	80 - 120	106	80 - 120	<0.02	mg/L	1.6	20		
8988656	. Cesium (Cs)	2023/10/18	93	80 - 120	101	80 - 120	<0.00002	mg/L	NC	20		
8988656	. Chromium (Cr)	2023/10/18	89	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		
8988656	. Cobalt (Co)	2023/10/18	86	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
8988656	. Copper (Cu)	2023/10/18	89	80 - 120	99	80 - 120	<0.0001	mg/L	11	20		
8988656	. Iron (Fe)	2023/10/18	89	80 - 120	102	80 - 120	<0.005	mg/L	2.2	20		
8988656	. Lead (Pb)	2023/10/18	87	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
8988656	. Lithium (Li)	2023/10/18	95	80 - 120	102	80 - 120	<0.0005	mg/L	2.2	20		
8988656	. Magnesium (Mg)	2023/10/18	NC	80 - 120	99	80 - 120	<0.005	mg/L	0.58	20		
8988656	. Manganese (Mn)	2023/10/18	90	80 - 120	101	80 - 120	<0.0002	mg/L	1.5	20		
8988656	. Molybdenum (Mo)	2023/10/18	95	80 - 120	101	80 - 120	<0.00005	mg/L	4.1	20		
8988656	. Nickel (Ni)	2023/10/18	87	80 - 120	99	80 - 120	<0.0001	mg/L	5.5	20		
8988656	. Phosphorus (P)	2023/10/18	99	80 - 120	97	80 - 120	<0.005	mg/L	NC	20		
8988656	. Potassium (K)	2023/10/18	90	80 - 120	101	80 - 120	<0.02	mg/L	1.3	20		
8988656	. Rubidium (Rb)	2023/10/18	90	80 - 120	102	80 - 120	<0.00002	mg/L	1.2	20		
8988656	. Selenium (Se)	2023/10/18	96	80 - 120	105	80 - 120	<0.00005	mg/L	16	20		
8988656	. Silicon (Si)	2023/10/18	NC	80 - 120	104	80 - 120	<0.005	mg/L	1.2	20		
8988656	. Silver (Ag)	2023/10/18	90	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
8988656	. Sodium (Na)	2023/10/18	88	80 - 120	100	80 - 120	<0.01	mg/L	0.66	20		
8988656	. Strontium (Sr)	2023/10/18	90	80 - 120	101	80 - 120	<0.0001	mg/L	0.28	20		
8988656	. Tellurium (Te)	2023/10/18	94	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
8988656	. Thallium (Tl)	2023/10/18	89	80 - 120	99	80 - 120	<0.000005	mg/L	NC	20		
8988656	. Thorium (Th)	2023/10/18	91	80 - 120	101	80 - 120	<0.0002	mg/L				
8988656	. Tin (Sn)	2023/10/18	95	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
8988656	. Titanium (Ti)	2023/10/18	95	80 - 120	106	80 - 120	<0.0005	mg/L	13	20		
8988656	. Tungsten (W)	2023/10/18	90	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
8988656	. Uranium (U)	2023/10/18	92	80 - 120	102	80 - 120	<0.00001	mg/L	1.8	20		
8988656	. Vanadium (V)	2023/10/18	91	80 - 120	101	80 - 120	<0.00005	mg/L	11	20		
8988656	. Zinc (Zn)	2023/10/18	89	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8988656	. Zirconium (Zr)	2023/10/18	98	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
8988746	Total Ammonia-N	2023/10/20	100	75 - 125	103	80 - 120	<0.050	mg/L	1.9	20		
8991213	Acidity	2023/10/19	105	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
8992036	Dissolved Aluminum (Al)	2023/10/19	96	80 - 120	102	80 - 120	<0.0005	mg/L	5.0	20		
8992036	Dissolved Antimony (Sb)	2023/10/19	102	80 - 120	109	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Arsenic (As)	2023/10/19	97	80 - 120	99	80 - 120	<0.0001	mg/L	4.6	20		
8992036	Dissolved Barium (Ba)	2023/10/19	94	80 - 120	99	80 - 120	<0.0002	mg/L	1.1	20		
8992036	Dissolved Beryllium (Be)	2023/10/19	92	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
8992036	Dissolved Bismuth (Bi)	2023/10/19	90	80 - 120	105	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Boron (B)	2023/10/19	98	80 - 120	100	80 - 120	<0.001	mg/L	1.1	20		
8992036	Dissolved Cadmium (Cd)	2023/10/19	96	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
8992036	Dissolved Calcium (Ca)	2023/10/19	NC	80 - 120	107	80 - 120	<0.02	mg/L	1.0	20		
8992036	Dissolved Cesium (Cs)	2023/10/19	95	80 - 120	100	80 - 120	<0.00002	mg/L	NC	N/A		
8992036	Dissolved Chromium (Cr)	2023/10/19	92	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
8992036	Dissolved Cobalt (Co)	2023/10/19	88	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
8992036	Dissolved Copper (Cu)	2023/10/19	91	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Iron (Fe)	2023/10/19	94	80 - 120	102	80 - 120	<0.005	mg/L	0.039	20		
8992036	Dissolved Lead (Pb)	2023/10/19	90	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
8992036	Dissolved Lithium (Li)	2023/10/19	96	80 - 120	102	80 - 120	<0.0005	mg/L	0.67	20		
8992036	Dissolved Magnesium (Mg)	2023/10/19	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.80	20		
8992036	Dissolved Manganese (Mn)	2023/10/19	90	80 - 120	100	80 - 120	<0.0002	mg/L	0.12	20		
8992036	Dissolved Molybdenum (Mo)	2023/10/19	102	80 - 120	102	80 - 120	<0.00005	mg/L	1.3	20		
8992036	Dissolved Nickel (Ni)	2023/10/19	87	80 - 120	99	80 - 120	<0.0001	mg/L	7.7	20		
8992036	Dissolved Phosphorus (P)	2023/10/19	103	80 - 120	100	80 - 120	<0.005	mg/L	0.95	20		
8992036	Dissolved Potassium (K)	2023/10/19	92	80 - 120	99	80 - 120	<0.02	mg/L	0.53	20		
8992036	Dissolved Rubidium (Rb)	2023/10/19	94	80 - 120	100	80 - 120	<0.00002	mg/L	NC	N/A		
8992036	Dissolved Selenium (Se)	2023/10/19	100	80 - 120	102	80 - 120	<0.0002	mg/L	NC	20		
8992036	Dissolved Silicon (Si)	2023/10/19	NC	80 - 120	103	80 - 120	<0.005	mg/L	1.2	20		
8992036	Dissolved Silver (Ag)	2023/10/19	94	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
8992036	Dissolved Sodium (Na)	2023/10/19	NC	80 - 120	101	80 - 120	<0.01	mg/L	0.13	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8992036	Dissolved Strontium (Sr)	2023/10/19	NC	80 - 120	101	80 - 120	<0.0001	mg/L	0.23	20		
8992036	Dissolved Tellurium (Te)	2023/10/19	95	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Thallium (Tl)	2023/10/19	91	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20		
8992036	Dissolved Thorium (Th)	2023/10/19	93	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
8992036	Dissolved Tin (Sn)	2023/10/19	100	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Titanium (Ti)	2023/10/19	98	80 - 120	105	80 - 120	<0.0005	mg/L	0.52	20		
8992036	Dissolved Tungsten (W)	2023/10/19	96	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Uranium (U)	2023/10/19	93	80 - 120	101	80 - 120	<0.00001	mg/L	0.39	20		
8992036	Dissolved Vanadium (V)	2023/10/19	94	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
8992036	Dissolved Zinc (Zn)	2023/10/19	88	80 - 120	98	80 - 120	<0.0005	mg/L	2.1	20		
8992036	Dissolved Zirconium (Zr)	2023/10/19	105	80 - 120	104	80 - 120	<0.0001	mg/L	NC	20		
8993851	Strong Acid Dissoc. Cyanide (CN)	2023/10/19	NC	80 - 120	99	80 - 120	<0.00050	mg/L				
8995263	Total Suspended Solids	2023/10/22			98	85 - 115	<10	mg/L	NC	20		
8997191	Total Phosphorus (P)	2023/10/20	92	80 - 120	94	80 - 120	<0.0010 (1)	mg/L			86	80 - 120
8997196	Total Phosphorus (P)	2023/10/20	NC	80 - 120	90	80 - 120	<0.0010 (1)	mg/L	2.4	20	88	80 - 120
8997197	Strong Acid Dissoc. Cyanide (CN)	2023/10/19	92	80 - 120	100	80 - 120	<0.00050	mg/L				
8997198	Free Cyanide (CN)	2023/10/19	96	80 - 120	90	80 - 120	<2.0	ug/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x RDL acceptable for low level analysis

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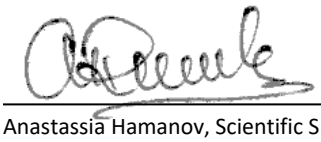
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8570
Report Date: 2023/10/23

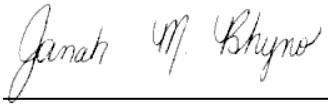
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

VALIDATION SIGNATURE PAGE

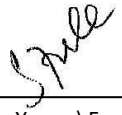
The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Janah Rhyno, Scientific Specialist



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 781619

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/24
Report #: R7876110
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V8582
Received: 2023/10/11, 15:20

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	1	N/A	2023/10/18	ATL SOP-00205	SM 24 2310B m
Alkalinity	1	N/A	2023/10/17	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2023/10/18	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	1	N/A	2023/10/18	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	1	N/A	2023/10/17	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2023/10/14	2023/10/17	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2023/10/19	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	1	2023/10/18	2023/10/18	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	1	2023/10/16	2023/10/17	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	1	2023/10/17	2023/10/18	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	1	N/A	2023/10/19	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2023/10/18	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	1	2023/10/18	2023/10/19	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	1	N/A	2023/10/19	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	1	2023/10/18	2023/10/18	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	1	2023/10/19	2023/10/20	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	1	N/A	2023/10/20	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	1	N/A	2023/10/19	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2023/10/14	2023/10/17	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (4)	1	N/A	2023/10/13		Field pH Meter
Sulphate by Automated Turbidimetry	1	N/A	2023/10/18	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	1	2023/10/16	2023/10/17	CAM SOP-00428	SM 23 2540C m
Field Temperature (4)	1	N/A	2023/10/13		Field Thermometer
Total Kjeldahl Nitrogen in Water	1	2023/10/17	2023/10/19	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	1	2023/10/21	2023/10/22	CAM SOP-00428	SM 23 2540D m
Turbidity	1	N/A	2023/10/17	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 781619

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/24
Report #: R7876110
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V8582
Received: 2023/10/11, 15:20

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C3V8582
Report Date: 2023/10/24

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XGZ577		
Sampling Date		2023/10/10 16:50		
COC Number		781619		
	UNITS	96-02	RDL	QC Batch
Calculated Parameters				
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	440	1.0	8978398
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8978398
Hardness (CaCO3)	mg/L	1700	1.0	8980793
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8978398
Field Measurements				
Field Temperature	Celsius	7.7	N/A	ONSITE
Field Measured pH	pH	6.67		ONSITE
Inorganics				
Acidity	mg/L	120	5.0	8988645
Total Ammonia-N	mg/L	0.72	0.050	8988746
Conductivity	mS/cm	2.53	0.001	8981975
Free Cyanide (CN)	ug/L	2.1 (1)	2.0	8993817
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0687	0.00050	8997200
Total Dissolved Solids	mg/L	1820	10	8983453
Fluoride (F-)	mg/L	0.30	0.10	8981979
Total Kjeldahl Nitrogen (TKN)	mg/L	1.3	0.20	8987663
pH	pH	7.22		8981978
Total Phosphorus (P)	mg/L	16	0.20	8997191
Total Suspended Solids	mg/L	40000	200	8995263
Dissolved Sulphate (SO4)	mg/L	1200	5.0	8981897
Turbidity	NTU	1100	0.1	8981960
Alkalinity (Total as CaCO3)	mg/L	440	1.0	8981973
Dissolved Chloride (Cl-)	mg/L	3.6	1.0	8981900
Nitrite (N)	mg/L	<0.010	0.010	8981891
Nitrate (N)	mg/L	<0.10	0.10	8981891
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8981891

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ577		
Sampling Date		2023/10/10 16:50		
COC Number		781619		
	UNITS	96-02	RDL	QC Batch
Metals				
Dissolved Aluminum (Al)	mg/L	<0.005	0.005	8992036
. Aluminum (Al)	mg/L	2.50	0.005	8988656
Dissolved Antimony (Sb)	mg/L	0.001	0.001	8992036
. Antimony (Sb)	mg/L	0.003	0.001	8988656
Dissolved Arsenic (As)	mg/L	4.38	0.01	8992036
. Arsenic (As)	mg/L	7.0	0.1	8988656
Dissolved Barium (Ba)	mg/L	0.018	0.002	8992036
. Barium (Ba)	mg/L	0.224	0.002	8988656
Dissolved Beryllium (Be)	mg/L	<0.0005	0.0005	8992036
. Beryllium (Be)	mg/L	0.0010	0.0005	8988656
Dissolved Bismuth (Bi)	mg/L	<0.001	0.001	8992036
. Bismuth (Bi)	mg/L	<0.001	0.001	8988656
Dissolved Boron (B)	mg/L	0.04	0.01	8992036
. Boron (B)	mg/L	0.05	0.01	8988656
Dissolved Cadmium (Cd)	mg/L	<0.0001	0.0001	8992036
. Cadmium (Cd)	mg/L	0.00024	0.00005	8988656
Dissolved Calcium (Ca)	mg/L	434	0.2	8992036
. Calcium (Ca)	mg/L	1510	1	8988656
Dissolved Cesium (Cs)	mg/L	<0.0002	0.0002	8992036
. Cesium (Cs)	mg/L	0.0003	0.0002	8988656
Dissolved Chromium (Cr)	mg/L	<0.005	0.005	8992036
. Chromium (Cr)	mg/L	0.010	0.005	8988656
Dissolved Cobalt (Co)	mg/L	0.0009	0.0005	8992036
. Cobalt (Co)	mg/L	0.0182	0.0005	8988656
Dissolved Copper (Cu)	mg/L	<0.001	0.001	8992036
. Copper (Cu)	mg/L	<0.001	0.001	8988656
Dissolved Iron (Fe)	mg/L	38.5	0.05	8992036
. Iron (Fe)	mg/L	179	0.25	8988656
Dissolved Lead (Pb)	mg/L	<0.0005	0.0005	8992036
. Lead (Pb)	mg/L	0.0030	0.0005	8988656
Dissolved Lithium (Li)	mg/L	0.011	0.005	8992036

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ577		
Sampling Date		2023/10/10 16:50		
COC Number		781619		
	UNITS	96-02	RDL	QC Batch
. Lithium (Li)	mg/L	0.019	0.005	8988656
Dissolved Magnesium (Mg)	mg/L	149	0.05	8992036
. Magnesium (Mg)	mg/L	243	0.05	8988656
Dissolved Manganese (Mn)	mg/L	0.643	0.002	8992036
. Manganese (Mn)	mg/L	6.29	0.002	8988656
Mercury (Hg)	mg/L	<0.0015	0.0015	8988641
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8983743
Dissolved Molybdenum (Mo)	mg/L	0.0020	0.0005	8992036
. Molybdenum (Mo)	mg/L	0.0026	0.0005	8988656
Dissolved Nickel (Ni)	mg/L	<0.001	0.001	8992036
. Nickel (Ni)	mg/L	0.057	0.001	8988656
Dissolved Phosphorus (P)	mg/L	<0.05	0.05	8992036
. Phosphorus (P)	mg/L	<0.05	0.05	8988656
Dissolved Potassium (K)	mg/L	25.9	0.2	8992036
. Potassium (K)	mg/L	34.5	0.2	8988656
Dissolved Rubidium (Rb)	mg/L	0.0037	0.0002	8992036
. Rubidium (Rb)	mg/L	0.0351	0.0002	8988656
Dissolved Selenium (Se)	mg/L	<0.002	0.002	8992036
. Selenium (Se)	mg/L	<0.0005	0.0005	8988656
Dissolved Silicon (Si)	mg/L	10.9	0.05	8992036
. Silicon (Si)	mg/L	19.8	0.05	8988656
Dissolved Silver (Ag)	mg/L	<0.0001	0.0001	8992036
. Silver (Ag)	mg/L	<0.0001	0.0001	8988656
Dissolved Sodium (Na)	mg/L	4.1	0.1	8992036
. Sodium (Na)	mg/L	4.0	0.1	8988656
Dissolved Strontium (Sr)	mg/L	1.98	0.001	8992036
. Strontium (Sr)	mg/L	3.24	0.001	8988656
Dissolved Sulphur (S)	mg/L	400	0.5	8987479
Total Sulphur (S)	mg/L	480	5	8988303
Dissolved Tellurium (Te)	mg/L	<0.001	0.001	8992036
. Tellurium (Te)	mg/L	<0.001	0.001	8988656
Dissolved Thallium (Tl)	mg/L	<0.00005	0.00005	8992036

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XGZ577		
Sampling Date		2023/10/10 16:50		
COC Number		781619		
	UNITS	96-02	RDL	QC Batch
. Thallium (Tl)	mg/L	<0.00005	0.00005	8988656
Dissolved Thorium (Th)	mg/L	<0.002	0.002	8992036
. Thorium (Th)	mg/L	<0.002	0.002	8988656
Dissolved Tin (Sn)	mg/L	<0.001	0.001	8992036
. Tin (Sn)	mg/L	<0.001	0.001	8988656
Dissolved Titanium (Ti)	mg/L	<0.005	0.005	8992036
. Titanium (Ti)	mg/L	0.024	0.005	8988656
Dissolved Tungsten (W)	mg/L	0.003	0.001	8992036
. Tungsten (W)	mg/L	<0.001	0.001	8988656
Dissolved Uranium (U)	mg/L	<0.0001	0.0001	8992036
. Uranium (U)	mg/L	0.0001	0.0001	8988656
Dissolved Vanadium (V)	mg/L	<0.0005	0.0005	8992036
. Vanadium (V)	mg/L	0.0064	0.0005	8988656
Dissolved Zinc (Zn)	mg/L	<0.005	0.005	8992036
. Zinc (Zn)	mg/L	0.213	0.005	8988656
Dissolved Zirconium (Zr)	mg/L	<0.001	0.001	8992036
. Zirconium (Zr)	mg/L	0.001	0.001	8988656

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8582
Report Date: 2023/10/24

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XGZ577
Sample ID: 96-02
Matrix: Water

Collected: 2023/10/10
Shipped:
Received: 2023/10/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8988645	N/A	2023/10/18	Brent Boudreau
Alkalinity	AT	8981973	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8978398	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8981900	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8981975	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8981979	2023/10/14	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8980793	N/A	2023/10/19	Automated Statchk
Mercury in Water by CVAA	CV/AA	8988641	2023/10/18	2023/10/18	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8983743	2023/10/16	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8992036	N/A	2023/10/19	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8988656	N/A	2023/10/18	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8993817	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997200	2023/10/18	2023/10/18	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8988746	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8981891	N/A	2023/10/19	Chandra Nandlal
pH	AT	8981978	2023/10/14	2023/10/17	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	8981897	N/A	2023/10/18	Alina Dobreanu
Total Dissolved Solids	BAL	8983453	2023/10/16	2023/10/17	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/13	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	8987663	2023/10/17	2023/10/19	Kruti Jitesh Patel
Total Suspended Solids	BAL	8995263	2023/10/21	2023/10/22	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.3°C

Sample XGZ577 [96-02] : Acidity sample contained headspace.
Metals:Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8582
Report Date: 2023/10/24

QUALITY ASSURANCE REPORT

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8981891	Nitrate (N)	2023/10/19	99	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
8981891	Nitrite (N)	2023/10/19	102	80 - 120	108	80 - 120	<0.010	mg/L	13	20		
8981897	Dissolved Sulphate (SO4)	2023/10/18	NC	75 - 125	96	80 - 120	<1.0	mg/L	0.76	20		
8981900	Dissolved Chloride (Cl-)	2023/10/18	NC	80 - 120	92	80 - 120	<1.0	mg/L	4.8	20		
8981960	Turbidity	2023/10/17			101	80 - 120	<0.1	NTU	17	20		
8981973	Alkalinity (Total as CaCO3)	2023/10/17			94	85 - 115	<1.0	mg/L	2.1	20		
8981975	Conductivity	2023/10/17			101	85 - 115	<0.001	mS/cm	0.76	10		
8981978	pH	2023/10/17			102	98 - 103			0.31	N/A		
8981979	Fluoride (F-)	2023/10/17	93	80 - 120	96	80 - 120	<0.10	mg/L	0	20		
8983453	Total Dissolved Solids	2023/10/17			100	90 - 110	<10	mg/L	6.5	20		
8983743	Dissolved Mercury (Hg)	2023/10/17	95	75 - 125	98	80 - 120	<0.01	ug/L	NC	20		
8987479	Dissolved Sulphur (S)	2023/10/18	NC	80 - 120	102	80 - 120	<0.5	mg/L				
8987663	Total Kjeldahl Nitrogen (TKN)	2023/10/18	102	80 - 120	100	80 - 120	<0.10	mg/L	7.7	20	100	80 - 120
8988303	Total Sulphur (S)	2023/10/19	101	80 - 120	98	80 - 120	<0.5	mg/L	0.31	25		
8988641	Mercury (Hg)	2023/10/18	97	75 - 125	101	80 - 120	<0.00010	mg/L	NC	20		
8988645	Acidity	2023/10/18	87	80 - 120	105	80 - 120	<5.0	mg/L	NC	25		
8988656	. Aluminum (Al)	2023/10/18	91	80 - 120	104	80 - 120	<0.0005	mg/L	3.3	20		
8988656	. Antimony (Sb)	2023/10/18	96	80 - 120	106	80 - 120	<0.0001	mg/L	NC	20		
8988656	. Arsenic (As)	2023/10/18	91	80 - 120	101	80 - 120	<0.0001	mg/L	3.1	20		
8988656	. Barium (Ba)	2023/10/18	92	80 - 120	100	80 - 120	<0.0002	mg/L	2.7	20		
8988656	. Beryllium (Be)	2023/10/18	91	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
8988656	. Bismuth (Bi)	2023/10/18	86	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
8988656	. Boron (B)	2023/10/18	92	80 - 120	97	80 - 120	<0.001	mg/L	1.5	20		
8988656	. Cadmium (Cd)	2023/10/18	92	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20		
8988656	. Calcium (Ca)	2023/10/18	NC	80 - 120	106	80 - 120	<0.02	mg/L	1.6	20		
8988656	. Cesium (Cs)	2023/10/18	93	80 - 120	101	80 - 120	<0.00002	mg/L	NC	20		
8988656	. Chromium (Cr)	2023/10/18	89	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		
8988656	. Cobalt (Co)	2023/10/18	86	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
8988656	. Copper (Cu)	2023/10/18	89	80 - 120	99	80 - 120	<0.0001	mg/L	11	20		
8988656	. Iron (Fe)	2023/10/18	89	80 - 120	102	80 - 120	<0.005	mg/L	2.2	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8988656	. Lead (Pb)	2023/10/18	87	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
8988656	. Lithium (Li)	2023/10/18	95	80 - 120	102	80 - 120	<0.0005	mg/L	2.2	20		
8988656	. Magnesium (Mg)	2023/10/18	NC	80 - 120	99	80 - 120	<0.005	mg/L	0.58	20		
8988656	. Manganese (Mn)	2023/10/18	90	80 - 120	101	80 - 120	<0.0002	mg/L	1.5	20		
8988656	. Molybdenum (Mo)	2023/10/18	95	80 - 120	101	80 - 120	<0.00005	mg/L	4.1	20		
8988656	. Nickel (Ni)	2023/10/18	87	80 - 120	99	80 - 120	<0.0001	mg/L	5.5	20		
8988656	. Phosphorus (P)	2023/10/18	99	80 - 120	97	80 - 120	<0.005	mg/L	NC	20		
8988656	. Potassium (K)	2023/10/18	90	80 - 120	101	80 - 120	<0.02	mg/L	1.3	20		
8988656	. Rubidium (Rb)	2023/10/18	90	80 - 120	102	80 - 120	<0.00002	mg/L	1.2	20		
8988656	. Selenium (Se)	2023/10/18	96	80 - 120	105	80 - 120	<0.00005	mg/L	16	20		
8988656	. Silicon (Si)	2023/10/18	NC	80 - 120	104	80 - 120	<0.005	mg/L	1.2	20		
8988656	. Silver (Ag)	2023/10/18	90	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
8988656	. Sodium (Na)	2023/10/18	88	80 - 120	100	80 - 120	<0.01	mg/L	0.66	20		
8988656	. Strontium (Sr)	2023/10/18	90	80 - 120	101	80 - 120	<0.0001	mg/L	0.28	20		
8988656	. Tellurium (Te)	2023/10/18	94	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
8988656	. Thallium (Tl)	2023/10/18	89	80 - 120	99	80 - 120	<0.000005	mg/L	NC	20		
8988656	. Thorium (Th)	2023/10/18	91	80 - 120	101	80 - 120	<0.0002	mg/L				
8988656	. Tin (Sn)	2023/10/18	95	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
8988656	. Titanium (Ti)	2023/10/18	95	80 - 120	106	80 - 120	<0.0005	mg/L	13	20		
8988656	. Tungsten (W)	2023/10/18	90	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
8988656	. Uranium (U)	2023/10/18	92	80 - 120	102	80 - 120	<0.00001	mg/L	1.8	20		
8988656	. Vanadium (V)	2023/10/18	91	80 - 120	101	80 - 120	<0.00005	mg/L	11	20		
8988656	. Zinc (Zn)	2023/10/18	89	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		
8988656	. Zirconium (Zr)	2023/10/18	98	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
8988746	Total Ammonia-N	2023/10/20	100	75 - 125	103	80 - 120	<0.050	mg/L	1.9	20		
8992036	Dissolved Aluminum (Al)	2023/10/19	96	80 - 120	102	80 - 120	<0.0005	mg/L	5.0	20		
8992036	Dissolved Antimony (Sb)	2023/10/19	102	80 - 120	109	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Arsenic (As)	2023/10/19	97	80 - 120	99	80 - 120	<0.0001	mg/L	4.6	20		
8992036	Dissolved Barium (Ba)	2023/10/19	94	80 - 120	99	80 - 120	<0.0002	mg/L	1.1	20		
8992036	Dissolved Beryllium (Be)	2023/10/19	92	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8992036	Dissolved Bismuth (Bi)	2023/10/19	90	80 - 120	105	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Boron (B)	2023/10/19	98	80 - 120	100	80 - 120	<0.001	mg/L	1.1	20		
8992036	Dissolved Cadmium (Cd)	2023/10/19	96	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
8992036	Dissolved Calcium (Ca)	2023/10/19	NC	80 - 120	107	80 - 120	<0.02	mg/L	1.0	20		
8992036	Dissolved Cesium (Cs)	2023/10/19	95	80 - 120	100	80 - 120	<0.00002	mg/L	NC	N/A		
8992036	Dissolved Chromium (Cr)	2023/10/19	92	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
8992036	Dissolved Cobalt (Co)	2023/10/19	88	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
8992036	Dissolved Copper (Cu)	2023/10/19	91	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Iron (Fe)	2023/10/19	94	80 - 120	102	80 - 120	<0.005	mg/L	0.039	20		
8992036	Dissolved Lead (Pb)	2023/10/19	90	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
8992036	Dissolved Lithium (Li)	2023/10/19	96	80 - 120	102	80 - 120	<0.0005	mg/L	0.67	20		
8992036	Dissolved Magnesium (Mg)	2023/10/19	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.80	20		
8992036	Dissolved Manganese (Mn)	2023/10/19	90	80 - 120	100	80 - 120	<0.0002	mg/L	0.12	20		
8992036	Dissolved Molybdenum (Mo)	2023/10/19	102	80 - 120	102	80 - 120	<0.00005	mg/L	1.3	20		
8992036	Dissolved Nickel (Ni)	2023/10/19	87	80 - 120	99	80 - 120	<0.0001	mg/L	7.7	20		
8992036	Dissolved Phosphorus (P)	2023/10/19	103	80 - 120	100	80 - 120	<0.005	mg/L	0.95	20		
8992036	Dissolved Potassium (K)	2023/10/19	92	80 - 120	99	80 - 120	<0.02	mg/L	0.53	20		
8992036	Dissolved Rubidium (Rb)	2023/10/19	94	80 - 120	100	80 - 120	<0.00002	mg/L	NC	N/A		
8992036	Dissolved Selenium (Se)	2023/10/19	100	80 - 120	102	80 - 120	<0.0002	mg/L	NC	20		
8992036	Dissolved Silicon (Si)	2023/10/19	NC	80 - 120	103	80 - 120	<0.005	mg/L	1.2	20		
8992036	Dissolved Silver (Ag)	2023/10/19	94	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
8992036	Dissolved Sodium (Na)	2023/10/19	NC	80 - 120	101	80 - 120	<0.01	mg/L	0.13	20		
8992036	Dissolved Strontium (Sr)	2023/10/19	NC	80 - 120	101	80 - 120	<0.0001	mg/L	0.23	20		
8992036	Dissolved Tellurium (Te)	2023/10/19	95	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Thallium (Tl)	2023/10/19	91	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20		
8992036	Dissolved Thorium (Th)	2023/10/19	93	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
8992036	Dissolved Tin (Sn)	2023/10/19	100	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Titanium (Ti)	2023/10/19	98	80 - 120	105	80 - 120	<0.0005	mg/L	0.52	20		
8992036	Dissolved Tungsten (W)	2023/10/19	96	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
8992036	Dissolved Uranium (U)	2023/10/19	93	80 - 120	101	80 - 120	<0.00001	mg/L	0.39	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8992036	Dissolved Vanadium (V)	2023/10/19	94	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
8992036	Dissolved Zinc (Zn)	2023/10/19	88	80 - 120	98	80 - 120	<0.0005	mg/L	2.1	20		
8992036	Dissolved Zirconium (Zr)	2023/10/19	105	80 - 120	104	80 - 120	<0.0001	mg/L	NC	20		
8993817	Free Cyanide (CN)	2023/10/19	96	80 - 120	91	80 - 120	<2.0	ug/L				
8995263	Total Suspended Solids	2023/10/22			98	85 - 115	<10	mg/L	NC	20		
8997191	Total Phosphorus (P)	2023/10/20	92	80 - 120	94	80 - 120	<0.0010 (1)	mg/L			86	80 - 120
8997200	Strong Acid Dissoc. Cyanide (CN)	2023/10/18	90	80 - 120	102	80 - 120	<0.00050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x RDL acceptable for low level analysis

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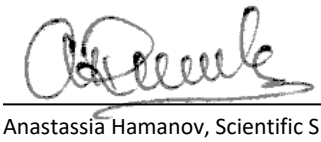
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V8582
Report Date: 2023/10/24

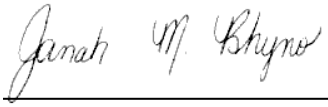
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

VALIDATION SIGNATURE PAGE

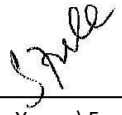
The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Janah Rhyno, Scientific Specialist



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 782270

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/27
Report #: R7882578
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V9547
Received: 2023/10/12, 17:10

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	6	N/A	2023/10/19	ATL SOP-00205	SM 24 2310B m
Alkalinity	5	N/A	2023/10/17	CAM SOP-00448	SM 23 2320 B m
Alkalinity	1	N/A	2023/10/25	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	6	N/A	2023/10/17	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	5	N/A	2023/10/18	CAM SOP-00463	SM 23 4500-Cl E m
Chloride by Automated Colourimetry	1	N/A	2023/10/25	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	6	N/A	2023/10/17	CAM SOP-00414	SM 23 2510 m
Petroleum Hydrocarbons F2-F4 in Water (3)	3	2023/10/18	2023/10/19	CAM SOP-00316	CCME PHC-CWS m
Fluoride	6	2023/10/16	2023/10/17	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	6	N/A	2023/10/20	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	1	2023/10/18	2023/10/18	CAM SOP-00453	EPA 7470A m
Mercury in Water by CVAA	2	2023/10/18	2023/10/19	CAM SOP-00453	EPA 7470A m
Mercury in Water by CVAA	1	2023/10/19	2023/10/19	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	6	2023/10/17	2023/10/17	CAM SOP-00453	EPA 7470 m
Mercury (low level)	2	2023/10/17	2023/10/17	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	6	2023/10/18	2023/10/24	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	6	N/A	2023/10/20	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2023/10/20	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	5	N/A	2023/10/23	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	6	2023/10/18	2023/10/19	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	6	N/A	2023/10/24	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	6	2023/10/19	2023/10/19	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	6	2023/10/21	2023/10/24	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	4	N/A	2023/10/21	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N	2	N/A	2023/10/23	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (4)	6	N/A	2023/10/19	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	6	2023/10/16	2023/10/17	CAM SOP-00413	SM 4500H+ B m
Sulphate by Automated Turbidimetry	5	N/A	2023/10/20	CAM SOP-00464	SM 23 4500-SO42- E m
Sulphate by Automated Turbidimetry	1	N/A	2023/10/25	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	5	2023/10/17	2023/10/19	CAM SOP-00428	SM 23 2540C m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 782270

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/27
Report #: R7882578
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V9547
Received: 2023/10/12, 17:10

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Dissolved Solids	1	2023/10/19	2023/10/20	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	6	2023/10/19	2023/10/20	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	1	2023/10/20	2023/10/20	CAM SOP-00428	SM 23 2540D m
Total Suspended Solids	1	2023/10/20	2023/10/23	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	3	2023/10/18	2023/10/19	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	1	2023/10/19	2023/10/20	CAM SOP-00428	SM 23 2540D m
Turbidity	6	N/A	2023/10/16	CAM SOP-00417	SM 23 2130 B m
Volatile Organic Compounds and F1 PHCs	3	N/A	2023/10/18	CAM SOP-00230	EPA 8260C m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(4) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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This report has been generated and distributed using a secure automated process.
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9547
Report Date: 2023/10/27

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHE677			XHE678			XHE679		
Sampling Date		2023/10/11 10:08			2023/10/11 10:41			2023/10/11 11:13		
COC Number		782270			782270			782270		
	UNITS	MW07-18	RDL	QC Batch	MW08-18	RDL	QC Batch	MW09-18	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	610	1.0	8981590	200	1.0	8981590	380	1.0	8981590
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.2	1.0	8981590	<1.0	1.0	8981590	1.2	1.0	8981590
Hardness (CaCO3)	mg/L	1300	1.0	8981150	1200	1.0	8981706	1400	1.0	8981706
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590	<1.0	1.0	8981590	<1.0	1.0	8981590
Inorganics										
Acidity	mg/L	96	5.0	8991101	25	5.0	8991213	29	5.0	8991101
Total Ammonia-N	mg/L	0.21	0.050	8992700	2.3	0.050	8992700	0.51	0.050	8992802
Conductivity	mS/cm	2.24	0.001	8984178	2.85	0.001	8984178	2.91	0.001	8984178
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9003852	<2.0 (2)	2.0	9003852	<2.0 (2)	2.0	9003852
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0321	0.00050	8997212	0.0128	0.00050	8997212	0.0377	0.00050	8997212
Total Dissolved Solids	mg/L	1450	10	8986075	2190	10	8986059	2240	10	8986075
Fluoride (F-)	mg/L	0.14	0.10	8984165	0.56	0.10	8984165	0.27	0.10	8984165
Total Kjeldahl Nitrogen (TKN)	mg/L	0.63	0.10	8992913	2.8	0.10	8992913	1.1	0.10	8992913
pH	pH	7.33		8984182	7.45		8984182	7.52		8984182
Total Phosphorus (P)	mg/L	1.4	0.010	9003878	2.5	0.010	9003878	0.42	0.0050	9003878
Total Suspended Solids	mg/L	12000	100	8995475	240	1	8988577	97	3	8988187
Dissolved Sulphate (SO4)	mg/L	740	2.0	8984223	1400	5.0	8984223	1400	5.0	8984223
Turbidity	NTU	62	0.1	8983721	65	0.1	8983721	32	0.1	8983721
Alkalinity (Total as CaCO3)	mg/L	620	1.0	8984171	200	1.0	8984171	380	1.0	8984171
Dissolved Chloride (Cl-)	mg/L	13	1.0	8984199	14	1.0	8984199	2.8	1.0	8984199
Nitrite (N)	mg/L	<0.010	0.010	8984087	0.152	0.010	8984087	0.228	0.010	8984087
Nitrate (N)	mg/L	<0.10	0.10	8984087	<0.10	0.10	8984087	0.51	0.10	8984087
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8984087	0.20	0.10	8984087	0.74	0.10	8984087

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
Sample pH <12, preservation incomplete. Due to volatility of analyte, a low bias in the results is likely.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9547
Report Date: 2023/10/27

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHE680			XHE680			XHE681		
Sampling Date		2023/10/11 08:00			2023/10/11 08:00			2023/10/11 14:05		
COC Number		782270			782270			782270		
	UNITS	DUPLICATE 3	RDL	QC Batch	DUPLICATE 3 Lab-Dup	RDL	QC Batch	96-07 A1	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	200	1.0	8981590				320	1.0	8981590
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590				<1.0	1.0	8981590
Hardness (CaCO3)	mg/L	1100	1.0	8981150				2100	1.0	8981150
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590				<1.0	1.0	8981590
Inorganics										
Acidity	mg/L	22	5.0	8991101				82	5.0	8991101
Total Ammonia-N	mg/L	2.4	0.050	8992802	2.4	0.050	8992802	1.6	0.050	8992700
Conductivity	mS/cm	2.84	0.001	8984178				3.24	0.001	8984178
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9003852				<2.0 (1)	2.0	9003852
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0140	0.00050	8997212				0.0227	0.00050	8997212
Total Dissolved Solids	mg/L	2360	10	8986075	2380	10	8986075	2970	10	8986070
Fluoride (F-)	mg/L	0.55	0.10	8984165				0.12	0.10	8984165
Total Kjeldahl Nitrogen (TKN)	mg/L	2.9	0.10	8992913				2.4	0.10	8992913
pH	pH	7.41		8984182				7.02		8984182
Total Phosphorus (P)	mg/L	2.3	0.010	9003878				0.76 (2)	0.010	9003878
Total Suspended Solids	mg/L	210	1	8986400				980	5	8988577
Dissolved Sulphate (SO4)	mg/L	1400	5.0	8984223				1900	5.0	8984223
Turbidity	NTU	87	0.1	8983721				84	0.1	8983721
Alkalinity (Total as CaCO3)	mg/L	200	1.0	8984171				320	1.0	8984171
Dissolved Chloride (Cl-)	mg/L	15	1.0	8984199				1.1	1.0	8984199
Nitrite (N)	mg/L	0.161	0.010	8984087				0.015	0.010	8984087
Nitrate (N)	mg/L	<0.10	0.10	8984087				<0.10	0.10	8984087
Nitrate + Nitrite (N)	mg/L	0.21	0.10	8984087				<0.10	0.10	8984087

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9547
Report Date: 2023/10/27

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHE682			XHE682		
Sampling Date		2023/10/11 15:04			2023/10/11 15:04		
COC Number		782270			782270		
	UNITS	96-01	RDL	QC Batch	96-01 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	380	1.0	8981590			
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590			
Hardness (CaCO3)	mg/L	1100	1.0	8981150			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590			
Inorganics							
Acidity	mg/L	52	5.0	8991213			
Total Ammonia-N	mg/L	11	0.050	8992700			
Conductivity	mS/cm	2.69	0.001	8984178	2.69	0.001	8984178
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9003852			
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0109	0.00050	8997212			
Total Dissolved Solids	mg/L	1580	10	8986075			
Fluoride (F-)	mg/L	0.16	0.10	8984165	0.13	0.10	8984165
Total Kjeldahl Nitrogen (TKN)	mg/L	12	0.50	8992913			
pH	pH	7.35		8984182	7.31		8984182
Total Phosphorus (P)	mg/L	2.4	0.010	9003878			
Total Suspended Solids	mg/L	8100	100	8994729			
Dissolved Sulphate (SO4)	mg/L	1300	5.0	9003888			
Turbidity	NTU	45	0.1	8983721			
Alkalinity (Total as CaCO3)	mg/L	380	1.0	9004574			
Dissolved Chloride (Cl-)	mg/L	10	1.0	9003887			
Nitrite (N)	mg/L	0.230	0.010	8984087			
Nitrate (N)	mg/L	<0.10	0.10	8984087			
Nitrate + Nitrite (N)	mg/L	0.29	0.10	8984087			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE677			XHE677			XHE678		
Sampling Date		2023/10/11 10:08			2023/10/11 10:08			2023/10/11 10:41		
COC Number		782270			782270			782270		
	UNITS	MW07-18	RDL	QC Batch	MW07-18 Lab-Dup	RDL	QC Batch	MW08-18	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	<0.005	0.005	8994638	<0.005	0.005	8994638	0.312	0.005	8994638
. Aluminum (Al)	mg/L	5.13	0.005	8994622				3.80	0.005	8994622
Dissolved Antimony (Sb)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	<0.001	0.001	8994638
. Antimony (Sb)	mg/L	<0.001	0.001	8994622				<0.001	0.001	8994622
Dissolved Arsenic (As)	mg/L	1.73	0.005	8994638	1.72	0.005	8994638	11.8	0.1	8994638
. Arsenic (As)	mg/L	1.97	0.005	8994622				12.6	0.05	8994622
Dissolved Barium (Ba)	mg/L	0.140	0.002	8994638	0.137	0.002	8994638	0.022	0.002	8994638
. Barium (Ba)	mg/L	0.142	0.002	8994622				0.041	0.002	8994622
Dissolved Beryllium (Be)	mg/L	<0.0005	0.0005	8994638	<0.0005	0.0005	8994638	<0.0005	0.0005	8994638
. Beryllium (Be)	mg/L	<0.0005	0.0005	8994622				<0.0005	0.0005	8994622
Dissolved Bismuth (Bi)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	<0.001	0.001	8994638
. Bismuth (Bi)	mg/L	<0.001	0.001	8994622				<0.001	0.001	8994622
Dissolved Boron (B)	mg/L	0.01	0.01	8994638	0.01	0.01	8994638	0.14	0.01	8994638
. Boron (B)	mg/L	0.02	0.01	8994622				0.11	0.01	8994622
Dissolved Cadmium (Cd)	mg/L	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Cadmium (Cd)	mg/L	0.00012	0.00005	8994622				<0.00005	0.00005	8994622
Dissolved Calcium (Ca)	mg/L	371	0.2	8994638	365	0.2	8994638	294	0.2	8994638
. Calcium (Ca)	mg/L	478	0.2	8994622				307	0.2	8994622
Dissolved Cesium (Cs)	mg/L	<0.0002	0.0002	8994638	<0.0002	0.0002	8994638	<0.0002	0.0002	8994638
. Cesium (Cs)	mg/L	0.0013	0.0002	8994622				0.0009	0.0002	8994622
Dissolved Chromium (Cr)	mg/L	<0.005	0.005	8994638	<0.005	0.005	8994638	<0.005	0.005	8994638
. Chromium (Cr)	mg/L	0.036	0.005	8994622				0.029	0.005	8994622
Dissolved Cobalt (Co)	mg/L	0.0078	0.0005	8994638	0.0076	0.0005	8994638	0.0034	0.0005	8994638
. Cobalt (Co)	mg/L	0.0146	0.0005	8994622				0.0087	0.0005	8994622
Dissolved Copper (Cu)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	0.001	0.001	8994638
. Copper (Cu)	mg/L	0.030	0.001	8994622				0.011	0.001	8994622
Dissolved Iron (Fe)	mg/L	15.2	0.05	8994638	14.5	0.05	8994638	22.8	0.05	8994638
. Iron (Fe)	mg/L	38.0	0.05	8994622				39.9	0.05	8994622
Dissolved Lead (Pb)	mg/L	<0.0005	0.0005	8994638	<0.0005	0.0005	8994638	0.0015	0.0005	8994638

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9547
Report Date: 2023/10/27

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE677			XHE677			XHE678		
Sampling Date		2023/10/11 10:08			2023/10/11 10:08			2023/10/11 10:41		
COC Number		782270			782270			782270		
	UNITS	MW07-18	RDL	QC Batch	MW07-18 Lab-Dup	RDL	QC Batch	MW08-18	RDL	QC Batch
. Lead (Pb)	mg/L	0.0107	0.0005	8994622				0.0183	0.0005	8994622
Dissolved Lithium (Li)	mg/L	0.012	0.005	8994638	0.012	0.005	8994638	0.121	0.005	8994638
. Lithium (Li)	mg/L	0.017	0.005	8994622				0.128	0.005	8994622
Dissolved Magnesium (Mg)	mg/L	90.5	0.05	8994638	87.5	0.05	8994638	104	0.05	8994638
. Magnesium (Mg)	mg/L	120	0.05	8994622				106	0.05	8994622
Dissolved Manganese (Mn)	mg/L	1.32	0.002	8994638	1.26	0.002	8994638	0.744	0.002	8994638
. Manganese (Mn)	mg/L	2.10	0.002	8994622				1.40	0.002	8994622
Mercury (Hg)	mg/L	<0.00010	0.00010	8988923				<0.00010	0.00010	8988923
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8985992				<0.01	0.01	8985992
Dissolved Molybdenum (Mo)	mg/L	<0.0005	0.0005	8994638	<0.0005	0.0005	8994638	0.0100	0.0005	8994638
. Molybdenum (Mo)	mg/L	<0.0005	0.0005	8994622				0.0078	0.0005	8994622
Dissolved Nickel (Ni)	mg/L	0.005	0.001	8994638	0.004	0.001	8994638	0.005	0.001	8994638
. Nickel (Ni)	mg/L	0.033	0.001	8994622				0.038	0.001	8994622
Dissolved Phosphorus (P)	mg/L	<0.05	0.05	8994638	<0.05	0.05	8994638	0.05	0.05	8994638
. Phosphorus (P)	mg/L	0.90	0.05	8994622				0.71	0.05	8994622
Dissolved Potassium (K)	mg/L	10.4	0.2	8994638	10.0	0.2	8994638	37.3	0.2	8994638
. Potassium (K)	mg/L	12.7	0.2	8994622				33.1	0.2	8994622
Dissolved Rubidium (Rb)	mg/L	0.0071	0.0002	8994638	0.0063	0.0002	8994638	0.0129	0.0002	8994638
. Rubidium (Rb)	mg/L	0.0243	0.0002	8994622				0.0195	0.0002	8994622
Dissolved Selenium (Se)	mg/L	<0.002	0.002	8994638	<0.002	0.002	8994638	<0.002	0.002	8994638
. Selenium (Se)	mg/L	<0.0005	0.0005	8994622				<0.0005	0.0005	8994622
Dissolved Silicon (Si)	mg/L	13.0	0.05	8994638	12.8	0.05	8994638	6.07	0.05	8994638
. Silicon (Si)	mg/L	18.6	0.05	8994622				10.1	0.05	8994622
Dissolved Silver (Ag)	mg/L	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Silver (Ag)	mg/L	<0.0001	0.0001	8994622				<0.0001	0.0001	8994622
Dissolved Sodium (Na)	mg/L	23.6	0.1	8994638	22.8	0.1	8994638	315	0.1	8994638
. Sodium (Na)	mg/L	22.1	0.1	8994622				309	0.1	8994622
Dissolved Strontium (Sr)	mg/L	0.938	0.001	8994638	0.905	0.001	8994638	2.21	0.001	8994638
. Strontium (Sr)	mg/L	1.16	0.001	8994622				2.14	0.001	8994622
Dissolved Sulphur (S)	mg/L	230	0.5	8990638				490	5	8990638

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE677			XHE677			XHE678		
Sampling Date		2023/10/11 10:08			2023/10/11 10:08			2023/10/11 10:41		
COC Number		782270			782270			782270		
	UNITS	MW07-18	RDL	QC Batch	MW07-18 Lab-Dup	RDL	QC Batch	MW08-18	RDL	QC Batch
Total Sulphur (S)	mg/L	250	0.5	8988335				530	5	8988335
Dissolved Tellurium (Te)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	<0.001	0.001	8994638
. Tellurium (Te)	mg/L	<0.001	0.001	8994622				<0.001	0.001	8994622
Dissolved Thallium (Tl)	mg/L	<0.00005	0.00005	8994638	<0.00005	0.00005	8994638	<0.00005	0.00005	8994638
. Thallium (Tl)	mg/L	0.00010	0.00005	8994622				0.00007	0.00005	8994622
Dissolved Thorium (Th)	mg/L	<0.002	0.002	8994638	<0.002	0.002	8994638	<0.002	0.002	8994638
. Thorium (Th)	mg/L	0.002	0.002	8994622				0.002	0.002	8994622
Dissolved Tin (Sn)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	<0.001	0.001	8994638
. Tin (Sn)	mg/L	<0.001	0.001	8994622				<0.001	0.001	8994622
Dissolved Titanium (Ti)	mg/L	<0.005	0.005	8994638	<0.005	0.005	8994638	0.013	0.005	8994638
. Titanium (Ti)	mg/L	0.328	0.005	8994622				0.159	0.005	8994622
Dissolved Tungsten (W)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	0.001	0.001	8994638
. Tungsten (W)	mg/L	<0.001	0.001	8994622				0.002	0.001	8994622
Dissolved Uranium (U)	mg/L	0.0008	0.0001	8994638	0.0007	0.0001	8994638	0.0024	0.0001	8994638
. Uranium (U)	mg/L	0.0013	0.0001	8994622				0.0036	0.0001	8994622
Dissolved Vanadium (V)	mg/L	<0.0005	0.0005	8994638	<0.0005	0.0005	8994638	0.0013	0.0005	8994638
. Vanadium (V)	mg/L	0.0283	0.0005	8994622				0.0140	0.0005	8994622
Dissolved Zinc (Zn)	mg/L	<0.005	0.005	8994638	<0.005	0.005	8994638	<0.005	0.005	8994638
. Zinc (Zn)	mg/L	0.043	0.005	8994622				0.042	0.005	8994622
Dissolved Zirconium (Zr)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	<0.001	0.001	8994638
. Zirconium (Zr)	mg/L	0.003	0.001	8994622				0.002	0.001	8994622

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE679			XHE680			XHE681		
Sampling Date		2023/10/11 11:13			2023/10/11 08:00			2023/10/11 14:05		
COC Number		782270			782270			782270		
	UNITS	MW09-18	RDL	QC Batch	DUPLICATE 3	RDL	QC Batch	96-07 A1	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	<0.005	0.005	8994638	0.228	0.005	8994638	0.007	0.005	8994638
. Aluminum (Al)	mg/L	0.435	0.005	8994622	3.01	0.005	8994622	2.91	0.005	8994622
Dissolved Antimony (Sb)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	<0.001	0.001	8994638
. Antimony (Sb)	mg/L	<0.001	0.001	8994622	<0.001	0.001	8994622	<0.001	0.001	8994622
Dissolved Arsenic (As)	mg/L	0.84	0.01	8994638	11.7	0.1	8994638	6.6	0.1	8994638
. Arsenic (As)	mg/L	1.02	0.005	8994622	12.6	0.05	8994622	6.85	0.05	8994622
Dissolved Barium (Ba)	mg/L	0.053	0.002	8994638	0.021	0.002	8994638	0.012	0.002	8994638
. Barium (Ba)	mg/L	0.050	0.002	8994622	0.037	0.002	8994622	0.031	0.002	8994622
Dissolved Beryllium (Be)	mg/L	<0.0005	0.0005	8994638	<0.0005	0.0005	8994638	<0.0005	0.0005	8994638
. Beryllium (Be)	mg/L	<0.0005	0.0005	8994622	<0.0005	0.0005	8994622	<0.0005	0.0005	8994622
Dissolved Bismuth (Bi)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	<0.001	0.001	8994638
. Bismuth (Bi)	mg/L	<0.001	0.001	8994622	<0.001	0.001	8994622	<0.001	0.001	8994622
Dissolved Boron (B)	mg/L	0.06	0.01	8994638	0.13	0.01	8994638	0.07	0.01	8994638
. Boron (B)	mg/L	0.06	0.01	8994622	0.11	0.01	8994622	0.07	0.01	8994622
Dissolved Cadmium (Cd)	mg/L	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Cadmium (Cd)	mg/L	<0.00005	0.00005	8994622	0.00007	0.00005	8994622	0.00006	0.00005	8994622
Dissolved Calcium (Ca)	mg/L	266	0.2	8994638	283	0.2	8994638	506	1	8994638
. Calcium (Ca)	mg/L	247	0.2	8994622	284	0.2	8994622	559	1	8994622
Dissolved Cesium (Cs)	mg/L	<0.0002	0.0002	8994638	<0.0002	0.0002	8994638	<0.0002	0.0002	8994638
. Cesium (Cs)	mg/L	<0.0002	0.0002	8994622	0.0006	0.0002	8994622	0.0006	0.0002	8994622
Dissolved Chromium (Cr)	mg/L	<0.005	0.005	8994638	<0.005	0.005	8994638	<0.005	0.005	8994638
. Chromium (Cr)	mg/L	<0.005	0.005	8994622	0.022	0.005	8994622	0.015	0.005	8994622
Dissolved Cobalt (Co)	mg/L	0.0027	0.0005	8994638	0.0031	0.0005	8994638	0.0055	0.0005	8994638
. Cobalt (Co)	mg/L	0.0029	0.0005	8994622	0.0068	0.0005	8994622	0.0085	0.0005	8994622
Dissolved Copper (Cu)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	0.002	0.001	8994638
. Copper (Cu)	mg/L	0.001	0.001	8994622	0.008	0.001	8994622	0.017	0.001	8994622
Dissolved Iron (Fe)	mg/L	6.30	0.05	8994638	21.5	0.05	8994638	47.4	0.05	8994638
. Iron (Fe)	mg/L	7.69	0.05	8994622	32.6	0.05	8994622	67.2	0.05	8994622
Dissolved Lead (Pb)	mg/L	<0.0005	0.0005	8994638	0.0009	0.0005	8994638	<0.0005	0.0005	8994638
. Lead (Pb)	mg/L	0.0026	0.0005	8994622	0.0122	0.0005	8994622	0.0096	0.0005	8994622

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9547
Report Date: 2023/10/27

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE679			XHE680			XHE681		
Sampling Date		2023/10/11 11:13			2023/10/11 08:00			2023/10/11 14:05		
COC Number		782270			782270			782270		
	UNITS	MW09-18	RDL	QC Batch	DUPLICATE 3	RDL	QC Batch	96-07 A1	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.111	0.005	8994638	0.120	0.005	8994638	0.017	0.005	8994638
. Lithium (Li)	mg/L	0.108	0.005	8994622	0.126	0.005	8994622	0.019	0.005	8994622
Dissolved Magnesium (Mg)	mg/L	190	0.05	8994638	102	0.05	8994638	196	0.05	8994638
. Magnesium (Mg)	mg/L	178	0.05	8994622	100	0.05	8994622	198	0.05	8994622
Dissolved Manganese (Mn)	mg/L	0.577	0.002	8994638	0.699	0.002	8994638	0.158	0.002	8994638
. Manganese (Mn)	mg/L	0.624	0.002	8994622	1.04	0.002	8994622	0.542	0.002	8994622
Mercury (Hg)	mg/L				<0.00010	0.00010	8988641	<0.00010	0.00010	8989814
Mercury (Hg)	ug/L	<0.01	0.01	8986102						
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8985992	<0.01	0.01	8985992	<0.01	0.01	8985992
Dissolved Molybdenum (Mo)	mg/L	0.0041	0.0005	8994638	0.0099	0.0005	8994638	0.0008	0.0005	8994638
. Molybdenum (Mo)	mg/L	0.0030	0.0005	8994622	0.0082	0.0005	8994622	0.0008	0.0005	8994622
Dissolved Nickel (Ni)	mg/L	0.006	0.001	8994638	0.004	0.001	8994638	<0.001	0.001	8994638
. Nickel (Ni)	mg/L	0.007	0.001	8994622	0.027	0.001	8994622	0.014	0.001	8994622
Dissolved Phosphorus (P)	mg/L	<0.05	0.05	8994638	<0.05	0.05	8994638	<0.05	0.05	8994638
. Phosphorus (P)	mg/L	0.16	0.05	8994622	0.36	0.05	8994622	0.42	0.05	8994622
Dissolved Potassium (K)	mg/L	29.7	0.2	8994638	36.5	0.2	8994638	35.6	0.2	8994638
. Potassium (K)	mg/L	27.9	0.2	8994622	33.1	0.2	8994622	35.9	0.2	8994622
Dissolved Rubidium (Rb)	mg/L	0.0098	0.0002	8994638	0.0122	0.0002	8994638	0.0118	0.0002	8994638
. Rubidium (Rb)	mg/L	0.0100	0.0002	8994622	0.0176	0.0002	8994622	0.0166	0.0002	8994622
Dissolved Selenium (Se)	mg/L	<0.002	0.002	8994638	<0.002	0.002	8994638	<0.002	0.002	8994638
. Selenium (Se)	mg/L	<0.0005	0.0005	8994622	<0.0005	0.0005	8994622	<0.0005	0.0005	8994622
Dissolved Silicon (Si)	mg/L	8.41	0.05	8994638	5.82	0.05	8994638	9.29	0.05	8994638
. Silicon (Si)	mg/L	8.74	0.05	8994622	9.22	0.05	8994622	12.3	0.05	8994622
Dissolved Silver (Ag)	mg/L	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Silver (Ag)	mg/L	<0.0001	0.0001	8994622	<0.0001	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Sodium (Na)	mg/L	179	0.1	8994638	308	0.1	8994638	5.3	0.1	8994638
. Sodium (Na)	mg/L	170	0.1	8994622	308	0.1	8994622	5.3	0.1	8994622
Dissolved Strontium (Sr)	mg/L	2.13	0.001	8994638	2.18	0.001	8994638	2.84	0.001	8994638
. Strontium (Sr)	mg/L	2.05	0.001	8994622	2.10	0.001	8994622	2.90	0.001	8994622
Dissolved Sulphur (S)	mg/L	490	0.5	8990638	490	5	8990638	610	5	8990638
Total Sulphur (S)	mg/L	500	0.5	8988335	530	5	8988335	620	5	8988335

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE679			XHE680			XHE681		
Sampling Date		2023/10/11 11:13			2023/10/11 08:00			2023/10/11 14:05		
COC Number		782270			782270			782270		
	UNITS	MW09-18	RDL	QC Batch	DUPLICATE 3	RDL	QC Batch	96-07 A1	RDL	QC Batch
Dissolved Tellurium (Te)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	<0.001	0.001	8994638
. Tellurium (Te)	mg/L	<0.001	0.001	8994622	<0.001	0.001	8994622	<0.001	0.001	8994622
Dissolved Thallium (Tl)	mg/L	<0.00005	0.00005	8994638	<0.00005	0.00005	8994638	<0.00005	0.00005	8994638
. Thallium (Tl)	mg/L	<0.00005	0.00005	8994622	<0.00005	0.00005	8994622	<0.00005	0.00005	8994622
Dissolved Thorium (Th)	mg/L	<0.002	0.002	8994638	<0.002	0.002	8994638	<0.002	0.002	8994638
. Thorium (Th)	mg/L	<0.002	0.002	8994622	<0.002	0.002	8994622	<0.002	0.002	8994622
Dissolved Tin (Sn)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	<0.001	0.001	8994638
. Tin (Sn)	mg/L	<0.001	0.001	8994622	<0.001	0.001	8994622	<0.001	0.001	8994622
Dissolved Titanium (Ti)	mg/L	<0.005	0.005	8994638	0.010	0.005	8994638	<0.005	0.005	8994638
. Titanium (Ti)	mg/L	0.016	0.005	8994622	0.143	0.005	8994622	0.093	0.005	8994622
Dissolved Tungsten (W)	mg/L	<0.001	0.001	8994638	0.001	0.001	8994638	<0.001	0.001	8994638
. Tungsten (W)	mg/L	<0.001	0.001	8994622	0.002	0.001	8994622	0.005	0.001	8994622
Dissolved Uranium (U)	mg/L	0.0057	0.0001	8994638	0.0024	0.0001	8994638	0.0004	0.0001	8994638
. Uranium (U)	mg/L	0.0052	0.0001	8994622	0.0032	0.0001	8994622	0.0005	0.0001	8994622
Dissolved Vanadium (V)	mg/L	<0.0005	0.0005	8994638	0.0009	0.0005	8994638	<0.0005	0.0005	8994638
. Vanadium (V)	mg/L	0.0023	0.0005	8994622	0.0107	0.0005	8994622	0.0073	0.0005	8994622
Dissolved Zinc (Zn)	mg/L	<0.005	0.005	8994638	<0.005	0.005	8994638	<0.005	0.005	8994638
. Zinc (Zn)	mg/L	0.008	0.005	8994622	0.029	0.005	8994622	0.027	0.005	8994622
Dissolved Zirconium (Zr)	mg/L	<0.001	0.001	8994638	<0.001	0.001	8994638	<0.001	0.001	8994638
. Zirconium (Zr)	mg/L	0.001	0.001	8994622	0.002	0.001	8994622	0.001	0.001	8994622

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QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE681			XHE682		
Sampling Date		2023/10/11 14:05			2023/10/11 15:04		
COC Number		782270			782270		
	UNITS	96-07 A1 Lab-Dup	RDL	QC Batch	96-01	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L				0.182	0.005	8994638
. Aluminum (Al)	mg/L				1.84	0.005	8994622
Dissolved Antimony (Sb)	mg/L				0.001	0.001	8994638
. Antimony (Sb)	mg/L				<0.001	0.001	8994622
Dissolved Arsenic (As)	mg/L				0.031	0.001	8994638
. Arsenic (As)	mg/L				0.035	0.001	8994622
Dissolved Barium (Ba)	mg/L				0.029	0.002	8994638
. Barium (Ba)	mg/L				0.061	0.002	8994622
Dissolved Beryllium (Be)	mg/L				<0.0005	0.0005	8994638
. Beryllium (Be)	mg/L				<0.0005	0.0005	8994622
Dissolved Bismuth (Bi)	mg/L				<0.001	0.001	8994638
. Bismuth (Bi)	mg/L				<0.001	0.001	8994622
Dissolved Boron (B)	mg/L				0.02	0.01	8994638
. Boron (B)	mg/L				0.02	0.01	8994622
Dissolved Cadmium (Cd)	mg/L				<0.0001	0.0001	8994638
. Cadmium (Cd)	mg/L				0.00020	0.00005	8994622
Dissolved Calcium (Ca)	mg/L				309	0.2	8994638
. Calcium (Ca)	mg/L				398	0.2	8994622
Dissolved Cesium (Cs)	mg/L				<0.0002	0.0002	8994638
. Cesium (Cs)	mg/L				0.0002	0.0002	8994622
Dissolved Chromium (Cr)	mg/L				<0.005	0.005	8994638
. Chromium (Cr)	mg/L				0.007	0.005	8994622
Dissolved Cobalt (Co)	mg/L				0.0035	0.0005	8994638
. Cobalt (Co)	mg/L				0.0062	0.0005	8994622
Dissolved Copper (Cu)	mg/L				0.001	0.001	8994638
. Copper (Cu)	mg/L				0.008	0.001	8994622
Dissolved Iron (Fe)	mg/L				0.54	0.05	8994638
. Iron (Fe)	mg/L				3.67	0.05	8994622
Dissolved Lead (Pb)	mg/L				<0.0005	0.0005	8994638

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE681			XHE682		
Sampling Date		2023/10/11 14:05			2023/10/11 15:04		
COC Number		782270			782270		
	UNITS	96-07 A1 Lab-Dup	RDL	QC Batch	96-01	RDL	QC Batch
. Lead (Pb)	mg/L				0.0036	0.0005	8994622
Dissolved Lithium (Li)	mg/L				0.007	0.005	8994638
. Lithium (Li)	mg/L				0.011	0.005	8994622
Dissolved Magnesium (Mg)	mg/L				78.2	0.05	8994638
. Magnesium (Mg)	mg/L				101	0.05	8994622
Dissolved Manganese (Mn)	mg/L				1.75	0.002	8994638
. Manganese (Mn)	mg/L				2.04	0.002	8994622
Mercury (Hg)	ug/L				0.02	0.01	8986102
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8985992	<0.01	0.01	8985992
Dissolved Molybdenum (Mo)	mg/L				<0.0005	0.0005	8994638
. Molybdenum (Mo)	mg/L				<0.0005	0.0005	8994622
Dissolved Nickel (Ni)	mg/L				0.003	0.001	8994638
. Nickel (Ni)	mg/L				0.007	0.001	8994622
Dissolved Phosphorus (P)	mg/L				2.06	0.05	8994638
. Phosphorus (P)	mg/L				2.24	0.05	8994622
Dissolved Potassium (K)	mg/L				8.9	0.2	8994638
. Potassium (K)	mg/L				8.7	0.2	8994622
Dissolved Rubidium (Rb)	mg/L				0.0037	0.0002	8994638
. Rubidium (Rb)	mg/L				0.0057	0.0002	8994622
Dissolved Selenium (Se)	mg/L				<0.002	0.002	8994638
. Selenium (Se)	mg/L				<0.0005	0.0005	8994622
Dissolved Silicon (Si)	mg/L				4.62	0.05	8994638
. Silicon (Si)	mg/L				7.02	0.05	8994622
Dissolved Silver (Ag)	mg/L				0.0001	0.0001	8994638
. Silver (Ag)	mg/L				<0.0001	0.0001	8994622
Dissolved Sodium (Na)	mg/L				37.9	0.1	8994638
. Sodium (Na)	mg/L				35.1	0.1	8994622
Dissolved Strontium (Sr)	mg/L				0.663	0.001	8994638
. Strontium (Sr)	mg/L				0.778	0.001	8994622
Dissolved Sulphur (S)	mg/L	610	5	8990638	270	0.5	8990638

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE681			XHE682		
Sampling Date		2023/10/11 14:05			2023/10/11 15:04		
COC Number		782270			782270		
	UNITS	96-07 A1 Lab-Dup	RDL	QC Batch	96-01	RDL	QC Batch
Total Sulphur (S)	mg/L				330	0.5	8988335
Dissolved Tellurium (Te)	mg/L				<0.001	0.001	8994638
. Tellurium (Te)	mg/L				<0.001	0.001	8994622
Dissolved Thallium (Tl)	mg/L				<0.00005	0.00005	8994638
. Thallium (Tl)	mg/L				<0.00005	0.00005	8994622
Dissolved Thorium (Th)	mg/L				<0.002	0.002	8994638
. Thorium (Th)	mg/L				<0.002	0.002	8994622
Dissolved Tin (Sn)	mg/L				<0.001	0.001	8994638
. Tin (Sn)	mg/L				<0.001	0.001	8994622
Dissolved Titanium (Ti)	mg/L				0.010	0.005	8994638
. Titanium (Ti)	mg/L				0.085	0.005	8994622
Dissolved Tungsten (W)	mg/L				<0.001	0.001	8994638
. Tungsten (W)	mg/L				<0.001	0.001	8994622
Dissolved Uranium (U)	mg/L				0.0019	0.0001	8994638
. Uranium (U)	mg/L				0.0026	0.0001	8994622
Dissolved Vanadium (V)	mg/L				0.0010	0.0005	8994638
. Vanadium (V)	mg/L				0.0061	0.0005	8994622
Dissolved Zinc (Zn)	mg/L				0.010	0.005	8994638
. Zinc (Zn)	mg/L				0.026	0.005	8994622
Dissolved Zirconium (Zr)	mg/L				<0.001	0.001	8994638
. Zirconium (Zr)	mg/L				0.002	0.001	8994622

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		XHE677	XHE678	XHE679		
Sampling Date		2023/10/11 10:08	2023/10/11 10:41	2023/10/11 11:13		
COC Number		782270	782270	782270		
	UNITS	MW07-18	MW08-18	MW09-18	RDL	QC Batch
Volatile Organics						
Benzene	ug/L	<0.17	<0.17	<0.17	0.17	8984290
Chloroform	ug/L	<0.20	<0.20	<0.20	0.20	8984290
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	8984290
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	8984290
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	8984290
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	8984290
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	8984290
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	8984290
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	8984290
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	8984290
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	8984290
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	8984290
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	8984290
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	8984290
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	8984290
F1 (C6-C10)	ug/L	<25	<25	<25	25	8984290
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	25	8984290
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	94	94	94		8984290
D4-1,2-Dichloroethane	%	103	103	105		8984290
D8-Toluene	%	100	99	99		8984290

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		XHE677	XHE678	XHE679		
Sampling Date		2023/10/11 10:08	2023/10/11 10:41	2023/10/11 11:13		
COC Number		782270	782270	782270		
	UNITS	MW07-18	MW08-18	MW09-18	RDL	QC Batch
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	8989382
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	8989382
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	8989382
Reached Baseline at C50	ug/L	Yes	Yes	Yes		8989382
Surrogate Recovery (%)						
o-Terphenyl	%	93	90	93		8989382

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9547
Report Date: 2023/10/27

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

TEST SUMMARY

Bureau Veritas ID: XHE677
Sample ID: MW07-18
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991101	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8989382	2023/10/18	2023/10/19	Anna Stuglik-Rolland
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981150	N/A	2023/10/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	8988923	2023/10/18	2023/10/19	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9003852	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8992700	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8986075	2023/10/17	2023/10/19	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992913	2023/10/19	2023/10/20	Kruti Jitesh Patel
Total Suspended Solids	BAL	8995475	2023/10/20	2023/10/23	Razieh Tabesh
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8984290	N/A	2023/10/18	Dina Wang

Bureau Veritas ID: XHE677 Dup
Sample ID: MW07-18
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul

Bureau Veritas ID: XHE678
Sample ID: MW08-18
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9547
Report Date: 2023/10/27

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

TEST SUMMARY

Bureau Veritas ID: XHE678
Sample ID: MW08-18
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8989382	2023/10/18	2023/10/19	Anna Stuglik-Rolland
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	8988923	2023/10/18	2023/10/19	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9003852	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8992700	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8986059	2023/10/19	2023/10/20	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992913	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988577	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8984290	N/A	2023/10/18	Dina Wang

Bureau Veritas ID: XHE679
Sample ID: MW09-18
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991101	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8989382	2023/10/18	2023/10/19	Anna Stuglik-Rolland
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/20	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8986102	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9003852	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9547
Report Date: 2023/10/27

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

TEST SUMMARY

Bureau Veritas ID: XHE679
Sample ID: MW09-18
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	8992802	N/A	2023/10/23	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8986075	2023/10/17	2023/10/19	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992913	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988187	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8984290	N/A	2023/10/18	Dina Wang

Bureau Veritas ID: XHE680
Sample ID: DUPLICATE 3
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991101	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981150	N/A	2023/10/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	8988641	2023/10/18	2023/10/18	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9003852	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8992802	N/A	2023/10/23	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8986075	2023/10/17	2023/10/19	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992913	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8986400	2023/10/19	2023/10/20	Shaneil Hall
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XHE680 Dup
Sample ID: DUPLICATE 3
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	8992802	N/A	2023/10/23	Prabhjot Kaur
Total Dissolved Solids	BAL	8986075	2023/10/17	2023/10/19	Shaneil Hall

Bureau Veritas ID: XHE681
Sample ID: 96-07 A1
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991101	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981150	N/A	2023/10/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	8989814	2023/10/19	2023/10/19	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9003852	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8992700	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8986070	2023/10/17	2023/10/19	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992913	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988577	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

Bureau Veritas ID: XHE681 Dup
Sample ID: 96-07 A1
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9547
Report Date: 2023/10/27

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

TEST SUMMARY

Bureau Veritas ID: XHE682
Sample ID: 96-01
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	9004574	N/A	2023/10/25	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	9003887	N/A	2023/10/25	Alina Dobreanu
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981150	N/A	2023/10/20	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8986102	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/20	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9003852	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8992700	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	9003888	N/A	2023/10/25	Alina Dobreanu
Total Dissolved Solids	BAL	8986075	2023/10/17	2023/10/19	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992913	2023/10/19	2023/10/20	Kruti Jitesh Patel
Total Suspended Solids	BAL	8994729	2023/10/20	2023/10/20	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

Bureau Veritas ID: XHE682 Dup
Sample ID: 96-01
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.0°C
Package 2	5.3°C

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XHE677 [MW07-18] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Sample XHE678 [MW08-18] : Acidity sample contained headspace.
TDS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample XHE679 [MW09-18] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.
Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample XHE680 [DUPLICATE 3] : Acidity sample contained headspacez.

TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample XHE681 [96-07 A1] : Acidity sample contained headspace.

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample XHE682 [96-01] : Acidity sample contained headspace.

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8984290	4-Bromofluorobenzene	2023/10/17	97	70 - 130	97	70 - 130	95	%				
8984290	D4-1,2-Dichloroethane	2023/10/17	104	70 - 130	98	70 - 130	99	%				
8984290	D8-Toluene	2023/10/17	102	70 - 130	104	70 - 130	101	%				
8989382	o-Terphenyl	2023/10/18	100	60 - 130	97	60 - 130	94	%				
8983721	Turbidity	2023/10/16			101	80 - 120	<0.1	NTU	0	20		
8984087	Nitrate (N)	2023/10/19	90	80 - 120	93	80 - 120	<0.10	mg/L	NC	20		
8984087	Nitrite (N)	2023/10/19	105	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
8984165	Fluoride (F-)	2023/10/17	81	80 - 120	95	80 - 120	<0.10	mg/L	15	20		
8984171	Alkalinity (Total as CaCO3)	2023/10/17			97	85 - 115	<1.0	mg/L				
8984178	Conductivity	2023/10/17			102	85 - 115	<0.001	mS/cm	0	10		
8984182	pH	2023/10/17			102	98 - 103			0.62	N/A		
8984199	Dissolved Chloride (Cl-)	2023/10/18	93	80 - 120	97	80 - 120	<1.0	mg/L	NC	20		
8984223	Dissolved Sulphate (SO4)	2023/10/20	95	75 - 125	101	80 - 120	<1.0	mg/L	6.9	20		
8984290	1,1,2,2-Tetrachloroethane	2023/10/17	110	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
8984290	1,2-Dichlorobenzene	2023/10/17	102	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
8984290	1,4-Dichlorobenzene	2023/10/17	115	70 - 130	118	70 - 130	<0.50	ug/L	NC	30		
8984290	Benzene	2023/10/17	93	70 - 130	91	70 - 130	<0.17	ug/L	NC	30		
8984290	Chloroform	2023/10/17	101	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
8984290	cis-1,2-Dichloroethylene	2023/10/17	100	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
8984290	Ethylbenzene	2023/10/17	88	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		
8984290	F1 (C6-C10) - BTEX	2023/10/17					<25	ug/L	NC	30		
8984290	F1 (C6-C10)	2023/10/17	96	60 - 140	96	60 - 140	<25	ug/L	NC	30		
8984290	Methylene Chloride(Dichloromethane)	2023/10/17	104	70 - 130	97	70 - 130	<2.0	ug/L	NC	30		
8984290	o-Xylene	2023/10/17	81	70 - 130	84	70 - 130	<0.20	ug/L	NC	30		
8984290	p+m-Xylene	2023/10/17	88	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
8984290	Tetrachloroethylene	2023/10/17	94	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
8984290	Toluene	2023/10/17	91	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
8984290	Total Xylenes	2023/10/17					<0.20	ug/L	NC	30		
8984290	trans-1,3-Dichloropropene	2023/10/17	101	70 - 130	95	70 - 130	<0.40	ug/L	NC	30		
8984290	Trichloroethylene	2023/10/17	96	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8985992	Dissolved Mercury (Hg)	2023/10/17	95	75 - 125	97	80 - 120	<0.01	ug/L	NC	20		
8986059	Total Dissolved Solids	2023/10/20			95	90 - 110	<10	mg/L	0.84	20		
8986070	Total Dissolved Solids	2023/10/19			98	90 - 110	<10	mg/L	12	20		
8986075	Total Dissolved Solids	2023/10/19			100	90 - 110	<10	mg/L	0.63	20		
8986102	Mercury (Hg)	2023/10/17	110	75 - 125	97	80 - 120	<0.01	ug/L	NC	20		
8986400	Total Suspended Solids	2023/10/20			98	85 - 115	<1	mg/L	5.7	20		
8988187	Total Suspended Solids	2023/10/19			96	85 - 115	<1	mg/L	11	20		
8988335	Total Sulphur (S)	2023/10/19	NC	80 - 120	100	80 - 120	<0.5	mg/L	0.67	25		
8988577	Total Suspended Solids	2023/10/19			95	85 - 115	<1	mg/L	9.5	20		
8988641	Mercury (Hg)	2023/10/18	97	75 - 125	101	80 - 120	<0.00010	mg/L	NC	20		
8988923	Mercury (Hg)	2023/10/19	92	75 - 125	102	80 - 120	<0.00010	mg/L	NC	20		
8989382	F2 (C10-C16 Hydrocarbons)	2023/10/18	108	60 - 130	101	60 - 130	<100	ug/L	NC	30		
8989382	F3 (C16-C34 Hydrocarbons)	2023/10/18	109	60 - 130	107	60 - 130	<200	ug/L	NC	30		
8989382	F4 (C34-C50 Hydrocarbons)	2023/10/18	109	60 - 130	105	60 - 130	<200	ug/L	NC	30		
8989814	Mercury (Hg)	2023/10/19	102	75 - 125	105	80 - 120	<0.00010	mg/L	NC	20		
8990638	Dissolved Sulphur (S)	2023/10/24	NC	80 - 120	94	80 - 120	<0.5	mg/L	0.46	25		
8991101	Acidity	2023/10/19	106	80 - 120	103	80 - 120	<5.0	mg/L	NC	25		
8991213	Acidity	2023/10/19	105	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
8992700	Total Ammonia-N	2023/10/21	99	75 - 125	100	80 - 120	<0.050	mg/L	14	20		
8992802	Total Ammonia-N	2023/10/23	102	75 - 125	101	80 - 120	<0.050	mg/L	0.91	20		
8992913	Total Kjeldahl Nitrogen (TKN)	2023/10/20	111	80 - 120	102	80 - 120	<0.10	mg/L	NC	20	103	80 - 120
8994622	. Aluminum (Al)	2023/10/23	100	80 - 120	97	80 - 120	<0.0005	mg/L	11	20		
8994622	. Antimony (Sb)	2023/10/23	108	80 - 120	106	80 - 120	<0.0001	mg/L	3.4	20		
8994622	. Arsenic (As)	2023/10/23	101	80 - 120	100	80 - 120	<0.0001	mg/L	1.2	20		
8994622	. Barium (Ba)	2023/10/23	96	80 - 120	98	80 - 120	<0.0002	mg/L	2.8	20		
8994622	. Beryllium (Be)	2023/10/23	89	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
8994622	. Bismuth (Bi)	2023/10/23	87	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
8994622	. Boron (B)	2023/10/23	NC	80 - 120	91	80 - 120	<0.001	mg/L	0.51	20		
8994622	. Cadmium (Cd)	2023/10/23	94	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
8994622	. Calcium (Ca)	2023/10/23	NC	80 - 120	94	80 - 120	<0.02	mg/L	1.4	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8994622	. Cesium (Cs)	2023/10/23	96	80 - 120	100	80 - 120	<0.00002	mg/L	0.47	20		
8994622	. Chromium (Cr)	2023/10/23	98	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
8994622	. Cobalt (Co)	2023/10/23	95	80 - 120	95	80 - 120	<0.00005	mg/L	1.7	20		
8994622	. Copper (Cu)	2023/10/23	96	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
8994622	. Iron (Fe)	2023/10/23	89	80 - 120	91	80 - 120	<0.005	mg/L	0.065	20		
8994622	. Lead (Pb)	2023/10/23	88	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
8994622	. Lithium (Li)	2023/10/23	95	80 - 120	102	80 - 120	<0.0005	mg/L	1.2	20		
8994622	. Magnesium (Mg)	2023/10/23	NC	80 - 120	97	80 - 120	<0.005	mg/L	1.3	20		
8994622	. Manganese (Mn)	2023/10/23	96	80 - 120	97	80 - 120	<0.0002	mg/L	1.1	20		
8994622	. Molybdenum (Mo)	2023/10/23	113	80 - 120	100	80 - 120	<0.00005	mg/L	4.7	20		
8994622	. Nickel (Ni)	2023/10/23	92	80 - 120	96	80 - 120	<0.0001	mg/L	0.40	20		
8994622	. Phosphorus (P)	2023/10/23	105	80 - 120	92	80 - 120	<0.005	mg/L	NC	20		
8994622	. Potassium (K)	2023/10/23	NC	80 - 120	98	80 - 120	<0.02	mg/L	1.7	20		
8994622	. Rubidium (Rb)	2023/10/23	NC	80 - 120	102	80 - 120	<0.00002	mg/L	0.81	20		
8994622	. Selenium (Se)	2023/10/23	102	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
8994622	. Silicon (Si)	2023/10/23	NC	80 - 120	99	80 - 120	<0.005	mg/L	0.39	20		
8994622	. Silver (Ag)	2023/10/23	75 (1)	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
8994622	. Sodium (Na)	2023/10/23	NC	80 - 120	98	80 - 120	<0.01	mg/L	1.9	20		
8994622	. Strontium (Sr)	2023/10/23	NC	80 - 120	100	80 - 120	<0.0001	mg/L	2.8	20		
8994622	. Tellurium (Te)	2023/10/23	96	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
8994622	. Thallium (Tl)	2023/10/23	88	80 - 120	95	80 - 120	<0.000005	mg/L	NC	20		
8994622	. Thorium (Th)	2023/10/23	98	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
8994622	. Tin (Sn)	2023/10/23	106	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
8994622	. Titanium (Ti)	2023/10/23	108	80 - 120	102	80 - 120	<0.0005	mg/L	NC	20		
8994622	. Tungsten (W)	2023/10/23	102	80 - 120	99	80 - 120	<0.0001	mg/L	4.9	20		
8994622	. Uranium (U)	2023/10/23	103	80 - 120	104	80 - 120	<0.00001	mg/L	2.4	20		
8994622	. Vanadium (V)	2023/10/23	103	80 - 120	96	80 - 120	<0.00005	mg/L	1.6	20		
8994622	. Zinc (Zn)	2023/10/23	85	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
8994622	. Zirconium (Zr)	2023/10/23	114	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Aluminum (Al)	2023/10/20	89	80 - 120	103	80 - 120	<0.0005	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8994638	Dissolved Antimony (Sb)	2023/10/20	97	80 - 120	104	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Arsenic (As)	2023/10/20	NC	80 - 120	100	80 - 120	<0.0001	mg/L	0.65	20		
8994638	Dissolved Barium (Ba)	2023/10/20	NC	80 - 120	98	80 - 120	<0.0002	mg/L	2.2	20		
8994638	Dissolved Beryllium (Be)	2023/10/20	91	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
8994638	Dissolved Bismuth (Bi)	2023/10/20	91	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Boron (B)	2023/10/20	85	80 - 120	100	80 - 120	<0.001	mg/L	0.36	20		
8994638	Dissolved Cadmium (Cd)	2023/10/20	91	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
8994638	Dissolved Calcium (Ca)	2023/10/20	NC	80 - 120	100	80 - 120	<0.02	mg/L	1.6	20		
8994638	Dissolved Cesium (Cs)	2023/10/20	92	80 - 120	101	80 - 120	<0.00002	mg/L	NC	N/A		
8994638	Dissolved Chromium (Cr)	2023/10/20	89	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
8994638	Dissolved Cobalt (Co)	2023/10/20	87	80 - 120	97	80 - 120	<0.00005	mg/L	2.0	20		
8994638	Dissolved Copper (Cu)	2023/10/20	87	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Iron (Fe)	2023/10/20	NC	80 - 120	94	80 - 120	<0.005	mg/L	4.7	20		
8994638	Dissolved Lead (Pb)	2023/10/20	86	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
8994638	Dissolved Lithium (Li)	2023/10/20	94	80 - 120	101	80 - 120	<0.0005	mg/L	1.9	20		
8994638	Dissolved Magnesium (Mg)	2023/10/20	NC	80 - 120	101	80 - 120	<0.005	mg/L	3.5	20		
8994638	Dissolved Manganese (Mn)	2023/10/20	NC	80 - 120	99	80 - 120	<0.0002	mg/L	4.5	20		
8994638	Dissolved Molybdenum (Mo)	2023/10/20	97	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
8994638	Dissolved Nickel (Ni)	2023/10/20	86	80 - 120	97	80 - 120	<0.0001	mg/L	9.7	20		
8994638	Dissolved Phosphorus (P)	2023/10/20	94	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		
8994638	Dissolved Potassium (K)	2023/10/20	NC	80 - 120	100	80 - 120	<0.02	mg/L	4.2	20		
8994638	Dissolved Rubidium (Rb)	2023/10/20	93	80 - 120	100	80 - 120	<0.00002	mg/L	12	N/A		
8994638	Dissolved Selenium (Se)	2023/10/20	93	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
8994638	Dissolved Silicon (Si)	2023/10/20	NC	80 - 120	105	80 - 120	<0.005	mg/L	1.5	20		
8994638	Dissolved Silver (Ag)	2023/10/20	77 (1)	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
8994638	Dissolved Sodium (Na)	2023/10/20	NC	80 - 120	102	80 - 120	<0.01	mg/L	3.3	20		
8994638	Dissolved Strontium (Sr)	2023/10/20	NC	80 - 120	99	80 - 120	<0.0001	mg/L	3.7	20		
8994638	Dissolved Tellurium (Te)	2023/10/20	91	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Thallium (Tl)	2023/10/20	88	80 - 120	96	80 - 120	<0.000005	mg/L	NC	20		
8994638	Dissolved Thorium (Th)	2023/10/20	92	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8994638	Dissolved Tin (Sn)	2023/10/20	97	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Titanium (Ti)	2023/10/20	97	80 - 120	105	80 - 120	<0.0005	mg/L	NC	20		
8994638	Dissolved Tungsten (W)	2023/10/20	93	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Uranium (U)	2023/10/20	97	80 - 120	106	80 - 120	<0.00001	mg/L	6.3	20		
8994638	Dissolved Vanadium (V)	2023/10/20	91	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
8994638	Dissolved Zinc (Zn)	2023/10/20	86	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
8994638	Dissolved Zirconium (Zr)	2023/10/20	100	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
8994729	Total Suspended Solids	2023/10/20			95	85 - 115	<10	mg/L	NC	20		
8995475	Total Suspended Solids	2023/10/23			95	85 - 115	<10	mg/L	13	20		
8997212	Strong Acid Dissoc. Cyanide (CN)	2023/10/19	89	80 - 120	98	80 - 120	<0.00050	mg/L				
9003852	Free Cyanide (CN)	2023/10/24	93	80 - 120	91	80 - 120	<2.0	ug/L				
9003878	Total Phosphorus (P)	2023/10/24	91	80 - 120	93	80 - 120	<0.0010	mg/L			83	80 - 120
9003887	Dissolved Chloride (Cl-)	2023/10/25	NC	80 - 120	93	80 - 120	<1.0	mg/L	0.88	20		
9003888	Dissolved Sulphate (SO4)	2023/10/25	NC	75 - 125	98	80 - 120	<1.0	mg/L	0.20	20		
9004574	Alkalinity (Total as CaCO3)	2023/10/25			97	85 - 115	<1.0	mg/L	0.53	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, probable matrix interference

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9547
Report Date: 2023/10/27

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: MF

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Cristina Carriere, Senior Scientific Specialist

Maria Magdalena Florescu, Ph.D., P.Chem., QP, Inorganics Manager

Mike MacGillivray, Scientific Specialist (Inorganics)

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 782437

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/30
Report #: R7886683
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V9592
Received: 2023/10/12, 17:10

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	6	N/A	2023/10/19	ATL SOP-00205	SM 24 2310B m
Acidity (CaCO3) in water (1)	2	N/A	2023/10/20	ATL SOP-00205	SM 24 2310B m
Alkalinity	8	N/A	2023/10/18	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	8	N/A	2023/10/18	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	8	N/A	2023/10/18	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	8	N/A	2023/10/18	CAM SOP-00414	SM 23 2510 m
Fluoride	8	2023/10/14	2023/10/18	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	7	N/A	2023/10/20	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	1	N/A	2023/10/29	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2023/10/18	2023/10/19	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	7	2023/10/17	2023/10/17	CAM SOP-00453	EPA 7470 m
Dissolved Mercury (low level)	1	2023/10/17	2023/10/20	CAM SOP-00453	EPA 7470 m
Mercury (low level)	6	2023/10/16	2023/10/16	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	1	2023/10/17	2023/10/18	CAM SOP-00408	EPA 6010D m
Dissolved Metals Analysis by ICP	7	2023/10/18	2023/10/24	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	7	N/A	2023/10/20	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	1	N/A	2023/10/27	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	7	N/A	2023/10/23	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2023/10/27	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	8	2023/10/18	2023/10/19	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	8	N/A	2023/10/19	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	8	2023/10/18	2023/10/18	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	8	2023/10/19	2023/10/20	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	2	N/A	2023/10/20	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N	5	N/A	2023/10/21	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N	1	N/A	2023/10/23	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	8	N/A	2023/10/19	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	8	2023/10/14	2023/10/18	CAM SOP-00413	SM 4500H+ B m
Sulphate by Automated Turbidimetry	8	N/A	2023/10/19	CAM SOP-00464	SM 23 4500-SO42- E m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 782437

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/30
Report #: R7886683
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V9592
Received: 2023/10/12, 17:10

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Dissolved Solids	1	2023/10/17	2023/10/19	CAM SOP-00428	SM 23 2540C m
Total Dissolved Solids	7	2023/10/19	2023/10/20	CAM SOP-00428	SM 23 2540C m
Total Kjeldahl Nitrogen in Water	8	2023/10/19	2023/10/20	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	7	2023/10/18	2023/10/19	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	1	2023/10/19	2023/10/20	CAM SOP-00428	SM 23 2540D m
Turbidity	8	N/A	2023/10/17	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHE877			XHE877			XHE878		
Sampling Date		2023/10/11 12:12			2023/10/11 12:12			2023/10/11 12:31		
COC Number		782437			782437			782437		
	UNITS	MW19-OB-21	RDL	QC Batch	MW19-OB-21 Lab-Dup	RDL	QC Batch	MW19-BR-21	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	330	1.0	8981590				240	1.0	8981590
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590				1.3	1.0	8981590
Hardness (CaCO3)	mg/L	740	1.0	8981706				400	1.0	8981706
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590				<1.0	1.0	8981590
Inorganics										
Acidity	mg/L	35	5.0	8991213				13	5.0	8991101
Total Ammonia-N	mg/L	0.26	0.050	8991979				1.0	0.050	8991958
Conductivity	mS/cm	2.49	0.001	8982105	2.49	0.001	8982105	0.950	0.001	8982105
Free Cyanide (CN)	ug/L	2.1 (1)	2.0	8993817				2.8 (1)	2.0	8993817
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00551	0.00050	8997200				0.00127 (2)	0.00050	8997200
Total Dissolved Solids	mg/L	1550	10	8986059				530	10	8986059
Fluoride (F-)	mg/L	0.13	0.10	8982106	0.10	0.10	8982106	0.21	0.10	8982106
Total Kjeldahl Nitrogen (TKN)	mg/L	0.59	0.10	8992977				1.2	0.10	8992977
pH	pH	7.48		8982107	7.50		8982107	7.77		8982107
Total Phosphorus (P)	mg/L	1.1	0.010	8997191				0.035	0.0010	8997191
Total Suspended Solids	mg/L	1600	3	8988588				51	1	8988588
Dissolved Sulphate (SO4)	mg/L	170	1.0	8982087				28	1.0	8982087
Turbidity	NTU	34	0.1	8981960				33	0.1	8981960
Alkalinity (Total as CaCO3)	mg/L	330	1.0	8982104	330	1.0	8982104	240	1.0	8982104
Dissolved Chloride (Cl-)	mg/L	480	6.0	8982085				120	1.0	8982085
Nitrite (N)	mg/L	0.010	0.010	8982134				<0.010	0.010	8982132
Nitrate (N)	mg/L	<0.10	0.10	8982134				<0.10	0.10	8982132
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8982134				<0.10	0.10	8982132

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHE879			XHE880		XHE881		
Sampling Date		2023/10/11 13:47			2023/10/11 14:10		2023/10/11 15:21		
COC Number		782437			782437		782437		
	UNITS	MW03-OB-18	RDL	QC Batch	MW03-BR-18	QC Batch	MW9-OB1-13	RDL	QC Batch
Calculated Parameters									
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	320	1.0	8981590	310	8981590	290	1.0	8981590
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.2	1.0	8981590	3.1	8981590	2.4	1.0	8981590
Hardness (CaCO3)	mg/L	360	1.0	8981706	280	8981706	240	1.0	8981706
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590	<1.0	8981590	<1.0	1.0	8981590
Inorganics									
Acidity	mg/L	17	5.0	8991213	<5.0	8991213	9.2	5.0	8994960
Total Ammonia-N	mg/L	<0.050	0.050	8991979	0.41	8991970	0.28 (1)	0.050	8999155
Conductivity	mS/cm	0.613	0.001	8982105	0.567	8982105	0.539	0.001	8982105
Free Cyanide (CN)	ug/L	2.3 (2)	2.0	8993817	2.6 (2)	8993817	2.1 (2)	2.0	8993817
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050 (3)	0.00050	8997200	<0.00050 (3)	8997200	<0.00050 (3)	0.00050	8997200
Total Dissolved Solids	mg/L	355	10	8986059	325	8986070	250	10	8986059
Fluoride (F-)	mg/L	0.36	0.10	8982106	0.22	8982106	0.41	0.10	8982106
Total Kjeldahl Nitrogen (TKN)	mg/L	0.36	0.10	8992977	0.62	8992977	0.35	0.10	8992977
pH	pH	7.86		8982107	8.02	8982107	7.94		8982107
Total Phosphorus (P)	mg/L	2.5 (4)	0.020	8997191	0.16	8997191	0.063	0.0010	8997191
Total Suspended Solids	mg/L	2500	5	8988588	200	8988588	430	1	8988577
Dissolved Sulphate (SO4)	mg/L	20	1.0	8982087	<1.0	8982087	<1.0	1.0	8982087
Turbidity	NTU	46	0.1	8981960	4.9	8981960	4.7	0.1	8981960
Alkalinity (Total as CaCO3)	mg/L	320	1.0	8982104	320	8982104	300	1.0	8982104
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	8982085	<1.0	8982085	<1.0	1.0	8982085
Nitrite (N)	mg/L	<0.010	0.010	8982134	0.204	8982134	0.066	0.010	8982132
Nitrate (N)	mg/L	<0.10	0.10	8982134	<0.10	8982134	<0.10	0.10	8982132
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8982134	0.27	8982134	<0.10	0.10	8982132

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Result is reported from TKN. KPJ 2023/10/23
(2) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(3) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.
(4) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHE881			XHE882			XHE883		
Sampling Date		2023/10/11 15:21			2023/10/11 15:51			2023/10/11 16:41		
COC Number		782437			782437			782437		
	UNITS	MW9-OB1-13 Lab-Dup	RDL	QC Batch	MWS-14-01	RDL	QC Batch	MW17-OB-14	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				370	1.0	8981590	390	1.0	8981590
Carb. Alkalinity (calc. as CaCO3)	mg/L				2.3	1.0	8981590	1.3	1.0	8981590
Hardness (CaCO3)	mg/L				320	1.0	8981706	580	1.0	8981706
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	8981590	<1.0	1.0	8981590
Inorganics										
Acidity	mg/L				19	5.0	8994960	26	5.0	8991101
Total Ammonia-N	mg/L				0.13	0.050	8991970	<0.050	0.050	8991979
Conductivity	mS/cm				0.682	0.001	8982105	2.88	0.001	8982105
Free Cyanide (CN)	ug/L				2.6 (1)	2.0	8993817	2.8 (1)	2.0	8993817
Strong Acid Dissoc. Cyanide (CN)	mg/L				<0.00050 (2)	0.00050	8997200	0.00148 (2)	0.00050	8997200
Total Dissolved Solids	mg/L				340	10	8986059	1190	10	8986059
Fluoride (F-)	mg/L				0.56	0.10	8982106	<0.10	0.10	8982106
Total Kjeldahl Nitrogen (TKN)	mg/L				0.13	0.10	8992977	0.15	0.10	8992977
pH	pH				7.82		8982107	7.55		8982107
Total Phosphorus (P)	mg/L				0.23	0.0010	8997191	0.015	0.0010	8997191
Total Suspended Solids	mg/L				860	3	8986400	86	2	8988588
Dissolved Sulphate (SO4)	mg/L				2.2	1.0	8982087	22	1.0	8982087
Turbidity	NTU				24	0.1	8981960	0.9	0.1	8981960
Alkalinity (Total as CaCO3)	mg/L				370	1.0	8982104	390	1.0	8982104
Dissolved Chloride (Cl-)	mg/L				<1.0	1.0	8982085	630	7.0	8982085
Nitrite (N)	mg/L	0.073	0.010	8982132	0.043	0.010	8982132	0.011	0.010	8982134
Nitrate (N)	mg/L	<0.10	0.10	8982132	<0.10	0.10	8982132	0.10	0.10	8982134
Nitrate + Nitrite (N)	mg/L	0.11	0.10	8982132	<0.10	0.10	8982132	0.11	0.10	8982134

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHE883			XHE884			XHE884		
Sampling Date		2023/10/11 16:41			2023/10/11 08:00			2023/10/11 08:00		
COC Number		782437			782437			782437		
	UNITS	MW17-OB-14 Lab-Dup	RDL	QC Batch	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	8981590			
Carb. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	8981590			
Hardness (CaCO3)	mg/L				<1.0	1.0	8981706			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	8981590			
Inorganics										
Acidity	mg/L				<5.0	5.0	8991101	<5.0	5.0	8991101
Total Ammonia-N	mg/L				<0.050	0.050	8991958			
Conductivity	mS/cm				0.001	0.001	8982105			
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	8993817			
Strong Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	8997200			
Total Dissolved Solids	mg/L	1200	10	8986059	<10	10	8986059			
Fluoride (F-)	mg/L				<0.10	0.10	8982106			
Total Kjeldahl Nitrogen (TKN)	mg/L				<0.10	0.10	8993254			
pH	pH				5.81		8982107			
Total Phosphorus (P)	mg/L				<0.0010	0.0010	8997191			
Total Suspended Solids	mg/L				<1	1	8988588			
Dissolved Sulphate (SO4)	mg/L				<1.0	1.0	8982087			
Turbidity	NTU				0.1	0.1	8981960			
Alkalinity (Total as CaCO3)	mg/L				<1.0	1.0	8982104			
Dissolved Chloride (Cl-)	mg/L				<1.0	1.0	8982085			
Nitrite (N)	mg/L				<0.010	0.010	8982132			
Nitrate (N)	mg/L				<0.10	0.10	8982132			
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	8982132			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE877			XHE878			XHE879		
Sampling Date		2023/10/11 12:12			2023/10/11 12:31			2023/10/11 13:47		
COC Number		782437			782437			782437		
	UNITS	MW19-OB-21	RDL	QC Batch	MW19-BR-21	RDL	QC Batch	MW03-OB-18	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.005	0.005	8994638	0.0033	0.0005	8994638	0.0409	0.0005	8994638
. Aluminum (Al)	mg/L	3.95	0.005	8994622	0.385	0.0005	8994622	4.76	0.0025	9000336
Dissolved Antimony (Sb)	mg/L	<0.001	0.001	8994638	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Antimony (Sb)	mg/L	<0.001	0.001	8994622	0.0001	0.0001	8994622	<0.0005	0.0005	9000336
Dissolved Arsenic (As)	mg/L	0.496	0.001	8994638	0.0805	0.0005	8994638	0.0013	0.0001	8994638
. Arsenic (As)	mg/L	0.744	0.005	8994622	0.0594	0.0005	8994622	0.0025	0.0005	9000336
Dissolved Barium (Ba)	mg/L	0.057	0.002	8994638	0.160	0.0002	8994638	0.0376	0.0002	8994638
. Barium (Ba)	mg/L	0.081	0.002	8994622	0.158	0.0002	8994622	0.088	0.001	9000336
Dissolved Beryllium (Be)	mg/L	<0.0005	0.0005	8994638	<0.00005	0.00005	8994638	<0.00005	0.00005	8994638
. Beryllium (Be)	mg/L	<0.0005	0.0005	8994622	<0.00005	0.00005	8994622	0.00027	0.00025	9000336
Dissolved Bismuth (Bi)	mg/L	<0.001	0.001	8994638	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Bismuth (Bi)	mg/L	<0.001	0.001	8994622	<0.0001	0.0001	8994622	<0.0005	0.0005	9000336
Dissolved Boron (B)	mg/L	0.03	0.01	8994638	0.031	0.001	8994638	0.010	0.001	8994638
. Boron (B)	mg/L	0.03	0.01	8994622	0.030	0.001	8994622	0.034	0.005	9000336
Dissolved Cadmium (Cd)	mg/L	<0.0001	0.0001	8994638	<0.00001	0.00001	8994638	<0.00001	0.00001	8994638
. Cadmium (Cd)	mg/L	0.00040	0.00005	8994622	0.000006	0.000005	8994622	0.000140	0.000025	9000336
Dissolved Calcium (Ca)	mg/L	202	0.2	8994638	97.7	0.1	8994638	106	0.1	8994638
. Calcium (Ca)	mg/L	316	0.2	8994622	110	0.1	8994622	531	1	9000336
Dissolved Cesium (Cs)	mg/L	<0.0002	0.0002	8994638	0.00144	0.00002	8994638	<0.00002	0.00002	8994638
. Cesium (Cs)	mg/L	0.0005	0.0002	8994622	0.00128	0.00002	8994622	0.0004	0.0001	9000336
Dissolved Chromium (Cr)	mg/L	<0.005	0.005	8994638	<0.0005	0.0005	8994638	<0.0005	0.0005	8994638
. Chromium (Cr)	mg/L	0.022	0.005	8994622	0.0018	0.0005	8994622	0.0123	0.0025	9000336
Dissolved Cobalt (Co)	mg/L	0.0069	0.0005	8994638	0.00122	0.00005	8994638	<0.00005	0.00005	8994638
. Cobalt (Co)	mg/L	0.0243	0.0005	8994622	0.00144	0.00005	8994622	0.00432	0.00025	9000336
Dissolved Copper (Cu)	mg/L	0.001	0.001	8994638	0.0005	0.0001	8994638	0.0007	0.0001	8994638
. Copper (Cu)	mg/L	0.313	0.001	8994622	0.0008	0.0001	8994622	0.0131	0.0005	9000336
Dissolved Iron (Fe)	mg/L	0.94	0.05	8994638	3.52	0.005	8994638	0.953	0.005	8994638
. Iron (Fe)	mg/L	10.8	0.05	8994622	6.24	0.005	8994622	9.37	0.025	9000336
Dissolved Lead (Pb)	mg/L	<0.0005	0.0005	8994638	<0.00005	0.00005	8994638	<0.00005	0.00005	8994638
. Lead (Pb)	mg/L	0.0105	0.0005	8994622	0.00037	0.00005	8994622	0.00692	0.00025	9000336
Dissolved Lithium (Li)	mg/L	<0.005	0.005	8994638	0.0084	0.0005	8994638	0.0072	0.0005	8994638

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE877			XHE878			XHE879		
Sampling Date		2023/10/11 12:12			2023/10/11 12:31			2023/10/11 13:47		
COC Number		782437			782437			782437		
	UNITS	MW19-OB-21	RDL	QC Batch	MW19-BR-21	RDL	QC Batch	MW03-OB-18	RDL	QC Batch
. Lithium (Li)	mg/L	0.010	0.005	8994622	0.0087	0.0005	8994622	0.0154	0.0025	9000336
Dissolved Magnesium (Mg)	mg/L	56.6	0.05	8994638	38.4	0.005	8994638	22.4	0.005	8994638
. Magnesium (Mg)	mg/L	89.3	0.05	8994622	38.9	0.005	8994622	136	0.025	9000336
Dissolved Manganese (Mn)	mg/L	2.26	0.002	8994638	0.321	0.0002	8994638	0.0547	0.0002	8994638
. Manganese (Mn)	mg/L	2.60	0.002	8994622	0.393	0.0002	8994622	0.525	0.001	9000336
Mercury (Hg)	mg/L							<0.00010	0.00010	8988923
Mercury (Hg)	ug/L	0.03	0.01	8983775	<0.01	0.01	8983775			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8995965	<0.01	0.01	8985992	<0.01	0.01	8985992
Dissolved Molybdenum (Mo)	mg/L	0.0007	0.0005	8994638	0.00166	0.00005	8994638	0.00073	0.00005	8994638
. Molybdenum (Mo)	mg/L	0.0007	0.0005	8994622	0.00183	0.00005	8994622	0.00025	0.00025	9000336
Dissolved Nickel (Ni)	mg/L	0.003	0.001	8994638	0.0007	0.0001	8994638	<0.0001	0.0001	8994638
. Nickel (Ni)	mg/L	0.024	0.001	8994622	0.0025	0.0001	8994622	0.0096	0.0005	9000336
Dissolved Phosphorus (P)	mg/L	<0.05	0.05	8994638	0.009	0.005	8994638	0.015	0.005	8994638
. Phosphorus (P)	mg/L	0.66	0.05	8994622	0.035	0.005	8994622	1.43	0.025	9000336
Dissolved Potassium (K)	mg/L	10.7	0.2	8994638	5.03	0.02	8994638	1.85	0.02	8994638
. Potassium (K)	mg/L	11.0	0.2	8994622	5.09	0.02	8994622	2.7	0.1	9000336
Dissolved Rubidium (Rb)	mg/L	0.0002	0.0002	8994638	0.00387	0.00002	8994638	0.00165	0.00002	8994638
. Rubidium (Rb)	mg/L	0.0045	0.0002	8994622	0.00391	0.00002	8994622	0.0094	0.0001	9000336
Dissolved Selenium (Se)	mg/L	<0.002	0.002	8994638	<0.0002	0.0002	8994638	<0.0002	0.0002	8994638
. Selenium (Se)	mg/L	<0.0005	0.0005	8994622	0.00014	0.00005	8994622	<0.00025	0.00025	9000336
Dissolved Silicon (Si)	mg/L	6.12	0.05	8994638	7.46	0.025	8994638	6.91	0.025	8994638
. Silicon (Si)	mg/L	9.98	0.05	8994622	8.15	0.025	8994622	13.8	0.025	9000336
Dissolved Silver (Ag)	mg/L	<0.0001	0.0001	8994638	<0.00001	0.00001	8994638	<0.00001	0.00001	8994638
. Silver (Ag)	mg/L	<0.0001	0.0001	8994622	<0.00001	0.00001	8994622	<0.00005	0.00005	9000336
Dissolved Sodium (Na)	mg/L	260	0.1	8994638	13.8	0.01	8994638	3.85	0.01	8994638
. Sodium (Na)	mg/L	247	0.1	8994622	14.0	0.01	8994622	4.41	0.05	9000336
Dissolved Strontium (Sr)	mg/L	0.936	0.001	8994638	1.07	0.0001	8994638	0.117	0.0001	8994638
. Strontium (Sr)	mg/L	1.02	0.001	8994622	1.06	0.0001	8994622	0.311	0.0005	9000336
Dissolved Sulphur (S)	mg/L	65	0.5	8990638	10	0.5	8990638	7.2	0.5	8990638
Total Sulphur (S)	mg/L	67	0.5	8988335	10	0.5	8988303	8.3	0.5	8988335
Dissolved Tellurium (Te)	mg/L	<0.001	0.001	8994638	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Tellurium (Te)	mg/L	<0.001	0.001	8994622	<0.0001	0.0001	8994622	<0.0005	0.0005	9000336

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE877			XHE878			XHE879		
Sampling Date		2023/10/11 12:12			2023/10/11 12:31			2023/10/11 13:47		
COC Number		782437			782437			782437		
	UNITS	MW19-OB-21	RDL	QC Batch	MW19-BR-21	RDL	QC Batch	MW03-OB-18	RDL	QC Batch
Dissolved Thallium (Tl)	mg/L	<0.00005	0.00005	8994638	<0.000005	0.000005	8994638	<0.000005	0.000005	8994638
. Thallium (Tl)	mg/L	0.00052	0.00005	8994622	<0.000005	0.000005	8994622	0.000154	0.000025	9000336
Dissolved Thorium (Th)	mg/L	<0.002	0.002	8994638	<0.0002	0.0002	8994638	<0.0002	0.0002	8994638
. Thorium (Th)	mg/L	0.002	0.002	8994622	<0.0002	0.0002	8994622	0.003	0.001	9000336
Dissolved Tin (Sn)	mg/L	<0.001	0.001	8994638	0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Tin (Sn)	mg/L	<0.001	0.001	8994622	0.0004	0.0001	8994622	<0.0005	0.0005	9000336
Dissolved Titanium (Ti)	mg/L	<0.005	0.005	8994638	0.0007	0.0005	8994638	0.0006	0.0005	8994638
. Titanium (Ti)	mg/L	0.197	0.005	8994622	0.0027	0.0005	8994622	0.170	0.0025	9000336
Dissolved Tungsten (W)	mg/L	<0.001	0.001	8994638	0.0047	0.0001	8994638	<0.0001	0.0001	8994638
. Tungsten (W)	mg/L	<0.001	0.001	8994622	0.0056	0.0001	8994622	<0.0005	0.0005	9000336
Dissolved Uranium (U)	mg/L	0.0004	0.0001	8994638	0.00112	0.00001	8994638	0.00002	0.00001	8994638
. Uranium (U)	mg/L	0.0009	0.0001	8994622	0.00109	0.00001	8994622	0.00094	0.00005	9000336
Dissolved Vanadium (V)	mg/L	<0.0005	0.0005	8994638	0.00005	0.00005	8994638	0.00009	0.00005	8994638
. Vanadium (V)	mg/L	0.0143	0.0005	8994622	0.00062	0.00005	8994622	0.0121	0.00025	9000336
Dissolved Zinc (Zn)	mg/L	<0.005	0.005	8994638	0.0011	0.0005	8994638	0.0008	0.0005	8994638
. Zinc (Zn)	mg/L	0.031	0.005	8994622	0.0653	0.0005	8994622	0.0221	0.0025	9000336
Dissolved Zirconium (Zr)	mg/L	0.001	0.001	8994638	0.0002	0.0001	8994638	0.0002	0.0001	8994638
. Zirconium (Zr)	mg/L	0.006	0.001	8994622	0.0005	0.0001	8994622	0.0017	0.0005	9000336

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Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE880		XHE881			XHE882		
Sampling Date		2023/10/11 14:10		2023/10/11 15:21			2023/10/11 15:51		
COC Number		782437		782437			782437		
	UNITS	MW03-BR-18	RDL	MW9-OB1-13	RDL	QC Batch	MWS-14-01	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0011	0.0005	0.0009	0.0005	8994638	0.101	0.0005	8994638
. Aluminum (Al)	mg/L	0.513	0.0005	0.109	0.0005	8994622	2.32	0.0025	8994622
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	<0.0001	0.0001	8994638	0.0001	0.0001	8994638
. Antimony (Sb)	mg/L	0.0005	0.0001	<0.0001	0.0001	8994622	0.0001	0.0001	8994622
Dissolved Arsenic (As)	mg/L	0.0379	0.0001	0.0027	0.0001	8994638	0.0021	0.0001	8994638
. Arsenic (As)	mg/L	0.0732	0.0005	0.0030	0.0001	8994622	0.0043	0.0001	8994622
Dissolved Barium (Ba)	mg/L	0.0837	0.0002	0.0420	0.0002	8994638	0.0469	0.0002	8994638
. Barium (Ba)	mg/L	0.0905	0.0002	0.0439	0.0002	8994622	0.0708	0.0002	8994622
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	8994638	<0.00005	0.00005	8994638
. Beryllium (Be)	mg/L	0.00012	0.00005	<0.00005	0.00005	8994622	0.00011	0.00005	8994622
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Boron (B)	mg/L	0.038	0.001	0.058	0.001	8994638	0.034	0.001	8994638
. Boron (B)	mg/L	0.038	0.001	0.058	0.001	8994622	0.035	0.001	8994622
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00001	0.00001	8994638	<0.00001	0.00001	8994638
. Cadmium (Cd)	mg/L	0.000014	0.000005	<0.000005	0.000005	8994622	0.000083	0.000005	8994622
Dissolved Calcium (Ca)	mg/L	68.3	0.1	48.5	0.02	8994638	84.9	0.1	8994638
. Calcium (Ca)	mg/L	99.3	0.1	55.2	0.1	8994622	172	0.1	8994622
Dissolved Cesium (Cs)	mg/L	0.00014	0.00002	<0.00002	0.00002	8994638	<0.00002	0.00002	8994638
. Cesium (Cs)	mg/L	0.00030	0.00002	0.00003	0.00002	8994622	0.00022	0.00002	8994622
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	8994638	<0.0005	0.0005	8994638
. Chromium (Cr)	mg/L	0.0021	0.0005	<0.0005	0.0005	8994622	0.0074	0.0005	8994622
Dissolved Cobalt (Co)	mg/L	<0.00005	0.00005	0.00016	0.00005	8994638	0.00076	0.00005	8994638
. Cobalt (Co)	mg/L	0.00128	0.00005	0.00029	0.00005	8994622	0.00317	0.00005	8994622
Dissolved Copper (Cu)	mg/L	0.0006	0.0001	0.0007	0.0001	8994638	0.0010	0.0001	8994638
. Copper (Cu)	mg/L	0.0048	0.0001	0.0008	0.0001	8994622	0.0138	0.0001	8994622
Dissolved Iron (Fe)	mg/L	1.97	0.005	1.11	0.005	8994638	0.329	0.005	8994638
. Iron (Fe)	mg/L	4.79	0.005	1.27	0.005	8994622	3.42	0.005	8994622
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	<0.00005	0.00005	8994638	0.00012	0.00005	8994638
. Lead (Pb)	mg/L	0.00159	0.00005	0.00044	0.00005	8994622	0.00296	0.00005	8994622
Dissolved Lithium (Li)	mg/L	0.0094	0.0005	0.0071	0.0005	8994638	0.0083	0.0005	8994638

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE880		XHE881			XHE882		
Sampling Date		2023/10/11 14:10		2023/10/11 15:21			2023/10/11 15:51		
COC Number		782437		782437			782437		
	UNITS	MW03-BR-18	RDL	MW9-OB1-13	RDL	QC Batch	MWS-14-01	RDL	QC Batch
. Lithium (Li)	mg/L	0.0100	0.0005	0.0073	0.0005	8994622	0.0118	0.0005	8994622
Dissolved Magnesium (Mg)	mg/L	27.4	0.005	28.7	0.005	8994638	26.9	0.005	8994638
. Magnesium (Mg)	mg/L	34.9	0.005	30.2	0.005	8994622	45.4	0.025	8994622
Dissolved Manganese (Mn)	mg/L	0.0574	0.0002	0.0230	0.0002	8994638	0.229	0.0002	8994638
. Manganese (Mn)	mg/L	0.123	0.0002	0.0374	0.0002	8994622	0.422	0.0002	8994622
Mercury (Hg)	mg/L						<0.00010	0.00010	8988923
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	8983775			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	8985992	<0.01	0.01	8985992
Dissolved Molybdenum (Mo)	mg/L	0.00115	0.00005	0.00126	0.00005	8994638	0.00341	0.00005	8994638
. Molybdenum (Mo)	mg/L	0.00119	0.00005	0.00130	0.00005	8994622	0.00193	0.00005	8994622
Dissolved Nickel (Ni)	mg/L	0.0001	0.0001	0.0004	0.0001	8994638	0.0016	0.0001	8994638
. Nickel (Ni)	mg/L	0.0036	0.0001	0.0006	0.0001	8994622	0.0083	0.0001	8994622
Dissolved Phosphorus (P)	mg/L	0.032	0.005	0.069	0.005	8994638	0.018	0.005	8994638
. Phosphorus (P)	mg/L	0.150	0.005	0.066	0.005	8994622	0.375	0.005	8994622
Dissolved Potassium (K)	mg/L	3.85	0.02	3.26	0.02	8994638	3.15	0.02	8994638
. Potassium (K)	mg/L	4.24	0.02	3.31	0.02	8994622	3.65	0.02	8994622
Dissolved Rubidium (Rb)	mg/L	0.00111	0.00002	0.00081	0.00002	8994638	0.00180	0.00002	8994638
. Rubidium (Rb)	mg/L	0.00210	0.00002	0.00100	0.00002	8994622	0.00577	0.00002	8994622
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	<0.0002	0.0002	8994638	<0.0002	0.0002	8994638
. Selenium (Se)	mg/L	<0.00005	0.00005	<0.00005	0.00005	8994622	<0.00005	0.00005	8994622
Dissolved Silicon (Si)	mg/L	7.89	0.025	8.11	0.025	8994638	6.71	0.025	8994638
. Silicon (Si)	mg/L	8.59	0.025	8.62	0.025	8994622	10.2	0.025	8994622
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	8994638	<0.00001	0.00001	8994638
. Silver (Ag)	mg/L	0.00002	0.00001	<0.00001	0.00001	8994622	<0.00001	0.00001	8994622
Dissolved Sodium (Na)	mg/L	13.2	0.01	24.7	0.01	8994638	24.8	0.01	8994638
. Sodium (Na)	mg/L	13.4	0.01	24.7	0.01	8994622	25.0	0.01	8994622
Dissolved Strontium (Sr)	mg/L	0.565	0.0001	0.365	0.0001	8994638	0.238	0.0001	8994638
. Strontium (Sr)	mg/L	0.555	0.0001	0.368	0.0001	8994622	0.288	0.0001	8994622
Dissolved Sulphur (S)	mg/L	<0.5	0.5	<0.5	0.5	8990638	1.0	0.5	8990638
Total Sulphur (S)	mg/L	<0.5	0.5	<0.5	0.5	8988335	1.2	0.5	8988335
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	8994622	<0.0001	0.0001	8994622

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE880		XHE881			XHE882		
Sampling Date		2023/10/11 14:10		2023/10/11 15:21			2023/10/11 15:51		
COC Number		782437		782437			782437		
	UNITS	MW03-BR-18	RDL	MW9-OB1-13	RDL	QC Batch	MWS-14-01	RDL	QC Batch
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	<0.000005	0.000005	8994638	0.000010	0.000005	8994638
. Thallium (Tl)	mg/L	0.000011	0.000005	<0.000005	0.000005	8994622	0.000088	0.000005	8994622
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	8994638	<0.0002	0.0002	8994638
. Thorium (Th)	mg/L	0.0005	0.0002	<0.0002	0.0002	8994622	0.0012	0.0002	8994622
Dissolved Tin (Sn)	mg/L	0.0001	0.0001	0.0001	0.0001	8994638	<0.0001	0.0001	8994638
. Tin (Sn)	mg/L	0.0003	0.0001	0.0001	0.0001	8994622	0.0001	0.0001	8994622
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	0.0006	0.0005	8994638	0.0084	0.0005	8994638
. Titanium (Ti)	mg/L	0.0249	0.0005	0.0077	0.0005	8994622	0.127	0.0025	8994622
Dissolved Tungsten (W)	mg/L	0.0005	0.0001	0.0051	0.0001	8994638	<0.0001	0.0001	8994638
. Tungsten (W)	mg/L	0.0003	0.0001	0.0042	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Uranium (U)	mg/L	0.00010	0.00001	0.00006	0.00001	8994638	0.00112	0.00001	8994638
. Uranium (U)	mg/L	0.00041	0.00001	0.00011	0.00001	8994622	0.00150	0.00001	8994622
Dissolved Vanadium (V)	mg/L	<0.00005	0.00005	0.00008	0.00005	8994638	0.00035	0.00005	8994638
. Vanadium (V)	mg/L	0.00240	0.00005	0.00049	0.00005	8994622	0.00630	0.00005	8994622
Dissolved Zinc (Zn)	mg/L	0.0010	0.0005	0.0012	0.0005	8994638	0.0036	0.0005	8994638
. Zinc (Zn)	mg/L	0.0124	0.0005	0.0056	0.0005	8994622	0.0200	0.0005	8994622
Dissolved Zirconium (Zr)	mg/L	0.0001	0.0001	<0.0001	0.0001	8994638	0.0004	0.0001	8994638
. Zirconium (Zr)	mg/L	0.0009	0.0001	0.0003	0.0001	8994622	0.0011	0.0001	8994622

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE883			XHE884		
Sampling Date		2023/10/11 16:41			2023/10/11 08:00		
COC Number		782437			782437		
	UNITS	MW17-OB-14	RDL	QC Batch	TRIP BLANK	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	<0.0025	0.0025	8994638	0.0008	0.0005	9011433
. Aluminum (Al)	mg/L	0.133	0.0005	8994622	<0.0005	0.0005	8994622
Dissolved Antimony (Sb)	mg/L	<0.0005	0.0005	8994638	<0.0001	0.0001	9011433
. Antimony (Sb)	mg/L	0.0002	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Arsenic (As)	mg/L	0.0005	0.0005	8994638	<0.0001	0.0001	9011433
. Arsenic (As)	mg/L	0.0011	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Barium (Ba)	mg/L	0.050	0.001	8994638	<0.0002	0.0002	9011433
. Barium (Ba)	mg/L	0.0463	0.0002	8994622	<0.0002	0.0002	8994622
Dissolved Beryllium (Be)	mg/L	<0.00025	0.00025	8994638	<0.00005	0.00005	9011433
. Beryllium (Be)	mg/L	<0.00005	0.00005	8994622	<0.00005	0.00005	8994622
Dissolved Bismuth (Bi)	mg/L	<0.0005	0.0005	8994638	<0.0001	0.0001	9011433
. Bismuth (Bi)	mg/L	<0.0001	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Boron (B)	mg/L	0.007	0.005	8994638	<0.001	0.001	9011433
. Boron (B)	mg/L	0.007	0.001	8994622	<0.001	0.001	8994622
Dissolved Cadmium (Cd)	mg/L	<0.00005	0.00005	8994638	<0.00001	0.00001	9011433
. Cadmium (Cd)	mg/L	0.000045	0.000005	8994622	<0.000005	0.000005	8994622
Dissolved Calcium (Ca)	mg/L	181	0.1	8994638	<0.02	0.02	9011433
. Calcium (Ca)	mg/L	154	0.1	8994622	<0.02	0.02	8994622
Dissolved Cesium (Cs)	mg/L	<0.0001	0.0001	8994638	<0.00002	0.00002	9011433
. Cesium (Cs)	mg/L	0.00004	0.00002	8994622	<0.00002	0.00002	8994622
Dissolved Chromium (Cr)	mg/L	<0.0025	0.0025	8994638	<0.0005	0.0005	9011433
. Chromium (Cr)	mg/L	0.0007	0.0005	8994622	<0.0005	0.0005	8994622
Dissolved Cobalt (Co)	mg/L	0.00160	0.00025	8994638	<0.00005	0.00005	9011433
. Cobalt (Co)	mg/L	0.00105	0.00005	8994622	<0.00005	0.00005	8994622
Dissolved Copper (Cu)	mg/L	0.0008	0.0005	8994638	<0.0001	0.0001	9011433
. Copper (Cu)	mg/L	0.0036	0.0001	8994622	0.0001	0.0001	8994622
Dissolved Iron (Fe)	mg/L	<0.025	0.025	8994638	<0.005	0.005	9011433
. Iron (Fe)	mg/L	0.268	0.005	8994622	<0.005	0.005	8994622
Dissolved Lead (Pb)	mg/L	<0.00025	0.00025	8994638	<0.00005	0.00005	9011433
. Lead (Pb)	mg/L	0.00100	0.00005	8994622	<0.00005	0.00005	8994622
Dissolved Lithium (Li)	mg/L	<0.0025	0.0025	8994638	<0.0005	0.0005	9011433

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE883			XHE884		
Sampling Date		2023/10/11 16:41			2023/10/11 08:00		
COC Number		782437			782437		
	UNITS	MW17-OB-14	RDL	QC Batch	TRIP BLANK	RDL	QC Batch
. Lithium (Li)	mg/L	0.0031	0.0005	8994622	<0.0005	0.0005	8994622
Dissolved Magnesium (Mg)	mg/L	30.7	0.025	8994638	<0.005	0.005	9011433
. Magnesium (Mg)	mg/L	26.5	0.005	8994622	<0.005	0.005	8994622
Dissolved Manganese (Mn)	mg/L	1.58	0.001	8994638	<0.0002	0.0002	9011433
. Manganese (Mn)	mg/L	0.784	0.0002	8994622	<0.0002	0.0002	8994622
Mercury (Hg)	ug/L	<0.01	0.01	8983775	<0.01	0.01	8983775
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8985992	<0.01	0.01	8985992
Dissolved Molybdenum (Mo)	mg/L	0.00038	0.00025	8994638	<0.00005	0.00005	9011433
. Molybdenum (Mo)	mg/L	0.00078	0.00005	8994622	<0.00005	0.00005	8994622
Dissolved Nickel (Ni)	mg/L	0.0025	0.0005	8994638	<0.0001	0.0001	9011433
. Nickel (Ni)	mg/L	0.0016	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Phosphorus (P)	mg/L	<0.025	0.025	8994638	<0.005	0.005	9011433
. Phosphorus (P)	mg/L	0.018	0.005	8994622	<0.005	0.005	8994622
Dissolved Potassium (K)	mg/L	0.6	0.1	8994638	<0.02	0.02	9011433
. Potassium (K)	mg/L	0.60	0.02	8994622	<0.02	0.02	8994622
Dissolved Rubidium (Rb)	mg/L	0.0013	0.0001	8994638	<0.00002	0.00002	9011433
. Rubidium (Rb)	mg/L	0.00197	0.00002	8994622	<0.00002	0.00002	8994622
Dissolved Selenium (Se)	mg/L	<0.001	0.001	8994638	<0.0002	0.0002	9011433
. Selenium (Se)	mg/L	<0.00005	0.00005	8994622	<0.00005	0.00005	8994622
Dissolved Silicon (Si)	mg/L	5.30	0.025	8994638	<0.005	0.005	9011433
. Silicon (Si)	mg/L	5.91	0.025	8994622	<0.005	0.005	8994622
Dissolved Silver (Ag)	mg/L	<0.00005	0.00005	8994638	<0.00001	0.00001	9011433
. Silver (Ag)	mg/L	0.00001	0.00001	8994622	<0.00001	0.00001	8994622
Dissolved Sodium (Na)	mg/L	388	0.1	8994638	<0.01	0.01	9011433
. Sodium (Na)	mg/L	292	0.05	8994622	<0.01	0.01	8994622
Dissolved Strontium (Sr)	mg/L	0.307	0.0005	8994638	<0.0001	0.0001	9011433
. Strontium (Sr)	mg/L	0.234	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Sulphur (S)	mg/L	8.3	0.5	8990638	<0.5	0.5	8987479
Total Sulphur (S)	mg/L	5.9	0.5	8988303	<0.5	0.5	8988335
Dissolved Tellurium (Te)	mg/L	<0.0005	0.0005	8994638	<0.0001	0.0001	9011433
. Tellurium (Te)	mg/L	<0.0001	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Thallium (Tl)	mg/L	<0.000025	0.000025	8994638	<0.000005	0.000005	9011433

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHE883			XHE884		
Sampling Date		2023/10/11 16:41			2023/10/11 08:00		
COC Number		782437			782437		
	UNITS	MW17-OB-14	RDL	QC Batch	TRIP BLANK	RDL	QC Batch
. Thallium (Tl)	mg/L	0.000021	0.000005	8994622	<0.000005	0.000005	8994622
Dissolved Thorium (Th)	mg/L	<0.001	0.001	8994638	<0.0002	0.0002	9011433
. Thorium (Th)	mg/L	0.0003	0.0002	8994622	<0.0002	0.0002	8994622
Dissolved Tin (Sn)	mg/L	<0.0005	0.0005	8994638	<0.0001	0.0001	9011433
. Tin (Sn)	mg/L	<0.0001	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	8994638	<0.0005	0.0005	9011433
. Titanium (Ti)	mg/L	0.0101	0.0005	8994622	<0.0005	0.0005	8994622
Dissolved Tungsten (W)	mg/L	<0.0005	0.0005	8994638	<0.0001	0.0001	9011433
. Tungsten (W)	mg/L	<0.0001	0.0001	8994622	<0.0001	0.0001	8994622
Dissolved Uranium (U)	mg/L	0.00054	0.00005	8994638	<0.00001	0.00001	9011433
. Uranium (U)	mg/L	0.00113	0.00001	8994622	<0.00001	0.00001	8994622
Dissolved Vanadium (V)	mg/L	0.00036	0.00025	8994638	<0.00005	0.00005	9011433
. Vanadium (V)	mg/L	0.00076	0.00005	8994622	<0.00005	0.00005	8994622
Dissolved Zinc (Zn)	mg/L	<0.0025	0.0025	8994638	<0.0005	0.0005	9011433
. Zinc (Zn)	mg/L	0.0018	0.0005	8994622	<0.0005	0.0005	8994622
Dissolved Zirconium (Zr)	mg/L	<0.0005	0.0005	8994638	<0.0001	0.0001	9011433
. Zirconium (Zr)	mg/L	0.0006	0.0001	8994622	<0.0001	0.0001	8994622

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XHE877
Sample ID: MW19-OB-21
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8982104	N/A	2023/10/18	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8982085	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8982105	N/A	2023/10/18	Nachiketa Gohil
Fluoride	ISE	8982106	2023/10/14	2023/10/18	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/20	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8995965	2023/10/17	2023/10/20	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8993817	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997200	2023/10/18	2023/10/18	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8982134	N/A	2023/10/19	Chandra Nandlal
pH	AT	8982107	2023/10/14	2023/10/18	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8982087	N/A	2023/10/19	Alina Dobreanu
Total Dissolved Solids	BAL	8986059	2023/10/19	2023/10/20	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992977	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988588	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XHE877 Dup
Sample ID: MW19-OB-21
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	8982104	N/A	2023/10/18	Nachiketa Gohil
Conductivity	AT	8982105	N/A	2023/10/18	Nachiketa Gohil
Fluoride	ISE	8982106	2023/10/14	2023/10/18	Nachiketa Gohil
pH	AT	8982107	2023/10/14	2023/10/18	Nachiketa Gohil

Bureau Veritas ID: XHE878
Sample ID: MW19-BR-21
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991101	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8982104	N/A	2023/10/18	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8982085	N/A	2023/10/18	Massarat Jan

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XHE878
Sample ID: MW19-BR-21
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	8982105	N/A	2023/10/18	Nachiketa Gohil
Fluoride	ISE	8982106	2023/10/14	2023/10/18	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/20	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8993817	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997200	2023/10/18	2023/10/18	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991958	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8982132	N/A	2023/10/19	Chandra Nandlal
pH	AT	8982107	2023/10/14	2023/10/18	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8982087	N/A	2023/10/19	Alina Dobreanu
Total Dissolved Solids	BAL	8986059	2023/10/19	2023/10/20	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992977	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988588	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XHE879
Sample ID: MW03-OB-18
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8982104	N/A	2023/10/18	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8982085	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8982105	N/A	2023/10/18	Nachiketa Gohil
Fluoride	ISE	8982106	2023/10/14	2023/10/18	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	8988923	2023/10/18	2023/10/19	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9000336	N/A	2023/10/27	Thuy Linh Nguyen
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8993817	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997200	2023/10/18	2023/10/18	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8982134	N/A	2023/10/19	Chandra Nandlal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XHE879 **Collected:** 2023/10/11
Sample ID: MW03-OB-18 **Shipped:**
Matrix: Water **Received:** 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH	AT	8982107	2023/10/14	2023/10/18	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8982087	N/A	2023/10/19	Alina Dobreanu
Total Dissolved Solids	BAL	8986059	2023/10/19	2023/10/20	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992977	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988588	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XHE880 **Collected:** 2023/10/11
Sample ID: MW03-BR-18 **Shipped:**
Matrix: Water **Received:** 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991213	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8982104	N/A	2023/10/18	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8982085	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8982105	N/A	2023/10/18	Nachiketa Gohil
Fluoride	ISE	8982106	2023/10/14	2023/10/18	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/20	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8993817	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997200	2023/10/18	2023/10/18	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991970	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8982134	N/A	2023/10/19	Chandra Nandlal
pH	AT	8982107	2023/10/14	2023/10/18	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8982087	N/A	2023/10/19	Alina Dobreanu
Total Dissolved Solids	BAL	8986070	2023/10/17	2023/10/19	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992977	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988588	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XHE881 **Collected:** 2023/10/11
Sample ID: MW9-OB1-13 **Shipped:**
Matrix: Water **Received:** 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8994960	N/A	2023/10/20	Brent Boudreau
Alkalinity	AT	8982104	N/A	2023/10/18	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XHE881
Sample ID: MW9-OB1-13
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8982085	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8982105	N/A	2023/10/18	Nachiketa Gohil
Fluoride	ISE	8982106	2023/10/14	2023/10/18	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/20	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8993817	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997200	2023/10/18	2023/10/18	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8999155	N/A	2023/10/23	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8982132	N/A	2023/10/19	Chandra Nandlal
pH	AT	8982107	2023/10/14	2023/10/18	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8982087	N/A	2023/10/19	Alina Dobreanu
Total Dissolved Solids	BAL	8986059	2023/10/19	2023/10/20	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992977	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988577	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XHE881 Dup
Sample ID: MW9-OB1-13
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	8982132	N/A	2023/10/19	Chandra Nandlal

Bureau Veritas ID: XHE882
Sample ID: MWS-14-01
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8994960	N/A	2023/10/20	Brent Boudreau
Alkalinity	AT	8982104	N/A	2023/10/18	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8982085	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8982105	N/A	2023/10/18	Nachiketa Gohil
Fluoride	ISE	8982106	2023/10/14	2023/10/18	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/20	Automated Statchk
Mercury in Water by CVAA	CV/AA	8988923	2023/10/18	2023/10/19	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XHE882
Sample ID: MWS-14-01
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8993817	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997200	2023/10/18	2023/10/18	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991970	N/A	2023/10/20	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8982132	N/A	2023/10/19	Chandra Nandlal
pH	AT	8982107	2023/10/14	2023/10/18	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8982087	N/A	2023/10/19	Alina Dobreanu
Total Dissolved Solids	BAL	8986059	2023/10/19	2023/10/20	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992977	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8986400	2023/10/19	2023/10/20	Shaneil Hall
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XHE883
Sample ID: MW17-OB-14
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991101	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8982104	N/A	2023/10/18	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8982085	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8982105	N/A	2023/10/18	Nachiketa Gohil
Fluoride	ISE	8982106	2023/10/14	2023/10/18	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/20	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	8994638	N/A	2023/10/20	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8993817	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997200	2023/10/18	2023/10/18	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8982134	N/A	2023/10/19	Chandra Nandlal
pH	AT	8982107	2023/10/14	2023/10/18	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8982087	N/A	2023/10/19	Alina Dobreanu
Total Dissolved Solids	BAL	8986059	2023/10/19	2023/10/20	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8992977	2023/10/19	2023/10/20	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	8988588	2023/10/18	2023/10/19	Darshan Patel

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XHE883 **Collected:** 2023/10/11
Sample ID: MW17-OB-14 **Shipped:**
Matrix: Water **Received:** 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

Bureau Veritas ID: XHE883 Dup **Collected:** 2023/10/11
Sample ID: MW17-OB-14 **Shipped:**
Matrix: Water **Received:** 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	8986059	2023/10/19	2023/10/20	Shaneil Hall

Bureau Veritas ID: XHE884 **Collected:** 2023/10/11
Sample ID: TRIP BLANK **Shipped:**
Matrix: Water **Received:** 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991101	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8982104	N/A	2023/10/18	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/18	Automated Statchk
Chloride by Automated Colourimetry	KONE	8982085	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8982105	N/A	2023/10/18	Nachiketa Gohil
Fluoride	ISE	8982106	2023/10/14	2023/10/18	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/29	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Mercury (low level)	CV/AA	8983775	2023/10/16	2023/10/16	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	8987479	2023/10/17	2023/10/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9011433	N/A	2023/10/27	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	8994622	N/A	2023/10/23	Indira HarryPaul
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	8993817	N/A	2023/10/19	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997200	2023/10/18	2023/10/18	Ming Dong
Total Phosphorus Low Level Total	KONE	8997191	2023/10/19	2023/10/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991958	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8982132	N/A	2023/10/19	Chandra Nandlal
pH	AT	8982107	2023/10/14	2023/10/18	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8982087	N/A	2023/10/19	Alina Dobreanu
Total Dissolved Solids	BAL	8986059	2023/10/19	2023/10/20	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8993254	2023/10/19	2023/10/20	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8988588	2023/10/18	2023/10/19	Darshan Patel
Turbidity	AT	8981960	N/A	2023/10/17	Leily Karimi

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XHE884 Dup
Sample ID: TRIP BLANK
Matrix: Water

Collected: 2023/10/11
Shipped:
Received: 2023/10/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991101	N/A	2023/10/19	Brent Boudreau

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C
Package 2	3.7°C
Package 3	3.0°C

TDS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XHE877 [MW19-OB-21] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.
Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample XHE878 [MW19-BR-21] : Acidity sample contained headspace.

Sample XHE879 [MW03-OB-18] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Sample XHE880 [MW03-BR-18] : Acidity sample contained headspace.

Sample XHE881 [MW9-OB1-13] : Acidity sample contained headspace.

Sample XHE882 [MWS-14-01] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
Acidity sample contained headspace.

Sample XHE883 [MW17-OB-14] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample XHE884 [TRIP BLANK] : Acidity sample contained headspace.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8981960	Turbidity	2023/10/17			101	80 - 120	<0.1	NTU	17	20		
8982085	Dissolved Chloride (Cl-)	2023/10/18	NC	80 - 120	98	80 - 120	<1.0	mg/L	3.2	20		
8982087	Dissolved Sulphate (SO4)	2023/10/18	90	75 - 125	97	80 - 120	<1.0	mg/L	0.75	20		
8982104	Alkalinity (Total as CaCO3)	2023/10/18			97	85 - 115	<1.0	mg/L	0.072	20		
8982105	Conductivity	2023/10/18			100	85 - 115	<0.001	mS/cm	0	10		
8982106	Fluoride (F-)	2023/10/18	88	80 - 120	96	80 - 120	<0.10	mg/L	NC	20		
8982107	pH	2023/10/18			102	98 - 103			0.25	N/A		
8982132	Nitrate (N)	2023/10/19	94	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
8982132	Nitrite (N)	2023/10/19	100	80 - 120	104	80 - 120	<0.010	mg/L	9.1	20		
8982134	Nitrate (N)	2023/10/19	117	80 - 120	96	80 - 120	<0.10	mg/L	NC	20		
8982134	Nitrite (N)	2023/10/19	121 (1)	80 - 120	100	80 - 120	<0.010	mg/L	NC	20		
8983775	Mercury (Hg)	2023/10/16	98	75 - 125	98	80 - 120	<0.01	ug/L	NC	20		
8985992	Dissolved Mercury (Hg)	2023/10/17	95	75 - 125	97	80 - 120	<0.01	ug/L	NC	20		
8986059	Total Dissolved Solids	2023/10/20			95	90 - 110	<10	mg/L	0.84	20		
8986070	Total Dissolved Solids	2023/10/19			98	90 - 110	<10	mg/L	12	20		
8986400	Total Suspended Solids	2023/10/20			98	85 - 115	<1	mg/L	5.7	20		
8987479	Dissolved Sulphur (S)	2023/10/18	NC	80 - 120	102	80 - 120	<0.5	mg/L				
8988303	Total Sulphur (S)	2023/10/19	101	80 - 120	98	80 - 120	<0.5	mg/L	0.31	25		
8988335	Total Sulphur (S)	2023/10/19	NC	80 - 120	100	80 - 120	<0.5	mg/L	0.67	25		
8988577	Total Suspended Solids	2023/10/19			95	85 - 115	<1	mg/L	9.5	20		
8988588	Total Suspended Solids	2023/10/19			97	85 - 115	<1	mg/L	0	20		
8988923	Mercury (Hg)	2023/10/19	92	75 - 125	102	80 - 120	<0.00010	mg/L	NC	20		
8990638	Dissolved Sulphur (S)	2023/10/24	NC	80 - 120	94	80 - 120	<0.5	mg/L	0.46	25		
8991101	Acidity	2023/10/19	106	80 - 120	103	80 - 120	<5.0	mg/L	NC	25		
8991213	Acidity	2023/10/19	105	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
8991958	Total Ammonia-N	2023/10/21	NC	75 - 125	101	80 - 120	<0.050	mg/L	4.3	20		
8991970	Total Ammonia-N	2023/10/20	101	75 - 125	99	80 - 120	<0.050	mg/L	NC	20		
8991979	Total Ammonia-N	2023/10/21	99	75 - 125	99	80 - 120	<0.050	mg/L	2.2	20		
8992977	Total Kjeldahl Nitrogen (TKN)	2023/10/20	103	80 - 120	103	80 - 120	<0.10	mg/L	NC	20	96	80 - 120
8993254	Total Kjeldahl Nitrogen (TKN)	2023/10/20	116	80 - 120	99	80 - 120	<0.10	mg/L	11	20	102	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8993817	Free Cyanide (CN)	2023/10/19	96	80 - 120	91	80 - 120	<2.0	ug/L				
8994622	. Aluminum (Al)	2023/10/23	100	80 - 120	97	80 - 120	<0.0005	mg/L	11	20		
8994622	. Antimony (Sb)	2023/10/23	108	80 - 120	106	80 - 120	<0.0001	mg/L	3.4	20		
8994622	. Arsenic (As)	2023/10/23	101	80 - 120	100	80 - 120	<0.0001	mg/L	1.2	20		
8994622	. Barium (Ba)	2023/10/23	96	80 - 120	98	80 - 120	<0.0002	mg/L	2.8	20		
8994622	. Beryllium (Be)	2023/10/23	89	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
8994622	. Bismuth (Bi)	2023/10/23	87	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
8994622	. Boron (B)	2023/10/23	NC	80 - 120	91	80 - 120	<0.001	mg/L	0.51	20		
8994622	. Cadmium (Cd)	2023/10/23	94	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
8994622	. Calcium (Ca)	2023/10/23	NC	80 - 120	94	80 - 120	<0.02	mg/L	1.4	20		
8994622	. Cesium (Cs)	2023/10/23	96	80 - 120	100	80 - 120	<0.00002	mg/L	0.47	20		
8994622	. Chromium (Cr)	2023/10/23	98	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
8994622	. Cobalt (Co)	2023/10/23	95	80 - 120	95	80 - 120	<0.00005	mg/L	1.7	20		
8994622	. Copper (Cu)	2023/10/23	96	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
8994622	. Iron (Fe)	2023/10/23	89	80 - 120	91	80 - 120	<0.005	mg/L	0.065	20		
8994622	. Lead (Pb)	2023/10/23	88	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
8994622	. Lithium (Li)	2023/10/23	95	80 - 120	102	80 - 120	<0.0005	mg/L	1.2	20		
8994622	. Magnesium (Mg)	2023/10/23	NC	80 - 120	97	80 - 120	<0.005	mg/L	1.3	20		
8994622	. Manganese (Mn)	2023/10/23	96	80 - 120	97	80 - 120	<0.0002	mg/L	1.1	20		
8994622	. Molybdenum (Mo)	2023/10/23	113	80 - 120	100	80 - 120	<0.00005	mg/L	4.7	20		
8994622	. Nickel (Ni)	2023/10/23	92	80 - 120	96	80 - 120	<0.0001	mg/L	0.40	20		
8994622	. Phosphorus (P)	2023/10/23	105	80 - 120	92	80 - 120	<0.005	mg/L	NC	20		
8994622	. Potassium (K)	2023/10/23	NC	80 - 120	98	80 - 120	<0.02	mg/L	1.7	20		
8994622	. Rubidium (Rb)	2023/10/23	NC	80 - 120	102	80 - 120	<0.00002	mg/L	0.81	20		
8994622	. Selenium (Se)	2023/10/23	102	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
8994622	. Silicon (Si)	2023/10/23	NC	80 - 120	99	80 - 120	<0.005	mg/L	0.39	20		
8994622	. Silver (Ag)	2023/10/23	75 (2)	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
8994622	. Sodium (Na)	2023/10/23	NC	80 - 120	98	80 - 120	<0.01	mg/L	1.9	20		
8994622	. Strontium (Sr)	2023/10/23	NC	80 - 120	100	80 - 120	<0.0001	mg/L	2.8	20		
8994622	. Tellurium (Te)	2023/10/23	96	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8994622	. Thallium (Tl)	2023/10/23	88	80 - 120	95	80 - 120	<0.000005	mg/L	NC	20		
8994622	. Thorium (Th)	2023/10/23	98	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
8994622	. Tin (Sn)	2023/10/23	106	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
8994622	. Titanium (Ti)	2023/10/23	108	80 - 120	102	80 - 120	<0.0005	mg/L	NC	20		
8994622	. Tungsten (W)	2023/10/23	102	80 - 120	99	80 - 120	<0.0001	mg/L	4.9	20		
8994622	. Uranium (U)	2023/10/23	103	80 - 120	104	80 - 120	<0.00001	mg/L	2.4	20		
8994622	. Vanadium (V)	2023/10/23	103	80 - 120	96	80 - 120	<0.00005	mg/L	1.6	20		
8994622	. Zinc (Zn)	2023/10/23	85	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
8994622	. Zirconium (Zr)	2023/10/23	114	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Aluminum (Al)	2023/10/20	89	80 - 120	103	80 - 120	<0.0005	mg/L	NC	20		
8994638	Dissolved Antimony (Sb)	2023/10/20	97	80 - 120	104	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Arsenic (As)	2023/10/20	NC	80 - 120	100	80 - 120	<0.0001	mg/L	0.65	20		
8994638	Dissolved Barium (Ba)	2023/10/20	NC	80 - 120	98	80 - 120	<0.0002	mg/L	2.2	20		
8994638	Dissolved Beryllium (Be)	2023/10/20	91	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
8994638	Dissolved Bismuth (Bi)	2023/10/20	91	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Boron (B)	2023/10/20	85	80 - 120	100	80 - 120	<0.001	mg/L	0.36	20		
8994638	Dissolved Cadmium (Cd)	2023/10/20	91	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
8994638	Dissolved Calcium (Ca)	2023/10/20	NC	80 - 120	100	80 - 120	<0.02	mg/L	1.6	20		
8994638	Dissolved Cesium (Cs)	2023/10/20	92	80 - 120	101	80 - 120	<0.00002	mg/L	NC	N/A		
8994638	Dissolved Chromium (Cr)	2023/10/20	89	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
8994638	Dissolved Cobalt (Co)	2023/10/20	87	80 - 120	97	80 - 120	<0.00005	mg/L	2.0	20		
8994638	Dissolved Copper (Cu)	2023/10/20	87	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Iron (Fe)	2023/10/20	NC	80 - 120	94	80 - 120	<0.005	mg/L	4.7	20		
8994638	Dissolved Lead (Pb)	2023/10/20	86	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
8994638	Dissolved Lithium (Li)	2023/10/20	94	80 - 120	101	80 - 120	<0.0005	mg/L	1.9	20		
8994638	Dissolved Magnesium (Mg)	2023/10/20	NC	80 - 120	101	80 - 120	<0.005	mg/L	3.5	20		
8994638	Dissolved Manganese (Mn)	2023/10/20	NC	80 - 120	99	80 - 120	<0.0002	mg/L	4.5	20		
8994638	Dissolved Molybdenum (Mo)	2023/10/20	97	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
8994638	Dissolved Nickel (Ni)	2023/10/20	86	80 - 120	97	80 - 120	<0.0001	mg/L	9.7	20		
8994638	Dissolved Phosphorus (P)	2023/10/20	94	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8994638	Dissolved Potassium (K)	2023/10/20	NC	80 - 120	100	80 - 120	<0.02	mg/L	4.2	20		
8994638	Dissolved Rubidium (Rb)	2023/10/20	93	80 - 120	100	80 - 120	<0.00002	mg/L	12	N/A		
8994638	Dissolved Selenium (Se)	2023/10/20	93	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
8994638	Dissolved Silicon (Si)	2023/10/20	NC	80 - 120	105	80 - 120	<0.005	mg/L	1.5	20		
8994638	Dissolved Silver (Ag)	2023/10/20	77 (2)	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
8994638	Dissolved Sodium (Na)	2023/10/20	NC	80 - 120	102	80 - 120	<0.01	mg/L	3.3	20		
8994638	Dissolved Strontium (Sr)	2023/10/20	NC	80 - 120	99	80 - 120	<0.0001	mg/L	3.7	20		
8994638	Dissolved Tellurium (Te)	2023/10/20	91	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Thallium (Tl)	2023/10/20	88	80 - 120	96	80 - 120	<0.000005	mg/L	NC	20		
8994638	Dissolved Thorium (Th)	2023/10/20	92	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
8994638	Dissolved Tin (Sn)	2023/10/20	97	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Titanium (Ti)	2023/10/20	97	80 - 120	105	80 - 120	<0.0005	mg/L	NC	20		
8994638	Dissolved Tungsten (W)	2023/10/20	93	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
8994638	Dissolved Uranium (U)	2023/10/20	97	80 - 120	106	80 - 120	<0.00001	mg/L	6.3	20		
8994638	Dissolved Vanadium (V)	2023/10/20	91	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
8994638	Dissolved Zinc (Zn)	2023/10/20	86	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
8994638	Dissolved Zirconium (Zr)	2023/10/20	100	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
8994960	Acidity	2023/10/20	95	80 - 120	103	80 - 120	<5.0	mg/L	NC	25		
8995965	Dissolved Mercury (Hg)	2023/10/20	93	75 - 125	105	80 - 120	<0.01	ug/L	NC	20		
8997191	Total Phosphorus (P)	2023/10/20	92	80 - 120	94	80 - 120	<0.0010 (3)	mg/L			86	80 - 120
8997200	Strong Acid Dissoc. Cyanide (CN)	2023/10/18	90	80 - 120	102	80 - 120	<0.00050	mg/L				
8999155	Total Ammonia-N	2023/10/23	102	75 - 125	101	80 - 120	<0.050	mg/L	4.8	20		
9000336	. Aluminum (Al)	2023/10/26	100	80 - 120	104	80 - 120	<0.0005	mg/L	0.25	20		
9000336	. Antimony (Sb)	2023/10/26	109	80 - 120	104	80 - 120	<0.0001	mg/L				
9000336	. Arsenic (As)	2023/10/26	98	80 - 120	99	80 - 120	<0.0001	mg/L				
9000336	. Barium (Ba)	2023/10/26	103	80 - 120	102	80 - 120	<0.0002	mg/L				
9000336	. Beryllium (Be)	2023/10/26	99	80 - 120	100	80 - 120	<0.00005	mg/L				
9000336	. Bismuth (Bi)	2023/10/26	82	80 - 120	98	80 - 120	<0.0001	mg/L				
9000336	. Boron (B)	2023/10/26	100	80 - 120	97	80 - 120	<0.001	mg/L				
9000336	. Cadmium (Cd)	2023/10/26	102	80 - 120	97	80 - 120	<0.000005	mg/L				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9000336	. Calcium (Ca)	2023/10/26	NC	80 - 120	101	80 - 120	<0.02	mg/L				
9000336	. Cesium (Cs)	2023/10/26	102	80 - 120	103	80 - 120	<0.00002	mg/L				
9000336	. Chromium (Cr)	2023/10/26	94	80 - 120	96	80 - 120	<0.0005	mg/L				
9000336	. Cobalt (Co)	2023/10/26	94	80 - 120	97	80 - 120	<0.00005	mg/L				
9000336	. Copper (Cu)	2023/10/26	98	80 - 120	97	80 - 120	<0.0001	mg/L				
9000336	. Iron (Fe)	2023/10/26	94	80 - 120	99	80 - 120	<0.005	mg/L				
9000336	. Lead (Pb)	2023/10/26	96	80 - 120	95	80 - 120	<0.00005	mg/L				
9000336	. Lithium (Li)	2023/10/26	102	80 - 120	101	80 - 120	<0.0005	mg/L				
9000336	. Magnesium (Mg)	2023/10/26	NC	80 - 120	100	80 - 120	<0.005	mg/L				
9000336	. Manganese (Mn)	2023/10/26	95	80 - 120	97	80 - 120	<0.0002	mg/L				
9000336	. Molybdenum (Mo)	2023/10/26	105	80 - 120	99	80 - 120	<0.00005	mg/L				
9000336	. Nickel (Ni)	2023/10/26	93	80 - 120	97	80 - 120	<0.0001	mg/L				
9000336	. Phosphorus (P)	2023/10/26	106	80 - 120	94	80 - 120	<0.005	mg/L				
9000336	. Potassium (K)	2023/10/26	99	80 - 120	102	80 - 120	<0.02	mg/L				
9000336	. Rubidium (Rb)	2023/10/26	98	80 - 120	100	80 - 120	<0.00002	mg/L				
9000336	. Selenium (Se)	2023/10/26	99	80 - 120	100	80 - 120	<0.00005	mg/L				
9000336	. Silicon (Si)	2023/10/26	101	80 - 120	100	80 - 120	<0.005	mg/L				
9000336	. Silver (Ag)	2023/10/26	99	80 - 120	98	80 - 120	<0.00001	mg/L				
9000336	. Sodium (Na)	2023/10/26	NC	80 - 120	98	80 - 120	0.01, RDL=0.01	mg/L				
9000336	. Strontium (Sr)	2023/10/26	NC	80 - 120	96	80 - 120	<0.0001	mg/L				
9000336	. Tellurium (Te)	2023/10/26	101	80 - 120	96	80 - 120	<0.0001	mg/L				
9000336	. Thallium (Tl)	2023/10/26	101	80 - 120	99	80 - 120	<0.000005	mg/L				
9000336	. Thorium (Th)	2023/10/26	99	80 - 120	98	80 - 120	<0.0002	mg/L				
9000336	. Tin (Sn)	2023/10/26	107	80 - 120	100	80 - 120	<0.0001	mg/L				
9000336	. Titanium (Ti)	2023/10/26	98	80 - 120	95	80 - 120	<0.0005	mg/L				
9000336	. Tungsten (W)	2023/10/26	97	80 - 120	96	80 - 120	<0.0001	mg/L				
9000336	. Uranium (U)	2023/10/26	101	80 - 120	100	80 - 120	<0.00001	mg/L				
9000336	. Vanadium (V)	2023/10/26	96	80 - 120	96	80 - 120	<0.00005	mg/L				
9000336	. Zinc (Zn)	2023/10/26	97	80 - 120	99	80 - 120	<0.0005	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9000336	. Zirconium (Zr)	2023/10/26	109	80 - 120	101	80 - 120	<0.0001	mg/L				
9011433	Dissolved Aluminum (Al)	2023/10/27	105	80 - 120	104	80 - 120	<0.0005	mg/L	7.0	20		
9011433	Dissolved Antimony (Sb)	2023/10/27	105	80 - 120	102	80 - 120	<0.0001	mg/L	1.6	20		
9011433	Dissolved Arsenic (As)	2023/10/27	100	80 - 120	100	80 - 120	<0.0001	mg/L	1.9	20		
9011433	Dissolved Barium (Ba)	2023/10/27	98	80 - 120	99	80 - 120	<0.0002	mg/L	1.2	20		
9011433	Dissolved Beryllium (Be)	2023/10/27	97	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9011433	Dissolved Bismuth (Bi)	2023/10/27	95	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9011433	Dissolved Boron (B)	2023/10/27	94	80 - 120	94	80 - 120	<0.001	mg/L	0.27	20		
9011433	Dissolved Cadmium (Cd)	2023/10/27	101	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9011433	Dissolved Calcium (Ca)	2023/10/27	NC	80 - 120	106	80 - 120	<0.02	mg/L	1.5	20		
9011433	Dissolved Cesium (Cs)	2023/10/27	101	80 - 120	103	80 - 120	<0.00002	mg/L	NC	N/A		
9011433	Dissolved Chromium (Cr)	2023/10/27	96	80 - 120	95	80 - 120	<0.0005	mg/L	NC	20		
9011433	Dissolved Cobalt (Co)	2023/10/27	94	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
9011433	Dissolved Copper (Cu)	2023/10/27	94	80 - 120	94	80 - 120	<0.0001	mg/L	1.0	20		
9011433	Dissolved Iron (Fe)	2023/10/27	99	80 - 120	100	80 - 120	<0.005	mg/L	2.7	20		
9011433	Dissolved Lead (Pb)	2023/10/27	96	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9011433	Dissolved Lithium (Li)	2023/10/27	102	80 - 120	99	80 - 120	<0.0005	mg/L	2.4	20		
9011433	Dissolved Magnesium (Mg)	2023/10/27	NC	80 - 120	102	80 - 120	<0.005	mg/L	1.8	20		
9011433	Dissolved Manganese (Mn)	2023/10/27	99	80 - 120	98	80 - 120	<0.0002	mg/L	3.3	20		
9011433	Dissolved Molybdenum (Mo)	2023/10/27	99	80 - 120	94	80 - 120	<0.00005	mg/L	5.3	20		
9011433	Dissolved Nickel (Ni)	2023/10/27	93	80 - 120	95	80 - 120	<0.0001	mg/L	9.1	20		
9011433	Dissolved Phosphorus (P)	2023/10/27	115	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		
9011433	Dissolved Potassium (K)	2023/10/27	107	80 - 120	103	80 - 120	<0.02	mg/L	0.87	20		
9011433	Dissolved Rubidium (Rb)	2023/10/27	102	80 - 120	102	80 - 120	<0.00002	mg/L	NC	N/A		
9011433	Dissolved Selenium (Se)	2023/10/27	105	80 - 120	103	80 - 120	<0.0002	mg/L	NC	20		
9011433	Dissolved Silicon (Si)	2023/10/27	103	80 - 120	104	80 - 120	<0.005	mg/L	1.4	20		
9011433	Dissolved Silver (Ag)	2023/10/27	99	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9011433	Dissolved Sodium (Na)	2023/10/27	NC	80 - 120	100	80 - 120	<0.01	mg/L	2.7	20		
9011433	Dissolved Strontium (Sr)	2023/10/27	97	80 - 120	98	80 - 120	<0.0001	mg/L	2.1	20		
9011433	Dissolved Tellurium (Te)	2023/10/27	98	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9011433	Dissolved Thallium (Tl)	2023/10/27	98	80 - 120	101	80 - 120	<0.000005	mg/L	NC	20		
9011433	Dissolved Thorium (Th)	2023/10/27	100	80 - 120	101	80 - 120	<0.0002	mg/L				
9011433	Dissolved Tin (Sn)	2023/10/27	104	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9011433	Dissolved Titanium (Ti)	2023/10/27	105	80 - 120	103	80 - 120	<0.0005	mg/L	NC	20		
9011433	Dissolved Tungsten (W)	2023/10/27	96	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9011433	Dissolved Uranium (U)	2023/10/27	97	80 - 120	98	80 - 120	<0.00001	mg/L	0.77	20		
9011433	Dissolved Vanadium (V)	2023/10/27	98	80 - 120	98	80 - 120	<0.00005	mg/L	0.63	20		
9011433	Dissolved Zinc (Zn)	2023/10/27	98	80 - 120	98	80 - 120	<0.0005	mg/L	2.9	20		
9011433	Dissolved Zirconium (Zr)	2023/10/27	106	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) Matrix Spike exceeds acceptance limits, probable matrix interference

(3) Method blank exceeds acceptance limits, 2x RDL acceptable for low level analysis

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9592
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

Mike MacGillivray, Scientific Specialist (Inorganics)

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 783293

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/30
Report #: R7886663
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V9672
Received: 2023/10/13, 17:00

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	3	N/A	2023/10/18	ATL SOP-00205	SM 24 2310B m
Acidity (CaCO3) in water (1)	2	N/A	2023/10/19	ATL SOP-00205	SM 24 2310B m
Acidity (CaCO3) in water (1)	3	N/A	2023/10/20	ATL SOP-00205	SM 24 2310B m
Alkalinity	8	N/A	2023/10/17	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	8	N/A	2023/10/17	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	8	N/A	2023/10/18	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	8	N/A	2023/10/17	CAM SOP-00414	SM 23 2510 m
Fluoride	8	2023/10/16	2023/10/17	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	8	N/A	2023/10/24	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	3	2023/10/20	2023/10/20	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	1	2023/10/17	2023/10/17	CAM SOP-00453	EPA 7470 m
Dissolved Mercury (low level)	3	2023/10/17	2023/10/20	CAM SOP-00453	EPA 7470 m
Dissolved Mercury (low level)	4	2023/10/20	2023/10/20	CAM SOP-00453	EPA 7470 m
Mercury (low level)	5	2023/10/17	2023/10/17	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	7	2023/10/18	2023/10/24	CAM SOP-00408	EPA 6010D m
Dissolved Metals Analysis by ICP	1	2023/10/19	2023/10/24	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	6	N/A	2023/10/23	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	2	N/A	2023/10/24	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	7	N/A	2023/10/21	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2023/10/26	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	8	2023/10/18	2023/10/19	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	8	N/A	2023/10/24	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	8	2023/10/19	2023/10/19	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	7	2023/10/21	2023/10/24	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total (2)	1	2023/10/21	2023/10/25	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	8	N/A	2023/10/21	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	8	N/A	2023/10/19	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	8	2023/10/16	2023/10/17	CAM SOP-00413	SM 4500H+ B m
Sulphate by Automated Turbidimetry	8	N/A	2023/10/20	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	8	2023/10/21	2023/10/23	CAM SOP-00428	SM 23 2540C m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 783293

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/30
Report #: R7886663
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3V9672
Received: 2023/10/13, 17:00

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Kjeldahl Nitrogen in Water	8	2023/10/23	2023/10/23	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	1	2023/10/20	2023/10/20	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	7	2023/10/20	2023/10/22	CAM SOP-00428	SM 23 2540D m
Turbidity	8	N/A	2023/10/16	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9672
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHF387			XHF388		XHF389		
Sampling Date		2023/10/12 10:28			2023/10/12 12:12		2023/10/12 12:29		
COC Number		783293			783293		783293		
	UNITS	BH14-15	RDL	QC Batch	G4-OB2-13	QC Batch	G4-OB1-13	RDL	QC Batch
Calculated Parameters									
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	260	1.0	8981590	300	8981590	250	1.0	8981590
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.1	1.0	8981590	2.3	8981590	2.5	1.0	8981590
Hardness (CaCO3)	mg/L	330	1.0	8981706	280	8981706	170	1.0	8981706
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590	<1.0	8981590	<1.0	1.0	8981590
Inorganics									
Acidity	mg/L	18	5.0	8994960	11	8988645	6.6	5.0	8991101
Total Ammonia-N	mg/L	0.36	0.050	8991979	0.17	8991979	0.34	0.050	8991979
Conductivity	mS/cm	0.648	0.001	8984178	0.561	8984178	0.479	0.001	8984178
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9008331	<2.0 (1)	9008331	<2.0 (1)	2.0	9008331
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00087	0.00050	8997212	<0.00050	8997212	<0.00050	0.00050	8997212
Total Dissolved Solids	mg/L	365	10	8992857	255	8992857	235	10	8992857
Fluoride (F-)	mg/L	0.16	0.10	8984165	0.46	8984165	0.43	0.10	8984165
Total Kjeldahl Nitrogen (TKN)	mg/L	0.80	0.10	8998867	0.27	8998867	0.50	0.10	8998867
pH	pH	7.65		8984182	7.91	8984182	8.02		8984182
Total Phosphorus (P)	mg/L	0.36	0.0050	9003878	0.054	9003878	0.034	0.0010	9003878
Total Suspended Solids	mg/L	1100	5	8994375	42	8994375	29	1	8994360
Dissolved Sulphate (SO4)	mg/L	74	1.0	8984223	<1.0	8984223	1.7	1.0	8984223
Turbidity	NTU	55	0.1	8983721	2.4	8983721	1.4	0.1	8983721
Alkalinity (Total as CaCO3)	mg/L	260	1.0	8984171	310	8984171	260	1.0	8984171
Dissolved Chloride (Cl-)	mg/L	3.5	1.0	8984199	<1.0	8984199	1.9	1.0	8984199
Nitrite (N)	mg/L	0.097	0.010	8984087	0.022	8984087	0.013	0.010	8984087
Nitrate (N)	mg/L	0.30	0.10	8984087	<0.10	8984087	<0.10	0.10	8984087
Nitrate + Nitrite (N)	mg/L	0.40	0.10	8984087	<0.10	8984087	<0.10	0.10	8984087

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9672
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHF389			XHF390			XHF390		
Sampling Date		2023/10/12 12:29			2023/10/12 15:40			2023/10/12 15:40		
COC Number		783293			783293			783293		
	UNITS	G4-OB1-13 Lab-Dup	RDL	QC Batch	MWS-14-03-OB1	RDL	QC Batch	MWS-14-03-OB1 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				180	1.0	8981590			
Carb. Alkalinity (calc. as CaCO3)	mg/L				1.8	1.0	8981590			
Hardness (CaCO3)	mg/L				110	1.0	8981706			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	8981590			
Inorganics										
Acidity	mg/L				<5.0	5.0	8994960			
Total Ammonia-N	mg/L				1.5	0.050	8991979			
Conductivity	mS/cm				0.338	0.001	8984178			
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	9008331			
Strong Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	8997212			
Total Dissolved Solids	mg/L	225	10	8992857	140	10	8992857			
Fluoride (F-)	mg/L				0.54	0.10	8984165			
Total Kjeldahl Nitrogen (TKN)	mg/L				1.5	0.10	8998867			
pH	pH				8.03		8984182			
Total Phosphorus (P)	mg/L				0.026 (2)	0.010	9003878			
Total Suspended Solids	mg/L				180	5	8994375			
Dissolved Sulphate (SO4)	mg/L				<1.0	1.0	8984223			
Turbidity	NTU				50	0.1	8983721			
Alkalinity (Total as CaCO3)	mg/L				180	1.0	8984171			
Dissolved Chloride (Cl-)	mg/L				1.6	1.0	8984199			
Nitrite (N)	mg/L				<0.010	0.010	8984087	<0.010	0.010	8984087
Nitrate (N)	mg/L				<0.10	0.10	8984087	<0.10	0.10	8984087
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	8984087	<0.10	0.10	8984087

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9672
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHF391			XHF391			XHF392		
Sampling Date		2023/10/12 15:53			2023/10/12 15:53			2023/10/12 16:47		
COC Number		783293			783293			783293		
	UNITS	MWS14-03-OB2	RDL	QC Batch	MWS14-03-OB2 Lab-Dup	RDL	QC Batch	MWS-14-06	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	270	1.0	8981590				280	1.0	8981590
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.2	1.0	8981590				1.2	1.0	8981590
Hardness (CaCO3)	mg/L	210	1.0	8981706				390	1.0	8981706
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590				<1.0	1.0	8981590
Inorganics										
Acidity	mg/L	10	5.0	8988645				17	5.0	8994960
Total Ammonia-N	mg/L	0.52	0.050	8991979				<0.050	0.050	8991979
Conductivity	mS/cm	0.497	0.001	8984178				1.07	0.001	8984178
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9008331				<2.0 (1)	2.0	9008331
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	8997212				<0.00050	0.00050	8997212
Total Dissolved Solids	mg/L	245	10	8992857				540	10	8992857
Fluoride (F-)	mg/L	0.44	0.10	8984165				0.12	0.10	8984165
Total Kjeldahl Nitrogen (TKN)	mg/L	0.62	0.10	8998867				0.26	0.10	8998867
pH	pH	7.94		8984182				7.65		8984182
Total Phosphorus (P)	mg/L	1.6	0.010	9003878				0.085	0.0010	9003878
Total Suspended Solids	mg/L	700	5	8994375				4200	100	8994729
Dissolved Sulphate (SO4)	mg/L	1.6	1.0	8984223	1.5	1.0	8984223	140	1.0	8984223
Turbidity	NTU	62	0.1	8983721				31	0.1	8983721
Alkalinity (Total as CaCO3)	mg/L	270	1.0	8984171				280	1.0	8984171
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	8984199	<1.0	1.0	8984199	83	1.0	8984199
Nitrite (N)	mg/L	0.055	0.010	8984087				<0.010	0.010	8984087
Nitrate (N)	mg/L	0.12	0.10	8984087				<0.10	0.10	8984087
Nitrate + Nitrite (N)	mg/L	0.18	0.10	8984087				<0.10	0.10	8984087

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9672
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XHF393			XHF394			XHF394		
Sampling Date		2023/10/12 14:58			2023/10/12 08:00			2023/10/12 08:00		
COC Number		783293			783293			783293		
	UNITS	23-12B	RDL	QC Batch	DUPLICATE 6	RDL	QC Batch	DUPLICATE 6 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	430	1.0	8981590	250	1.0	8981590			
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.1	1.0	8981590	2.3	1.0	8981590			
Hardness (CaCO3)	mg/L	1800	1.0	8981706	160	1.0	8981706			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8981590	<1.0	1.0	8981590			
Inorganics										
Acidity	mg/L	71	5.0	8991101	8.0	5.0	8988645			
Total Ammonia-N	mg/L	0.56	0.050	8991979	0.32	0.050	8991979			
Conductivity	mS/cm	2.99	0.001	8984178	0.478	0.001	8984178			
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9008331	<2.0 (1)	2.0	9008331			
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0246	0.00050	8997212	<0.00050	0.00050	8997212			
Total Dissolved Solids	mg/L	2620	10	8992857	235	10	8992857			
Fluoride (F-)	mg/L	<0.10	0.10	8984165	0.42	0.10	8984165			
Total Kjeldahl Nitrogen (TKN)	mg/L	1.7	0.20	8998867	0.51	0.10	8998867			
pH	pH	7.43		8984182	7.98		8984182			
Total Phosphorus (P)	mg/L	2.8 (2)	0.020	9008332	0.038	0.0010	9003878			
Total Suspended Solids	mg/L	330	1	8994375	8	1	8994375	8	1	8994375
Dissolved Sulphate (SO4)	mg/L	1600	5.0	8984223	1.6	1.0	8984223			
Turbidity	NTU	74	0.1	8983721	2.0	0.1	8983721			
Alkalinity (Total as CaCO3)	mg/L	430	1.0	8984171	260	1.0	8984171			
Dissolved Chloride (Cl-)	mg/L	14	1.0	8984199	2.0	1.0	8984199			
Nitrite (N)	mg/L	<0.010	0.010	8984087	0.026	0.010	8984087			
Nitrate (N)	mg/L	<0.10	0.10	8984087	<0.10	0.10	8984087			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8984087	<0.10	0.10	8984087			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF387			XHF387			XHF388		
Sampling Date		2023/10/12 10:28			2023/10/12 10:28			2023/10/12 12:12		
COC Number		783293			783293			783293		
	UNITS	BH14-15	RDL	QC Batch	BH14-15 Lab-Dup	RDL	QC Batch	G4-OB2-13	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0025	0.0005	9000399	0.0025	0.0005	9000399	<0.0005	0.0005	9000399
. Aluminum (Al)	mg/L	1.72	0.0025	8997973				0.107	0.0005	8997973
Dissolved Antimony (Sb)	mg/L	0.0005	0.0001	9000399	0.0005	0.0001	9000399	<0.0001	0.0001	9000399
. Antimony (Sb)	mg/L	<0.0005	0.0005	8997973				0.0001	0.0001	8997973
Dissolved Arsenic (As)	mg/L	0.0087	0.0001	9000399	0.0086	0.0001	9000399	0.0007	0.0001	9000399
. Arsenic (As)	mg/L	0.0159	0.0005	8997973				0.0014	0.0001	8997973
Dissolved Barium (Ba)	mg/L	0.0464	0.0002	9000399	0.0462	0.0002	9000399	0.0318	0.0002	9000399
. Barium (Ba)	mg/L	0.064	0.001	8997973				0.0320	0.0002	8997973
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9000399	<0.00005	0.00005	9000399	<0.00005	0.00005	9000399
. Beryllium (Be)	mg/L	<0.00025	0.00025	8997973				<0.00005	0.00005	8997973
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399
. Bismuth (Bi)	mg/L	<0.0005	0.0005	8997973				<0.0001	0.0001	8997973
Dissolved Boron (B)	mg/L	0.031	0.001	9000399	0.032	0.001	9000399	0.026	0.001	9000399
. Boron (B)	mg/L	0.039	0.005	8997973				0.026	0.001	8997973
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9000399	<0.00001	0.00001	9000399	<0.00001	0.00001	9000399
. Cadmium (Cd)	mg/L	0.000055	0.000025	8997973				0.000007	0.000005	8997973
Dissolved Calcium (Ca)	mg/L	101	0.1	9000399	102	0.1	9000399	70.3	0.1	9000399
. Calcium (Ca)	mg/L	194	0.1	8997973				68.7	0.1	8997973
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9000399	<0.00002	0.00002	9000399	<0.00002	0.00002	9000399
. Cesium (Cs)	mg/L	0.0002	0.0001	8997973				<0.00002	0.00002	8997973
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9000399	<0.0005	0.0005	9000399	<0.0005	0.0005	9000399
. Chromium (Cr)	mg/L	0.0055	0.0025	8997973				<0.0005	0.0005	8997973
Dissolved Cobalt (Co)	mg/L	0.00128	0.00005	9000399	0.00130	0.00005	9000399	0.00006	0.00005	9000399
. Cobalt (Co)	mg/L	0.00317	0.00025	8997973				0.00018	0.00005	8997973
Dissolved Copper (Cu)	mg/L	0.0014	0.0001	9000399	0.0014	0.0001	9000399	0.0002	0.0001	9000399
. Copper (Cu)	mg/L	0.0081	0.0005	8997973				0.0011	0.0001	8997973
Dissolved Iron (Fe)	mg/L	1.67	0.005	9000399	1.68	0.005	9000399	0.523	0.005	9000399
. Iron (Fe)	mg/L	6.14	0.025	8997973				0.598	0.005	8997973
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9000399	<0.00005	0.00005	9000399	<0.00005	0.00005	9000399
. Lead (Pb)	mg/L	0.00302	0.00025	8997973				0.00018	0.00005	8997973

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF387			XHF387			XHF388		
Sampling Date		2023/10/12 10:28			2023/10/12 10:28			2023/10/12 12:12		
COC Number		783293			783293			783293		
	UNITS	BH14-15	RDL	QC Batch	BH14-15 Lab-Dup	RDL	QC Batch	G4-OB2-13	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0048	0.0005	9000399	0.0048	0.0005	9000399	0.0087	0.0005	9000399
. Lithium (Li)	mg/L	0.0083	0.0025	8997973				0.0088	0.0005	8997973
Dissolved Magnesium (Mg)	mg/L	18.8	0.005	9000399	18.4	0.005	9000399	24.7	0.005	9000399
. Magnesium (Mg)	mg/L	44.2	0.025	8997973				24.6	0.005	8997973
Dissolved Manganese (Mn)	mg/L	0.144	0.0002	9000399	0.142	0.0002	9000399	0.0500	0.0002	9000399
. Manganese (Mn)	mg/L	0.298	0.001	8997973				0.0745	0.0002	8997973
Mercury (Hg)	mg/L	<0.00010	0.00010	8994933						
Mercury (Hg)	ug/L							<0.01	0.01	8986102
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8985992				<0.01	0.01	8995965
Dissolved Molybdenum (Mo)	mg/L	0.00278	0.00005	9000399	0.00275	0.00005	9000399	0.00056	0.00005	9000399
. Molybdenum (Mo)	mg/L	0.00189	0.00025	8997973				0.00046	0.00005	8997973
Dissolved Nickel (Ni)	mg/L	0.0022	0.0001	9000399	0.0022	0.0001	9000399	0.0001	0.0001	9000399
. Nickel (Ni)	mg/L	0.0070	0.0005	8997973				0.0004	0.0001	8997973
Dissolved Phosphorus (P)	mg/L	0.011	0.005	9000399	0.011	0.005	9000399	0.040	0.005	9000399
. Phosphorus (P)	mg/L	0.440	0.025	8997973				0.047	0.005	8997973
Dissolved Potassium (K)	mg/L	3.92	0.02	9000399	4.03	0.02	9000399	2.60	0.02	9000399
. Potassium (K)	mg/L	3.8	0.1	8997973				2.61	0.02	8997973
Dissolved Rubidium (Rb)	mg/L	0.00424	0.00002	9000399	0.00417	0.00002	9000399	0.00080	0.00002	9000399
. Rubidium (Rb)	mg/L	0.0071	0.0001	8997973				0.00098	0.00002	8997973
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9000399	<0.0002	0.0002	9000399	<0.0002	0.0002	9000399
. Selenium (Se)	mg/L	<0.00025	0.00025	8997973				<0.00005	0.00005	8997973
Dissolved Silicon (Si)	mg/L	5.62	0.025	9000399	5.62	0.025	9000399	8.32	0.025	9000399
. Silicon (Si)	mg/L	8.21	0.025	8997973				8.48	0.025	8997973
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9000399	<0.00001	0.00001	9000399	<0.00001	0.00001	9000399
. Silver (Ag)	mg/L	<0.00005	0.00005	8997973				<0.00001	0.00001	8997973
Dissolved Sodium (Na)	mg/L	11.5	0.01	9000399	11.5	0.01	9000399	15.1	0.01	9000399
. Sodium (Na)	mg/L	11.2	0.05	8997973				14.7	0.01	8997973
Dissolved Strontium (Sr)	mg/L	0.207	0.0001	9000399	0.211	0.0001	9000399	0.273	0.0001	9000399
. Strontium (Sr)	mg/L	0.241	0.0005	8997973				0.280	0.0001	8997973
Dissolved Sulphur (S)	mg/L	24	0.5	8990638				<0.5	0.5	8990638
Total Sulphur (S)	mg/L	24	0.5	8988303				<0.5	0.5	8988335

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF387			XHF387			XHF388		
Sampling Date		2023/10/12 10:28			2023/10/12 10:28			2023/10/12 12:12		
COC Number		783293			783293			783293		
	UNITS	BH14-15	RDL	QC Batch	BH14-15 Lab-Dup	RDL	QC Batch	G4-OB2-13	RDL	QC Batch
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399
. Tellurium (Te)	mg/L	<0.0005	0.0005	8997973				<0.0001	0.0001	8997973
Dissolved Thallium (Tl)	mg/L	0.000006	0.000005	9000399	0.000005	0.000005	9000399	<0.000005	0.000005	9000399
. Thallium (Tl)	mg/L	0.000048	0.000025	8997973				<0.000005	0.000005	8997973
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9000399	<0.0002	0.0002	9000399	<0.0002	0.0002	9000399
. Thorium (Th)	mg/L	<0.001	0.001	8997973				<0.0002	0.0002	8997973
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399
. Tin (Sn)	mg/L	<0.0005	0.0005	8997973				<0.0001	0.0001	8997973
Dissolved Titanium (Ti)	mg/L	0.0005	0.0005	9000399	<0.0005	0.0005	9000399	<0.0005	0.0005	9000399
. Titanium (Ti)	mg/L	0.0928	0.0025	8997973				0.0082	0.0005	8997973
Dissolved Tungsten (W)	mg/L	0.0015	0.0001	9000399	0.0015	0.0001	9000399	<0.0001	0.0001	9000399
. Tungsten (W)	mg/L	0.0013	0.0005	8997973				<0.0001	0.0001	8997973
Dissolved Uranium (U)	mg/L	0.00103	0.00001	9000399	0.00103	0.00001	9000399	0.00007	0.00001	9000399
. Uranium (U)	mg/L	0.00132	0.00005	8997973				0.00007	0.00001	8997973
Dissolved Vanadium (V)	mg/L	0.00027	0.00005	9000399	0.00027	0.00005	9000399	<0.00005	0.00005	9000399
. Vanadium (V)	mg/L	0.00563	0.00025	8997973				0.00034	0.00005	8997973
Dissolved Zinc (Zn)	mg/L	0.0034	0.0005	9000399	0.0034	0.0005	9000399	0.0006	0.0005	9000399
. Zinc (Zn)	mg/L	0.0144	0.0025	8997973				0.0024	0.0005	8997973
Dissolved Zirconium (Zr)	mg/L	0.0005	0.0001	9000399	0.0004	0.0001	9000399	<0.0001	0.0001	9000399
. Zirconium (Zr)	mg/L	0.0025	0.0005	8997973				0.0002	0.0001	8997973

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF389			XHF390		
Sampling Date		2023/10/12 12:29			2023/10/12 15:40		
COC Number		783293			783293		
	UNITS	G4-OB1-13	RDL	QC Batch	MWS-14-03-OB1	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	0.0009	0.0005	9000399	0.0012	0.0005	9000399
. Aluminum (Al)	mg/L	0.0189	0.0005	8997973	0.439	0.0005	9000336
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399
. Antimony (Sb)	mg/L	0.0002	0.0001	8997973	<0.0001	0.0001	9000336
Dissolved Arsenic (As)	mg/L	0.0034	0.0001	9000399	0.0003	0.0001	9000399
. Arsenic (As)	mg/L	0.0035	0.0001	8997973	0.0005	0.0001	9000336
Dissolved Barium (Ba)	mg/L	0.0318	0.0002	9000399	0.0198	0.0002	9000399
. Barium (Ba)	mg/L	0.0317	0.0002	8997973	0.0261	0.0002	9000336
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9000399	<0.00005	0.00005	9000399
. Beryllium (Be)	mg/L	<0.00005	0.00005	8997973	<0.00005	0.00005	9000336
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399
. Bismuth (Bi)	mg/L	<0.0001	0.0001	8997973	<0.0001	0.0001	9000336
Dissolved Boron (B)	mg/L	0.062	0.001	9000399	0.024	0.001	9000399
. Boron (B)	mg/L	0.065	0.001	8997973	0.025	0.001	9000336
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9000399	<0.00001	0.00001	9000399
. Cadmium (Cd)	mg/L	0.000005	0.000005	8997973	0.000007	0.000005	9000336
Dissolved Calcium (Ca)	mg/L	36.4	0.02	9000399	21.4	0.02	9000399
. Calcium (Ca)	mg/L	35.5	0.02	8997973	26.3	0.02	9000336
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9000399	<0.00002	0.00002	9000399
. Cesium (Cs)	mg/L	<0.00002	0.00002	8997973	0.00006	0.00002	9000336
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9000399	<0.0005	0.0005	9000399
. Chromium (Cr)	mg/L	<0.0005	0.0005	8997973	0.0014	0.0005	9000336
Dissolved Cobalt (Co)	mg/L	0.00021	0.00005	9000399	0.00014	0.00005	9000399
. Cobalt (Co)	mg/L	0.00022	0.00005	8997973	0.00046	0.00005	9000336
Dissolved Copper (Cu)	mg/L	0.0001	0.0001	9000399	0.0007	0.0001	9000399
. Copper (Cu)	mg/L	0.0003	0.0001	8997973	0.0018	0.0001	9000336
Dissolved Iron (Fe)	mg/L	0.366	0.005	9000399	1.46	0.005	9000399
. Iron (Fe)	mg/L	0.405	0.005	8997973	3.45	0.005	9000336
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9000399	0.00009	0.00005	9000399
. Lead (Pb)	mg/L	0.00007	0.00005	8997973	0.00064	0.00005	9000336
Dissolved Lithium (Li)	mg/L	0.0038	0.0005	9000399	0.0050	0.0005	9000399

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF389			XHF390		
Sampling Date		2023/10/12 12:29			2023/10/12 15:40		
COC Number		783293			783293		
	UNITS	G4-OB1-13	RDL	QC Batch	MWS-14-03-OB1	RDL	QC Batch
. Lithium (Li)	mg/L	0.0040	0.0005	8997973	0.0056	0.0005	9000336
Dissolved Magnesium (Mg)	mg/L	19.5	0.005	9000399	12.5	0.005	9000399
. Magnesium (Mg)	mg/L	18.3	0.005	8997973	13.4	0.005	9000336
Dissolved Manganese (Mn)	mg/L	0.0216	0.0002	9000399	0.0968	0.0002	9000399
. Manganese (Mn)	mg/L	0.0223	0.0002	8997973	0.125	0.0002	9000336
Mercury (Hg)	ug/L	<0.01	0.01	8986102	<0.01	0.01	8986102
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8995965	<0.01	0.01	8995965
Dissolved Molybdenum (Mo)	mg/L	0.00150	0.00005	9000399	0.0245	0.00005	9000399
. Molybdenum (Mo)	mg/L	0.00148	0.00005	8997973	0.0146	0.00005	9000336
Dissolved Nickel (Ni)	mg/L	0.0007	0.0001	9000399	0.0003	0.0001	9000399
. Nickel (Ni)	mg/L	0.0008	0.0001	8997973	0.0012	0.0001	9000336
Dissolved Phosphorus (P)	mg/L	0.035	0.005	9000399	<0.005	0.005	9000399
. Phosphorus (P)	mg/L	0.039	0.005	8997973	0.034	0.005	9000336
Dissolved Potassium (K)	mg/L	3.03	0.02	9000399	2.22	0.02	9000399
. Potassium (K)	mg/L	2.96	0.02	8997973	2.51	0.02	9000336
Dissolved Rubidium (Rb)	mg/L	0.00066	0.00002	9000399	0.00136	0.00002	9000399
. Rubidium (Rb)	mg/L	0.00071	0.00002	8997973	0.00214	0.00002	9000336
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9000399	<0.0002	0.0002	9000399
. Selenium (Se)	mg/L	0.00013	0.00005	8997973	<0.00005	0.00005	9000336
Dissolved Silicon (Si)	mg/L	4.80	0.025	9000399	2.60	0.005	9000399
. Silicon (Si)	mg/L	4.99	0.005	8997973	3.32	0.005	9000336
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9000399	<0.00001	0.00001	9000399
. Silver (Ag)	mg/L	<0.00001	0.00001	8997973	<0.00001	0.00001	9000336
Dissolved Sodium (Na)	mg/L	40.6	0.01	9000399	30.2	0.01	9000399
. Sodium (Na)	mg/L	38.9	0.01	8997973	31.2	0.01	9000336
Dissolved Strontium (Sr)	mg/L	0.288	0.0001	9000399	0.135	0.0001	9000399
. Strontium (Sr)	mg/L	0.282	0.0001	8997973	0.155	0.0001	9000336
Dissolved Sulphur (S)	mg/L	0.7	0.5	8990638	<0.5	0.5	8990638
Total Sulphur (S)	mg/L	0.7	0.5	8988335	<0.5	0.5	8988335
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399
. Tellurium (Te)	mg/L	<0.0001	0.0001	8997973	<0.0001	0.0001	9000336
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9000399	<0.000005	0.000005	9000399

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF389			XHF390		
Sampling Date		2023/10/12 12:29			2023/10/12 15:40		
COC Number		783293			783293		
	UNITS	G4-OB1-13	RDL	QC Batch	MWS-14-03-OB1	RDL	QC Batch
. Thallium (Tl)	mg/L	<0.000005	0.000005	8997973	0.000006	0.000005	9000336
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9000399	<0.0002	0.0002	9000399
. Thorium (Th)	mg/L	<0.0002	0.0002	8997973	<0.0002	0.0002	9000336
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9000399	0.0002	0.0001	9000399
. Tin (Sn)	mg/L	<0.0001	0.0001	8997973	0.0001	0.0001	9000336
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9000399	<0.0005	0.0005	9000399
. Titanium (Ti)	mg/L	0.0016	0.0005	8997973	0.0240	0.0005	9000336
Dissolved Tungsten (W)	mg/L	0.0166	0.0001	9000399	0.0012	0.0001	9000399
. Tungsten (W)	mg/L	0.0153	0.0001	8997973	0.0002	0.0001	9000336
Dissolved Uranium (U)	mg/L	0.00009	0.00001	9000399	0.00002	0.00001	9000399
. Uranium (U)	mg/L	0.00008	0.00001	8997973	0.00014	0.00001	9000336
Dissolved Vanadium (V)	mg/L	0.00009	0.00005	9000399	<0.00005	0.00005	9000399
. Vanadium (V)	mg/L	0.00024	0.00005	8997973	0.00087	0.00005	9000336
Dissolved Zinc (Zn)	mg/L	<0.0005	0.0005	9000399	0.0021	0.0005	9000399
. Zinc (Zn)	mg/L	0.0059	0.0005	8997973	0.0032	0.0005	9000336
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399
. Zirconium (Zr)	mg/L	<0.0001	0.0001	8997973	0.0003	0.0001	9000336

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QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF391			XHF392			XHF392		
Sampling Date		2023/10/12 15:53			2023/10/12 16:47			2023/10/12 16:47		
COC Number		783293			783293			783293		
	UNITS	MWS14-03-OB2	RDL	QC Batch	MWS-14-06	RDL	QC Batch	MWS-14-06 Lab-Dup	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	<0.0005	0.0005	9000399	0.0015	0.0005	9000399			
. Aluminum (Al)	mg/L	2.21	0.0025	8997973	1.06	0.0025	8997973			
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399			
. Antimony (Sb)	mg/L	0.0001	0.0001	8997973	<0.0005	0.0005	8997973			
Dissolved Arsenic (As)	mg/L	0.0050	0.0001	9000399	0.0181	0.0001	9000399			
. Arsenic (As)	mg/L	0.0067	0.0001	8997973	0.0179	0.0005	8997973			
Dissolved Barium (Ba)	mg/L	0.0217	0.0002	9000399	0.0594	0.0002	9000399			
. Barium (Ba)	mg/L	0.0673	0.0002	8997973	0.081	0.001	8997973			
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9000399	<0.00005	0.00005	9000399			
. Beryllium (Be)	mg/L	0.00056	0.00005	8997973	<0.00025	0.00025	8997973			
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399			
. Bismuth (Bi)	mg/L	<0.0001	0.0001	8997973	<0.0005	0.0005	8997973			
Dissolved Boron (B)	mg/L	0.019	0.001	9000399	0.030	0.001	9000399			
. Boron (B)	mg/L	0.024	0.001	8997973	0.031	0.005	8997973			
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9000399	<0.00001	0.00001	9000399			
. Cadmium (Cd)	mg/L	0.000053	0.000005	8997973	0.000047	0.000025	8997973			
Dissolved Calcium (Ca)	mg/L	56.2	0.1	9000399	122	0.1	9000399			
. Calcium (Ca)	mg/L	113	0.1	8997973	133	0.1	8997973			
Dissolved Cesium (Cs)	mg/L	0.00002	0.00002	9000399	0.00015	0.00002	9000399			
. Cesium (Cs)	mg/L	0.00024	0.00002	8997973	0.0003	0.0001	8997973			
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9000399	<0.0005	0.0005	9000399			
. Chromium (Cr)	mg/L	0.0037	0.0005	8997973	<0.0025	0.0025	8997973			
Dissolved Cobalt (Co)	mg/L	0.00007	0.00005	9000399	0.00354	0.00005	9000399			
. Cobalt (Co)	mg/L	0.00169	0.00005	8997973	0.00500	0.00025	8997973			
Dissolved Copper (Cu)	mg/L	0.0007	0.0001	9000399	0.0003	0.0001	9000399			
. Copper (Cu)	mg/L	0.0040	0.0001	8997973	0.0049	0.0005	8997973			
Dissolved Iron (Fe)	mg/L	0.270	0.005	9000399	3.39	0.005	9000399			
. Iron (Fe)	mg/L	3.55	0.005	8997973	7.86	0.025	8997973			
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9000399	<0.00005	0.00005	9000399			
. Lead (Pb)	mg/L	0.00884	0.00005	8997973	0.00452	0.00025	8997973			

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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF391			XHF392			XHF392		
Sampling Date		2023/10/12 15:53			2023/10/12 16:47			2023/10/12 16:47		
COC Number		783293			783293			783293		
	UNITS	MWS14-03-OB2	RDL	QC Batch	MWS-14-06	RDL	QC Batch	MWS-14-06 Lab-Dup	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0077	0.0005	9000399	0.0032	0.0005	9000399			
. Lithium (Li)	mg/L	0.0122	0.0005	8997973	0.0044	0.0025	8997973			
Dissolved Magnesium (Mg)	mg/L	18.1	0.005	9000399	21.8	0.005	9000399			
. Magnesium (Mg)	mg/L	31.8	0.005	8997973	24.5	0.025	8997973			
Dissolved Manganese (Mn)	mg/L	0.0748	0.0002	9000399	1.12	0.001	9000399			
. Manganese (Mn)	mg/L	0.232	0.0002	8997973	1.24	0.001	8997973			
Mercury (Hg)	mg/L	<0.00010	0.00010	8994933						
Mercury (Hg)	ug/L				<0.01	0.01	8986102			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8995965	<0.01	0.01	8995965			
Dissolved Molybdenum (Mo)	mg/L	0.00212	0.00005	9000399	0.00234	0.00005	9000399			
. Molybdenum (Mo)	mg/L	0.00140	0.00005	8997973	0.00094	0.00025	8997973			
Dissolved Nickel (Ni)	mg/L	0.0003	0.0001	9000399	0.0017	0.0001	9000399			
. Nickel (Ni)	mg/L	0.0042	0.0001	8997973	0.0052	0.0005	8997973			
Dissolved Phosphorus (P)	mg/L	0.024	0.005	9000399	<0.005	0.005	9000399			
. Phosphorus (P)	mg/L	0.464	0.005	8997973	0.129	0.025	8997973			
Dissolved Potassium (K)	mg/L	1.00	0.02	9000399	3.02	0.02	9000399			
. Potassium (K)	mg/L	2.41	0.02	8997973	3.0	0.1	8997973			
Dissolved Rubidium (Rb)	mg/L	0.00109	0.00002	9000399	0.00333	0.00002	9000399			
. Rubidium (Rb)	mg/L	0.00683	0.00002	8997973	0.0052	0.0001	8997973			
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9000399	<0.0002	0.0002	9000399			
. Selenium (Se)	mg/L	<0.00005	0.00005	8997973	0.00040	0.00025	8997973			
Dissolved Silicon (Si)	mg/L	8.30	0.025	9000399	5.83	0.025	9000399			
. Silicon (Si)	mg/L	11.7	0.025	8997973	7.57	0.025	8997973			
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9000399	<0.00001	0.00001	9000399			
. Silver (Ag)	mg/L	<0.00001	0.00001	8997973	<0.00005	0.00005	8997973			
Dissolved Sodium (Na)	mg/L	25.1	0.01	9000399	26.8	0.01	9000399			
. Sodium (Na)	mg/L	37.7	0.01	8997973	25.7	0.05	8997973			
Dissolved Strontium (Sr)	mg/L	0.226	0.0001	9000399	0.325	0.0001	9000399			
. Strontium (Sr)	mg/L	0.264	0.0001	8997973	0.323	0.0005	8997973			
Dissolved Sulphur (S)	mg/L	<0.5	0.5	8990638	30	0.5	8990638			
Total Sulphur (S)	mg/L	1.1	0.5	8988335	34	0.5	8988335	34	0.5	8988335

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF391			XHF392			XHF392		
Sampling Date		2023/10/12 15:53			2023/10/12 16:47			2023/10/12 16:47		
COC Number		783293			783293			783293		
	UNITS	MWS14-03-OB2	RDL	QC Batch	MWS-14-06	RDL	QC Batch	MWS-14-06 Lab-Dup	RDL	QC Batch
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399			
. Tellurium (Te)	mg/L	<0.0001	0.0001	8997973	<0.0005	0.0005	8997973			
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9000399	0.000009	0.000005	9000399			
. Thallium (Tl)	mg/L	0.000045	0.000005	8997973	0.000034	0.000025	8997973			
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9000399	<0.0002	0.0002	9000399			
. Thorium (Th)	mg/L	0.0056	0.0002	8997973	<0.001	0.001	8997973			
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9000399	<0.0001	0.0001	9000399			
. Tin (Sn)	mg/L	<0.0001	0.0001	8997973	<0.0005	0.0005	8997973			
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9000399	<0.0005	0.0005	9000399			
. Titanium (Ti)	mg/L	0.0732	0.0025	8997973	0.0440	0.0025	8997973			
Dissolved Tungsten (W)	mg/L	0.0002	0.0001	9000399	0.0008	0.0001	9000399			
. Tungsten (W)	mg/L	<0.0001	0.0001	8997973	<0.0005	0.0005	8997973			
Dissolved Uranium (U)	mg/L	0.00039	0.00001	9000399	0.00283	0.00001	9000399			
. Uranium (U)	mg/L	0.00336	0.00001	8997973	0.00359	0.00005	8997973			
Dissolved Vanadium (V)	mg/L	0.00006	0.00005	9000399	0.00018	0.00005	9000399			
. Vanadium (V)	mg/L	0.00444	0.00005	8997973	0.00220	0.00025	8997973			
Dissolved Zinc (Zn)	mg/L	0.0015	0.0005	9000399	0.156	0.0005	9000399			
. Zinc (Zn)	mg/L	0.0135	0.0005	8997973	2.60	0.0025	8997973			
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	9000399	0.0008	0.0001	9000399			
. Zirconium (Zr)	mg/L	0.0010	0.0001	8997973	0.0023	0.0005	8997973			

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF393			XHF394		
Sampling Date		2023/10/12 14:58			2023/10/12 08:00		
COC Number		783293			783293		
	UNITS	23-12B	RDL	QC Batch	DUPLICATE 6	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	0.0048	0.0025	9000399	0.0008	0.0005	9000399
. Aluminum (Al)	mg/L	0.566	0.0025	8997973	0.0188	0.0005	8997973
Dissolved Antimony (Sb)	mg/L	<0.0005	0.0005	9000399	<0.0001	0.0001	9000399
. Antimony (Sb)	mg/L	<0.0005	0.0005	8997973	0.0002	0.0001	8997973
Dissolved Arsenic (As)	mg/L	3.53	0.005	9000399	0.0033	0.0001	9000399
. Arsenic (As)	mg/L	3.90	0.005	8997973	0.0036	0.0001	8997973
Dissolved Barium (Ba)	mg/L	0.115	0.001	9000399	0.0308	0.0002	9000399
. Barium (Ba)	mg/L	0.115	0.001	8997973	0.0312	0.0002	8997973
Dissolved Beryllium (Be)	mg/L	<0.00025	0.00025	9000399	<0.00005	0.00005	9000399
. Beryllium (Be)	mg/L	<0.00025	0.00025	8997973	<0.00005	0.00005	8997973
Dissolved Bismuth (Bi)	mg/L	<0.0005	0.0005	9000399	<0.0001	0.0001	9000399
. Bismuth (Bi)	mg/L	<0.0005	0.0005	8997973	<0.0001	0.0001	8997973
Dissolved Boron (B)	mg/L	0.041	0.005	9000399	0.061	0.001	9000399
. Boron (B)	mg/L	0.040	0.005	8997973	0.064	0.001	8997973
Dissolved Cadmium (Cd)	mg/L	<0.00005	0.00005	9000399	<0.00001	0.00001	9000399
. Cadmium (Cd)	mg/L	<0.000025	0.000025	8997973	<0.000005	0.000005	8997973
Dissolved Calcium (Ca)	mg/L	460	0.2	9000399	34.0	0.02	9000399
. Calcium (Ca)	mg/L	492	0.2	8997973	36.3	0.02	8997973
Dissolved Cesium (Cs)	mg/L	<0.0001	0.0001	9000399	<0.00002	0.00002	9000399
. Cesium (Cs)	mg/L	0.0001	0.0001	8997973	<0.00002	0.00002	8997973
Dissolved Chromium (Cr)	mg/L	<0.0025	0.0025	9000399	<0.0005	0.0005	9000399
. Chromium (Cr)	mg/L	0.0031	0.0025	8997973	<0.0005	0.0005	8997973
Dissolved Cobalt (Co)	mg/L	0.00457	0.00025	9000399	0.00021	0.00005	9000399
. Cobalt (Co)	mg/L	0.00502	0.00025	8997973	0.00021	0.00005	8997973
Dissolved Copper (Cu)	mg/L	<0.0005	0.0005	9000399	<0.0001	0.0001	9000399
. Copper (Cu)	mg/L	0.0015	0.0005	8997973	0.0002	0.0001	8997973
Dissolved Iron (Fe)	mg/L	18.5	0.025	9000399	0.353	0.005	9000399
. Iron (Fe)	mg/L	20.7	0.025	8997973	0.409	0.005	8997973
Dissolved Lead (Pb)	mg/L	<0.00025	0.00025	9000399	<0.00005	0.00005	9000399
. Lead (Pb)	mg/L	0.00134	0.00025	8997973	0.00009	0.00005	8997973
Dissolved Lithium (Li)	mg/L	0.0199	0.0025	9000399	0.0037	0.0005	9000399

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF393			XHF394		
Sampling Date		2023/10/12 14:58			2023/10/12 08:00		
COC Number		783293			783293		
	UNITS	23-12B	RDL	QC Batch	DUPLICATE 6	RDL	QC Batch
. Lithium (Li)	mg/L	0.0202	0.0025	8997973	0.0040	0.0005	8997973
Dissolved Magnesium (Mg)	mg/L	161	0.025	9000399	18.6	0.005	9000399
. Magnesium (Mg)	mg/L	154	0.025	8997973	18.3	0.005	8997973
Dissolved Manganese (Mn)	mg/L	1.20	0.001	9000399	0.0213	0.0002	9000399
. Manganese (Mn)	mg/L	1.23	0.001	8997973	0.0224	0.0002	8997973
Mercury (Hg)	mg/L	<0.00010	0.00010	8994933			
Mercury (Hg)	ug/L				<0.01	0.01	8986102
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	8995965	<0.01	0.01	8995965
Dissolved Molybdenum (Mo)	mg/L	0.00339	0.00025	9000399	0.00143	0.00005	9000399
. Molybdenum (Mo)	mg/L	0.00303	0.00025	8997973	0.00148	0.00005	8997973
Dissolved Nickel (Ni)	mg/L	0.0015	0.0005	9000399	0.0006	0.0001	9000399
. Nickel (Ni)	mg/L	0.0032	0.0005	8997973	0.0008	0.0001	8997973
Dissolved Phosphorus (P)	mg/L	<0.025	0.025	9000399	0.036	0.005	9000399
. Phosphorus (P)	mg/L	0.078	0.025	8997973	0.039	0.005	8997973
Dissolved Potassium (K)	mg/L	30.7	0.1	9000399	2.81	0.02	9000399
. Potassium (K)	mg/L	28.9	0.1	8997973	2.99	0.02	8997973
Dissolved Rubidium (Rb)	mg/L	0.0110	0.0001	9000399	0.00065	0.00002	9000399
. Rubidium (Rb)	mg/L	0.0117	0.0001	8997973	0.00069	0.00002	8997973
Dissolved Selenium (Se)	mg/L	<0.001	0.001	9000399	<0.0002	0.0002	9000399
. Selenium (Se)	mg/L	<0.00025	0.00025	8997973	0.00014	0.00005	8997973
Dissolved Silicon (Si)	mg/L	9.25	0.025	9000399	4.80	0.005	9000399
. Silicon (Si)	mg/L	9.80	0.025	8997973	4.86	0.025	8997973
Dissolved Silver (Ag)	mg/L	<0.00005	0.00005	9000399	<0.00001	0.00001	9000399
. Silver (Ag)	mg/L	<0.00005	0.00005	8997973	<0.00001	0.00001	8997973
Dissolved Sodium (Na)	mg/L	44.8	0.05	9000399	38.5	0.01	9000399
. Sodium (Na)	mg/L	42.3	0.05	8997973	39.3	0.01	8997973
Dissolved Strontium (Sr)	mg/L	1.96	0.0005	9000399	0.275	0.0001	9000399
. Strontium (Sr)	mg/L	1.98	0.0005	8997973	0.282	0.0001	8997973
Dissolved Sulphur (S)	mg/L	500	5	8991549	1.1	0.5	8990638
Total Sulphur (S)	mg/L	540	5	8988335	1.0	0.5	8988303
Dissolved Tellurium (Te)	mg/L	<0.0005	0.0005	9000399	<0.0001	0.0001	9000399
. Tellurium (Te)	mg/L	<0.0005	0.0005	8997973	<0.0001	0.0001	8997973

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XHF393			XHF394		
Sampling Date		2023/10/12 14:58			2023/10/12 08:00		
COC Number		783293			783293		
	UNITS	23-12B	RDL	QC Batch	DUPLICATE 6	RDL	QC Batch
Dissolved Thallium (Tl)	mg/L	<0.000025	0.000025	9000399	<0.000005	0.000005	9000399
. Thallium (Tl)	mg/L	<0.000025	0.000025	8997973	<0.000005	0.000005	8997973
Dissolved Thorium (Th)	mg/L	<0.001	0.001	9000399	<0.0002	0.0002	9000399
. Thorium (Th)	mg/L	<0.001	0.001	8997973	<0.0002	0.0002	8997973
Dissolved Tin (Sn)	mg/L	<0.0005	0.0005	9000399	<0.0001	0.0001	9000399
. Tin (Sn)	mg/L	<0.0005	0.0005	8997973	<0.0001	0.0001	8997973
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	9000399	<0.0005	0.0005	9000399
. Titanium (Ti)	mg/L	0.0365	0.0025	8997973	0.0013	0.0005	8997973
Dissolved Tungsten (W)	mg/L	<0.0005	0.0005	9000399	0.0156	0.0001	9000399
. Tungsten (W)	mg/L	<0.0005	0.0005	8997973	0.0156	0.0001	8997973
Dissolved Uranium (U)	mg/L	0.00254	0.00005	9000399	0.00008	0.00001	9000399
. Uranium (U)	mg/L	0.00258	0.00005	8997973	0.00008	0.00001	8997973
Dissolved Vanadium (V)	mg/L	<0.00025	0.00025	9000399	0.00009	0.00005	9000399
. Vanadium (V)	mg/L	0.00225	0.00025	8997973	0.00021	0.00005	8997973
Dissolved Zinc (Zn)	mg/L	10.6	0.005	9000399	<0.0005	0.0005	9000399
. Zinc (Zn)	mg/L	11.1	0.005	8997973	0.0057	0.0005	8997973
Dissolved Zirconium (Zr)	mg/L	0.0009	0.0005	9000399	<0.0001	0.0001	9000399
. Zirconium (Zr)	mg/L	0.0015	0.0005	8997973	<0.0001	0.0001	8997973

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9672
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XHF387
Sample ID: BH14-15
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8994960	N/A	2023/10/20	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/24	Automated Statchk
Mercury in Water by CVAA	CV/AA	8994933	2023/10/20	2023/10/20	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8985992	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9000399	N/A	2023/10/23	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8997973	N/A	2023/10/21	Arefa Dabhad
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9008331	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8992857	2023/10/21	2023/10/23	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8998867	2023/10/23	2023/10/23	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8994375	2023/10/20	2023/10/22	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

Bureau Veritas ID: XHF387 Dup
Sample ID: BH14-15
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS (low level)	ICP1/MS	9000399	N/A	2023/10/23	Indira HarryPaul

Bureau Veritas ID: XHF388
Sample ID: G4-OB2-13
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8988645	N/A	2023/10/18	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/24	Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XHF388
Sample ID: G4-OB2-13
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	8995965	2023/10/20	2023/10/20	Gagandeep Rai
Mercury (low level)	CV/AA	8986102	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9000399	N/A	2023/10/23	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8997973	N/A	2023/10/21	Arefa Dabhad
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9008331	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8992857	2023/10/21	2023/10/23	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8998867	2023/10/23	2023/10/23	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8994375	2023/10/20	2023/10/22	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

Bureau Veritas ID: XHF389
Sample ID: G4-OB1-13
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991101	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/24	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8995965	2023/10/20	2023/10/20	Gagandeep Rai
Mercury (low level)	CV/AA	8986102	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9000399	N/A	2023/10/23	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8997973	N/A	2023/10/21	Arefa Dabhad
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9008331	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8992857	2023/10/21	2023/10/23	Shaneil Hall

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9672
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XHF389
Sample ID: G4-OB1-13
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Kjeldahl Nitrogen in Water	SKAL	8998867	2023/10/23	2023/10/23	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8994360	2023/10/20	2023/10/22	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

Bureau Veritas ID: XHF389 Dup
Sample ID: G4-OB1-13
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	8992857	2023/10/21	2023/10/23	Shaneil Hall

Bureau Veritas ID: XHF390
Sample ID: MWS-14-03-OB1
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8994960	N/A	2023/10/20	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/24	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8995965	2023/10/17	2023/10/20	Gagandeep Rai
Mercury (low level)	CV/AA	8986102	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9000399	N/A	2023/10/23	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9000336	N/A	2023/10/26	Thuy Linh Nguyen
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9008331	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8992857	2023/10/21	2023/10/23	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8998867	2023/10/23	2023/10/23	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8994375	2023/10/20	2023/10/22	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XHF390 Dup
Sample ID: MWS-14-03-OB1
Matrix: Water
Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal

Bureau Veritas ID: XHF391
Sample ID: MWS14-03-OB2
Matrix: Water
Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8988645	N/A	2023/10/18	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/24	Automated Statchk
Mercury in Water by CVAA	CV/AA	8994933	2023/10/20	2023/10/20	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8995965	2023/10/17	2023/10/20	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9000399	N/A	2023/10/23	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8997973	N/A	2023/10/21	Arefa Dabhad
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9008331	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8992857	2023/10/21	2023/10/23	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8998867	2023/10/23	2023/10/23	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8994375	2023/10/20	2023/10/22	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

Bureau Veritas ID: XHF391 Dup
Sample ID: MWS14-03-OB2
Matrix: Water
Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9672
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XHF392
Sample ID: MWS-14-06
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8994960	N/A	2023/10/20	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/24	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8995965	2023/10/17	2023/10/20	Gagandeep Rai
Mercury (low level)	CV/AA	8986102	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9000399	N/A	2023/10/23	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8997973	N/A	2023/10/21	Arefa Dabhad
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9008331	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8992857	2023/10/21	2023/10/23	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8998867	2023/10/23	2023/10/23	Rajni Tyagi
Total Suspended Solids	BAL	8994729	2023/10/20	2023/10/20	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

Bureau Veritas ID: XHF392 Dup
Sample ID: MWS-14-06
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai

Bureau Veritas ID: XHF393
Sample ID: 23-12B
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8991101	N/A	2023/10/19	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/24	Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XHF393
Sample ID: 23-12B
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	8994933	2023/10/20	2023/10/20	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	8995965	2023/10/20	2023/10/20	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8991549	2023/10/19	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9000399	N/A	2023/10/24	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8997973	N/A	2023/10/21	Arefa Dabhad
Total Metals Analysis by ICP	ICP	8988335	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9008331	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9008332	2023/10/21	2023/10/25	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8992857	2023/10/21	2023/10/23	Shaneil Hall
Total Kjeldahl Nitrogen in Water	SKAL	8998867	2023/10/23	2023/10/23	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8994375	2023/10/20	2023/10/22	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

Bureau Veritas ID: XHF394
Sample ID: DUPLICATE 6
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	8988645	N/A	2023/10/18	Brent Boudreau
Alkalinity	AT	8984171	N/A	2023/10/17	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8981590	N/A	2023/10/17	Automated Statchk
Chloride by Automated Colourimetry	KONE	8984199	N/A	2023/10/18	Massarat Jan
Conductivity	AT	8984178	N/A	2023/10/17	Nachiketa Gohil
Fluoride	ISE	8984165	2023/10/16	2023/10/17	Nachiketa Gohil
Hardness (calculated as CaCO3)		8981706	N/A	2023/10/24	Automated Statchk
Dissolved Mercury (low level)	CV/AA	8995965	2023/10/20	2023/10/20	Gagandeep Rai
Mercury (low level)	CV/AA	8986102	2023/10/17	2023/10/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	8990638	2023/10/18	2023/10/24	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9000399	N/A	2023/10/24	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	8997973	N/A	2023/10/21	Arefa Dabhad
Total Metals Analysis by ICP	ICP	8988303	2023/10/18	2023/10/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9008331	N/A	2023/10/24	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	8997212	2023/10/19	2023/10/19	Ming Dong
Total Phosphorus Low Level Total	KONE	9003878	2023/10/21	2023/10/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	8991979	N/A	2023/10/21	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8984087	N/A	2023/10/19	Chandra Nandlal
pH	AT	8984182	2023/10/16	2023/10/17	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8984223	N/A	2023/10/20	Massarat Jan
Total Dissolved Solids	BAL	8992857	2023/10/21	2023/10/23	Shaneil Hall

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3V9672
Report Date: 2023/10/30

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XHF394
Sample ID: DUPLICATE 6
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Kjeldahl Nitrogen in Water	SKAL	8998867	2023/10/23	2023/10/23	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8994375	2023/10/20	2023/10/22	Darshan Patel
Turbidity	AT	8983721	N/A	2023/10/16	Kien Tran

Bureau Veritas ID: XHF394 Dup
Sample ID: DUPLICATE 6
Matrix: Water

Collected: 2023/10/12
Shipped:
Received: 2023/10/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	8994375	2023/10/20	2023/10/22	Darshan Patel

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.7°C
Package 2	6.3°C
Package 3	6.7°C

TSS/ TDS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XHF387 [BH14-15] : Acidity sample contained headspace.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XHF388 [G4-OB2-13] : Acidity sample contained headspace.

Sample XHF389 [G4-OB1-13] : Acidity sample contained headspace.

TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XHF390 [MWS-14-03-OB1] : Acidity sample contained headspace.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Sample XHF391 [MWS14-03-OB2] : Acidity sample contained headspace.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Sample XHF392 [MWS-14-06] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
Acidity sample contained headspace.
Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XHF393 [23-12B] : Acidity sample contained headspace.
Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XHF394 [DUPLICATE 6] : Acidity sample contained headspace.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8983721	Turbidity	2023/10/16			101	80 - 120	<0.1	NTU	0	20		
8984087	Nitrate (N)	2023/10/19	90	80 - 120	93	80 - 120	<0.10	mg/L	NC	20		
8984087	Nitrite (N)	2023/10/19	105	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
8984165	Fluoride (F-)	2023/10/17	81	80 - 120	95	80 - 120	<0.10	mg/L	15	20		
8984171	Alkalinity (Total as CaCO3)	2023/10/17			97	85 - 115	<1.0	mg/L				
8984178	Conductivity	2023/10/17			102	85 - 115	<0.001	mS/cm	0	10		
8984182	pH	2023/10/17			102	98 - 103			0.62	N/A		
8984199	Dissolved Chloride (Cl-)	2023/10/18	93	80 - 120	97	80 - 120	<1.0	mg/L	NC	20		
8984223	Dissolved Sulphate (SO4)	2023/10/20	95	75 - 125	101	80 - 120	<1.0	mg/L	6.9	20		
8985992	Dissolved Mercury (Hg)	2023/10/17	95	75 - 125	97	80 - 120	<0.01	ug/L	NC	20		
8986102	Mercury (Hg)	2023/10/17	110	75 - 125	97	80 - 120	<0.01	ug/L	NC	20		
8988303	Total Sulphur (S)	2023/10/19	101	80 - 120	98	80 - 120	<0.5	mg/L	0.31	25		
8988335	Total Sulphur (S)	2023/10/19	NC	80 - 120	100	80 - 120	<0.5	mg/L	0.67	25		
8988645	Acidity	2023/10/18	87	80 - 120	105	80 - 120	<5.0	mg/L	NC	25		
8990638	Dissolved Sulphur (S)	2023/10/24	NC	80 - 120	94	80 - 120	<0.5	mg/L	0.46	25		
8991101	Acidity	2023/10/19	106	80 - 120	103	80 - 120	<5.0	mg/L	NC	25		
8991549	Dissolved Sulphur (S)	2023/10/24	113	80 - 120	103	80 - 120	<0.5	mg/L	NC	25		
8991979	Total Ammonia-N	2023/10/21	99	75 - 125	99	80 - 120	<0.050	mg/L	2.2	20		
8992857	Total Dissolved Solids	2023/10/23			100	90 - 110	<10	mg/L	4.3	20		
8994360	Total Suspended Solids	2023/10/22			100	85 - 115	<1	mg/L	8.3	20		
8994375	Total Suspended Solids	2023/10/22			96	85 - 115	<1	mg/L	5.0	20		
8994729	Total Suspended Solids	2023/10/20			95	85 - 115	<10	mg/L	NC	20		
8994933	Mercury (Hg)	2023/10/20	111	75 - 125	109	80 - 120	<0.00010	mg/L	NC	20		
8994960	Acidity	2023/10/20	95	80 - 120	103	80 - 120	<5.0	mg/L	NC	25		
8995965	Dissolved Mercury (Hg)	2023/10/20	93	75 - 125	105	80 - 120	<0.01	ug/L	NC	20		
8997212	Strong Acid Dissoc. Cyanide (CN)	2023/10/19	89	80 - 120	98	80 - 120	<0.00050	mg/L				
8997973	. Aluminum (Al)	2023/10/21	98	80 - 120	98	80 - 120	<0.0005	mg/L	0.39	20		
8997973	. Antimony (Sb)	2023/10/21	113	80 - 120	101	80 - 120	<0.0001	mg/L				
8997973	. Arsenic (As)	2023/10/21	103	80 - 120	97	80 - 120	<0.0001	mg/L				
8997973	. Barium (Ba)	2023/10/21	101	80 - 120	96	80 - 120	<0.0002	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8997973	. Beryllium (Be)	2023/10/21	104	80 - 120	96	80 - 120	<0.00005	mg/L				
8997973	. Bismuth (Bi)	2023/10/21	93	80 - 120	99	80 - 120	<0.0001	mg/L				
8997973	. Boron (B)	2023/10/21	97	80 - 120	96	80 - 120	<0.001	mg/L				
8997973	. Cadmium (Cd)	2023/10/21	106	80 - 120	96	80 - 120	<0.000005	mg/L				
8997973	. Calcium (Ca)	2023/10/21	NC	80 - 120	99	80 - 120	<0.02	mg/L				
8997973	. Cesium (Cs)	2023/10/21	102	80 - 120	97	80 - 120	<0.00002	mg/L				
8997973	. Chromium (Cr)	2023/10/21	96	80 - 120	92	80 - 120	<0.0005	mg/L				
8997973	. Cobalt (Co)	2023/10/21	99	80 - 120	99	80 - 120	<0.00005	mg/L				
8997973	. Copper (Cu)	2023/10/21	101	80 - 120	95	80 - 120	<0.0001	mg/L				
8997973	. Iron (Fe)	2023/10/21	102	80 - 120	98	80 - 120	<0.005	mg/L				
8997973	. Lead (Pb)	2023/10/21	99	80 - 120	94	80 - 120	<0.00005	mg/L				
8997973	. Lithium (Li)	2023/10/21	108	80 - 120	102	80 - 120	<0.0005	mg/L				
8997973	. Magnesium (Mg)	2023/10/21	NC	80 - 120	97	80 - 120	<0.005	mg/L				
8997973	. Manganese (Mn)	2023/10/21	101	80 - 120	96	80 - 120	<0.0002	mg/L				
8997973	. Molybdenum (Mo)	2023/10/21	106	80 - 120	96	80 - 120	<0.00005	mg/L				
8997973	. Nickel (Ni)	2023/10/21	99	80 - 120	96	80 - 120	<0.0001	mg/L				
8997973	. Phosphorus (P)	2023/10/21	110	80 - 120	95	80 - 120	<0.005	mg/L				
8997973	. Potassium (K)	2023/10/21	104	80 - 120	97	80 - 120	<0.02	mg/L				
8997973	. Rubidium (Rb)	2023/10/21	101	80 - 120	99	80 - 120	<0.00002	mg/L				
8997973	. Selenium (Se)	2023/10/21	106	80 - 120	101	80 - 120	<0.00005	mg/L				
8997973	. Silicon (Si)	2023/10/21	102	80 - 120	98	80 - 120	<0.005	mg/L				
8997973	. Silver (Ag)	2023/10/21	101	80 - 120	96	80 - 120	<0.00001	mg/L				
8997973	. Sodium (Na)	2023/10/21	NC	80 - 120	98	80 - 120	<0.01	mg/L				
8997973	. Strontium (Sr)	2023/10/21	NC	80 - 120	96	80 - 120	<0.0001	mg/L				
8997973	. Tellurium (Te)	2023/10/21	110	80 - 120	97	80 - 120	<0.0001	mg/L				
8997973	. Thallium (Tl)	2023/10/21	105	80 - 120	100	80 - 120	<0.000005	mg/L				
8997973	. Thorium (Th)	2023/10/21	102	80 - 120	97	80 - 120	<0.0002	mg/L				
8997973	. Tin (Sn)	2023/10/21	109	80 - 120	98	80 - 120	<0.0001	mg/L				
8997973	. Titanium (Ti)	2023/10/21	103	80 - 120	97	80 - 120	<0.0005	mg/L				
8997973	. Tungsten (W)	2023/10/21	109	80 - 120	100	80 - 120	<0.0001	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8997973	. Uranium (U)	2023/10/21	103	80 - 120	96	80 - 120	<0.00001	mg/L				
8997973	. Vanadium (V)	2023/10/21	100	80 - 120	94	80 - 120	<0.00005	mg/L				
8997973	. Zinc (Zn)	2023/10/21	103	80 - 120	98	80 - 120	<0.0005	mg/L				
8997973	. Zirconium (Zr)	2023/10/21	110	80 - 120	98	80 - 120	<0.0001	mg/L				
8998867	Total Kjeldahl Nitrogen (TKN)	2023/10/23	109	80 - 120	100	80 - 120	<0.10	mg/L	NC	20	97	80 - 120
9000336	. Aluminum (Al)	2023/10/26	100	80 - 120	104	80 - 120	<0.0005	mg/L	0.25	20		
9000336	. Antimony (Sb)	2023/10/26	109	80 - 120	104	80 - 120	<0.0001	mg/L				
9000336	. Arsenic (As)	2023/10/26	98	80 - 120	99	80 - 120	<0.0001	mg/L				
9000336	. Barium (Ba)	2023/10/26	103	80 - 120	102	80 - 120	<0.0002	mg/L				
9000336	. Beryllium (Be)	2023/10/26	99	80 - 120	100	80 - 120	<0.00005	mg/L				
9000336	. Bismuth (Bi)	2023/10/26	82	80 - 120	98	80 - 120	<0.0001	mg/L				
9000336	. Boron (B)	2023/10/26	100	80 - 120	97	80 - 120	<0.001	mg/L				
9000336	. Cadmium (Cd)	2023/10/26	102	80 - 120	97	80 - 120	<0.000005	mg/L				
9000336	. Calcium (Ca)	2023/10/26	NC	80 - 120	101	80 - 120	<0.02	mg/L				
9000336	. Cesium (Cs)	2023/10/26	102	80 - 120	103	80 - 120	<0.00002	mg/L				
9000336	. Chromium (Cr)	2023/10/26	94	80 - 120	96	80 - 120	<0.0005	mg/L				
9000336	. Cobalt (Co)	2023/10/26	94	80 - 120	97	80 - 120	<0.00005	mg/L				
9000336	. Copper (Cu)	2023/10/26	98	80 - 120	97	80 - 120	<0.0001	mg/L				
9000336	. Iron (Fe)	2023/10/26	94	80 - 120	99	80 - 120	<0.005	mg/L				
9000336	. Lead (Pb)	2023/10/26	96	80 - 120	95	80 - 120	<0.00005	mg/L				
9000336	. Lithium (Li)	2023/10/26	102	80 - 120	101	80 - 120	<0.0005	mg/L				
9000336	. Magnesium (Mg)	2023/10/26	NC	80 - 120	100	80 - 120	<0.005	mg/L				
9000336	. Manganese (Mn)	2023/10/26	95	80 - 120	97	80 - 120	<0.0002	mg/L				
9000336	. Molybdenum (Mo)	2023/10/26	105	80 - 120	99	80 - 120	<0.00005	mg/L				
9000336	. Nickel (Ni)	2023/10/26	93	80 - 120	97	80 - 120	<0.0001	mg/L				
9000336	. Phosphorus (P)	2023/10/26	106	80 - 120	94	80 - 120	<0.005	mg/L				
9000336	. Potassium (K)	2023/10/26	99	80 - 120	102	80 - 120	<0.02	mg/L				
9000336	. Rubidium (Rb)	2023/10/26	98	80 - 120	100	80 - 120	<0.00002	mg/L				
9000336	. Selenium (Se)	2023/10/26	99	80 - 120	100	80 - 120	<0.00005	mg/L				
9000336	. Silicon (Si)	2023/10/26	101	80 - 120	100	80 - 120	<0.005	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9000336	. Silver (Ag)	2023/10/26	99	80 - 120	98	80 - 120	<0.00001	mg/L				
9000336	. Sodium (Na)	2023/10/26	NC	80 - 120	98	80 - 120	0.01, RDL=0.01	mg/L				
9000336	. Strontium (Sr)	2023/10/26	NC	80 - 120	96	80 - 120	<0.0001	mg/L				
9000336	. Tellurium (Te)	2023/10/26	101	80 - 120	96	80 - 120	<0.0001	mg/L				
9000336	. Thallium (Tl)	2023/10/26	101	80 - 120	99	80 - 120	<0.000005	mg/L				
9000336	. Thorium (Th)	2023/10/26	99	80 - 120	98	80 - 120	<0.0002	mg/L				
9000336	. Tin (Sn)	2023/10/26	107	80 - 120	100	80 - 120	<0.0001	mg/L				
9000336	. Titanium (Ti)	2023/10/26	98	80 - 120	95	80 - 120	<0.0005	mg/L				
9000336	. Tungsten (W)	2023/10/26	97	80 - 120	96	80 - 120	<0.0001	mg/L				
9000336	. Uranium (U)	2023/10/26	101	80 - 120	100	80 - 120	<0.00001	mg/L				
9000336	. Vanadium (V)	2023/10/26	96	80 - 120	96	80 - 120	<0.00005	mg/L				
9000336	. Zinc (Zn)	2023/10/26	97	80 - 120	99	80 - 120	<0.0005	mg/L				
9000336	. Zirconium (Zr)	2023/10/26	109	80 - 120	101	80 - 120	<0.0001	mg/L				
9000399	Dissolved Aluminum (Al)	2023/10/23	90	80 - 120	97	80 - 120	<0.0005	mg/L	3.6	20		
9000399	Dissolved Antimony (Sb)	2023/10/23	94	80 - 120	99	80 - 120	<0.0001	mg/L	5.6	20		
9000399	Dissolved Arsenic (As)	2023/10/23	91	80 - 120	99	80 - 120	<0.0001	mg/L	0.77	20		
9000399	Dissolved Barium (Ba)	2023/10/23	89	80 - 120	97	80 - 120	<0.0002	mg/L	0.31	20		
9000399	Dissolved Beryllium (Be)	2023/10/23	89	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
9000399	Dissolved Bismuth (Bi)	2023/10/23	88	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9000399	Dissolved Boron (B)	2023/10/23	83	80 - 120	91	80 - 120	<0.001	mg/L	3.1	20		
9000399	Dissolved Cadmium (Cd)	2023/10/23	92	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9000399	Dissolved Calcium (Ca)	2023/10/23	NC	80 - 120	103	80 - 120	<0.02	mg/L	1.1	20		
9000399	Dissolved Cesium (Cs)	2023/10/23	91	80 - 120	97	80 - 120	<0.00002	mg/L	NC	N/A		
9000399	Dissolved Chromium (Cr)	2023/10/23	84	80 - 120	93	80 - 120	<0.0005	mg/L	NC	20		
9000399	Dissolved Cobalt (Co)	2023/10/23	90	80 - 120	100	80 - 120	<0.00005	mg/L	1.0	20		
9000399	Dissolved Copper (Cu)	2023/10/23	87	80 - 120	95	80 - 120	<0.0001	mg/L	0.56	20		
9000399	Dissolved Iron (Fe)	2023/10/23	93	80 - 120	101	80 - 120	<0.005	mg/L	0.27	20		
9000399	Dissolved Lead (Pb)	2023/10/23	87	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9000399	Dissolved Lithium (Li)	2023/10/23	102	80 - 120	102	80 - 120	<0.0005	mg/L	0.33	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9000399	Dissolved Magnesium (Mg)	2023/10/23	NC	80 - 120	102	80 - 120	<0.005	mg/L	2.4	20		
9000399	Dissolved Manganese (Mn)	2023/10/23	NC	80 - 120	97	80 - 120	<0.0002	mg/L	1.2	20		
9000399	Dissolved Molybdenum (Mo)	2023/10/23	92	80 - 120	91	80 - 120	<0.00005	mg/L	1.0	20		
9000399	Dissolved Nickel (Ni)	2023/10/23	85	80 - 120	98	80 - 120	<0.0001	mg/L	0.72	20		
9000399	Dissolved Phosphorus (P)	2023/10/23	91	80 - 120	96	80 - 120	<0.005	mg/L	6.4	20		
9000399	Dissolved Potassium (K)	2023/10/23	NC	80 - 120	104	80 - 120	<0.02	mg/L	2.7	20		
9000399	Dissolved Rubidium (Rb)	2023/10/23	90	80 - 120	98	80 - 120	<0.00002	mg/L	1.7	N/A		
9000399	Dissolved Selenium (Se)	2023/10/23	92	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20		
9000399	Dissolved Silicon (Si)	2023/10/23	NC	80 - 120	97	80 - 120	<0.005	mg/L	0.040	20		
9000399	Dissolved Silver (Ag)	2023/10/23	74 (1)	80 - 120	93	80 - 120	<0.00001	mg/L	NC	20		
9000399	Dissolved Sodium (Na)	2023/10/23	NC	80 - 120	103	80 - 120	<0.01	mg/L	0.57	20		
9000399	Dissolved Strontium (Sr)	2023/10/23	NC	80 - 120	96	80 - 120	<0.0001	mg/L	1.9	20		
9000399	Dissolved Tellurium (Te)	2023/10/23	88	80 - 120	94	80 - 120	<0.0001	mg/L	NC	20		
9000399	Dissolved Thallium (Tl)	2023/10/23	90	80 - 120	98	80 - 120	<0.000005	mg/L	18	20		
9000399	Dissolved Thorium (Th)	2023/10/23	92	80 - 120	95	80 - 120	<0.0002	mg/L	NC	20		
9000399	Dissolved Tin (Sn)	2023/10/23	96	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9000399	Dissolved Titanium (Ti)	2023/10/23	92	80 - 120	98	80 - 120	<0.0005	mg/L	2.0	20		
9000399	Dissolved Tungsten (W)	2023/10/23	95	80 - 120	100	80 - 120	<0.0001	mg/L	0.32	20		
9000399	Dissolved Uranium (U)	2023/10/23	93	80 - 120	98	80 - 120	<0.00001	mg/L	0.097	20		
9000399	Dissolved Vanadium (V)	2023/10/23	86	80 - 120	95	80 - 120	<0.00005	mg/L	1.8	20		
9000399	Dissolved Zinc (Zn)	2023/10/23	86	80 - 120	97	80 - 120	<0.0005	mg/L	2.4	20		
9000399	Dissolved Zirconium (Zr)	2023/10/23	97	80 - 120	97	80 - 120	<0.0001	mg/L	4.9	20		
9003878	Total Phosphorus (P)	2023/10/24	91	80 - 120	93	80 - 120	<0.0010	mg/L			83	80 - 120
9008331	Free Cyanide (CN)	2023/10/24	90	80 - 120	89	80 - 120	<2.0	ug/L				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9008332	Total Phosphorus (P)	2023/10/25			97	80 - 120	<0.0010	mg/L			93	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, probable matrix interference

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Colleen Acker, B.Sc, Scientific Service Specialist

Cristina Carriere, Senior Scientific Specialist

Mike MacGillivray, Scientific Specialist (Inorganics)

Sandy Yuan, M.Sc., QP, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 786336

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/31
Report #: R7888729
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3W8750
Received: 2023/10/19, 14:54

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	5	N/A	2023/10/26	ATL SOP-00205	SM 24 2310B m
Alkalinity	1	N/A	2023/10/24	CAM SOP-00448	SM 23 2320 B m
Alkalinity	4	N/A	2023/10/26	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2023/10/24	CAM SOP-00102	APHA 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide	4	N/A	2023/10/26	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	5	N/A	2023/10/24	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	1	N/A	2023/10/24	CAM SOP-00414	SM 23 2510 m
Conductivity	4	N/A	2023/10/26	CAM SOP-00414	SM 23 2510 m
Dissolved Organic Carbon (DOC) (3)	3	N/A	2023/10/24	CAM SOP-00446	SM 23 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	3	N/A	2023/10/27	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	3	2023/10/24	2023/10/24	CAM SOP-00316	CCME PHC-CWS m
Fluoride	1	2023/10/23	2023/10/24	CAM SOP-00449	SM 23 4500-F C m
Fluoride	4	2023/10/23	2023/10/26	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	5	N/A	2023/10/29	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	2	2023/10/24	2023/10/25	CAM SOP-00453	EPA 7470 m
Dissolved Mercury (low level)	3	2023/10/26	2023/10/26	CAM SOP-00453	EPA 7470 m
Mercury (low level)	1	2023/10/24	2023/10/25	CAM SOP-00453	EPA 7470 m
Mercury (low level)	4	2023/10/25	2023/10/25	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	5	2023/10/24	2023/10/25	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	5	N/A	2023/10/29	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	5	N/A	2023/10/29	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	5	2023/10/25	2023/10/27	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	5	N/A	2023/10/31	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	5	2023/10/27	2023/10/27	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	5	2023/10/26	2023/10/28	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	5	N/A	2023/10/26	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (5)	5	N/A	2023/10/25	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2023/10/23	2023/10/24	CAM SOP-00413	SM 4500H+ B m
pH	4	2023/10/23	2023/10/26	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (6)	5	N/A	2023/10/21		Field pH Meter

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 786336

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/31
Report #: R7888729
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3W8750
Received: 2023/10/19, 14:54

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Sulphate by Automated Turbidimetry	5	N/A	2023/10/24	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	5	2023/10/25	2023/10/26	CAM SOP-00428	SM 23 2540C m
Field Temperature (6)	5	N/A	2023/10/21		Field Thermometer
Total Kjeldahl Nitrogen in Water	5	2023/10/24	2023/10/26	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	3	2023/10/25	2023/10/26	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	1	2023/10/26	2023/10/27	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	1	2023/10/27	2023/10/28	CAM SOP-00428	SM 23 2540D m
Turbidity	5	N/A	2023/10/24	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(6) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD037			XJD037			XJD038		
Sampling Date		2023/10/18 08:00			2023/10/18 08:00			2023/10/18 12:25		
COC Number		786336			786336			786336		
	UNITS	Duplicate 9	RDL	QC Batch	Duplicate 9 Lab-Dup	RDL	QC Batch	MWS-14-07OB	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	320	1.0	8997464				290	1.0	8997464
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.2	1.0	8997464				1.3	1.0	8997464
Hardness (CaCO3)	mg/L	280	1.0	8997640				280	1.0	8997640
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8997464				<1.0	1.0	8997464
Field Measurements										
Field Temperature	Celsius	0	N/A	ONSITE				7.7	N/A	ONSITE
Field Measured pH	pH	0		ONSITE				6.92		ONSITE
Inorganics										
Acidity	mg/L	15	5.0	9007188				14	5.0	9007188
Total Ammonia-N	mg/L	<0.050	0.050	9004563				<0.050	0.050	9004563
Conductivity	mS/cm	0.600	0.001	9000745				0.532	0.001	9000921
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9019829				<2.0 (1)	2.0	9019829
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9019828				<0.00050	0.00050	9019828
Total Dissolved Solids	mg/L	340	10	9004608				295	10	9004608
Fluoride (F-)	mg/L	<0.10	0.10	9000748				<0.10	0.10	9000922
Total Kjeldahl Nitrogen (TKN)	mg/L	0.14	0.10	9003795				0.18	0.10	9003795
Dissolved Organic Carbon	mg/L							2.6	0.40	9001728
pH	pH	7.87		9000741				7.69		9000759
Total Phosphorus (P)	mg/L	0.0012	0.0010	9014714				0.0079	0.0010	9014714
Total Suspended Solids	mg/L	200	1	9004975				32	1	9004975
Dissolved Sulphate (SO4)	mg/L	10	1.0	9000945				5.4	1.0	9000945
Turbidity	NTU	1.9	0.1	9000607	1.9	0.1	9000607	0.2	0.1	9000607
Alkalinity (Total as CaCO3)	mg/L	320	1.0	9000747				290	1.0	9000920
Dissolved Chloride (Cl-)	mg/L	1.1	1.0	9000942				<1.0	1.0	9000942
Nitrite (N)	mg/L	<0.010	0.010	9000681	<0.010	0.010	9000681	<0.010	0.010	9000681
Nitrate (N)	mg/L	<0.10	0.10	9000681	<0.10	0.10	9000681	<0.10	0.10	9000681

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD037			XJD037			XJD038		
Sampling Date		2023/10/18 08:00			2023/10/18 08:00			2023/10/18 12:25		
COC Number		786336			786336			786336		
	UNITS	**Duplicate 9**	**RDL**	**QC Batch**	**Duplicate 9 Lab-Dup**	**RDL**	**QC Batch**	**MWS-14-07OB**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9000681	<0.10	0.10	9000681	<0.10	0.10	9000681

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD038			XJD039			XJD040		
Sampling Date		2023/10/18 12:25			2023/10/18 12:52			2023/10/18 13:58		
COC Number		786336			786336			786336		
	UNITS	MWS-14-07OB Lab-Dup	RDL	QC Batch	MWS-14-07BR	RDL	QC Batch	BH14-02A	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				370	1.0	8997464	340	1.0	8997464
Carb. Alkalinity (calc. as CaCO3)	mg/L				3.0	1.0	8997464	2.9	1.0	8997464
Hardness (CaCO3)	mg/L				250	1.0	8997640	420	1.0	8997640
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	8997464	<1.0	1.0	8997464
Field Measurements										
Field Temperature	Celsius				6.7	N/A	ONSITE	9.6	N/A	ONSITE
Field Measured pH	pH				6.96		ONSITE	7.09		ONSITE
Inorganics										
Acidity	mg/L				26	5.0	9007188	88	5.0	9007716
Total Ammonia-N	mg/L				0.12	0.050	9004563	<0.050	0.050	9004563
Conductivity	mS/cm	0.534	0.001	9000921	0.695	0.001	9000745	0.641	0.001	9000745
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	9019829	<2.0 (1)	2.0	9019829
Strong Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	9019828	<0.00050	0.00050	9019828
Total Dissolved Solids	mg/L				405	10	9004608	435	10	9004608
Fluoride (F-)	mg/L	<0.10	0.10	9000922	0.11	0.10	9000748	<0.10	0.10	9000748
Total Kjeldahl Nitrogen (TKN)	mg/L				0.41	0.10	9003795	0.45	0.10	9003795
Dissolved Organic Carbon	mg/L							13	0.40	9001728
pH	pH	7.67		9000759	7.93		9000741	7.95		9000741
Total Phosphorus (P)	mg/L				0.0049	0.0010	9014714	0.0041	0.0010	9014714
Total Suspended Solids	mg/L				67	1	9010487	42	1	9004975
Dissolved Sulphate (SO4)	mg/L				14	1.0	9000945	9.2	1.0	9000945
Turbidity	NTU				16	0.1	9000607	24	0.1	9000607
Alkalinity (Total as CaCO3)	mg/L	290	1.0	9000920	380	1.0	9000747	340	1.0	9000747
Dissolved Chloride (Cl-)	mg/L				<1.0	1.0	9000942	2.2	1.0	9000942
Nitrite (N)	mg/L				<0.010	0.010	9000681	<0.010	0.010	9000681
Nitrate (N)	mg/L				<0.10	0.10	9000681	<0.10	0.10	9000681

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD038			XJD039			XJD040		
Sampling Date		2023/10/18 12:25			2023/10/18 12:52			2023/10/18 13:58		
COC Number		786336			786336			786336		
	UNITS	**MWS-14-07OB Lab-Dup**	**RDL**	**QC Batch**	**MWS-14-07BR**	**RDL**	**QC Batch**	**BH14-02A**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	9000681	<0.10	0.10	9000681

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD041		
Sampling Date		2023/10/18 14:39		
COC Number		786336		
	UNITS	**BH14-02**	**RDL**	**QC Batch**
Calculated Parameters				
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	830	1.0	8997464
Carb. Alkalinity (calc. as CaCO3)	mg/L	3.6	1.0	8997464
Hardness (CaCO3)	mg/L	850	1.0	8997640
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8997464
Field Measurements				
Field Temperature	Celsius	9.1	N/A	ONSITE
Field Measured pH	pH	6.47		ONSITE
Inorganics				
Acidity	mg/L	180	10	9007188
Total Ammonia-N	mg/L	2.6	0.050	9004563
Conductivity	mS/cm	1.53	0.001	9000745
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9019829
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9019828
Total Dissolved Solids	mg/L	890	10	9004608
Fluoride (F-)	mg/L	<0.10	0.10	9000748
Total Kjeldahl Nitrogen (TKN)	mg/L	3.5	0.10	9003795
Dissolved Organic Carbon	mg/L	49	0.40	9001728
pH	pH	7.66		9000741
Total Phosphorus (P)	mg/L	0.15	0.0010	9014714
Total Suspended Solids	mg/L	61	2	8988596
Dissolved Sulphate (SO4)	mg/L	23	1.0	9000945
Turbidity	NTU	84	0.1	9000607
Alkalinity (Total as CaCO3)	mg/L	830	1.0	9000747
Dissolved Chloride (Cl-)	mg/L	33	1.0	9000942
Nitrite (N)	mg/L	<0.010	0.010	9000681
Nitrate (N)	mg/L	<0.10	0.10	9000681

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD041		
Sampling Date		2023/10/18 14:39		
COC Number		786336		
	UNITS	**BH14-02**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9000681
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD037		XJD038			XJD038		
Sampling Date		2023/10/18 08:00		2023/10/18 12:25			2023/10/18 12:25		
COC Number		786336		786336			786336		
	UNITS	Duplicate 9	QC Batch	MWS-14-07OB	RDL	QC Batch	MWS-14-07OB Lab-Dup	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0017	9011436	0.0014	0.0005	9011436			
. Aluminum (Al)	mg/L	0.0159	9011417	0.149	0.0005	9011417			
Dissolved Antimony (Sb)	mg/L	0.0001	9011436	<0.0001	0.0001	9011436			
. Antimony (Sb)	mg/L	0.0002	9011417	0.0001	0.0001	9011417			
Dissolved Arsenic (As)	mg/L	0.0014	9011436	0.0012	0.0001	9011436			
. Arsenic (As)	mg/L	0.0023	9011417	0.0081	0.0001	9011417			
Dissolved Barium (Ba)	mg/L	0.0172	9011436	0.0176	0.0002	9011436			
. Barium (Ba)	mg/L	0.0176	9011417	0.0249	0.0002	9011417			
Dissolved Beryllium (Be)	mg/L	<0.00005	9011436	<0.00005	0.00005	9011436			
. Beryllium (Be)	mg/L	<0.00005	9011417	<0.00005	0.00005	9011417			
Dissolved Bismuth (Bi)	mg/L	<0.0001	9011436	<0.0001	0.0001	9011436			
. Bismuth (Bi)	mg/L	<0.0001	9011417	<0.0001	0.0001	9011417			
Dissolved Boron (B)	mg/L	0.008	9011436	0.005	0.001	9011436			
. Boron (B)	mg/L	0.010	9011417	0.006	0.001	9011417			
Dissolved Cadmium (Cd)	mg/L	<0.00001	9011436	0.00001	0.00001	9011436			
. Cadmium (Cd)	mg/L	0.000007	9011417	0.000025	0.000005	9011417			
Dissolved Calcium (Ca)	mg/L	84.0	9011436	83.9	0.1	9011436			
. Calcium (Ca)	mg/L	80.9	9011417	86.0	0.1	9011417			
Dissolved Cesium (Cs)	mg/L	0.00007	9011436	0.00006	0.00002	9011436			
. Cesium (Cs)	mg/L	0.00008	9011417	0.00008	0.00002	9011417			
Dissolved Chromium (Cr)	mg/L	<0.0005	9011436	<0.0005	0.0005	9011436			
. Chromium (Cr)	mg/L	<0.0005	9011417	0.0007	0.0005	9011417			
Dissolved Cobalt (Co)	mg/L	0.00038	9011436	0.00007	0.00005	9011436			
. Cobalt (Co)	mg/L	0.00052	9011417	0.00093	0.00005	9011417			
Dissolved Copper (Cu)	mg/L	0.0007	9011436	0.0025	0.0001	9011436			
. Copper (Cu)	mg/L	0.0026	9011417	0.0044	0.0001	9011417			
Dissolved Iron (Fe)	mg/L	0.355	9011436	0.007	0.005	9011436			
. Iron (Fe)	mg/L	0.521	9011417	0.587	0.005	9011417			
Dissolved Lead (Pb)	mg/L	<0.00005	9011436	<0.00005	0.00005	9011436			
. Lead (Pb)	mg/L	0.00014	9011417	0.00041	0.00005	9011417			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD037		XJD038			XJD038		
Sampling Date		2023/10/18 08:00		2023/10/18 12:25			2023/10/18 12:25		
COC Number		786336		786336			786336		
	UNITS	Duplicate 9	QC Batch	MWS-14-07OB	RDL	QC Batch	MWS-14-07OB Lab-Dup	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0018	9011436	0.0015	0.0005	9011436			
. Lithium (Li)	mg/L	0.0020	9011417	0.0018	0.0005	9011417			
Dissolved Magnesium (Mg)	mg/L	17.2	9011436	17.7	0.005	9011436			
. Magnesium (Mg)	mg/L	17.5	9011417	18.1	0.005	9011417			
Dissolved Manganese (Mn)	mg/L	0.0497	9011436	0.0090	0.0002	9011436			
. Manganese (Mn)	mg/L	0.0618	9011417	0.290	0.0002	9011417			
Mercury (Hg)	ug/L	<0.01	9004953	<0.01	0.01	9002957	<0.01	0.01	9002957
Dissolved Mercury (Hg)	ug/L	<0.01	9002947	<0.01	0.01	9008248	<0.01	0.01	9008248
Dissolved Molybdenum (Mo)	mg/L	0.00100	9011436	0.00041	0.00005	9011436			
. Molybdenum (Mo)	mg/L	0.00124	9011417	0.00060	0.00005	9011417			
Dissolved Nickel (Ni)	mg/L	0.0027	9011436	0.0020	0.0001	9011436			
. Nickel (Ni)	mg/L	0.0029	9011417	0.0030	0.0001	9011417			
Dissolved Phosphorus (P)	mg/L	<0.005	9011436	<0.005	0.005	9011436			
. Phosphorus (P)	mg/L	<0.005	9011417	0.018	0.005	9011417			
Dissolved Potassium (K)	mg/L	1.36	9011436	1.17	0.02	9011436			
. Potassium (K)	mg/L	1.42	9011417	1.58	0.02	9011417			
Dissolved Rubidium (Rb)	mg/L	0.00298	9011436	0.00322	0.00002	9011436			
. Rubidium (Rb)	mg/L	0.00300	9011417	0.00337	0.00002	9011417			
Dissolved Selenium (Se)	mg/L	<0.0002	9011436	<0.0002	0.0002	9011436			
. Selenium (Se)	mg/L	0.00009	9011417	0.00008	0.00005	9011417			
Dissolved Silicon (Si)	mg/L	5.14	9011436	4.69	0.025	9011436			
. Silicon (Si)	mg/L	4.98	9011417	5.07	0.025	9011417			
Dissolved Silver (Ag)	mg/L	<0.00001	9011436	<0.00001	0.00001	9011436			
. Silver (Ag)	mg/L	<0.00001	9011417	<0.00001	0.00001	9011417			
Dissolved Sodium (Na)	mg/L	11.4	9011436	2.23	0.01	9011436			
. Sodium (Na)	mg/L	14.8	9011417	4.60	0.01	9011417			
Dissolved Strontium (Sr)	mg/L	0.0861	9011436	0.0733	0.0001	9011436			
. Strontium (Sr)	mg/L	0.0896	9011417	0.0776	0.0001	9011417			
Dissolved Sulphur (S)	mg/L	2.8	9001546	1.9	0.5	9001546	1.9	0.5	9001546
Total Sulphur (S)	mg/L	2.9	9004365	2.2	0.5	9004365			
Dissolved Tellurium (Te)	mg/L	<0.0001	9011436	<0.0001	0.0001	9011436			

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD037		XJD038			XJD038		
Sampling Date		2023/10/18 08:00		2023/10/18 12:25			2023/10/18 12:25		
COC Number		786336		786336			786336		
	UNITS	Duplicate 9	QC Batch	MWS-14-07OB	RDL	QC Batch	MWS-14-07OB Lab-Dup	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	9011417	<0.0001	0.0001	9011417			
Dissolved Thallium (Tl)	mg/L	<0.000005	9011436	0.000008	0.000005	9011436			
. Thallium (Tl)	mg/L	<0.000005	9011417	0.000011	0.000005	9011417			
Dissolved Thorium (Th)	mg/L	<0.0002	9011436	<0.0002	0.0002	9011436			
. Thorium (Th)	mg/L	<0.0002	9011417	<0.0002	0.0002	9011417			
Dissolved Tin (Sn)	mg/L	<0.0001	9011436	<0.0001	0.0001	9011436			
. Tin (Sn)	mg/L	0.0002	9011417	0.0002	0.0001	9011417			
Dissolved Titanium (Ti)	mg/L	<0.0005	9011436	<0.0005	0.0005	9011436			
. Titanium (Ti)	mg/L	0.0016	9011417	0.0113	0.0005	9011417			
Dissolved Tungsten (W)	mg/L	0.0008	9011436	<0.0001	0.0001	9011436			
. Tungsten (W)	mg/L	0.0011	9011417	<0.0001	0.0001	9011417			
Dissolved Uranium (U)	mg/L	0.00066	9011436	0.00039	0.00001	9011436			
. Uranium (U)	mg/L	0.00077	9011417	0.00042	0.00001	9011417			
Dissolved Vanadium (V)	mg/L	0.00013	9011436	0.00010	0.00005	9011436			
. Vanadium (V)	mg/L	0.00025	9011417	0.00060	0.00005	9011417			
Dissolved Zinc (Zn)	mg/L	0.0021	9011436	0.0028	0.0005	9011436			
. Zinc (Zn)	mg/L	0.0035	9011417	0.0067	0.0005	9011417			
Dissolved Zirconium (Zr)	mg/L	0.0003	9011436	0.0002	0.0001	9011436			
. Zirconium (Zr)	mg/L	0.0004	9011417	0.0004	0.0001	9011417			

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Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD039			XJD040		XJD041		
Sampling Date		2023/10/18 12:52			2023/10/18 13:58		2023/10/18 14:39		
COC Number		786336			786336		786336		
	UNITS	MWS-14-07BR	RDL	QC Batch	BH14-02A	RDL	BH14-02	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0029	0.0005	9011436	0.0156	0.0005	0.0098	0.0005	9011436
. Aluminum (Al)	mg/L	0.0145	0.0005	9011417	0.0531	0.0005	0.0171	0.0005	9011417
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9011436	<0.0001	0.0001	<0.0001	0.0001	9011436
. Antimony (Sb)	mg/L	0.0002	0.0001	9011417	<0.0001	0.0001	<0.0001	0.0001	9011417
Dissolved Arsenic (As)	mg/L	0.0027	0.0001	9011436	0.0170	0.0001	0.0141	0.0001	9011436
. Arsenic (As)	mg/L	0.0047	0.0001	9011417	0.0172	0.0001	0.0158	0.0001	9011417
Dissolved Barium (Ba)	mg/L	0.0195	0.0002	9011436	0.0164	0.0002	0.0485	0.0002	9011436
. Barium (Ba)	mg/L	0.0223	0.0002	9011417	0.0176	0.0002	0.0454	0.0002	9011417
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9011436	<0.00005	0.00005	<0.00005	0.00005	9011436
. Beryllium (Be)	mg/L	<0.00005	0.00005	9011417	<0.00005	0.00005	<0.00005	0.00005	9011417
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9011436	<0.0001	0.0001	<0.0001	0.0001	9011436
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9011417	<0.0001	0.0001	<0.0001	0.0001	9011417
Dissolved Boron (B)	mg/L	0.020	0.001	9011436	0.008	0.001	0.010	0.001	9011436
. Boron (B)	mg/L	0.028	0.001	9011417	0.008	0.001	0.009	0.001	9011417
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9011436	<0.00001	0.00001	0.00001	0.00001	9011436
. Cadmium (Cd)	mg/L	<0.000005	0.000005	9011417	<0.000005	0.000005	0.000005	0.000005	9011417
Dissolved Calcium (Ca)	mg/L	75.7	0.1	9011436	134	0.1	271	0.2	9011436
. Calcium (Ca)	mg/L	68.3	0.1	9011417	133	0.1	268	0.2	9011417
Dissolved Cesium (Cs)	mg/L	0.00012	0.00002	9011436	0.00023	0.00002	0.00168	0.00002	9011436
. Cesium (Cs)	mg/L	0.00012	0.00002	9011417	0.00024	0.00002	0.00156	0.00002	9011417
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9011436	<0.0005	0.0005	<0.0005	0.0005	9011436
. Chromium (Cr)	mg/L	0.0005	0.0005	9011417	0.0006	0.0005	<0.0005	0.0005	9011417
Dissolved Cobalt (Co)	mg/L	0.00060	0.00005	9011436	<0.00005	0.00005	0.00090	0.00005	9011436
. Cobalt (Co)	mg/L	0.00088	0.00005	9011417	0.00006	0.00005	0.00083	0.00005	9011417
Dissolved Copper (Cu)	mg/L	0.0003	0.0001	9011436	<0.0001	0.0001	<0.0001	0.0001	9011436
. Copper (Cu)	mg/L	0.0018	0.0001	9011417	0.0003	0.0001	0.0002	0.0001	9011417
Dissolved Iron (Fe)	mg/L	1.03	0.005	9011436	9.50	0.005	9.92	0.025	9011436
. Iron (Fe)	mg/L	1.78	0.005	9011417	9.81	0.005	9.96	0.005	9011417
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9011436	<0.00005	0.00005	<0.00005	0.00005	9011436
. Lead (Pb)	mg/L	0.00013	0.00005	9011417	0.00015	0.00005	<0.00005	0.00005	9011417
Dissolved Lithium (Li)	mg/L	0.0027	0.0005	9011436	0.0013	0.0005	0.0008	0.0005	9011436

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD039			XJD040		XJD041		
Sampling Date		2023/10/18 12:52			2023/10/18 13:58		2023/10/18 14:39		
COC Number		786336			786336		786336		
	UNITS	MWS-14-07BR	RDL	QC Batch	BH14-02A	RDL	BH14-02	RDL	QC Batch
. Lithium (Li)	mg/L	0.0032	0.0005	9011417	0.0013	0.0005	0.0007	0.0005	9011417
Dissolved Magnesium (Mg)	mg/L	15.9	0.005	9011436	21.6	0.005	41.5	0.025	9011436
. Magnesium (Mg)	mg/L	15.1	0.005	9011417	21.6	0.005	41.4	0.025	9011417
Dissolved Manganese (Mn)	mg/L	0.135	0.0002	9011436	2.43	0.001	2.93	0.001	9011436
. Manganese (Mn)	mg/L	0.196	0.0002	9011417	2.43	0.001	2.88	0.001	9011417
Mercury (Hg)	ug/L	<0.01	0.01	9004953	<0.01	0.01	<0.01	0.01	9004953
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9002947	<0.01	0.01	<0.01	0.01	9008248
Dissolved Molybdenum (Mo)	mg/L	0.00271	0.00005	9011436	0.00029	0.00005	0.00019	0.00005	9011436
. Molybdenum (Mo)	mg/L	0.00408	0.00005	9011417	0.00030	0.00005	0.00023	0.00005	9011417
Dissolved Nickel (Ni)	mg/L	0.0023	0.0001	9011436	0.0002	0.0001	0.0009	0.0001	9011436
. Nickel (Ni)	mg/L	0.0022	0.0001	9011417	0.0004	0.0001	0.0009	0.0001	9011417
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9011436	<0.005	0.005	0.197	0.005	9011436
. Phosphorus (P)	mg/L	0.008	0.005	9011417	0.011	0.005	0.192	0.005	9011417
Dissolved Potassium (K)	mg/L	1.58	0.02	9011436	0.92	0.02	4.36	0.02	9011436
. Potassium (K)	mg/L	1.70	0.02	9011417	0.92	0.02	4.00	0.02	9011417
Dissolved Rubidium (Rb)	mg/L	0.00298	0.00002	9011436	0.00200	0.00002	0.00591	0.00002	9011436
. Rubidium (Rb)	mg/L	0.00298	0.00002	9011417	0.00201	0.00002	0.00544	0.00002	9011417
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9011436	<0.0002	0.0002	<0.0002	0.0002	9011436
. Selenium (Se)	mg/L	<0.00005	0.00005	9011417	0.00006	0.00005	0.00014	0.00005	9011417
Dissolved Silicon (Si)	mg/L	5.35	0.025	9011436	7.64	0.025	8.60	0.025	9011436
. Silicon (Si)	mg/L	5.19	0.025	9011417	7.69	0.025	8.55	0.025	9011417
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9011436	<0.00001	0.00001	<0.00001	0.00001	9011436
. Silver (Ag)	mg/L	<0.00005	0.00005	9011417	<0.00001	0.00001	<0.00001	0.00001	9011417
Dissolved Sodium (Na)	mg/L	39.0	0.01	9011436	3.43	0.01	5.63	0.01	9011436
. Sodium (Na)	mg/L	58.8	0.01	9011417	3.47	0.01	5.43	0.01	9011417
Dissolved Strontium (Sr)	mg/L	0.103	0.0001	9011436	0.329	0.0001	0.693	0.0001	9011436
. Strontium (Sr)	mg/L	0.112	0.0001	9011417	0.322	0.0001	0.658	0.0001	9011417
Dissolved Sulphur (S)	mg/L	4.2	0.5	9001546	<0.5	0.5	5.0	0.5	9001546
Total Sulphur (S)	mg/L	5.2	0.5	9004365	<0.5	0.5	3.3	0.5	9004365
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9011436	<0.0001	0.0001	<0.0001	0.0001	9011436
. Tellurium (Te)	mg/L	<0.0001	0.0001	9011417	<0.0001	0.0001	<0.0001	0.0001	9011417
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9011436	<0.000005	0.000005	<0.000005	0.000005	9011436

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QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD039			XJD040		XJD041		
Sampling Date		2023/10/18 12:52			2023/10/18 13:58		2023/10/18 14:39		
COC Number		786336			786336		786336		
	UNITS	MWS-14-07BR	RDL	QC Batch	BH14-02A	RDL	BH14-02	RDL	QC Batch
. Thallium (Tl)	mg/L	<0.000005	0.000005	9011417	<0.000005	0.000005	<0.000005	0.000005	9011417
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9011436	<0.0002	0.0002	<0.0002	0.0002	9011436
. Thorium (Th)	mg/L	<0.0002	0.0002	9011417	<0.0002	0.0002	<0.0002	0.0002	9011417
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9011436	<0.0001	0.0001	<0.0001	0.0001	9011436
. Tin (Sn)	mg/L	0.0003	0.0001	9011417	0.0001	0.0001	<0.0001	0.0001	9011417
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9011436	0.0013	0.0005	0.0010	0.0005	9011436
. Titanium (Ti)	mg/L	0.0018	0.0005	9011417	0.0024	0.0005	0.0015	0.0005	9011417
Dissolved Tungsten (W)	mg/L	0.0019	0.0001	9011436	0.0004	0.0001	0.0002	0.0001	9011436
. Tungsten (W)	mg/L	0.0031	0.0001	9011417	0.0004	0.0001	0.0002	0.0001	9011417
Dissolved Uranium (U)	mg/L	0.00122	0.00001	9011436	0.00016	0.00001	0.00030	0.00001	9011436
. Uranium (U)	mg/L	0.00169	0.00001	9011417	0.00016	0.00001	0.00031	0.00001	9011417
Dissolved Vanadium (V)	mg/L	0.00029	0.00005	9011436	0.00103	0.00005	0.00059	0.00005	9011436
. Vanadium (V)	mg/L	0.00054	0.00005	9011417	0.00114	0.00005	0.00054	0.00005	9011417
Dissolved Zinc (Zn)	mg/L	0.0019	0.0005	9011436	<0.0005	0.0005	0.0007	0.0005	9011436
. Zinc (Zn)	mg/L	0.0029	0.0005	9011417	0.0015	0.0005	0.0006	0.0005	9011417
Dissolved Zirconium (Zr)	mg/L	0.0009	0.0001	9011436	0.0017	0.0001	0.0010	0.0001	9011436
. Zirconium (Zr)	mg/L	0.0013	0.0001	9011417	0.0018	0.0001	0.0008	0.0001	9011417

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QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		XJD038	XJD040	XJD041		
Sampling Date		2023/10/18 12:25	2023/10/18 13:58	2023/10/18 14:39		
COC Number		786336	786336	786336		
	UNITS	MWS-14-07OB	BH14-02A	BH14-02	RDL	QC Batch
BTEX & F1 Hydrocarbons						
F1 (C6-C10)	ug/L	<25	<25	<25	25	9005080
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	9001287
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	9001287
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	9001287
Reached Baseline at C50	ug/L	Yes	Yes	Yes		9001287
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	98	105	103		9005080
4-Bromofluorobenzene	%	99	95	98		9005080
D10-o-Xylene	%	89	101	92		9005080
D4-1,2-Dichloroethane	%	105	106	104		9005080
o-Terphenyl	%	103	104	103		9001287

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: XJD037
Sample ID: Duplicate 9
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007188	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	9000942	N/A	2023/10/24	Massarat Jan
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/10/29	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9002947	2023/10/24	2023/10/25	Gagandeep Rai
Mercury (low level)	CV/AA	9004953	2023/10/25	2023/10/25	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9011436	N/A	2023/10/29	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9011417	N/A	2023/10/29	Thuy Linh Nguyen
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9019829	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9019828	2023/10/27	2023/10/27	Joshua Fine
Total Phosphorus Low Level Total	KONE	9014714	2023/10/26	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004563	N/A	2023/10/26	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9000681	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	9000945	N/A	2023/10/24	Massarat Jan
Total Dissolved Solids	BAL	9004608	2023/10/25	2023/10/26	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003795	2023/10/24	2023/10/26	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9004975	2023/10/25	2023/10/26	Shaneil Hall
Turbidity	AT	9000607	N/A	2023/10/24	Leily Karimi

Bureau Veritas ID: XJD037 Dup
Sample ID: Duplicate 9
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	9000681	N/A	2023/10/25	Chandra Nandlal
Turbidity	AT	9000607	N/A	2023/10/24	Leily Karimi

Bureau Veritas ID: XJD038
Sample ID: MWS-14-07OB
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007188	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000920	N/A	2023/10/24	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/24	Automated Statchk
Chloride by Automated Colourimetry	KONE	9000942	N/A	2023/10/24	Massarat Jan

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XJD038
Sample ID: MWS-14-07OB
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	9000921	N/A	2023/10/24	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9001728	N/A	2023/10/24	Gyulshen Idriz
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9005080	N/A	2023/10/27	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9001287	2023/10/24	2023/10/24	Agnieszka Brzuzy-Snopko
Fluoride	ISE	9000922	2023/10/23	2023/10/24	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/10/29	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9008248	2023/10/26	2023/10/26	Gagandeep Rai
Mercury (low level)	CV/AA	9002957	2023/10/24	2023/10/25	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9011436	N/A	2023/10/29	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9011417	N/A	2023/10/29	Thuy Linh Nguyen
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9019829	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9019828	2023/10/27	2023/10/27	Joshua Fine
Total Phosphorus Low Level Total	KONE	9014714	2023/10/26	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004563	N/A	2023/10/26	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9000681	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000759	2023/10/23	2023/10/24	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	9000945	N/A	2023/10/24	Massarat Jan
Total Dissolved Solids	BAL	9004608	2023/10/25	2023/10/26	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003795	2023/10/24	2023/10/26	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9004975	2023/10/25	2023/10/26	Shaneil Hall
Turbidity	AT	9000607	N/A	2023/10/24	Leily Karimi

Bureau Veritas ID: XJD038 Dup
Sample ID: MWS-14-07OB
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9000920	N/A	2023/10/24	Nachiketa Gohil
Conductivity	AT	9000921	N/A	2023/10/24	Nachiketa Gohil
Fluoride	ISE	9000922	2023/10/23	2023/10/24	Nachiketa Gohil
Dissolved Mercury (low level)	CV/AA	9008248	2023/10/26	2023/10/26	Gagandeep Rai
Mercury (low level)	CV/AA	9002957	2023/10/24	2023/10/25	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
pH	AT	9000759	2023/10/23	2023/10/24	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: XJD039
Sample ID: MWS-14-07BR
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007188	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	9000942	N/A	2023/10/24	Massarat Jan
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/10/29	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9002947	2023/10/24	2023/10/25	Gagandeep Rai
Mercury (low level)	CV/AA	9004953	2023/10/25	2023/10/25	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9011436	N/A	2023/10/29	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9011417	N/A	2023/10/29	Thuy Linh Nguyen
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9019829	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9019828	2023/10/27	2023/10/27	Joshua Fine
Total Phosphorus Low Level Total	KONE	9014714	2023/10/26	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004563	N/A	2023/10/26	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9000681	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	9000945	N/A	2023/10/24	Massarat Jan
Total Dissolved Solids	BAL	9004608	2023/10/25	2023/10/26	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003795	2023/10/24	2023/10/26	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9010487	2023/10/27	2023/10/28	Darshan Patel
Turbidity	AT	9000607	N/A	2023/10/24	Leily Karimi

Bureau Veritas ID: XJD040
Sample ID: BH14-02A
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007716	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	9000942	N/A	2023/10/24	Massarat Jan
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9001728	N/A	2023/10/24	Gyulshen Idriz
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9005080	N/A	2023/10/27	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9001287	2023/10/24	2023/10/24	Agnieszka Brzuzy-Snopko
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/10/29	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9008248	2023/10/26	2023/10/26	Gagandeep Rai
Mercury (low level)	CV/AA	9004953	2023/10/25	2023/10/25	Gagandeep Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: XJD040
Sample ID: BH14-02A
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9011436	N/A	2023/10/29	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9011417	N/A	2023/10/29	Thuy Linh Nguyen
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9019829	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9019828	2023/10/27	2023/10/27	Joshua Fine
Total Phosphorus Low Level Total	KONE	9014714	2023/10/26	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004563	N/A	2023/10/26	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9000681	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	9000945	N/A	2023/10/24	Massarat Jan
Total Dissolved Solids	BAL	9004608	2023/10/25	2023/10/26	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003795	2023/10/24	2023/10/26	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9004975	2023/10/25	2023/10/26	Shaneil Hall
Turbidity	AT	9000607	N/A	2023/10/24	Leily Karimi

Bureau Veritas ID: XJD041
Sample ID: BH14-02
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007188	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	9000942	N/A	2023/10/24	Massarat Jan
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9001728	N/A	2023/10/24	Gyulshen Idriz
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9005080	N/A	2023/10/27	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9001287	2023/10/24	2023/10/24	Agnieszka Brzuzy-Snopko
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/10/29	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9008248	2023/10/26	2023/10/26	Gagandeep Rai
Mercury (low level)	CV/AA	9004953	2023/10/25	2023/10/25	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9011436	N/A	2023/10/29	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9011417	N/A	2023/10/29	Thuy Linh Nguyen
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9019829	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9019828	2023/10/27	2023/10/27	Joshua Fine
Total Phosphorus Low Level Total	KONE	9014714	2023/10/26	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004563	N/A	2023/10/26	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9000681	N/A	2023/10/25	Chandra Nandlal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: XJD041
Sample ID: BH14-02
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	9000945	N/A	2023/10/24	Massarat Jan
Total Dissolved Solids	BAL	9004608	2023/10/25	2023/10/26	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003795	2023/10/24	2023/10/26	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8988596	2023/10/26	2023/10/27	Tina Teng
Turbidity	AT	9000607	N/A	2023/10/24	Leily Karimi

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.0°C
Package 2	4.3°C
Package 3	4.0°C
Package 4	0.7°C
Package 5	2.3°C

Sample XJD037 [Duplicate 9] : Acidity sample contained headspace.

Sample XJD038 [MWS-14-07OB] : Acidity sample contained headspace.

Sample XJD039 [MWS-14-07BR] : TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XJD040 [BH14-02A] : Acidity sample contained headspace.

Sample XJD041 [BH14-02] : Acidity sample contained headspace.

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9001287	o-Terphenyl	2023/10/24	108	60 - 130	110	60 - 130	105	%				
9005080	1,4-Difluorobenzene	2023/10/26	98	70 - 130	99	70 - 130	100	%				
9005080	4-Bromofluorobenzene	2023/10/26	98	70 - 130	98	70 - 130	97	%				
9005080	D10-o-Xylene	2023/10/26	94	70 - 130	98	70 - 130	89	%				
9005080	D4-1,2-Dichloroethane	2023/10/26	102	70 - 130	99	70 - 130	98	%				
8988596	Total Suspended Solids	2023/10/27			98	85 - 115	<1	mg/L	0	20		
9000607	Turbidity	2023/10/24			101	80 - 120	<0.1	NTU	0.53	20		
9000681	Nitrate (N)	2023/10/25	90	80 - 120	90	80 - 120	<0.10	mg/L	NC	20		
9000681	Nitrite (N)	2023/10/25	104	80 - 120	103	80 - 120	<0.010	mg/L	NC	20		
9000741	pH	2023/10/26			102	98 - 103			0.44	N/A		
9000745	Conductivity	2023/10/26			101	85 - 115	<0.001	mS/cm	0	10		
9000747	Alkalinity (Total as CaCO3)	2023/10/26			97	85 - 115	<1.0	mg/L	0.0092	20		
9000748	Fluoride (F-)	2023/10/26	92	80 - 120	97	80 - 120	<0.10	mg/L	1.9	20		
9000759	pH	2023/10/24			102	98 - 103			0.32	N/A		
9000920	Alkalinity (Total as CaCO3)	2023/10/24			96	85 - 115	<1.0	mg/L	1.0	20		
9000921	Conductivity	2023/10/24			101	85 - 115	<0.001	mS/cm	0.38	10		
9000922	Fluoride (F-)	2023/10/24	92	80 - 120	93	80 - 120	<0.10	mg/L	NC	20		
9000942	Dissolved Chloride (Cl-)	2023/10/24	91	80 - 120	97	80 - 120	<1.0	mg/L	4.4	20		
9000945	Dissolved Sulphate (SO4)	2023/10/24	95	75 - 125	100	80 - 120	<1.0	mg/L	18	20		
9001287	F2 (C10-C16 Hydrocarbons)	2023/10/24	115	60 - 130	117	60 - 130	<100	ug/L	NC	30		
9001287	F3 (C16-C34 Hydrocarbons)	2023/10/24	118	60 - 130	123	60 - 130	<200	ug/L	NC	30		
9001287	F4 (C34-C50 Hydrocarbons)	2023/10/24	121	60 - 130	126	60 - 130	<200	ug/L	NC	30		
9001546	Dissolved Sulphur (S)	2023/10/25	NC	80 - 120	97	80 - 120	<0.5	mg/L	0.47	25		
9001728	Dissolved Organic Carbon	2023/10/24	94	80 - 120	98	80 - 120	<0.40	mg/L	4.7	20		
9002947	Dissolved Mercury (Hg)	2023/10/25	91	75 - 125	95	80 - 120	<0.01	ug/L	NC	20		
9002957	Mercury (Hg)	2023/10/25	93	75 - 125	92	80 - 120	<0.01	ug/L	NC	20		
9003795	Total Kjeldahl Nitrogen (TKN)	2023/10/26	NC	80 - 120	104	80 - 120	<0.10	mg/L	5.1	20	99	80 - 120
9004365	Total Sulphur (S)	2023/10/27	NC	80 - 120	97	80 - 120	<0.5	mg/L				
9004563	Total Ammonia-N	2023/10/26	97	75 - 125	102	80 - 120	<0.050	mg/L	6.0	20		
9004608	Total Dissolved Solids	2023/10/26			98	90 - 110	<10	mg/L	11	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9004953	Mercury (Hg)	2023/10/25	99	75 - 125	95	80 - 120	<0.01	ug/L	NC	20		
9004975	Total Suspended Solids	2023/10/26			96	85 - 115	<1	mg/L	0	20		
9005080	F1 (C6-C10)	2023/10/26	107	60 - 140	102	60 - 140	<25	ug/L	NC	30		
9007188	Acidity	2023/10/26	80	80 - 120	104	80 - 120	<5.0	mg/L	24	25		
9007716	Acidity	2023/10/26	107	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9008248	Dissolved Mercury (Hg)	2023/10/26	104	75 - 125	105	80 - 120	<0.01	ug/L	NC	20		
9010487	Total Suspended Solids	2023/10/28			98	85 - 115	<1	mg/L	5.4	20		
9011417	. Aluminum (Al)	2023/10/27	104	80 - 120	102	80 - 120	<0.0005	mg/L	2.1	20		
9011417	. Antimony (Sb)	2023/10/27	110	80 - 120	104	80 - 120	<0.0001	mg/L	NC	20		
9011417	. Arsenic (As)	2023/10/27	101	80 - 120	99	80 - 120	<0.0001	mg/L	2.1	20		
9011417	. Barium (Ba)	2023/10/27	102	80 - 120	102	80 - 120	<0.0002	mg/L	0.71	20		
9011417	. Beryllium (Be)	2023/10/27	100	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9011417	. Bismuth (Bi)	2023/10/27	94	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9011417	. Boron (B)	2023/10/27	98	80 - 120	95	80 - 120	<0.001	mg/L	2.2	20		
9011417	. Cadmium (Cd)	2023/10/27	104	80 - 120	99	80 - 120	<0.000005	mg/L	NC	20		
9011417	. Calcium (Ca)	2023/10/27	NC	80 - 120	106	80 - 120	<0.02	mg/L	1.2	20		
9011417	. Cesium (Cs)	2023/10/27	105	80 - 120	105	80 - 120	<0.00002	mg/L	NC	20		
9011417	. Chromium (Cr)	2023/10/27	96	80 - 120	94	80 - 120	<0.0005	mg/L	NC	20		
9011417	. Cobalt (Co)	2023/10/27	91	80 - 120	94	80 - 120	<0.00005	mg/L	2.2	20		
9011417	. Copper (Cu)	2023/10/27	95	80 - 120	93	80 - 120	<0.0001	mg/L	5.0	20		
9011417	. Iron (Fe)	2023/10/27	100	80 - 120	101	80 - 120	<0.005	mg/L	0.63	20		
9011417	. Lead (Pb)	2023/10/27	97	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9011417	. Lithium (Li)	2023/10/27	107	80 - 120	105	80 - 120	<0.0005	mg/L	1.1	20		
9011417	. Magnesium (Mg)	2023/10/27	NC	80 - 120	96	80 - 120	<0.005	mg/L	1.3	20		
9011417	. Manganese (Mn)	2023/10/27	99	80 - 120	98	80 - 120	<0.0002	mg/L	1.2	20		
9011417	. Molybdenum (Mo)	2023/10/27	102	80 - 120	94	80 - 120	<0.00005	mg/L	2.9	20		
9011417	. Nickel (Ni)	2023/10/27	92	80 - 120	93	80 - 120	<0.0001	mg/L	2.1	20		
9011417	. Phosphorus (P)	2023/10/27	118	80 - 120	107	80 - 120	<0.005	mg/L	NC	20		
9011417	. Potassium (K)	2023/10/27	107	80 - 120	101	80 - 120	<0.02	mg/L	1.2	20		
9011417	. Rubidium (Rb)	2023/10/27	104	80 - 120	103	80 - 120	<0.00002	mg/L	1.6	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9011417	. Selenium (Se)	2023/10/27	103	80 - 120	101	80 - 120	<0.00005	mg/L	NC	20		
9011417	. Silicon (Si)	2023/10/27	NC	80 - 120	105	80 - 120	<0.005	mg/L	1.2	20		
9011417	. Silver (Ag)	2023/10/27	101	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9011417	. Sodium (Na)	2023/10/27	101	80 - 120	101	80 - 120	<0.01	mg/L	0.43	20		
9011417	. Strontium (Sr)	2023/10/27	101	80 - 120	99	80 - 120	<0.0001	mg/L	1.5	20		
9011417	. Tellurium (Te)	2023/10/27	108	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9011417	. Thallium (Tl)	2023/10/27	100	80 - 120	102	80 - 120	<0.000005	mg/L	NC	20		
9011417	. Thorium (Th)	2023/10/27	101	80 - 120	100	80 - 120	<0.0002	mg/L				
9011417	. Tin (Sn)	2023/10/27	109	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9011417	. Titanium (Ti)	2023/10/27	111	80 - 120	104	80 - 120	<0.0005	mg/L	NC	20		
9011417	. Tungsten (W)	2023/10/27	98	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9011417	. Uranium (U)	2023/10/27	99	80 - 120	99	80 - 120	<0.00001	mg/L	1.3	20		
9011417	. Vanadium (V)	2023/10/27	100	80 - 120	97	80 - 120	<0.00005	mg/L	4.8	20		
9011417	. Zinc (Zn)	2023/10/27	98	80 - 120	97	80 - 120	<0.0005	mg/L	3.4	20		
9011417	. Zirconium (Zr)	2023/10/27	109	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Aluminum (Al)	2023/10/27	103	80 - 120	102	80 - 120	<0.0005	mg/L	2.7	20		
9011436	Dissolved Antimony (Sb)	2023/10/27	107	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Arsenic (As)	2023/10/27	101	80 - 120	101	80 - 120	<0.0001	mg/L	3.1	20		
9011436	Dissolved Barium (Ba)	2023/10/27	100	80 - 120	102	80 - 120	<0.0002	mg/L	0.072	20		
9011436	Dissolved Beryllium (Be)	2023/10/27	97	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9011436	Dissolved Bismuth (Bi)	2023/10/27	95	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Boron (B)	2023/10/27	96	80 - 120	94	80 - 120	<0.001	mg/L	1.6	20		
9011436	Dissolved Cadmium (Cd)	2023/10/27	102	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
9011436	Dissolved Calcium (Ca)	2023/10/27	NC	80 - 120	106	80 - 120	<0.02	mg/L	0.33	20		
9011436	Dissolved Cesium (Cs)	2023/10/27	103	80 - 120	104	80 - 120	<0.00002	mg/L	NC	N/A		
9011436	Dissolved Chromium (Cr)	2023/10/27	97	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
9011436	Dissolved Cobalt (Co)	2023/10/27	93	80 - 120	99	80 - 120	<0.00005	mg/L	2.6	20		
9011436	Dissolved Copper (Cu)	2023/10/27	94	80 - 120	93	80 - 120	<0.0001	mg/L	1.8	20		
9011436	Dissolved Iron (Fe)	2023/10/27	103	80 - 120	104	80 - 120	<0.005	mg/L	0.21	20		
9011436	Dissolved Lead (Pb)	2023/10/27	96	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9011436	Dissolved Lithium (Li)	2023/10/27	104	80 - 120	102	80 - 120	<0.0005	mg/L	0.47	20		
9011436	Dissolved Magnesium (Mg)	2023/10/27	NC	80 - 120	102	80 - 120	<0.005	mg/L	1.1	20		
9011436	Dissolved Manganese (Mn)	2023/10/27	NC	80 - 120	99	80 - 120	<0.0002	mg/L	1.3	20		
9011436	Dissolved Molybdenum (Mo)	2023/10/27	98	80 - 120	94	80 - 120	<0.00005	mg/L	5.8	20		
9011436	Dissolved Nickel (Ni)	2023/10/27	95	80 - 120	98	80 - 120	<0.0001	mg/L	9.7	20		
9011436	Dissolved Phosphorus (P)	2023/10/27	116	80 - 120	101	80 - 120	<0.005	mg/L	NC	20		
9011436	Dissolved Potassium (K)	2023/10/27	105	80 - 120	106	80 - 120	<0.02	mg/L	1.1	20		
9011436	Dissolved Rubidium (Rb)	2023/10/27	103	80 - 120	102	80 - 120	<0.00002	mg/L	NC	N/A		
9011436	Dissolved Selenium (Se)	2023/10/27	103	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
9011436	Dissolved Silicon (Si)	2023/10/27	NC	80 - 120	103	80 - 120	<0.005	mg/L	1.2	20		
9011436	Dissolved Silver (Ag)	2023/10/27	97	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9011436	Dissolved Sodium (Na)	2023/10/27	100	80 - 120	103	80 - 120	<0.01	mg/L	0.010	20		
9011436	Dissolved Strontium (Sr)	2023/10/27	101	80 - 120	100	80 - 120	<0.0001	mg/L	1.6	20		
9011436	Dissolved Tellurium (Te)	2023/10/27	104	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Thallium (Tl)	2023/10/27	100	80 - 120	101	80 - 120	<0.000005	mg/L	NC	20		
9011436	Dissolved Thorium (Th)	2023/10/27	101	80 - 120	100	80 - 120	<0.0002	mg/L				
9011436	Dissolved Tin (Sn)	2023/10/27	106	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Titanium (Ti)	2023/10/27	105	80 - 120	102	80 - 120	<0.0005	mg/L	NC	20		
9011436	Dissolved Tungsten (W)	2023/10/27	99	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Uranium (U)	2023/10/27	97	80 - 120	97	80 - 120	<0.00001	mg/L	0	20		
9011436	Dissolved Vanadium (V)	2023/10/27	101	80 - 120	101	80 - 120	<0.00005	mg/L	7.6	20		
9011436	Dissolved Zinc (Zn)	2023/10/27	100	80 - 120	99	80 - 120	<0.0005	mg/L	8.5	20		
9011436	Dissolved Zirconium (Zr)	2023/10/27	106	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9014714	Total Phosphorus (P)	2023/10/28	99	80 - 120	96	80 - 120	<0.0010	mg/L	9.0	20	91	80 - 120
9019828	Strong Acid Dissoc. Cyanide (CN)	2023/10/27	NC	80 - 120	102	80 - 120	<0.00050	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9019829	Free Cyanide (CN)	2023/10/31	94	80 - 120	91	80 - 120	<2.0	ug/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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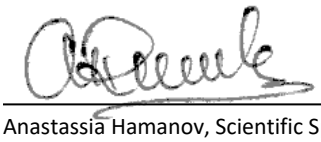
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8750
Report Date: 2023/10/31

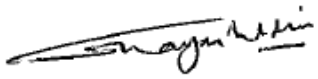
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

VALIDATION SIGNATURE PAGE

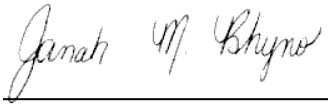
The analytical data and all QC contained in this report were reviewed and validated by:



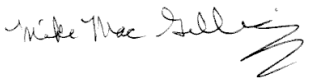
Anastassia Hamanov, Scientific Specialist



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Janah Rhyno, Scientific Specialist



Mike MacGillivray, Scientific Specialist (Inorganics)

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 786583

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/31
Report #: R7888719
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3W8752
Received: 2023/10/19, 14:54

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	3	N/A	2023/10/26	ATL SOP-00205	SM 24 2310B m
Alkalinity	3	N/A	2023/10/26	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	3	N/A	2023/10/26	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	3	N/A	2023/10/24	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	3	N/A	2023/10/26	CAM SOP-00414	SM 23 2510 m
Fluoride	3	2023/10/23	2023/10/26	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	3	N/A	2023/10/29	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	3	2023/10/26	2023/10/26	CAM SOP-00453	EPA 7470 m
Mercury (low level)	3	2023/10/26	2023/10/26	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	3	2023/10/24	2023/10/25	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	3	N/A	2023/10/29	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	3	N/A	2023/10/29	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	3	2023/10/25	2023/10/27	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	3	N/A	2023/10/26	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	3	2023/10/26	2023/10/26	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	3	2023/10/26	2023/10/28	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	1	N/A	2023/10/26	CAM SOP-00441	USGS I-2522-90 m
Total Ammonia-N	2	N/A	2023/10/27	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	3	N/A	2023/10/25	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	3	2023/10/23	2023/10/26	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (4)	3	N/A	2023/10/21		Field pH Meter
Sulphate by Automated Turbidimetry	3	N/A	2023/10/24	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	3	2023/10/26	2023/10/27	CAM SOP-00428	SM 23 2540C m
Field Temperature (4)	3	N/A	2023/10/21		Field Thermometer
Total Kjeldahl Nitrogen in Water	3	2023/10/24	2023/10/26	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	3	2023/10/26	2023/10/27	CAM SOP-00428	SM 23 2540D m
Turbidity	3	N/A	2023/10/24	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 786583

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/10/31
Report #: R7888719
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3W8752
Received: 2023/10/19, 14:54

(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C3W8752
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD053			XJD054			XJD055		
Sampling Date		2023/10/18 15:44			2023/10/18 16:16			2023/10/18 08:00		
COC Number		786583			786583			786583		
	UNITS	MW14-BR-14	RDL	QC Batch	MW14-OB-14	RDL	QC Batch	Duplicate 4	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	230	1.0	8997464	320	1.0	8997464	220	1.0	8997464
Carb. Alkalinity (calc. as CaCO3)	mg/L	3.2	1.0	8997464	2.9	1.0	8997464	3.3	1.0	8997464
Hardness (CaCO3)	mg/L	130	1.0	8997640	290	1.0	8997640	130	1.0	8997640
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8997464	<1.0	1.0	8997464	<1.0	1.0	8997464
Field Measurements										
Field Temperature	Celsius	6.6	N/A	ONSITE	8.0	N/A	ONSITE	0.00	N/A	ONSITE
Field Measured pH	pH	7.46		ONSITE	7.06		ONSITE	0.00		ONSITE
Inorganics										
Acidity	mg/L	<5.0	5.0	9007188	18	5.0	9007188	5.0	5.0	9007188
Total Ammonia-N	mg/L	0.33	0.050	9004010	<0.050	0.050	9003912	0.32	0.050	9004010
Conductivity	mS/cm	0.426	0.001	9000745	0.583	0.001	9000745	0.423	0.001	9000745
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9016224	<2.0 (1)	2.0	9016224	<2.0 (1)	2.0	9016224
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9016225	<0.00050	0.00050	9014715	<0.00050	0.00050	9014715
Total Dissolved Solids	mg/L	285	10	9007416	310	10	9005967	205	10	9005967
Fluoride (F-)	mg/L	0.48	0.10	9000748	0.59	0.10	9000748	0.48	0.10	9000748
Total Kjeldahl Nitrogen (TKN)	mg/L	0.53	0.10	9003795	0.15	0.10	9003795	0.51	0.10	9003795
pH	pH	8.17		9000741	7.99		9000741	8.19		9000741
Total Phosphorus (P)	mg/L	0.064	0.0010	9016212	0.050	0.0010	9016212	0.053	0.0010	9016212
Total Suspended Solids	mg/L	100	3	8988596	400	5	8988596	50	1	8988596
Dissolved Sulphate (SO4)	mg/L	<1.0	1.0	9000945	6.5	1.0	9000945	<1.0	1.0	9000945
Turbidity	NTU	3.6	0.1	9000607	4.2	0.1	9000607	7.5	0.1	9000607
Alkalinity (Total as CaCO3)	mg/L	230	1.0	9000747	320	1.0	9000747	230	1.0	9000747
Dissolved Chloride (Cl-)	mg/L	1.3	1.0	9000942	<1.0	1.0	9000942	1.1	1.0	9000942
Nitrite (N)	mg/L	<0.010	0.010	9000681	<0.010	0.010	9000681	<0.010	0.010	9000681
Nitrate (N)	mg/L	1.33	0.10	9000681	0.49	0.10	9000681	<0.10	0.10	9000681
Nitrate + Nitrite (N)	mg/L	1.33	0.10	9000681	0.49	0.10	9000681	<0.10	0.10	9000681

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD053		XJD054			XJD055		
Sampling Date		2023/10/18 15:44		2023/10/18 16:16			2023/10/18 08:00		
COC Number		786583		786583			786583		
	UNITS	MW14-BR-14	RDL	MW14-OB-14	RDL	QC Batch	Duplicate 4	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0074	0.0005	0.0020	0.0005	9011436	0.0074	0.0005	9011436
. Aluminum (Al)	mg/L	0.451	0.0005	0.565	0.0005	9011417	0.241	0.0005	9011394
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9011436	<0.0001	0.0001	9011436
. Antimony (Sb)	mg/L	0.0002	0.0001	0.0002	0.0001	9011417	0.0002	0.0001	9011394
Dissolved Arsenic (As)	mg/L	0.0063	0.0001	0.0002	0.0001	9011436	0.0061	0.0001	9011436
. Arsenic (As)	mg/L	0.0064	0.0001	0.0011	0.0001	9011417	0.0063	0.0001	9011394
Dissolved Barium (Ba)	mg/L	0.0335	0.0002	0.0313	0.0002	9011436	0.0328	0.0002	9011436
. Barium (Ba)	mg/L	0.0405	0.0002	0.0423	0.0002	9011417	0.0368	0.0002	9011394
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9011436	<0.00005	0.00005	9011436
. Beryllium (Be)	mg/L	<0.00005	0.00005	0.00011	0.00005	9011417	<0.00005	0.00005	9011394
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9011436	<0.0001	0.0001	9011436
. Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9011417	<0.0001	0.0001	9011394
Dissolved Boron (B)	mg/L	0.060	0.001	0.018	0.001	9011436	0.060	0.001	9011436
. Boron (B)	mg/L	0.060	0.001	0.019	0.001	9011417	0.061	0.001	9011394
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9011436	<0.00001	0.00001	9011436
. Cadmium (Cd)	mg/L	0.000011	0.000005	0.000028	0.000005	9011417	0.000007	0.000005	9011394
Dissolved Calcium (Ca)	mg/L	29.9	0.02	78.4	0.1	9011436	29.5	0.02	9011436
. Calcium (Ca)	mg/L	35.4	0.02	84.7	0.1	9011417	33.9	0.02	9011394
Dissolved Cesium (Cs)	mg/L	0.00004	0.00002	<0.00002	0.00002	9011436	0.00003	0.00002	9011436
. Cesium (Cs)	mg/L	0.00014	0.00002	0.00005	0.00002	9011417	0.00009	0.00002	9011394
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	0.0014	0.0005	9011436	<0.0005	0.0005	9011436
. Chromium (Cr)	mg/L	0.0026	0.0005	0.0025	0.0005	9011417	0.0012	0.0005	9011394
Dissolved Cobalt (Co)	mg/L	0.00044	0.00005	<0.00005	0.00005	9011436	0.00045	0.00005	9011436
. Cobalt (Co)	mg/L	0.00085	0.00005	0.00066	0.00005	9011417	0.00063	0.00005	9011394
Dissolved Copper (Cu)	mg/L	<0.0001	0.0001	0.0003	0.0001	9011436	0.0005	0.0001	9011436
. Copper (Cu)	mg/L	0.0010	0.0001	0.0018	0.0001	9011417	0.0006	0.0001	9011394
Dissolved Iron (Fe)	mg/L	0.189	0.005	<0.005	0.005	9011436	0.211	0.005	9011436
. Iron (Fe)	mg/L	0.992	0.005	0.789	0.005	9011417	0.540	0.005	9011394
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9011436	<0.00005	0.00005	9011436
. Lead (Pb)	mg/L	0.00090	0.00005	0.00144	0.00005	9011417	0.00063	0.00005	9011394
Dissolved Lithium (Li)	mg/L	0.0028	0.0005	0.0075	0.0005	9011436	0.0027	0.0005	9011436

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8752
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD053		XJD054			XJD055		
Sampling Date		2023/10/18 15:44		2023/10/18 16:16			2023/10/18 08:00		
COC Number		786583		786583			786583		
	UNITS	MW14-BR-14	RDL	MW14-OB-14	RDL	QC Batch	Duplicate 4	RDL	QC Batch
. Lithium (Li)	mg/L	0.0034	0.0005	0.0089	0.0005	9011417	0.0031	0.0005	9011394
Dissolved Magnesium (Mg)	mg/L	14.3	0.005	22.4	0.005	9011436	14.4	0.005	9011436
. Magnesium (Mg)	mg/L	15.6	0.005	24.8	0.005	9011417	15.2	0.005	9011394
Dissolved Manganese (Mn)	mg/L	0.0577	0.0002	0.0008	0.0002	9011436	0.0587	0.0002	9011436
. Manganese (Mn)	mg/L	0.0785	0.0002	0.0343	0.0002	9011417	0.0667	0.0002	9011394
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9008233	<0.01	0.01	9008233
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9008248	<0.01	0.01	9008248
Dissolved Molybdenum (Mo)	mg/L	0.00207	0.00005	0.00185	0.00005	9011436	0.00205	0.00005	9011436
. Molybdenum (Mo)	mg/L	0.00198	0.00005	0.00144	0.00005	9011417	0.00198	0.00005	9011394
Dissolved Nickel (Ni)	mg/L	0.0004	0.0001	0.0002	0.0001	9011436	0.0004	0.0001	9011436
. Nickel (Ni)	mg/L	0.0016	0.0001	0.0009	0.0001	9011417	0.0010	0.0001	9011394
Dissolved Phosphorus (P)	mg/L	0.042	0.005	<0.005	0.005	9011436	0.041	0.005	9011436
. Phosphorus (P)	mg/L	0.079	0.005	0.063	0.005	9011417	0.063	0.005	9011394
Dissolved Potassium (K)	mg/L	3.01	0.02	3.02	0.02	9011436	2.97	0.02	9011436
. Potassium (K)	mg/L	3.13	0.02	3.28	0.02	9011417	3.08	0.02	9011394
Dissolved Rubidium (Rb)	mg/L	0.00141	0.00002	0.00157	0.00002	9011436	0.00143	0.00002	9011436
. Rubidium (Rb)	mg/L	0.00222	0.00002	0.00235	0.00002	9011417	0.00190	0.00002	9011394
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	0.0003	0.0002	9011436	<0.0002	0.0002	9011436
. Selenium (Se)	mg/L	<0.00005	0.00005	0.00024	0.00005	9011417	<0.00005	0.00005	9011394
Dissolved Silicon (Si)	mg/L	5.70	0.025	7.05	0.025	9011436	5.69	0.025	9011436
. Silicon (Si)	mg/L	6.06	0.025	11.8	0.025	9011417	5.94	0.025	9011394
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9011436	<0.00001	0.00001	9011436
. Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9011417	<0.00001	0.00001	9011394
Dissolved Sodium (Na)	mg/L	48.2	0.01	14.5	0.01	9011436	47.3	0.01	9011436
. Sodium (Na)	mg/L	46.0	0.01	18.3	0.01	9011417	46.2	0.01	9011394
Dissolved Strontium (Sr)	mg/L	0.187	0.0001	0.216	0.0001	9011436	0.184	0.0001	9011436
. Strontium (Sr)	mg/L	0.191	0.0001	0.232	0.0001	9011417	0.199	0.0001	9011394
Dissolved Sulphur (S)	mg/L	<0.5	0.5	1.8	0.5	9001546	<0.5	0.5	9001546
Total Sulphur (S)	mg/L	<0.5	0.5	1.9	0.5	9004365	<0.5	0.5	9004365
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9011436	<0.0001	0.0001	9011436
. Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9011417	<0.0001	0.0001	9011394
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	0.000008	0.000005	9011436	<0.000005	0.000005	9011436

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QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD053		XJD054			XJD055		
Sampling Date		2023/10/18 15:44		2023/10/18 16:16			2023/10/18 08:00		
COC Number		786583		786583			786583		
	UNITS	MW14-BR-14	RDL	MW14-OB-14	RDL	QC Batch	Duplicate 4	RDL	QC Batch
. Thallium (Tl)	mg/L	0.000012	0.000005	0.000018	0.000005	9011417	0.000009	0.000005	9011394
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9011436	<0.0002	0.0002	9011436
. Thorium (Th)	mg/L	<0.0002	0.0002	0.0015	0.0002	9011417	<0.0002	0.0002	9011394
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9011436	<0.0001	0.0001	9011436
. Tin (Sn)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9011417	<0.0001	0.0001	9011394
Dissolved Titanium (Ti)	mg/L	0.0005	0.0005	<0.0005	0.0005	9011436	<0.0005	0.0005	9011436
. Titanium (Ti)	mg/L	0.0274	0.0005	0.0342	0.0005	9011417	0.0150	0.0005	9011394
Dissolved Tungsten (W)	mg/L	0.0047	0.0001	<0.0001	0.0001	9011436	0.0046	0.0001	9011436
. Tungsten (W)	mg/L	0.0037	0.0001	<0.0001	0.0001	9011417	0.0043	0.0001	9011394
Dissolved Uranium (U)	mg/L	0.00015	0.00001	0.00102	0.00001	9011436	0.00015	0.00001	9011436
. Uranium (U)	mg/L	0.00026	0.00001	0.00160	0.00001	9011417	0.00021	0.00001	9011394
Dissolved Vanadium (V)	mg/L	0.00019	0.00005	0.00027	0.00005	9011436	0.00019	0.00005	9011436
. Vanadium (V)	mg/L	0.00151	0.00005	0.00124	0.00005	9011417	0.00091	0.00005	9011394
Dissolved Zinc (Zn)	mg/L	<0.0005	0.0005	0.0009	0.0005	9011436	0.0021	0.0005	9011436
. Zinc (Zn)	mg/L	0.0062	0.0005	0.0051	0.0005	9011417	0.0048	0.0005	9011394
Dissolved Zirconium (Zr)	mg/L	0.0003	0.0001	<0.0001	0.0001	9011436	0.0003	0.0001	9011436
. Zirconium (Zr)	mg/L	0.0012	0.0001	0.0004	0.0001	9011417	0.0009	0.0001	9011394

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8752
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

TEST SUMMARY

Bureau Veritas ID: XJD053
Sample ID: MW14-BR-14
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007188	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	9000942	N/A	2023/10/24	Massarat Jan
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/10/29	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9008248	2023/10/26	2023/10/26	Gagandeep Rai
Mercury (low level)	CV/AA	9008233	2023/10/26	2023/10/26	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9011436	N/A	2023/10/29	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9011417	N/A	2023/10/29	Thuy Linh Nguyen
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9016224	N/A	2023/10/26	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9016225	2023/10/26	2023/10/26	Joshua Fine
Total Phosphorus Low Level Total	KONE	9016212	2023/10/26	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004010	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9000681	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	9000945	N/A	2023/10/24	Massarat Jan
Total Dissolved Solids	BAL	9007416	2023/10/26	2023/10/27	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003795	2023/10/24	2023/10/26	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8988596	2023/10/26	2023/10/27	Tina Teng
Turbidity	AT	9000607	N/A	2023/10/24	Leily Karimi

Bureau Veritas ID: XJD054
Sample ID: MW14-OB-14
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007188	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	9000942	N/A	2023/10/24	Massarat Jan
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/10/29	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9008248	2023/10/26	2023/10/26	Gagandeep Rai
Mercury (low level)	CV/AA	9008233	2023/10/26	2023/10/26	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9011436	N/A	2023/10/29	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9011417	N/A	2023/10/29	Thuy Linh Nguyen

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8752
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

TEST SUMMARY

Bureau Veritas ID: XJD054
Sample ID: MW14-OB-14
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9016224	N/A	2023/10/26	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9014715	2023/10/26	2023/10/26	Joshua Fine
Total Phosphorus Low Level Total	KONE	9016212	2023/10/26	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9003912	N/A	2023/10/26	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9000681	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	9000945	N/A	2023/10/24	Massarat Jan
Total Dissolved Solids	BAL	9005967	2023/10/26	2023/10/27	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003795	2023/10/24	2023/10/26	Rajni Tyagi
Low Level Total Suspended Solids	BAL	8988596	2023/10/26	2023/10/27	Tina Teng
Turbidity	AT	9000607	N/A	2023/10/24	Leily Karimi

Bureau Veritas ID: XJD055
Sample ID: Duplicate 4
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007188	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	9000942	N/A	2023/10/24	Massarat Jan
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/10/29	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9008248	2023/10/26	2023/10/26	Gagandeep Rai
Mercury (low level)	CV/AA	9008233	2023/10/26	2023/10/26	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9011436	N/A	2023/10/29	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9011394	N/A	2023/10/29	Thuy Linh Nguyen
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9016224	N/A	2023/10/26	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9014715	2023/10/26	2023/10/26	Joshua Fine
Total Phosphorus Low Level Total	KONE	9016212	2023/10/26	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004010	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9000681	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	9000945	N/A	2023/10/24	Massarat Jan
Total Dissolved Solids	BAL	9005967	2023/10/26	2023/10/27	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003795	2023/10/24	2023/10/26	Rajni Tyagi

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8752
Report Date: 2023/10/31

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

TEST SUMMARY

Bureau Veritas ID: XJD055
Sample ID: Duplicate 4
Matrix: Water

Collected: 2023/10/18
Shipped:
Received: 2023/10/19

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Total Suspended Solids	BAL	8988596	2023/10/26	2023/10/27	Tina Teng
Turbidity	AT	9000607	N/A	2023/10/24	Leily Karimi

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.0°C
Package 2	4.3°C
Package 3	4.0°C
Package 4	0.7°C
Package 5	2.3°C

TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

TDS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XJD053 [MW14-BR-14] : Acidity sample contained headspace.

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
TDS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XJD054 [MW14-OB-14] : Acidity sample contained headspace.

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Sample XJD055 [Duplicate 4] : Acidity sample contained headspace.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8988596	Total Suspended Solids	2023/10/27			98	85 - 115	<1	mg/L	0	20		
9000607	Turbidity	2023/10/24			101	80 - 120	<0.1	NTU	0.53	20		
9000681	Nitrate (N)	2023/10/25	90	80 - 120	90	80 - 120	<0.10	mg/L	NC	20		
9000681	Nitrite (N)	2023/10/25	104	80 - 120	103	80 - 120	<0.010	mg/L	NC	20		
9000741	pH	2023/10/26			102	98 - 103			0.44	N/A		
9000745	Conductivity	2023/10/26			101	85 - 115	<0.001	mS/cm	0	10		
9000747	Alkalinity (Total as CaCO3)	2023/10/26			97	85 - 115	<1.0	mg/L	0.0092	20		
9000748	Fluoride (F-)	2023/10/26	92	80 - 120	97	80 - 120	<0.10	mg/L	1.9	20		
9000942	Dissolved Chloride (Cl-)	2023/10/24	91	80 - 120	97	80 - 120	<1.0	mg/L	4.4	20		
9000945	Dissolved Sulphate (SO4)	2023/10/24	95	75 - 125	100	80 - 120	<1.0	mg/L	18	20		
9001546	Dissolved Sulphur (S)	2023/10/25	NC	80 - 120	97	80 - 120	<0.5	mg/L	0.47	25		
9003795	Total Kjeldahl Nitrogen (TKN)	2023/10/26	NC	80 - 120	104	80 - 120	<0.10	mg/L	5.1	20	99	80 - 120
9003912	Total Ammonia-N	2023/10/26	100	75 - 125	102	80 - 120	<0.050	mg/L	NC	20		
9004010	Total Ammonia-N	2023/10/27	100	75 - 125	102	80 - 120	<0.050	mg/L	NC	20		
9004365	Total Sulphur (S)	2023/10/27	NC	80 - 120	97	80 - 120	<0.5	mg/L				
9005967	Total Dissolved Solids	2023/10/27			102	90 - 110	<10	mg/L	2.0	20		
9007188	Acidity	2023/10/26	80	80 - 120	104	80 - 120	<5.0	mg/L	24	25		
9007416	Total Dissolved Solids	2023/10/27			98	90 - 110	<10	mg/L	1.7	20		
9008233	Mercury (Hg)	2023/10/26	104	75 - 125	105	80 - 120	<0.01	ug/L	NC	20		
9008248	Dissolved Mercury (Hg)	2023/10/26	104	75 - 125	105	80 - 120	<0.01	ug/L	NC	20		
9011394	. Aluminum (Al)	2023/10/28	103	80 - 120	101	80 - 120	<0.0005	mg/L	0.68	20		
9011394	. Antimony (Sb)	2023/10/28	113	80 - 120	107	80 - 120	<0.0001	mg/L				
9011394	. Arsenic (As)	2023/10/28	100	80 - 120	100	80 - 120	<0.0001	mg/L				
9011394	. Barium (Ba)	2023/10/28	99	80 - 120	104	80 - 120	<0.0002	mg/L				
9011394	. Beryllium (Be)	2023/10/28	97	80 - 120	96	80 - 120	<0.00005	mg/L				
9011394	. Bismuth (Bi)	2023/10/28	89	80 - 120	99	80 - 120	<0.0001	mg/L				
9011394	. Boron (B)	2023/10/28	93	80 - 120	97	80 - 120	<0.001	mg/L				
9011394	. Cadmium (Cd)	2023/10/28	105	80 - 120	100	80 - 120	<0.000005	mg/L				
9011394	. Calcium (Ca)	2023/10/28	NC	80 - 120	105	80 - 120	<0.02	mg/L	1.7	20		
9011394	. Cesium (Cs)	2023/10/28	105	80 - 120	108	80 - 120	<0.00002	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9011394	. Chromium (Cr)	2023/10/28	94	80 - 120	96	80 - 120	<0.0005	mg/L				
9011394	. Cobalt (Co)	2023/10/28	91	80 - 120	96	80 - 120	<0.00005	mg/L				
9011394	. Copper (Cu)	2023/10/28	94	80 - 120	94	80 - 120	<0.0001	mg/L				
9011394	. Iron (Fe)	2023/10/28	99	80 - 120	103	80 - 120	<0.005	mg/L	NC	20		
9011394	. Lead (Pb)	2023/10/28	96	80 - 120	97	80 - 120	<0.00005	mg/L				
9011394	. Lithium (Li)	2023/10/28	105	80 - 120	103	80 - 120	<0.0005	mg/L				
9011394	. Magnesium (Mg)	2023/10/28	NC	80 - 120	102	80 - 120	<0.005	mg/L	1.3	20		
9011394	. Manganese (Mn)	2023/10/28	98	80 - 120	99	80 - 120	<0.0002	mg/L	3.1	20		
9011394	. Molybdenum (Mo)	2023/10/28	100	80 - 120	95	80 - 120	<0.00005	mg/L				
9011394	. Nickel (Ni)	2023/10/28	91	80 - 120	95	80 - 120	<0.0001	mg/L				
9011394	. Potassium (K)	2023/10/28	105	80 - 120	104	80 - 120	<0.02	mg/L				
9011394	. Rubidium (Rb)	2023/10/28	102	80 - 120	107	80 - 120	<0.00002	mg/L				
9011394	. Selenium (Se)	2023/10/28	101	80 - 120	98	80 - 120	<0.00005	mg/L				
9011394	. Silicon (Si)	2023/10/28	107	80 - 120	105	80 - 120	<0.005	mg/L				
9011394	. Silver (Ag)	2023/10/28	99	80 - 120	96	80 - 120	<0.00001	mg/L				
9011394	. Sodium (Na)	2023/10/28	NC	80 - 120	99	80 - 120	<0.01	mg/L				
9011394	. Strontium (Sr)	2023/10/28	NC	80 - 120	102	80 - 120	<0.0001	mg/L				
9011394	. Tellurium (Te)	2023/10/28	110	80 - 120	103	80 - 120	<0.0001	mg/L				
9011394	. Thallium (Tl)	2023/10/28	99	80 - 120	98	80 - 120	<0.000005	mg/L				
9011394	. Thorium (Th)	2023/10/28	102	80 - 120	100	80 - 120	<0.0002	mg/L				
9011394	. Tin (Sn)	2023/10/28	109	80 - 120	105	80 - 120	<0.0001	mg/L				
9011394	. Titanium (Ti)	2023/10/28	111	80 - 120	105	80 - 120	<0.0005	mg/L				
9011394	. Tungsten (W)	2023/10/28	97	80 - 120	95	80 - 120	<0.0001	mg/L				
9011394	. Uranium (U)	2023/10/28	100	80 - 120	98	80 - 120	<0.00001	mg/L				
9011394	. Vanadium (V)	2023/10/28	98	80 - 120	98	80 - 120	<0.00005	mg/L				
9011394	. Zinc (Zn)	2023/10/28	95	80 - 120	97	80 - 120	<0.0005	mg/L	1.9	20		
9011394	. Zirconium (Zr)	2023/10/28	110	80 - 120	103	80 - 120	<0.0001	mg/L				
9011417	. Aluminum (Al)	2023/10/27	104	80 - 120	102	80 - 120	<0.0005	mg/L	2.1	20		
9011417	. Antimony (Sb)	2023/10/27	110	80 - 120	104	80 - 120	<0.0001	mg/L	NC	20		
9011417	. Arsenic (As)	2023/10/27	101	80 - 120	99	80 - 120	<0.0001	mg/L	2.1	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9011417	. Barium (Ba)	2023/10/27	102	80 - 120	102	80 - 120	<0.0002	mg/L	0.71	20		
9011417	. Beryllium (Be)	2023/10/27	100	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9011417	. Bismuth (Bi)	2023/10/27	94	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9011417	. Boron (B)	2023/10/27	98	80 - 120	95	80 - 120	<0.001	mg/L	2.2	20		
9011417	. Cadmium (Cd)	2023/10/27	104	80 - 120	99	80 - 120	<0.000005	mg/L	NC	20		
9011417	. Calcium (Ca)	2023/10/27	NC	80 - 120	106	80 - 120	<0.02	mg/L	1.2	20		
9011417	. Cesium (Cs)	2023/10/27	105	80 - 120	105	80 - 120	<0.00002	mg/L	NC	20		
9011417	. Chromium (Cr)	2023/10/27	96	80 - 120	94	80 - 120	<0.0005	mg/L	NC	20		
9011417	. Cobalt (Co)	2023/10/27	91	80 - 120	94	80 - 120	<0.00005	mg/L	2.2	20		
9011417	. Copper (Cu)	2023/10/27	95	80 - 120	93	80 - 120	<0.0001	mg/L	5.0	20		
9011417	. Iron (Fe)	2023/10/27	100	80 - 120	101	80 - 120	<0.005	mg/L	0.63	20		
9011417	. Lead (Pb)	2023/10/27	97	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9011417	. Lithium (Li)	2023/10/27	107	80 - 120	105	80 - 120	<0.0005	mg/L	1.1	20		
9011417	. Magnesium (Mg)	2023/10/27	NC	80 - 120	96	80 - 120	<0.005	mg/L	1.3	20		
9011417	. Manganese (Mn)	2023/10/27	99	80 - 120	98	80 - 120	<0.0002	mg/L	1.2	20		
9011417	. Molybdenum (Mo)	2023/10/27	102	80 - 120	94	80 - 120	<0.00005	mg/L	2.9	20		
9011417	. Nickel (Ni)	2023/10/27	92	80 - 120	93	80 - 120	<0.0001	mg/L	2.1	20		
9011417	. Phosphorus (P)	2023/10/27	118	80 - 120	107	80 - 120	<0.005	mg/L	NC	20		
9011417	. Potassium (K)	2023/10/27	107	80 - 120	101	80 - 120	<0.02	mg/L	1.2	20		
9011417	. Rubidium (Rb)	2023/10/27	104	80 - 120	103	80 - 120	<0.00002	mg/L	1.6	20		
9011417	. Selenium (Se)	2023/10/27	103	80 - 120	101	80 - 120	<0.00005	mg/L	NC	20		
9011417	. Silicon (Si)	2023/10/27	NC	80 - 120	105	80 - 120	<0.005	mg/L	1.2	20		
9011417	. Silver (Ag)	2023/10/27	101	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9011417	. Sodium (Na)	2023/10/27	101	80 - 120	101	80 - 120	<0.01	mg/L	0.43	20		
9011417	. Strontium (Sr)	2023/10/27	101	80 - 120	99	80 - 120	<0.0001	mg/L	1.5	20		
9011417	. Tellurium (Te)	2023/10/27	108	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9011417	. Thallium (Tl)	2023/10/27	100	80 - 120	102	80 - 120	<0.000005	mg/L	NC	20		
9011417	. Thorium (Th)	2023/10/27	101	80 - 120	100	80 - 120	<0.0002	mg/L				
9011417	. Tin (Sn)	2023/10/27	109	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9011417	. Titanium (Ti)	2023/10/27	111	80 - 120	104	80 - 120	<0.0005	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9011417	. Tungsten (W)	2023/10/27	98	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9011417	. Uranium (U)	2023/10/27	99	80 - 120	99	80 - 120	<0.00001	mg/L	1.3	20		
9011417	. Vanadium (V)	2023/10/27	100	80 - 120	97	80 - 120	<0.00005	mg/L	4.8	20		
9011417	. Zinc (Zn)	2023/10/27	98	80 - 120	97	80 - 120	<0.0005	mg/L	3.4	20		
9011417	. Zirconium (Zr)	2023/10/27	109	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Aluminum (Al)	2023/10/27	103	80 - 120	102	80 - 120	<0.0005	mg/L	2.7	20		
9011436	Dissolved Antimony (Sb)	2023/10/27	107	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Arsenic (As)	2023/10/27	101	80 - 120	101	80 - 120	<0.0001	mg/L	3.1	20		
9011436	Dissolved Barium (Ba)	2023/10/27	100	80 - 120	102	80 - 120	<0.0002	mg/L	0.072	20		
9011436	Dissolved Beryllium (Be)	2023/10/27	97	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9011436	Dissolved Bismuth (Bi)	2023/10/27	95	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Boron (B)	2023/10/27	96	80 - 120	94	80 - 120	<0.001	mg/L	1.6	20		
9011436	Dissolved Cadmium (Cd)	2023/10/27	102	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
9011436	Dissolved Calcium (Ca)	2023/10/27	NC	80 - 120	106	80 - 120	<0.02	mg/L	0.33	20		
9011436	Dissolved Cesium (Cs)	2023/10/27	103	80 - 120	104	80 - 120	<0.00002	mg/L	NC	N/A		
9011436	Dissolved Chromium (Cr)	2023/10/27	97	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
9011436	Dissolved Cobalt (Co)	2023/10/27	93	80 - 120	99	80 - 120	<0.00005	mg/L	2.6	20		
9011436	Dissolved Copper (Cu)	2023/10/27	94	80 - 120	93	80 - 120	<0.0001	mg/L	1.8	20		
9011436	Dissolved Iron (Fe)	2023/10/27	103	80 - 120	104	80 - 120	<0.005	mg/L	0.21	20		
9011436	Dissolved Lead (Pb)	2023/10/27	96	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9011436	Dissolved Lithium (Li)	2023/10/27	104	80 - 120	102	80 - 120	<0.0005	mg/L	0.47	20		
9011436	Dissolved Magnesium (Mg)	2023/10/27	NC	80 - 120	102	80 - 120	<0.005	mg/L	1.1	20		
9011436	Dissolved Manganese (Mn)	2023/10/27	NC	80 - 120	99	80 - 120	<0.0002	mg/L	1.3	20		
9011436	Dissolved Molybdenum (Mo)	2023/10/27	98	80 - 120	94	80 - 120	<0.00005	mg/L	5.8	20		
9011436	Dissolved Nickel (Ni)	2023/10/27	95	80 - 120	98	80 - 120	<0.0001	mg/L	9.7	20		
9011436	Dissolved Phosphorus (P)	2023/10/27	116	80 - 120	101	80 - 120	<0.005	mg/L	NC	20		
9011436	Dissolved Potassium (K)	2023/10/27	105	80 - 120	106	80 - 120	<0.02	mg/L	1.1	20		
9011436	Dissolved Rubidium (Rb)	2023/10/27	103	80 - 120	102	80 - 120	<0.00002	mg/L	NC	N/A		
9011436	Dissolved Selenium (Se)	2023/10/27	103	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
9011436	Dissolved Silicon (Si)	2023/10/27	NC	80 - 120	103	80 - 120	<0.005	mg/L	1.2	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9011436	Dissolved Silver (Ag)	2023/10/27	97	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9011436	Dissolved Sodium (Na)	2023/10/27	100	80 - 120	103	80 - 120	<0.01	mg/L	0.010	20		
9011436	Dissolved Strontium (Sr)	2023/10/27	101	80 - 120	100	80 - 120	<0.0001	mg/L	1.6	20		
9011436	Dissolved Tellurium (Te)	2023/10/27	104	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Thallium (Tl)	2023/10/27	100	80 - 120	101	80 - 120	<0.000005	mg/L	NC	20		
9011436	Dissolved Thorium (Th)	2023/10/27	101	80 - 120	100	80 - 120	<0.0002	mg/L				
9011436	Dissolved Tin (Sn)	2023/10/27	106	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Titanium (Ti)	2023/10/27	105	80 - 120	102	80 - 120	<0.0005	mg/L	NC	20		
9011436	Dissolved Tungsten (W)	2023/10/27	99	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9011436	Dissolved Uranium (U)	2023/10/27	97	80 - 120	97	80 - 120	<0.00001	mg/L	0	20		
9011436	Dissolved Vanadium (V)	2023/10/27	101	80 - 120	101	80 - 120	<0.00005	mg/L	7.6	20		
9011436	Dissolved Zinc (Zn)	2023/10/27	100	80 - 120	99	80 - 120	<0.0005	mg/L	8.5	20		
9011436	Dissolved Zirconium (Zr)	2023/10/27	106	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9014715	Strong Acid Dissoc. Cyanide (CN)	2023/10/26	93	80 - 120	102	80 - 120	<0.00050	mg/L				
9016212	Total Phosphorus (P)	2023/10/28	117	80 - 120	94	80 - 120	<0.0010	mg/L			84	80 - 120
9016224	Free Cyanide (CN)	2023/10/26	95	80 - 120	93	80 - 120	<2.0	ug/L				
9016225	Strong Acid Dissoc. Cyanide (CN)	2023/10/26	95	80 - 120	98	80 - 120	<0.00050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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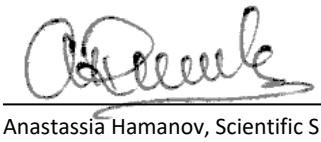
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8752
Report Date: 2023/10/31

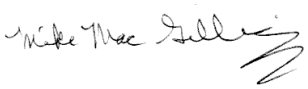
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Mike MacGillivray, Scientific Specialist (Inorganics)



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 787141

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/20
Report #: R7920349
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3W8782
Received: 2023/10/20, 15:19

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	9	N/A	2023/10/26	ATL SOP-00205	SM 24 2310B m
Alkalinity	8	N/A	2023/10/26	CAM SOP-00448	SM 23 2320 B m
Alkalinity	1	N/A	2023/11/10	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	9	N/A	2023/10/26	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	8	N/A	2023/10/27	CAM SOP-00463	SM 23 4500-Cl E m
Chloride by Automated Colourimetry	1	N/A	2023/11/10	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	8	N/A	2023/10/26	CAM SOP-00414	SM 23 2510 m
Conductivity	1	N/A	2023/11/10	CAM SOP-00414	SM 23 2510 m
Petroleum Hydrocarbons F2-F4 in Water (3)	1	2023/10/24	2023/10/25	CAM SOP-00316	CCME PHC-CWS m
Fluoride	9	2023/10/23	2023/10/26	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	9	N/A	2023/11/06	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury in Water by CVAA	1	2023/10/30	2023/10/30	CAM SOP-00453	EPA 7470A m
Mercury in Water by CVAA	1	2023/10/30	2023/10/30	CAM SOP-00453	EPA 7470A m
Mercury in Water by CVAA	4	2023/11/01	2023/11/01	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	2	2023/10/26	2023/10/26	CAM SOP-00453	EPA 7470 m
Dissolved Mercury (low level)	6	2023/10/30	2023/10/31	CAM SOP-00453	EPA 7470 m
Mercury (low level)	4	2023/10/26	2023/10/26	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	5	2023/10/24	2023/10/25	CAM SOP-00408	EPA 6010D m
Dissolved Metals Analysis by ICP	4	2023/10/24	2023/10/26	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	8	N/A	2023/11/03	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	1	N/A	2023/11/20	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	4	N/A	2023/11/03	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2023/11/07	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2023/11/08	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	3	N/A	2023/11/09	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	3	2023/10/25	2023/10/27	CAM SOP-00408	EPA 6010D m
Total Metals Analysis by ICP	6	2023/10/27	2023/10/30	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	9	N/A	2023/10/31	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	9	2023/10/25	2023/10/25	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	7	2023/10/27	2023/10/28	AB SOP-00024	SM 24 4500-P A,B,F m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 787141

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/20
Report #: R7920349
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3W8782
Received: 2023/10/20, 15:19

Sample Matrix: Water
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Phosphorus Low Level Total (2)	2	2023/10/27	2023/10/30	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	9	N/A	2023/10/27	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (4)	9	N/A	2023/10/25	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	8	2023/10/23	2023/10/26	CAM SOP-00413	SM 4500H+ B m
pH	1	2023/11/10	2023/11/10	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (5)	8	N/A	2023/10/21		Field pH Meter
Sulphate by Automated Turbidimetry	8	N/A	2023/10/27	CAM SOP-00464	SM 23 4500-SO42- E m
Sulphate by Automated Turbidimetry	1	N/A	2023/11/10	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	5	2023/10/26	2023/10/27	CAM SOP-00428	SM 23 2540C m
Total Dissolved Solids	2	2023/10/27	2023/10/28	CAM SOP-00428	SM 23 2540C m
Total Dissolved Solids	1	2023/10/28	2023/10/31	CAM SOP-00428	SM 23 2540C m
Total Dissolved Solids	1	2023/11/10	2023/11/13	CAM SOP-00428	SM 23 2540C m
Field Temperature (5)	8	N/A	2023/10/21		Field Thermometer
Total Kjeldahl Nitrogen in Water	5	2023/10/24	2023/10/25	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	4	2023/10/24	2023/10/26	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	4	2023/10/27	2023/11/02	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	5	2023/10/27	2023/10/30	CAM SOP-00428	SM 23 2540D m
Turbidity	9	N/A	2023/10/23	CAM SOP-00417	SM 23 2130 B m
Volatile Organic Compounds and F1 PHCs	1	N/A	2023/10/25	CAM SOP-00230	EPA 8260C m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(4) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 787141

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/20
Report #: R7920349
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3W8782
Received: 2023/10/20, 15:19

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD234			XJD234			XJD235		
Sampling Date		2023/10/19 11:30			2023/10/19 11:30			2023/10/19 13:33		
COC Number		787141			787141			787141		
	UNITS	96-12A	RDL	QC Batch	96-12A Lab-Dup	RDL	QC Batch	MW5-OB2-23	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	430	1.0	8997464				250	1.0	8997464
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8997464				2.8	1.0	8997464
Hardness (CaCO3)	mg/L	2000	1.0	8997640				230	1.0	8997640
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8997464				<1.0	1.0	8997464
Field Measurements										
Field Temperature	Celsius	7.9	N/A	ONSITE				6.4	N/A	ONSITE
Field Measured pH	pH	6.51		ONSITE				7.63		ONSITE
Inorganics										
Acidity	mg/L	100	5.0	9008338				6.6	5.0	9007716
Total Ammonia-N	mg/L	1.1	0.050	9004018				0.30	0.050	9004018
Conductivity	mS/cm	3.08	0.001	9000745				0.494	0.001	9000745
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9020057				<2.0 (1)	2.0	9020057
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0249	0.00050	9018207	0.0249	0.00050	9018207	<0.00050	0.00050	9018207
Total Dissolved Solids	mg/L	2860	10	9008349				285	10	9008349
Fluoride (F-)	mg/L	<0.10	0.10	9000748				0.31	0.10	9000748
Total Kjeldahl Nitrogen (TKN)	mg/L	2.7	0.20	9003835				0.69	0.10	9003835
pH	pH	7.25		9000741				8.08		9000741
Total Phosphorus (P)	mg/L	1.4 (2)	0.050	9020073				0.22	0.0010	9018208
Total Suspended Solids	mg/L	3900	17	9011629				1300	5	9009028
Dissolved Sulphate (SO4)	mg/L	1600	5.0	8999834				4.2	1.0	8999834
Turbidity	NTU	52	0.1	9000043				26	0.1	9000043
Alkalinity (Total as CaCO3)	mg/L	430	1.0	9000747				250	1.0	9000747
Dissolved Chloride (Cl-)	mg/L	5.0	1.0	8999803				8.8	1.0	8999803
Nitrite (N)	mg/L	<0.010	0.010	8999613				<0.010	0.010	8999613

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD234			XJD234			XJD235		
Sampling Date		2023/10/19 11:30			2023/10/19 11:30			2023/10/19 13:33		
COC Number		787141			787141			787141		
	UNITS	**96-12A**	**RDL**	**QC Batch**	**96-12A Lab-Dup**	**RDL**	**QC Batch**	**MW5-OB2-23**	**RDL**	**QC Batch**
Nitrate (N)	mg/L	<0.10	0.10	8999613				<0.10	0.10	8999613
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8999613				<0.10	0.10	8999613

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD236			XJD236			XJD237		
Sampling Date		2023/10/19 10:20			2023/10/19 10:20			2023/10/19 12:29		
COC Number		787141			787141			787141		
	UNITS	Mosher Shaft	RDL	QC Batch	Mosher Shaft Lab-Dup	RDL	QC Batch	23-14B	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	300	1.0	8997464				540	1.0	8997464
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8997464				3.8	1.0	8997464
Hardness (CaCO3)	mg/L	1300	1.0	8997640				1700	1.0	8997640
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8997464				<1.0	1.0	8997464
Field Measurements										
Field Temperature	Celsius	8.2	N/A	ONSITE				10.2	N/A	ONSITE
Field Measured pH	pH	6.92		ONSITE				7.01		ONSITE
Inorganics										
Acidity	mg/L	48	5.0	9007716				64	5.0	9007716
Total Ammonia-N	mg/L	0.43	0.050	9004018				0.056	0.050	9004018
Conductivity	mS/cm	2.31	0.001	9000745	2.31	0.001	9000745	2.78	0.001	9000745
Free Cyanide (CN)	ug/L	3.5 (1)	2.0	9020057				<2.0 (1)	2.0	9020057
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0100	0.00050	9018207				0.0571	0.00050	9018207
Total Dissolved Solids	mg/L	1680	10	9011139				2370	10	9008349
Fluoride (F-)	mg/L	0.18	0.10	9000748	0.18	0.10	9000748	0.10	0.10	9000748
Total Kjeldahl Nitrogen (TKN)	mg/L	0.90	0.10	9003835				0.85	0.20	9003835
pH	pH	7.40		9000741	7.44		9000741	7.87		9000741
Total Phosphorus (P)	mg/L	0.052	0.0010	9018208				1.3	0.010	9018208
Total Suspended Solids	mg/L	52	1	9009028				6500	25	9011629
Dissolved Sulphate (SO4)	mg/L	930	5.0	8999834				1200	5.0	8999834
Turbidity	NTU	51	0.1	8999608				20	0.1	9000043
Alkalinity (Total as CaCO3)	mg/L	310	1.0	9000747	310	1.0	9000747	550	1.0	9000747
Dissolved Chloride (Cl-)	mg/L	100	1.0	8999803				32	1.0	8999803
Nitrite (N)	mg/L	<0.010	0.010	8999613				<0.010	0.010	8999613
Nitrate (N)	mg/L	<0.10	0.10	8999613				<0.10	0.10	8999613

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
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Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD236			XJD236			XJD237		
Sampling Date		2023/10/19 10:20			2023/10/19 10:20			2023/10/19 12:29		
COC Number		787141			787141			787141		
	UNITS	**Mosher Shaft**	**RDL**	**QC Batch**	**Mosher Shaft Lab-Dup**	**RDL**	**QC Batch**	**23-14B**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8999613				<0.10	0.10	8999613

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C3W8782
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Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD238			XJD239			XJD240		
Sampling Date		2023/10/19 15:48			2023/10/19 14:28			2023/10/19 15:11		
COC Number		787141			787141			787141		
	UNITS	Seep 9	RDL	QC Batch	BH14-10	RDL	QC Batch	96-04	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	250	1.0	8997464	420	1.0	8997464	140	1.0	8997464
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.4	1.0	8997464	<1.0	1.0	8997464	<1.0	1.0	8997464
Hardness (CaCO3)	mg/L	2100	1.0	8997640	2000	1.0	8997640	1100	1.0	8997640
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8997464	<1.0	1.0	8997464	<1.0	1.0	8997464
Field Measurements										
Field Temperature	Celsius	7.2	N/A	ONSITE	7.2	N/A	ONSITE	6.6	N/A	ONSITE
Field Measured pH	pH	7.84		ONSITE	6.64		ONSITE	6.94		ONSITE
Inorganics										
Acidity	mg/L	8.0	5.0	9008338	90	5.0	9008338	24	5.0	9008338
Total Ammonia-N	mg/L	0.084	0.050	9004018	0.79	0.050	9004018	3.1	0.050	9004018
Conductivity	mS/cm	3.13	0.001	9000745	3.12	0.001	9000745	0.778	0.001	9041910
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9020057	<2.0 (1)	2.0	9020057	<2.0 (1)	2.0	9020057
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00173	0.00050	9018207	0.338	0.0050	9018207	0.0247	0.00050	9018207
Total Dissolved Solids	mg/L	2960	10	9008349	2850	10	9008349	1510	10	9042386
Fluoride (F-)	mg/L	0.17	0.10	9000748	0.22	0.10	9000748	<0.10	0.10	9000748
Total Kjeldahl Nitrogen (TKN)	mg/L	0.94	0.20	9003835	1.4	0.50	9003835	3.8	0.20	9003835
pH	pH	8.00		9000741	7.30		9000741	7.22		9041905
Total Phosphorus (P)	mg/L	0.047	0.0010	9018208	1.9	0.10	9018208	0.98 (2)	0.050	9020073
Total Suspended Solids	mg/L	10	1	9009028	49000	100	9011629	2400	20	9011629
Dissolved Sulphate (SO4)	mg/L	1800	5.0	8999834	1700	5.0	8999834	260	1.0	9033637
Turbidity	NTU	7.5	0.1	8999608	33	0.1	8999608	20	0.1	9000043
Alkalinity (Total as CaCO3)	mg/L	260	1.0	9000747	420	1.0	9000747	140	1.0	9041877
Dissolved Chloride (Cl-)	mg/L	10	1.0	8999803	1.3	1.0	8999803	8.1	1.0	9035044
Nitrite (N)	mg/L	<0.010	0.010	8999613	<0.010	0.010	8999613	0.012	0.010	8999613
Nitrate (N)	mg/L	<0.10	0.10	8999613	<0.10	0.10	8999613	<0.10	0.10	8999613

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD238			XJD239			XJD240		
Sampling Date		2023/10/19 15:48			2023/10/19 14:28			2023/10/19 15:11		
COC Number		787141			787141			787141		
	UNITS	Seep 9	RDL	QC Batch	BH14-10	RDL	QC Batch	96-04	RDL	QC Batch
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8999613	<0.10	0.10	8999613	<0.10	0.10	8999613

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD240			XJD241			XJD241		
Sampling Date		2023/10/19 15:11			2023/10/19 13:27			2023/10/19 13:27		
COC Number		787141			787141			787141		
	UNITS	96-04 Lab-Dup	RDL	QC Batch	Seep 3	RDL	QC Batch	Seep 3 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				150	1.0	8997464			
Carb. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	8997464			
Hardness (CaCO3)	mg/L				170	1.0	8997640			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	8997464			
Field Measurements										
Field Temperature	Celsius				8.6	N/A	ONSITE			
Field Measured pH	pH				6.94		ONSITE			
Inorganics										
Acidity	mg/L				13	5.0	9008338			
Total Ammonia-N	mg/L				0.45	0.050	9004018			
Conductivity	mS/cm	0.785	0.001	9041910	0.336	0.001	9000745			
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	9020057			
Strong Acid Dissoc. Cyanide (CN)	mg/L				0.00080	0.00050	9018207			
Total Dissolved Solids	mg/L				270	10	9008301			
Fluoride (F-)	mg/L				<0.10	0.10	9000748			
Total Kjeldahl Nitrogen (TKN)	mg/L				0.71	0.10	9003835			
pH	pH	7.28		9041905	7.47		9000741			
Total Phosphorus (P)	mg/L				0.028	0.0010	9018208			
Total Suspended Solids	mg/L				18	1	9009028			
Dissolved Sulphate (SO4)	mg/L				15	1.0	8999834			
Turbidity	NTU				3.6	0.1	9000043	3.6	0.1	9000043
Alkalinity (Total as CaCO3)	mg/L	140	1.0	9041877	150	1.0	9000747			
Dissolved Chloride (Cl-)	mg/L				3.7	1.0	8999803			
Nitrite (N)	mg/L				<0.010	0.010	8999613			
Nitrate (N)	mg/L				<0.10	0.10	8999613			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD240			XJD241			XJD241		
Sampling Date		2023/10/19 15:11			2023/10/19 13:27			2023/10/19 13:27		
COC Number		787141			787141			787141		
	UNITS	**96-04 Lab-Dup**	**RDL**	**QC Batch**	**Seep 3**	**RDL**	**QC Batch**	**Seep 3 Lab-Dup**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	8999613			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XJD242			XJD242		
Sampling Date		2023/10/19 08:00			2023/10/19 08:00		
COC Number		787141			787141		
	UNITS	Duplicate 5	RDL	QC Batch	Duplicate 5 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	250	1.0	8997464			
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.4	1.0	8997464			
Hardness (CaCO3)	mg/L	2100	1.0	8997640			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	8997464			
Inorganics							
Acidity	mg/L	9.0	5.0	9007716			
Total Ammonia-N	mg/L	0.071	0.050	9004018			
Conductivity	mS/cm	3.13	0.001	9000745			
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9020057			
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00278	0.00050	9018207			
Total Dissolved Solids	mg/L	2690	10	9011139			
Fluoride (F-)	mg/L	0.16	0.10	9000748			
Total Kjeldahl Nitrogen (TKN)	mg/L	0.94	0.20	9003835			
pH	pH	8.01		9000741			
Total Phosphorus (P)	mg/L	0.25	0.0020	9018208			
Total Suspended Solids	mg/L	20	1	9009028			
Dissolved Sulphate (SO4)	mg/L	1800	5.0	8999834			
Turbidity	NTU	8.6	0.1	9000043			
Alkalinity (Total as CaCO3)	mg/L	250	1.0	9000747			
Dissolved Chloride (Cl-)	mg/L	10	1.0	8999803			
Nitrite (N)	mg/L	<0.010	0.010	8999613	<0.010	0.010	8999613
Nitrate (N)	mg/L	<0.10	0.10	8999613	<0.10	0.10	8999613
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	8999613	<0.10	0.10	8999613

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD234			XJD234			XJD235		
Sampling Date		2023/10/19 11:30			2023/10/19 11:30			2023/10/19 13:33		
COC Number		787141			787141			787141		
	UNITS	96-12A	RDL	QC Batch	96-12A Lab-Dup	RDL	QC Batch	MW5-OB2-23	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.014	0.005	9026303	0.014	0.005	9026303	<0.0025	0.0025	9026303
. Aluminum (Al)	mg/L	5.06	0.005	9026192	5.06	0.005	9026192	1.78	0.0025	9026192
Dissolved Antimony (Sb)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	<0.0005	0.0005	9026303
. Antimony (Sb)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	<0.0005	0.0005	9026192
Dissolved Arsenic (As)	mg/L	6.11	0.01	9026303	6.01	0.01	9026303	0.0026	0.0005	9026303
. Arsenic (As)	mg/L	6.03	0.01	9026192	5.86	0.01	9026192	0.0126	0.0005	9026192
Dissolved Barium (Ba)	mg/L	0.114	0.002	9026303	0.113	0.002	9026303	0.040	0.001	9026303
. Barium (Ba)	mg/L	0.061	0.002	9026192	0.061	0.002	9026192	0.061	0.001	9026192
Dissolved Beryllium (Be)	mg/L	<0.0005	0.0005	9026303	<0.0005	0.0005	9026303	<0.00025	0.00025	9026303
. Beryllium (Be)	mg/L	0.0006	0.0005	9026192	0.0006	0.0005	9026192	<0.00025	0.00025	9026192
Dissolved Bismuth (Bi)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	<0.0005	0.0005	9026303
. Bismuth (Bi)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	<0.0005	0.0005	9026192
Dissolved Boron (B)	mg/L	0.06	0.01	9026303	0.06	0.01	9026303	0.030	0.005	9026303
. Boron (B)	mg/L	0.09	0.01	9026192	0.09	0.01	9026192	0.032	0.005	9026192
Dissolved Cadmium (Cd)	mg/L	<0.0001	0.0001	9026303	<0.0001	0.0001	9026303	<0.00005	0.00005	9026303
. Cadmium (Cd)	mg/L	0.00019	0.00005	9026192	0.00019	0.00005	9026192	0.000037	0.000025	9026192
Dissolved Calcium (Ca)	mg/L	534	1	9026303	552	1	9026303	65.2	0.1	9026303
. Calcium (Ca)	mg/L	1100	1	9026192	1130	1	9026192	116	0.1	9026192
Dissolved Cesium (Cs)	mg/L	<0.0002	0.0002	9026303	<0.0002	0.0002	9026303	<0.0001	0.0001	9026303
. Cesium (Cs)	mg/L	0.0004	0.0002	9026192	0.0004	0.0002	9026192	0.0002	0.0001	9026192
Dissolved Chromium (Cr)	mg/L	<0.005	0.005	9026303	<0.005	0.005	9026303	<0.0025	0.0025	9026303
. Chromium (Cr)	mg/L	0.020	0.005	9026192	0.020	0.005	9026192	0.0055	0.0025	9026192
Dissolved Cobalt (Co)	mg/L	0.0031	0.0005	9026303	0.0030	0.0005	9026303	<0.00025	0.00025	9026303
. Cobalt (Co)	mg/L	0.0093	0.0005	9026192	0.0094	0.0005	9026192	0.00174	0.00025	9026192
Dissolved Copper (Cu)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	0.0006	0.0005	9026303
. Copper (Cu)	mg/L	0.006	0.001	9026192	0.006	0.001	9026192	0.0062	0.0005	9026192
Dissolved Iron (Fe)	mg/L	32.8	0.05	9026303	31.6	0.05	9026303	0.040	0.025	9026303
. Iron (Fe)	mg/L	44.5	0.05	9026192	44.4	0.05	9026192	3.10	0.025	9026192
Dissolved Lead (Pb)	mg/L	<0.0005	0.0005	9026303	<0.0005	0.0005	9026303	<0.00025	0.00025	9026303
. Lead (Pb)	mg/L	0.0084	0.0005	9026192	0.0081	0.0005	9026192	0.00202	0.00025	9026192

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD234			XJD234			XJD235		
Sampling Date		2023/10/19 11:30			2023/10/19 11:30			2023/10/19 13:33		
COC Number		787141			787141			787141		
	UNITS	96-12A	RDL	QC Batch	96-12A Lab-Dup	RDL	QC Batch	MW5-OB2-23	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.010	0.005	9026303	0.009	0.005	9026303	0.0135	0.0025	9026303
. Lithium (Li)	mg/L	0.022	0.005	9026192	0.021	0.005	9026192	0.0166	0.0025	9026192
Dissolved Magnesium (Mg)	mg/L	163	0.05	9026303	158	0.05	9026303	17.2	0.025	9026303
. Magnesium (Mg)	mg/L	332	0.05	9026192	317	0.05	9026192	28.5	0.025	9026192
Dissolved Manganese (Mn)	mg/L	1.73	0.002	9026303	1.67	0.002	9026303	0.071	0.001	9026303
. Manganese (Mn)	mg/L	2.65	0.002	9026192	2.61	0.002	9026192	0.191	0.001	9026192
Mercury (Hg)	mg/L	<0.00010	0.00010	9020961				<0.00010	0.00010	9020961
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9008248				<0.01	0.01	9016029
Dissolved Molybdenum (Mo)	mg/L	<0.0005	0.0005	9026303	<0.0005	0.0005	9026303	0.00115	0.00025	9026303
. Molybdenum (Mo)	mg/L	<0.0005	0.0005	9026192	<0.0005	0.0005	9026192	0.00073	0.00025	9026192
Dissolved Nickel (Ni)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	<0.0005	0.0005	9026303
. Nickel (Ni)	mg/L	0.014	0.001	9026192	0.014	0.001	9026192	0.0044	0.0005	9026192
Dissolved Phosphorus (P)	mg/L	<0.05	0.05	9026303	<0.05	0.05	9026303	<0.025	0.025	9026303
. Phosphorus (P)	mg/L	1.76	0.05	9026192	1.68	0.05	9026192	0.167	0.025	9026192
Dissolved Potassium (K)	mg/L	23.1	0.2	9026303	22.4	0.2	9026303	3.1	0.1	9026303
. Potassium (K)	mg/L	23.3	0.2	9026192	23.3	0.2	9026192	3.4	0.1	9026192
Dissolved Rubidium (Rb)	mg/L	0.0080	0.0002	9026303	0.0076	0.0002	9026303	0.0012	0.0001	9026303
. Rubidium (Rb)	mg/L	0.0144	0.0002	9026192	0.0146	0.0002	9026192	0.0045	0.0001	9026192
Dissolved Selenium (Se)	mg/L	<0.002	0.002	9026303	<0.002	0.002	9026303	<0.001	0.001	9026303
. Selenium (Se)	mg/L	<0.0005	0.0005	9026192	<0.0005	0.0005	9026192	<0.00025	0.00025	9026192
Dissolved Silicon (Si)	mg/L	9.07	0.05	9026303	8.47	0.05	9026303	8.14	0.025	9026303
. Silicon (Si)	mg/L	13.7	0.05	9026192	13.2	0.05	9026192	10.9	0.025	9026192
Dissolved Silver (Ag)	mg/L	<0.0001	0.0001	9026303	<0.0001	0.0001	9026303	<0.00005	0.00005	9026303
. Silver (Ag)	mg/L	<0.0001	0.0001	9026192	<0.0001	0.0001	9026192	<0.00005	0.00005	9026192
Dissolved Sodium (Na)	mg/L	51.1	0.1	9026303	51.4	0.1	9026303	10.7	0.05	9026303
. Sodium (Na)	mg/L	53.3	0.1	9026192	51.5	0.1	9026192	10.7	0.05	9026192
Dissolved Strontium (Sr)	mg/L	1.99	0.001	9026303	1.89	0.001	9026303	0.183	0.0005	9026303
. Strontium (Sr)	mg/L	2.23	0.001	9026192	2.22	0.001	9026192	0.219	0.0005	9026192
Dissolved Sulphur (S)	mg/L	540	5	9001546				1.6	0.5	9001546
Total Sulphur (S)	mg/L	560	5	9011105				1.7	0.5	9011105
Dissolved Tellurium (Te)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	<0.0005	0.0005	9026303

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD234			XJD234			XJD235		
Sampling Date		2023/10/19 11:30			2023/10/19 11:30			2023/10/19 13:33		
COC Number		787141			787141			787141		
	UNITS	96-12A	RDL	QC Batch	96-12A Lab-Dup	RDL	QC Batch	MW5-OB2-23	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	<0.0005	0.0005	9026192
Dissolved Thallium (Tl)	mg/L	<0.00005	0.00005	9026303	<0.00005	0.00005	9026303	<0.000025	0.000025	9026303
. Thallium (Tl)	mg/L	0.00012	0.00005	9026192	0.00011	0.00005	9026192	0.000036	0.000025	9026192
Dissolved Thorium (Th)	mg/L	<0.002	0.002	9026303	<0.002	0.002	9026303	<0.001	0.001	9026303
. Thorium (Th)	mg/L	0.003	0.002	9026192	0.004	0.002	9026192	<0.001	0.001	9026192
Dissolved Tin (Sn)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	<0.0005	0.0005	9026303
. Tin (Sn)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	<0.0005	0.0005	9026192
Dissolved Titanium (Ti)	mg/L	<0.005	0.005	9026303	<0.005	0.005	9026303	<0.0025	0.0025	9026303
. Titanium (Ti)	mg/L	0.072	0.005	9026192	0.074	0.005	9026192	0.0900	0.0025	9026192
Dissolved Tungsten (W)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	<0.0005	0.0005	9026303
. Tungsten (W)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	<0.0005	0.0005	9026192
Dissolved Uranium (U)	mg/L	0.0004	0.0001	9026303	0.0004	0.0001	9026303	<0.00005	0.00005	9026303
. Uranium (U)	mg/L	0.0027	0.0001	9026192	0.0027	0.0001	9026192	0.00026	0.00005	9026192
Dissolved Vanadium (V)	mg/L	0.0021	0.0005	9026303	0.0021	0.0005	9026303	<0.00025	0.00025	9026303
. Vanadium (V)	mg/L	0.0232	0.0005	9026192	0.0234	0.0005	9026192	0.00489	0.00025	9026192
Dissolved Zinc (Zn)	mg/L	<0.005	0.005	9026303	<0.005	0.005	9026303	3.39	0.0025	9026303
. Zinc (Zn)	mg/L	0.219	0.005	9026192	0.220	0.005	9026192	3.26	0.0025	9026192
Dissolved Zirconium (Zr)	mg/L	0.006	0.001	9026303	0.006	0.001	9026303	<0.0005	0.0005	9026303
. Zirconium (Zr)	mg/L	0.009	0.001	9026192	0.009	0.001	9026192	0.0007	0.0005	9026192

RDL = Reportable Detection Limit
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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD235			XJD236			XJD237		
Sampling Date		2023/10/19 13:33			2023/10/19 10:20			2023/10/19 12:29		
COC Number		787141			787141			787141		
	UNITS	MW5-OB2-23 Lab-Dup	RDL	QC Batch	Mosher Shaft	RDL	QC Batch	23-14B	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L				<0.005	0.005	9026303	<0.005	0.005	9026303
. Aluminum (Al)	mg/L				<0.005	0.005	9026192	10.2	0.005	9026192
Dissolved Antimony (Sb)	mg/L				<0.001	0.001	9026303	<0.001	0.001	9026303
. Antimony (Sb)	mg/L				<0.001	0.001	9026192	<0.001	0.001	9026192
Dissolved Arsenic (As)	mg/L				0.611	0.005	9026303	0.571	0.005	9026303
. Arsenic (As)	mg/L				0.716	0.0005	9026192	3.14	0.005	9026192
Dissolved Barium (Ba)	mg/L				0.035	0.002	9026303	0.040	0.002	9026303
. Barium (Ba)	mg/L				0.036	0.002	9026192	0.084	0.002	9026192
Dissolved Beryllium (Be)	mg/L				<0.0005	0.0005	9026303	<0.0005	0.0005	9026303
. Beryllium (Be)	mg/L				<0.0005	0.0005	9026192	<0.0005	0.0005	9026192
Dissolved Bismuth (Bi)	mg/L				<0.001	0.001	9026303	<0.001	0.001	9026303
. Bismuth (Bi)	mg/L				<0.001	0.001	9026192	<0.001	0.001	9026192
Dissolved Boron (B)	mg/L				0.13	0.01	9026303	0.02	0.01	9026303
. Boron (B)	mg/L				0.13	0.01	9026192	0.03	0.01	9026192
Dissolved Cadmium (Cd)	mg/L				<0.0001	0.0001	9026303	<0.0001	0.0001	9026303
. Cadmium (Cd)	mg/L				<0.00005	0.00005	9026192	0.00013	0.00005	9026192
Dissolved Calcium (Ca)	mg/L				339	0.2	9026303	482	0.2	9026303
. Calcium (Ca)	mg/L				339	0.2	9026192	635	1	9026192
Dissolved Cesium (Cs)	mg/L				0.0009	0.0002	9026303	<0.0002	0.0002	9026303
. Cesium (Cs)	mg/L				0.0009	0.0002	9026192	0.0011	0.0002	9026192
Dissolved Chromium (Cr)	mg/L				<0.005	0.005	9026303	<0.005	0.005	9026303
. Chromium (Cr)	mg/L				<0.005	0.005	9026192	0.049	0.005	9026192
Dissolved Cobalt (Co)	mg/L				0.0014	0.0005	9026303	0.0086	0.0005	9026303
. Cobalt (Co)	mg/L				0.0014	0.0005	9026192	0.0240	0.0005	9026192
Dissolved Copper (Cu)	mg/L				<0.001	0.001	9026303	<0.001	0.001	9026303
. Copper (Cu)	mg/L				<0.001	0.001	9026192	0.026	0.001	9026192
Dissolved Iron (Fe)	mg/L				31.7	0.05	9026303	3.10	0.05	9026303
. Iron (Fe)	mg/L				31.1	0.05	9026192	40.4	0.05	9026192
Dissolved Lead (Pb)	mg/L				<0.0005	0.0005	9026303	<0.0005	0.0005	9026303
. Lead (Pb)	mg/L				<0.0005	0.0005	9026192	0.0150	0.0005	9026192

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD235			XJD236			XJD237		
Sampling Date		2023/10/19 13:33			2023/10/19 10:20			2023/10/19 12:29		
COC Number		787141			787141			787141		
	UNITS	MW5-OB2-23 Lab-Dup	RDL	QC Batch	Mosher Shaft	RDL	QC Batch	23-14B	RDL	QC Batch
Dissolved Lithium (Li)	mg/L				0.010	0.005	9026303	0.010	0.005	9026303
. Lithium (Li)	mg/L				0.011	0.005	9026192	0.022	0.005	9026192
Dissolved Magnesium (Mg)	mg/L				111	0.05	9026303	132	0.05	9026303
. Magnesium (Mg)	mg/L				108	0.05	9026192	163	0.05	9026192
Dissolved Manganese (Mn)	mg/L				0.841	0.002	9026303	2.75	0.002	9026303
. Manganese (Mn)	mg/L				0.826	0.002	9026192	3.56	0.002	9026192
Mercury (Hg)	ug/L				<0.01	0.01	9008504	<0.01	0.01	9008504
Dissolved Mercury (Hg)	ug/L				<0.01	0.01	9016029	<0.01	0.01	9016029
Dissolved Molybdenum (Mo)	mg/L				0.0007	0.0005	9026303	0.0011	0.0005	9026303
. Molybdenum (Mo)	mg/L				0.0006	0.0005	9026192	0.0010	0.0005	9026192
Dissolved Nickel (Ni)	mg/L				<0.001	0.001	9026303	0.008	0.001	9026303
. Nickel (Ni)	mg/L				<0.001	0.001	9026192	0.054	0.001	9026192
Dissolved Phosphorus (P)	mg/L				<0.05	0.05	9026303	<0.05	0.05	9026303
. Phosphorus (P)	mg/L				<0.05	0.05	9026192	0.69	0.05	9026192
Dissolved Potassium (K)	mg/L				13.4	0.2	9026303	13.2	0.2	9026303
. Potassium (K)	mg/L				13.0	0.2	9026192	15.2	0.2	9026192
Dissolved Rubidium (Rb)	mg/L				0.0218	0.0002	9026303	0.0028	0.0002	9026303
. Rubidium (Rb)	mg/L				0.0215	0.0002	9026192	0.0237	0.0002	9026192
Dissolved Selenium (Se)	mg/L				<0.002	0.002	9026303	<0.002	0.002	9026303
. Selenium (Se)	mg/L				<0.0005	0.0005	9026192	<0.0005	0.0005	9026192
Dissolved Silicon (Si)	mg/L				5.87	0.05	9026303	8.35	0.05	9026303
. Silicon (Si)	mg/L				5.71	0.05	9026192	24.7	0.05	9026192
Dissolved Silver (Ag)	mg/L				<0.0001	0.0001	9026303	<0.0001	0.0001	9026303
. Silver (Ag)	mg/L				<0.0001	0.0001	9026192	<0.0001	0.0001	9026192
Dissolved Sodium (Na)	mg/L				61.3	0.1	9026303	67.4	0.1	9026303
. Sodium (Na)	mg/L				60.7	0.1	9026192	67.6	0.1	9026192
Dissolved Strontium (Sr)	mg/L				3.76	0.001	9026303	1.16	0.001	9026303
. Strontium (Sr)	mg/L				3.78	0.001	9026192	1.29	0.001	9026192
Dissolved Sulphur (S)	mg/L				330	0.5	9001546	450	0.5	9001546
Total Sulphur (S)	mg/L	1.7	0.5	9011105	320	0.5	9011105	440	0.5	9004365
Dissolved Tellurium (Te)	mg/L				<0.001	0.001	9026303	<0.001	0.001	9026303

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD235			XJD236			XJD237		
Sampling Date		2023/10/19 13:33			2023/10/19 10:20			2023/10/19 12:29		
COC Number		787141			787141			787141		
	UNITS	MW5-OB2-23 Lab-Dup	RDL	QC Batch	Mosher Shaft	RDL	QC Batch	23-14B	RDL	QC Batch
. Tellurium (Te)	mg/L				<0.001	0.001	9026192	<0.001	0.001	9026192
Dissolved Thallium (Tl)	mg/L				<0.00005	0.00005	9026303	<0.00005	0.00005	9026303
. Thallium (Tl)	mg/L				<0.00005	0.00005	9026192	0.00017	0.00005	9026192
Dissolved Thorium (Th)	mg/L				<0.002	0.002	9026303	<0.002	0.002	9026303
. Thorium (Th)	mg/L				<0.002	0.002	9026192	0.004	0.002	9026192
Dissolved Tin (Sn)	mg/L				<0.001	0.001	9026303	<0.001	0.001	9026303
. Tin (Sn)	mg/L				<0.001	0.001	9026192	<0.001	0.001	9026192
Dissolved Titanium (Ti)	mg/L				<0.005	0.005	9026303	<0.005	0.005	9026303
. Titanium (Ti)	mg/L				<0.005	0.005	9026192	0.435	0.005	9026192
Dissolved Tungsten (W)	mg/L				<0.001	0.001	9026303	<0.001	0.001	9026303
. Tungsten (W)	mg/L				<0.001	0.001	9026192	<0.001	0.001	9026192
Dissolved Uranium (U)	mg/L				0.0029	0.0001	9026303	0.0024	0.0001	9026303
. Uranium (U)	mg/L				0.0029	0.0001	9026192	0.0030	0.0001	9026192
Dissolved Vanadium (V)	mg/L				<0.0005	0.0005	9026303	<0.0005	0.0005	9026303
. Vanadium (V)	mg/L				<0.0005	0.0005	9026192	0.0362	0.0005	9026192
Dissolved Zinc (Zn)	mg/L				<0.005	0.005	9026303	18.6	0.025	9026303
. Zinc (Zn)	mg/L				<0.005	0.005	9026192	22.1	0.025	9026192
Dissolved Zirconium (Zr)	mg/L				<0.001	0.001	9026303	<0.001	0.001	9026303
. Zirconium (Zr)	mg/L				<0.001	0.001	9026192	0.003	0.001	9026192

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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD238			XJD239			XJD240		
Sampling Date		2023/10/19 15:48			2023/10/19 14:28			2023/10/19 15:11		
COC Number		787141			787141			787141		
	UNITS	Seep 9	RDL	QC Batch	BH14-10	RDL	QC Batch	96-04	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	<0.005	0.005	9026303	<0.005	0.005	9026303	0.0055	0.0025	9055415
. Aluminum (Al)	mg/L	0.022	0.005	9026192	0.210	0.005	9026192	13.4	0.005	9026192
Dissolved Antimony (Sb)	mg/L	<0.001	0.001	9026303	0.003	0.001	9026303	0.0005	0.0005	9055415
. Antimony (Sb)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	<0.001	0.001	9026192
Dissolved Arsenic (As)	mg/L	1.07	0.005	9026303	17.4	0.05	9026303	7.41	0.01	9055415
. Arsenic (As)	mg/L	1.68	0.005	9026192	0.861	0.005	9026192	7.82	0.01	9026192
Dissolved Barium (Ba)	mg/L	0.011	0.002	9026303	0.016	0.002	9026303	0.012	0.001	9055415
. Barium (Ba)	mg/L	0.010	0.002	9026192	0.088	0.002	9026192	0.083	0.002	9026192
Dissolved Beryllium (Be)	mg/L	<0.0005	0.0005	9026303	<0.0005	0.0005	9026303	<0.00025	0.00025	9055415
. Beryllium (Be)	mg/L	<0.0005	0.0005	9026192	<0.0005	0.0005	9026192	0.0006	0.0005	9026192
Dissolved Bismuth (Bi)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	<0.0005	0.0005	9055415
. Bismuth (Bi)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	<0.001	0.001	9026192
Dissolved Boron (B)	mg/L	0.12	0.01	9026303	0.03	0.01	9026303	0.075	0.005	9055415
. Boron (B)	mg/L	0.12	0.01	9026192	0.07	0.01	9026192	0.06	0.01	9026192
Dissolved Cadmium (Cd)	mg/L	<0.0001	0.0001	9026303	<0.0001	0.0001	9026303	<0.00005	0.00005	9055415
. Cadmium (Cd)	mg/L	<0.00005	0.00005	9026192	0.00026	0.00005	9026192	0.00021	0.00005	9026192
Dissolved Calcium (Ca)	mg/L	446	0.2	9026303	524	10	9026303	270	0.2	9055415
. Calcium (Ca)	mg/L	457	0.2	9026192	1780	1	9026192	309	0.2	9026192
Dissolved Cesium (Cs)	mg/L	<0.0002	0.0002	9026303	<0.0002	0.0002	9026303	<0.0001	0.0001	9055415
. Cesium (Cs)	mg/L	<0.0002	0.0002	9026192	0.0004	0.0002	9026192	0.0025	0.0002	9026192
Dissolved Chromium (Cr)	mg/L	<0.005	0.005	9026303	<0.005	0.005	9026303	<0.0025	0.0025	9055415
. Chromium (Cr)	mg/L	<0.005	0.005	9026192	<0.005	0.005	9026192	0.089	0.005	9026192
Dissolved Cobalt (Co)	mg/L	0.0032	0.0005	9026303	0.0023	0.0005	9026303	0.00136	0.00025	9055415
. Cobalt (Co)	mg/L	0.0034	0.0005	9026192	0.0294	0.0005	9026192	0.0114	0.0005	9026192
Dissolved Copper (Cu)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	0.0006	0.0005	9055415
. Copper (Cu)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	0.033	0.001	9026192
Dissolved Iron (Fe)	mg/L	0.19	0.05	9026303	46.9	0.05	9026303	25.0	0.025	9055415
. Iron (Fe)	mg/L	2.14	0.05	9026192	46.2	0.05	9026192	89.8	0.05	9026192
Dissolved Lead (Pb)	mg/L	<0.0005	0.0005	9026303	<0.0005	0.0005	9026303	<0.00025	0.00025	9055415
. Lead (Pb)	mg/L	<0.0005	0.0005	9026192	<0.0005	0.0005	9026192	0.0287	0.0005	9026192
Dissolved Lithium (Li)	mg/L	0.017	0.005	9026303	0.011	0.005	9026303	0.0121	0.0025	9055415

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QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD238			XJD239			XJD240		
Sampling Date		2023/10/19 15:48			2023/10/19 14:28			2023/10/19 15:11		
COC Number		787141			787141			787141		
	UNITS	Seep 9	RDL	QC Batch	BH14-10	RDL	QC Batch	96-04	RDL	QC Batch
. Lithium (Li)	mg/L	0.017	0.005	9026192	0.019	0.005	9026192	0.019	0.005	9026192
Dissolved Magnesium (Mg)	mg/L	245	0.05	9026303	164	0.05	9026303	93.7	0.025	9055415
. Magnesium (Mg)	mg/L	241	0.05	9026192	264	0.05	9026192	114	0.05	9026192
Dissolved Manganese (Mn)	mg/L	0.146	0.002	9026303	0.709	0.002	9026303	0.385	0.001	9055415
. Manganese (Mn)	mg/L	0.156	0.002	9026192	8.42	0.002	9026192	1.87	0.002	9026192
Mercury (Hg)	mg/L				<0.0015	0.0015	9020961	<0.0015	0.0015	9020961
Mercury (Hg)	ug/L	<0.01	0.01	9008504						
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9016029	<0.01	0.01	9016029	<0.01	0.01	9016029
Dissolved Molybdenum (Mo)	mg/L	0.0011	0.0005	9026303	0.0044	0.0005	9026303	0.00200	0.00025	9055415
. Molybdenum (Mo)	mg/L	0.0011	0.0005	9026192	<0.0005	0.0005	9026192	0.0017	0.0005	9026192
Dissolved Nickel (Ni)	mg/L	0.002	0.001	9026303	0.003	0.001	9026303	0.0052	0.0005	9055415
. Nickel (Ni)	mg/L	0.002	0.001	9026192	0.251	0.001	9026192	0.069	0.001	9026192
Dissolved Phosphorus (P)	mg/L	<0.05	0.05	9026303	<0.05	0.05	9026303	<0.025	0.025	9055415
. Phosphorus (P)	mg/L	<0.05	0.05	9026192	<0.05	0.05	9026192	1.14	0.05	9026192
Dissolved Potassium (K)	mg/L	33.0	0.2	9026303	26.1	0.2	9026303	20.8	0.1	9055415
. Potassium (K)	mg/L	32.2	0.2	9026192	40.1	0.2	9026192	23.9	0.2	9026192
Dissolved Rubidium (Rb)	mg/L	0.0071	0.0002	9026303	0.0073	0.0002	9026303	0.0044	0.0001	9055415
. Rubidium (Rb)	mg/L	0.0068	0.0002	9026192	0.0291	0.0002	9026192	0.0386	0.0002	9026192
Dissolved Selenium (Se)	mg/L	<0.002	0.002	9026303	<0.002	0.002	9026303	<0.001	0.001	9055415
. Selenium (Se)	mg/L	<0.0005	0.0005	9026192	<0.0005	0.0005	9026192	<0.0005	0.0005	9026192
Dissolved Silicon (Si)	mg/L	7.11	0.05	9026303	10.7	0.05	9026303	5.00	0.025	9055415
. Silicon (Si)	mg/L	7.50	0.05	9026192	16.4	0.05	9026192	21.5	0.05	9026192
Dissolved Silver (Ag)	mg/L	<0.0001	0.0001	9026303	<0.0001	0.0001	9026303	<0.00005	0.00005	9055415
. Silver (Ag)	mg/L	<0.0001	0.0001	9026192	<0.0001	0.0001	9026192	<0.0001	0.0001	9026192
Dissolved Sodium (Na)	mg/L	13.8	0.1	9026303	55.2	0.1	9026303	4.79	0.05	9055415
. Sodium (Na)	mg/L	13.6	0.1	9026192	55.0	0.1	9026192	5.2	0.1	9026192
Dissolved Strontium (Sr)	mg/L	2.74	0.001	9026303	1.69	0.001	9026303	1.75	0.0005	9055415
. Strontium (Sr)	mg/L	2.71	0.001	9026192	3.52	0.001	9026192	1.97	0.001	9026192
Dissolved Sulphur (S)	mg/L	620	5	9001546	550	5	9001546	290	0.5	9001546
Total Sulphur (S)	mg/L	630	5	9011105	870	5	9011105	280	0.5	9004365
Dissolved Tellurium (Te)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	<0.0005	0.0005	9055415
. Tellurium (Te)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	<0.001	0.001	9026192

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD238			XJD239			XJD240		
Sampling Date		2023/10/19 15:48			2023/10/19 14:28			2023/10/19 15:11		
COC Number		787141			787141			787141		
	UNITS	Seep 9	RDL	QC Batch	BH14-10	RDL	QC Batch	96-04	RDL	QC Batch
Dissolved Thallium (Tl)	mg/L	<0.00005	0.00005	9026303	<0.00005	0.00005	9026303	<0.000025	0.000025	9055415
. Thallium (Tl)	mg/L	<0.00005	0.00005	9026192	<0.00005	0.00005	9026192	0.00033	0.00005	9026192
Dissolved Thorium (Th)	mg/L	<0.002	0.002	9026303	<0.002	0.002	9026303	<0.001	0.001	9055415
. Thorium (Th)	mg/L	<0.002	0.002	9026192	<0.002	0.002	9026192	0.004	0.002	9026192
Dissolved Tin (Sn)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	<0.0005	0.0005	9055415
. Tin (Sn)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	<0.001	0.001	9026192
Dissolved Titanium (Ti)	mg/L	<0.005	0.005	9026303	<0.005	0.005	9026303	<0.0025	0.0025	9055415
. Titanium (Ti)	mg/L	<0.005	0.005	9026192	<0.005	0.005	9026192	0.491	0.005	9026192
Dissolved Tungsten (W)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	0.0020	0.0005	9055415
. Tungsten (W)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	0.011	0.001	9026192
Dissolved Uranium (U)	mg/L	0.0007	0.0001	9026303	0.0008	0.0001	9026303	0.00012	0.00005	9055415
. Uranium (U)	mg/L	0.0007	0.0001	9026192	0.0001	0.0001	9026192	0.0014	0.0001	9026192
Dissolved Vanadium (V)	mg/L	<0.0005	0.0005	9026303	<0.0005	0.0005	9026303	<0.00025	0.00025	9055415
. Vanadium (V)	mg/L	<0.0005	0.0005	9026192	<0.0005	0.0005	9026192	0.0557	0.0005	9026192
Dissolved Zinc (Zn)	mg/L	<0.005	0.005	9026303	0.008	0.005	9026303	5.64	0.0025	9055415
. Zinc (Zn)	mg/L	<0.005	0.005	9026192	0.368	0.005	9026192	10.8	0.005	9026192
Dissolved Zirconium (Zr)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303	<0.0005	0.0005	9055415
. Zirconium (Zr)	mg/L	<0.001	0.001	9026192	<0.001	0.001	9026192	0.002	0.001	9026192

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD241			XJD242		
Sampling Date		2023/10/19 13:27			2023/10/19 08:00		
COC Number		787141			787141		
	UNITS	Seep 3	RDL	QC Batch	Duplicate 5	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	0.0053	0.0025	9026303	<0.005	0.005	9026303
. Aluminum (Al)	mg/L	0.0086	0.0005	9026192	0.277	0.005	9026192
Dissolved Antimony (Sb)	mg/L	<0.0005	0.0005	9026303	<0.001	0.001	9026303
. Antimony (Sb)	mg/L	0.0002	0.0001	9026192	<0.001	0.001	9026192
Dissolved Arsenic (As)	mg/L	0.110	0.0005	9026303	1.02	0.005	9026303
. Arsenic (As)	mg/L	0.148	0.0005	9026192	3.70	0.005	9026192
Dissolved Barium (Ba)	mg/L	0.015	0.001	9026303	0.011	0.002	9026303
. Barium (Ba)	mg/L	0.0163	0.0002	9026192	0.017	0.002	9026192
Dissolved Beryllium (Be)	mg/L	<0.00025	0.00025	9026303	<0.0005	0.0005	9026303
. Beryllium (Be)	mg/L	<0.00005	0.00005	9026192	<0.0005	0.0005	9026192
Dissolved Bismuth (Bi)	mg/L	<0.0005	0.0005	9026303	<0.001	0.001	9026303
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9026192	<0.001	0.001	9026192
Dissolved Boron (B)	mg/L	0.005	0.005	9026303	0.12	0.01	9026303
. Boron (B)	mg/L	0.005	0.001	9026192	0.11	0.01	9026192
Dissolved Cadmium (Cd)	mg/L	<0.00005	0.00005	9026303	<0.0001	0.0001	9026303
. Cadmium (Cd)	mg/L	<0.000005	0.000005	9026192	<0.00005	0.00005	9026192
Dissolved Calcium (Ca)	mg/L	51.3	0.1	9026303	453	0.2	9026303
. Calcium (Ca)	mg/L	54.1	0.1	9026192	479	1	9026192
Dissolved Cesium (Cs)	mg/L	<0.0001	0.0001	9026303	<0.0002	0.0002	9026303
. Cesium (Cs)	mg/L	<0.00002	0.00002	9026192	<0.0002	0.0002	9026192
Dissolved Chromium (Cr)	mg/L	<0.0025	0.0025	9026303	<0.005	0.005	9026303
. Chromium (Cr)	mg/L	<0.0005	0.0005	9026192	<0.005	0.005	9026192
Dissolved Cobalt (Co)	mg/L	0.00048	0.00025	9026303	0.0033	0.0005	9026303
. Cobalt (Co)	mg/L	0.00050	0.00005	9026192	0.0039	0.0005	9026192
Dissolved Copper (Cu)	mg/L	0.0011	0.0005	9026303	<0.001	0.001	9026303
. Copper (Cu)	mg/L	0.0006	0.0001	9026192	0.002	0.001	9026192
Dissolved Iron (Fe)	mg/L	1.51	0.025	9026303	0.17	0.05	9026303
. Iron (Fe)	mg/L	2.13	0.005	9026192	6.80	0.05	9026192
Dissolved Lead (Pb)	mg/L	<0.00025	0.00025	9026303	<0.0005	0.0005	9026303
. Lead (Pb)	mg/L	0.00008	0.00005	9026192	0.0006	0.0005	9026192
Dissolved Lithium (Li)	mg/L	<0.0025	0.0025	9026303	0.016	0.005	9026303

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD241			XJD242		
Sampling Date		2023/10/19 13:27			2023/10/19 08:00		
COC Number		787141			787141		
	UNITS	Seep 3	RDL	QC Batch	Duplicate 5	RDL	QC Batch
. Lithium (Li)	mg/L	0.0013	0.0005	9026192	0.018	0.005	9026192
Dissolved Magnesium (Mg)	mg/L	10.4	0.025	9026303	247	0.05	9026303
. Magnesium (Mg)	mg/L	11.2	0.005	9026192	249	0.05	9026192
Dissolved Manganese (Mn)	mg/L	0.151	0.001	9026303	0.150	0.002	9026303
. Manganese (Mn)	mg/L	0.156	0.0002	9026192	0.190	0.002	9026192
Mercury (Hg)	mg/L	<0.00010	0.00010	9015599			
Mercury (Hg)	ug/L				<0.01	0.01	9008504
Dissolved Mercury (Hg)	ug/L	<0.10	0.10	9015397	<0.01	0.01	9008248
Dissolved Molybdenum (Mo)	mg/L	<0.00025	0.00025	9026303	0.0011	0.0005	9026303
. Molybdenum (Mo)	mg/L	0.00013	0.00005	9026192	0.0012	0.0005	9026192
Dissolved Nickel (Ni)	mg/L	0.0012	0.0005	9026303	0.002	0.001	9026303
. Nickel (Ni)	mg/L	0.0012	0.0001	9026192	0.003	0.001	9026192
Dissolved Phosphorus (P)	mg/L	<0.025	0.025	9026303	<0.05	0.05	9026303
. Phosphorus (P)	mg/L	0.019	0.005	9026192	<0.05	0.05	9026192
Dissolved Potassium (K)	mg/L	0.8	0.1	9026303	32.3	0.2	9026303
. Potassium (K)	mg/L	0.91	0.02	9026192	34.1	0.2	9026192
Dissolved Rubidium (Rb)	mg/L	0.0019	0.0001	9026303	0.0072	0.0002	9026303
. Rubidium (Rb)	mg/L	0.00205	0.00002	9026192	0.0081	0.0002	9026192
Dissolved Selenium (Se)	mg/L	<0.001	0.001	9026303	<0.002	0.002	9026303
. Selenium (Se)	mg/L	0.00007	0.00005	9026192	<0.0005	0.0005	9026192
Dissolved Silicon (Si)	mg/L	2.74	0.025	9026303	7.16	0.05	9026303
. Silicon (Si)	mg/L	3.24	0.005	9026192	8.18	0.05	9026192
Dissolved Silver (Ag)	mg/L	<0.00005	0.00005	9026303	<0.0001	0.0001	9026303
. Silver (Ag)	mg/L	<0.00001	0.00001	9026192	<0.0001	0.0001	9026192
Dissolved Sodium (Na)	mg/L	2.51	0.05	9026303	13.8	0.1	9026303
. Sodium (Na)	mg/L	2.75	0.01	9026192	14.4	0.1	9026192
Dissolved Strontium (Sr)	mg/L	0.0584	0.0005	9026303	2.72	0.001	9026303
. Strontium (Sr)	mg/L	0.0626	0.0001	9026192	2.86	0.001	9026192
Dissolved Sulphur (S)	mg/L	5.1	0.5	9001546	620	5	9001546
Total Sulphur (S)	mg/L	5.2	0.5	9011105	610	5	9004365
Dissolved Tellurium (Te)	mg/L	<0.0005	0.0005	9026303	<0.001	0.001	9026303
. Tellurium (Te)	mg/L	<0.0001	0.0001	9026192	<0.001	0.001	9026192

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XJD241			XJD242		
Sampling Date		2023/10/19 13:27			2023/10/19 08:00		
COC Number		787141			787141		
	UNITS	Seep 3	RDL	QC Batch	Duplicate 5	RDL	QC Batch
Dissolved Thallium (Tl)	mg/L	<0.000025	0.000025	9026303	<0.00005	0.00005	9026303
. Thallium (Tl)	mg/L	<0.000005	0.000005	9026192	<0.00005	0.00005	9026192
Dissolved Thorium (Th)	mg/L	<0.001	0.001	9026303	<0.002	0.002	9026303
. Thorium (Th)	mg/L	<0.0002	0.0002	9026192	<0.002	0.002	9026192
Dissolved Tin (Sn)	mg/L	<0.0005	0.0005	9026303	<0.001	0.001	9026303
. Tin (Sn)	mg/L	<0.0001	0.0001	9026192	<0.001	0.001	9026192
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	9026303	<0.005	0.005	9026303
. Titanium (Ti)	mg/L	<0.0005	0.0005	9026192	0.015	0.005	9026192
Dissolved Tungsten (W)	mg/L	<0.0005	0.0005	9026303	<0.001	0.001	9026303
. Tungsten (W)	mg/L	<0.0001	0.0001	9026192	<0.001	0.001	9026192
Dissolved Uranium (U)	mg/L	0.00008	0.00005	9026303	0.0007	0.0001	9026303
. Uranium (U)	mg/L	0.00009	0.00001	9026192	0.0007	0.0001	9026192
Dissolved Vanadium (V)	mg/L	<0.00025	0.00025	9026303	<0.0005	0.0005	9026303
. Vanadium (V)	mg/L	0.00012	0.00005	9026192	0.0009	0.0005	9026192
Dissolved Zinc (Zn)	mg/L	0.0108	0.0025	9026303	<0.005	0.005	9026303
. Zinc (Zn)	mg/L	0.0039	0.0005	9026192	0.010	0.005	9026192
Dissolved Zirconium (Zr)	mg/L	<0.0005	0.0005	9026303	<0.001	0.001	9026303
. Zirconium (Zr)	mg/L	<0.0001	0.0001	9026192	<0.001	0.001	9026192

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VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		XJD237		
Sampling Date		2023/10/19 12:29		
COC Number		787141		
	UNITS	23-14B	RDL	QC Batch
Volatile Organics				
Benzene	ug/L	<0.17	0.17	8999540
Chloroform	ug/L	<0.20	0.20	8999540
1,2-Dichlorobenzene	ug/L	<0.50	0.50	8999540
1,4-Dichlorobenzene	ug/L	<0.50	0.50	8999540
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	8999540
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	8999540
Ethylbenzene	ug/L	<0.20	0.20	8999540
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	8999540
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	8999540
Tetrachloroethylene	ug/L	<0.20	0.20	8999540
Toluene	ug/L	<0.20	0.20	8999540
Trichloroethylene	ug/L	<0.20	0.20	8999540
p+m-Xylene	ug/L	<0.20	0.20	8999540
o-Xylene	ug/L	<0.20	0.20	8999540
Total Xylenes	ug/L	<0.20	0.20	8999540
F1 (C6-C10)	ug/L	<25	25	8999540
F1 (C6-C10) - BTEX	ug/L	<25	25	8999540
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	90		8999540
D4-1,2-Dichloroethane	%	111		8999540
D8-Toluene	%	96		8999540

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		XJD237		
Sampling Date		2023/10/19 12:29		
COC Number		787141		
	UNITS	23-14B	RDL	QC Batch
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	9004108
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	9004108
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	9004108
Reached Baseline at C50	ug/L	Yes		9004108
Surrogate Recovery (%)				
o-Terphenyl	%	99		9004108

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

TEST SUMMARY

Bureau Veritas ID: XJD234
Sample ID: 96-12A
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9008338	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	8999803	N/A	2023/10/27	Alina Dobreanu
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/11/06	Automated Statchk
Mercury in Water by CVAA	CV/AA	9020961	2023/11/01	2023/11/01	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9008248	2023/10/26	2023/10/26	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/26	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/03	Nan Raykha
Total Metals Analysis by ICP	ICP	9011105	2023/10/27	2023/10/30	Suban Kanapathippllai
Cyanide (Free)	SPEC	9020057	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9018207	2023/10/25	2023/10/25	Ming Dong
Total Phosphorus Low Level Total	KONE	9020073	2023/10/27	2023/10/30	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9004018	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8999613	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8999834	N/A	2023/10/27	Alina Dobreanu
Total Dissolved Solids	BAL	9008349	2023/10/26	2023/10/27	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003835	2023/10/24	2023/10/26	Rajni Tyagi
Total Suspended Solids	BAL	9011629	2023/10/27	2023/11/02	Tina Teng
Turbidity	AT	9000043	N/A	2023/10/23	Kien Tran

Bureau Veritas ID: XJD234 Dup
Sample ID: 96-12A
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/03	Nan Raykha
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9018207	2023/10/25	2023/10/25	Ming Dong

Bureau Veritas ID: XJD235
Sample ID: MW5-OB2-23
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007716	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

TEST SUMMARY

Bureau Veritas ID: XJD235
Sample ID: MW5-OB2-23
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	8999803	N/A	2023/10/27	Alina Dobreanu
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/11/06	Automated Statchk
Mercury in Water by CVAA	CV/AA	9020961	2023/11/01	2023/11/01	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9016029	2023/10/30	2023/10/31	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/03	Nan Raykha
Total Metals Analysis by ICP	ICP	9011105	2023/10/27	2023/10/30	Suban Kanapathippllai
Cyanide (Free)	SPEC	9020057	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9018207	2023/10/25	2023/10/25	Ming Dong
Total Phosphorus Low Level Total	KONE	9018208	2023/10/27	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004018	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8999613	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8999834	N/A	2023/10/27	Alina Dobreanu
Total Dissolved Solids	BAL	9008349	2023/10/26	2023/10/27	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003835	2023/10/24	2023/10/25	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9009028	2023/10/27	2023/10/30	Tina Teng
Turbidity	AT	9000043	N/A	2023/10/23	Kien Tran

Bureau Veritas ID: XJD235 Dup
Sample ID: MW5-OB2-23
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Metals Analysis by ICP	ICP	9011105	2023/10/27	2023/10/30	Suban Kanapathippllai

Bureau Veritas ID: XJD236
Sample ID: Mosher Shaft
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007716	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	8999803	N/A	2023/10/27	Alina Dobreanu
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/11/06	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9016029	2023/10/30	2023/10/31	Thuy Linh Nguyen

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Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

TEST SUMMARY

Bureau Veritas ID: XJD236
Sample ID: Mosher Shaft
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (low level)	CV/AA	9008504	2023/10/26	2023/10/26	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/03	Nan Raykha
Total Metals Analysis by ICP	ICP	9011105	2023/10/27	2023/10/30	Suban Kanapathippllai
Cyanide (Free)	SPEC	9020057	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9018207	2023/10/25	2023/10/25	Ming Dong
Total Phosphorus Low Level Total	KONE	9018208	2023/10/27	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004018	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8999613	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8999834	N/A	2023/10/27	Alina Dobreanu
Total Dissolved Solids	BAL	9011139	2023/10/27	2023/10/28	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003835	2023/10/24	2023/10/25	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9009028	2023/10/27	2023/10/30	Tina Teng
Turbidity	AT	8999608	N/A	2023/10/23	Kien Tran

Bureau Veritas ID: XJD236 Dup
Sample ID: Mosher Shaft
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil

Bureau Veritas ID: XJD237
Sample ID: 23-14B
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007716	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	8999803	N/A	2023/10/27	Alina Dobreanu
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9004108	2023/10/24	2023/10/25	Dennis Ngondu
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/11/06	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9016029	2023/10/30	2023/10/31	Thuy Linh Nguyen
Mercury (low level)	CV/AA	9008504	2023/10/26	2023/10/26	Gagandeep Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

TEST SUMMARY

Bureau Veritas ID: XJD237
Sample ID: 23-14B
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/09	Nan Raykha
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9020057	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9018207	2023/10/25	2023/10/25	Ming Dong
Total Phosphorus Low Level Total	KONE	9018208	2023/10/27	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004018	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8999613	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8999834	N/A	2023/10/27	Alina Dobreanu
Total Dissolved Solids	BAL	9008349	2023/10/26	2023/10/27	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003835	2023/10/24	2023/10/25	Rajni Tyagi
Total Suspended Solids	BAL	9011629	2023/10/27	2023/11/02	Tina Teng
Turbidity	AT	9000043	N/A	2023/10/23	Kien Tran
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8999540	N/A	2023/10/25	Xueming Jiang

Bureau Veritas ID: XJD238
Sample ID: Seep 9
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9008338	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	8999803	N/A	2023/10/27	Alina Dobreanu
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/11/06	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9016029	2023/10/30	2023/10/31	Thuy Linh Nguyen
Mercury (low level)	CV/AA	9008504	2023/10/26	2023/10/26	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/26	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/03	Nan Raykha
Total Metals Analysis by ICP	ICP	9011105	2023/10/27	2023/10/30	Suban Kanapathippllai
Cyanide (Free)	SPEC	9020057	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9018207	2023/10/25	2023/10/25	Ming Dong
Total Phosphorus Low Level Total	KONE	9018208	2023/10/27	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004018	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8999613	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XJD238
Sample ID: Seep 9
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sulphate by Automated Turbidimetry	KONE	8999834	N/A	2023/10/27	Alina Dobreanu
Total Dissolved Solids	BAL	9008349	2023/10/26	2023/10/27	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003835	2023/10/24	2023/10/26	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9009028	2023/10/27	2023/10/30	Tina Teng
Turbidity	AT	8999608	N/A	2023/10/23	Kien Tran

Bureau Veritas ID: XJD239
Sample ID: BH14-10
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9008338	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	8999803	N/A	2023/10/27	Alina Dobreanu
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/11/06	Automated Statchk
Mercury in Water by CVAA	CV/AA	9020961	2023/11/01	2023/11/01	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9016029	2023/10/30	2023/10/31	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/26	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/07	Nan Raykha
Total Metals Analysis by ICP	ICP	9011105	2023/10/27	2023/10/30	Suban Kanapathippllai
Cyanide (Free)	SPEC	9020057	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9018207	2023/10/25	2023/10/25	Ming Dong
Total Phosphorus Low Level Total	KONE	9018208	2023/10/27	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004018	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8999613	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8999834	N/A	2023/10/27	Alina Dobreanu
Total Dissolved Solids	BAL	9008349	2023/10/26	2023/10/27	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003835	2023/10/24	2023/10/25	Rajni Tyagi
Total Suspended Solids	BAL	9011629	2023/10/27	2023/11/02	Tina Teng
Turbidity	AT	8999608	N/A	2023/10/23	Kien Tran

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

TEST SUMMARY

Bureau Veritas ID: XJD240
Sample ID: 96-04
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9008338	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9041877	N/A	2023/11/10	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	9035044	N/A	2023/11/10	Massarat Jan
Conductivity	AT	9041910	N/A	2023/11/10	Surinder Rai
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/11/06	Automated Statchk
Mercury in Water by CVAA	CV/AA	9020961	2023/11/01	2023/11/01	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9016029	2023/10/30	2023/10/31	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9055415	N/A	2023/11/20	Arefa Dabhad
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/09	Nan Raykha
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9020057	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9018207	2023/10/25	2023/10/25	Ming Dong
Total Phosphorus Low Level Total	KONE	9020073	2023/10/27	2023/10/30	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9004018	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8999613	N/A	2023/10/25	Chandra Nandlal
pH	AT	9041905	2023/11/10	2023/11/10	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	9033637	N/A	2023/11/10	Massarat Jan
Total Dissolved Solids	BAL	9042386	2023/11/10	2023/11/13	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003835	2023/10/24	2023/10/25	Rajni Tyagi
Total Suspended Solids	BAL	9011629	2023/10/27	2023/11/02	Tina Teng
Turbidity	AT	9000043	N/A	2023/10/23	Kien Tran

Bureau Veritas ID: XJD240 Dup
Sample ID: 96-04
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9041877	N/A	2023/11/10	Surinder Rai
Conductivity	AT	9041910	N/A	2023/11/10	Surinder Rai
pH	AT	9041905	2023/11/10	2023/11/10	Surinder Rai

Bureau Veritas ID: XJD241
Sample ID: Seep 3
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9008338	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

TEST SUMMARY

Bureau Veritas ID: XJD241
Sample ID: Seep 3
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	8999803	N/A	2023/10/27	Alina Dobreanu
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/11/06	Automated Statchk
Dissolved Mercury in Water by CVAA	CV/AA	9015397	2023/10/30	2023/10/30	Thuy Linh Nguyen
Mercury in Water by CVAA	CV/AA	9015599	2023/10/30	2023/10/30	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/08	Nan Raykha
Total Metals Analysis by ICP	ICP	9011105	2023/10/27	2023/10/30	Suban Kanapathippllai
Cyanide (Free)	SPEC	9020057	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9018207	2023/10/25	2023/10/25	Ming Dong
Total Phosphorus Low Level Total	KONE	9018208	2023/10/27	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004018	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8999613	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Sulphate by Automated Turbidimetry	KONE	8999834	N/A	2023/10/27	Alina Dobreanu
Total Dissolved Solids	BAL	9008301	2023/10/28	2023/10/31	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/10/21	Harmanpreet Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9003835	2023/10/24	2023/10/26	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9009028	2023/10/27	2023/10/30	Tina Teng
Turbidity	AT	9000043	N/A	2023/10/23	Kien Tran

Bureau Veritas ID: XJD241 Dup
Sample ID: Seep 3
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	AT	9000043	N/A	2023/10/23	Kien Tran

Bureau Veritas ID: XJD242
Sample ID: Duplicate 5
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9007716	N/A	2023/10/26	Brent Boudreau
Alkalinity	AT	9000747	N/A	2023/10/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	8997464	N/A	2023/10/26	Automated Statchk
Chloride by Automated Colourimetry	KONE	8999803	N/A	2023/10/27	Alina Dobreanu
Conductivity	AT	9000745	N/A	2023/10/26	Nachiketa Gohil
Fluoride	ISE	9000748	2023/10/23	2023/10/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		8997640	N/A	2023/11/06	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9008248	2023/10/26	2023/10/26	Gagandeep Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XJD242
Sample ID: Duplicate 5
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (low level)	CV/AA	9008504	2023/10/26	2023/10/26	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9001546	2023/10/24	2023/10/26	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/09	Nan Raykha
Total Metals Analysis by ICP	ICP	9004365	2023/10/25	2023/10/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9020057	N/A	2023/10/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9018207	2023/10/25	2023/10/25	Ming Dong
Total Phosphorus Low Level Total	KONE	9018208	2023/10/27	2023/10/28	Carlo Truong
Total Ammonia-N	LACH/NH4	9004018	N/A	2023/10/27	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	8999613	N/A	2023/10/25	Chandra Nandlal
pH	AT	9000741	2023/10/23	2023/10/26	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	8999834	N/A	2023/10/27	Alina Dobreanu
Total Dissolved Solids	BAL	9011139	2023/10/27	2023/10/28	Darshan Patel
Total Kjeldahl Nitrogen in Water	SKAL	9003835	2023/10/24	2023/10/26	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9009028	2023/10/27	2023/10/30	Tina Teng
Turbidity	AT	9000043	N/A	2023/10/23	Kien Tran

Bureau Veritas ID: XJD242 Dup
Sample ID: Duplicate 5
Matrix: Water

Collected: 2023/10/19
Shipped:
Received: 2023/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	8999613	N/A	2023/10/25	Chandra Nandlal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.0°C
Package 2	2.7°C
Package 3	2.3°C

TSS Analysis: Sample analyzed past holding time. It may increase variability associated with results.

Sample XJD234 [96-12A] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

ICPMS Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XJD235 [MW5-OB2-23] : Acidity sample contained headspace.

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

ICPMS Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XJD236 [Mosher Shaft] : ICPMS Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XJD237 [23-14B] : Acidity sample contained headspace.

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

ICPMS Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XJD238 [Seep 9] : Acidity sample contained headspace.

ICPMS Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XJD239 [BH14-10] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Sample XJD240 [96-04] : Acidity sample contained headspace.
Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Elevated ion balance reuslt was confirmed by reanalysis.

Sample XJD241 [Seep 3] : ICPMS Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XJD242 [Duplicate 5] : Acidity sample contained headspace.

ICPMS Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
8999540	4-Bromofluorobenzene	2023/10/24	94	70 - 130	95	70 - 130	90	%				
8999540	D4-1,2-Dichloroethane	2023/10/24	104	70 - 130	100	70 - 130	100	%				
8999540	D8-Toluene	2023/10/24	106	70 - 130	107	70 - 130	98	%				
9004108	o-Terphenyl	2023/10/25	103	60 - 130	101	60 - 130	103	%				
8999540	1,1,2,2-Tetrachloroethane	2023/10/24	108	70 - 130	113	70 - 130	<0.50	ug/L	NC	30		
8999540	1,2-Dichlorobenzene	2023/10/24	91	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
8999540	1,4-Dichlorobenzene	2023/10/24	96	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
8999540	Benzene	2023/10/24	92	70 - 130	97	70 - 130	<0.17	ug/L	NC	30		
8999540	Chloroform	2023/10/24	102	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
8999540	cis-1,2-Dichloroethylene	2023/10/24	97	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
8999540	Ethylbenzene	2023/10/24	77	70 - 130	84	70 - 130	<0.20	ug/L	NC	30		
8999540	F1 (C6-C10) - BTEX	2023/10/24					<25	ug/L	NC	30		
8999540	F1 (C6-C10)	2023/10/24	98	60 - 140	89	60 - 140	<25	ug/L	NC	30		
8999540	Methylene Chloride(Dichloromethane)	2023/10/24	114	70 - 130	118	70 - 130	<2.0	ug/L	NC	30		
8999540	o-Xylene	2023/10/24	71	70 - 130	78	70 - 130	<0.20	ug/L	NC	30		
8999540	p+m-Xylene	2023/10/24	77	70 - 130	85	70 - 130	<0.20	ug/L	NC	30		
8999540	Tetrachloroethylene	2023/10/24	94	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
8999540	Toluene	2023/10/24	89	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
8999540	Total Xylenes	2023/10/24					<0.20	ug/L	NC	30		
8999540	trans-1,3-Dichloropropene	2023/10/24	84	70 - 130	82	70 - 130	<0.40	ug/L	NC	30		
8999540	Trichloroethylene	2023/10/24	94	70 - 130	99	70 - 130	<0.20	ug/L	3.8	30		
8999608	Turbidity	2023/10/23			101	80 - 120	<0.1	NTU	1.2	20		
8999613	Nitrate (N)	2023/10/25	92	80 - 120	93	80 - 120	<0.10	mg/L	NC	20		
8999613	Nitrite (N)	2023/10/25	102	80 - 120	103	80 - 120	<0.010	mg/L	NC	20		
8999803	Dissolved Chloride (Cl-)	2023/10/27	91	80 - 120	97	80 - 120	<1.0	mg/L	2.6	20		
8999834	Dissolved Sulphate (SO4)	2023/10/27	NC	75 - 125	96	80 - 120	<1.0	mg/L	6.0	20		
9000043	Turbidity	2023/10/23			102	80 - 120	<0.1	NTU	2.2	20		
9000741	pH	2023/10/26			102	98 - 103			0.44	N/A		
9000745	Conductivity	2023/10/26			101	85 - 115	<0.001	mS/cm	0	10		
9000747	Alkalinity (Total as CaCO3)	2023/10/26			97	85 - 115	<1.0	mg/L	0.0092	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9000748	Fluoride (F-)	2023/10/26	92	80 - 120	97	80 - 120	<0.10	mg/L	1.9	20		
9001546	Dissolved Sulphur (S)	2023/10/25	NC	80 - 120	97	80 - 120	<0.5	mg/L	0.47	25		
9003835	Total Kjeldahl Nitrogen (TKN)	2023/10/25	119	80 - 120	105	80 - 120	<0.10	mg/L	2.1	20	108	80 - 120
9004018	Total Ammonia-N	2023/10/27	100	75 - 125	101	80 - 120	<0.050	mg/L	NC	20		
9004108	F2 (C10-C16 Hydrocarbons)	2023/10/25	98	60 - 130	100	60 - 130	<100	ug/L	NC	30		
9004108	F3 (C16-C34 Hydrocarbons)	2023/10/25	107	60 - 130	111	60 - 130	<200	ug/L	NC	30		
9004108	F4 (C34-C50 Hydrocarbons)	2023/10/25	108	60 - 130	109	60 - 130	<200	ug/L	NC	30		
9004365	Total Sulphur (S)	2023/10/27	NC	80 - 120	97	80 - 120	<0.5	mg/L				
9007716	Acidity	2023/10/26	107	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9008248	Dissolved Mercury (Hg)	2023/10/26	104	75 - 125	105	80 - 120	<0.01	ug/L	NC	20		
9008301	Total Dissolved Solids	2023/10/31			100	90 - 110	<10	mg/L	2.5	20		
9008338	Acidity	2023/10/26	84	80 - 120	102	80 - 120	<5.0	mg/L	5.6	25		
9008349	Total Dissolved Solids	2023/10/27			97	90 - 110	<10	mg/L	1.3	20		
9008504	Mercury (Hg)	2023/10/26	106	75 - 125	104	80 - 120	<0.01	ug/L	NC	20		
9009028	Total Suspended Solids	2023/10/30			99	85 - 115	<1	mg/L	NC	20		
9011105	Total Sulphur (S)	2023/10/30	99	80 - 120	96	80 - 120	<0.5	mg/L	3.1	25		
9011139	Total Dissolved Solids	2023/10/28			95	90 - 110	<10	mg/L	0	20		
9011629	Total Suspended Solids	2023/11/02			95	85 - 115	<10	mg/L	0	20		
9015397	Dissolved Mercury (Hg)	2023/10/30	110	75 - 125	106	80 - 120	<0.10	ug/L	NC	20		
9015599	Mercury (Hg)	2023/10/30	108	75 - 125	106	80 - 120	<0.00010	mg/L	NC	20		
9016029	Dissolved Mercury (Hg)	2023/10/31	106	75 - 125	105	80 - 120	<0.01	ug/L	NC	20		
9018207	Strong Acid Dissoc. Cyanide (CN)	2023/10/25	98	80 - 120	102	80 - 120	<0.00050	mg/L	0.040	20		
9018208	Total Phosphorus (P)	2023/10/28	111	80 - 120	101	80 - 120	<0.0010	mg/L	1.2	20	92	80 - 120
9020057	Free Cyanide (CN)	2023/10/31	88	80 - 120	90	80 - 120	<2.0	ug/L				
9020073	Total Phosphorus (P)	2023/10/30	109	80 - 120	92	80 - 120	<0.0010	mg/L			84	80 - 120
9020961	Mercury (Hg)	2023/11/01	100	75 - 125	109	80 - 120	<0.00010	mg/L	NC	20		
9026192	. Aluminum (Al)	2023/11/03	NC	80 - 120	97	80 - 120	<0.0005	mg/L	0.058	20		
9026192	. Antimony (Sb)	2023/11/03	110	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9026192	. Arsenic (As)	2023/11/03	NC	80 - 120	97	80 - 120	<0.0001	mg/L	2.9	20		
9026192	. Barium (Ba)	2023/11/03	NC	80 - 120	95	80 - 120	<0.0002	mg/L	0.39	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9026192	. Beryllium (Be)	2023/11/03	102	80 - 120	98	80 - 120	<0.00005	mg/L	4.2	20		
9026192	. Bismuth (Bi)	2023/11/03	91	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9026192	. Boron (B)	2023/11/03	NC	80 - 120	96	80 - 120	<0.001	mg/L	0.36	20		
9026192	. Cadmium (Cd)	2023/11/03	102	80 - 120	94	80 - 120	<0.000005	mg/L	0	20		
9026192	. Calcium (Ca)	2023/11/03	NC	80 - 120	95	80 - 120	<0.02	mg/L	2.2	20		
9026192	. Cesium (Cs)	2023/11/03	97	80 - 120	94	80 - 120	<0.00002	mg/L	2.1	20		
9026192	. Chromium (Cr)	2023/11/03	101	80 - 120	97	80 - 120	<0.0005	mg/L	1.2	20		
9026192	. Cobalt (Co)	2023/11/03	93	80 - 120	98	80 - 120	<0.00005	mg/L	1.3	20		
9026192	. Copper (Cu)	2023/11/03	99	80 - 120	96	80 - 120	<0.0001	mg/L	2.9	20		
9026192	. Iron (Fe)	2023/11/03	NC	80 - 120	99	80 - 120	<0.005	mg/L	0.12	20		
9026192	. Lead (Pb)	2023/11/03	94	80 - 120	101	80 - 120	<0.00005	mg/L	3.4	20		
9026192	. Lithium (Li)	2023/11/03	104	80 - 120	98	80 - 120	<0.0005	mg/L	2.8	20		
9026192	. Magnesium (Mg)	2023/11/03	NC	80 - 120	98	80 - 120	<0.005	mg/L	4.8	20		
9026192	. Manganese (Mn)	2023/11/03	NC	80 - 120	93	80 - 120	<0.0002	mg/L	1.6	20		
9026192	. Molybdenum (Mo)	2023/11/03	113	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9026192	. Nickel (Ni)	2023/11/03	91	80 - 120	98	80 - 120	<0.0001	mg/L	0.74	20		
9026192	. Phosphorus (P)	2023/11/03	NC	80 - 120	90	80 - 120	<0.005	mg/L	4.9	20		
9026192	. Potassium (K)	2023/11/03	NC	80 - 120	95	80 - 120	<0.02	mg/L	0.20	20		
9026192	. Rubidium (Rb)	2023/11/03	105	80 - 120	96	80 - 120	<0.00002	mg/L	1.1	20		
9026192	. Selenium (Se)	2023/11/03	103	80 - 120	102	80 - 120	<0.00005	mg/L	NC	20		
9026192	. Silicon (Si)	2023/11/03	NC	80 - 120	93	80 - 120	<0.005	mg/L	3.2	20		
9026192	. Silver (Ag)	2023/11/03	90	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9026192	. Sodium (Na)	2023/11/03	NC	80 - 120	98	80 - 120	<0.01	mg/L	3.4	20		
9026192	. Strontium (Sr)	2023/11/03	NC	80 - 120	94	80 - 120	<0.0001	mg/L	0.68	20		
9026192	. Tellurium (Te)	2023/11/03	101	80 - 120	91	80 - 120	<0.0001	mg/L	NC	20		
9026192	. Thallium (Tl)	2023/11/03	95	80 - 120	101	80 - 120	<0.000005	mg/L	6.1	20		
9026192	. Thorium (Th)	2023/11/03	101	80 - 120	96	80 - 120	<0.0002	mg/L	2.3	20		
9026192	. Tin (Sn)	2023/11/03	109	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9026192	. Titanium (Ti)	2023/11/03	NC	80 - 120	93	80 - 120	<0.0005	mg/L	1.5	20		
9026192	. Tungsten (W)	2023/11/03	104	80 - 120	105	80 - 120	<0.0001	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9026192	. Uranium (U)	2023/11/03	99	80 - 120	97	80 - 120	<0.00001	mg/L	1.3	20		
9026192	. Vanadium (V)	2023/11/03	100	80 - 120	97	80 - 120	<0.00005	mg/L	0.79	20		
9026192	. Zinc (Zn)	2023/11/03	NC	80 - 120	97	80 - 120	<0.0005	mg/L	0.28	20		
9026192	. Zirconium (Zr)	2023/11/03	110	80 - 120	95	80 - 120	<0.0001	mg/L	0.51	20		
9026303	Dissolved Aluminum (Al)	2023/11/03	101	80 - 120	100	80 - 120	<0.0005	mg/L	1.0	20		
9026303	Dissolved Antimony (Sb)	2023/11/03	100	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Arsenic (As)	2023/11/03	NC	80 - 120	103	80 - 120	<0.0001	mg/L	1.7	20		
9026303	Dissolved Barium (Ba)	2023/11/03	NC	80 - 120	103	80 - 120	<0.0002	mg/L	0.91	20		
9026303	Dissolved Beryllium (Be)	2023/11/03	95	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9026303	Dissolved Bismuth (Bi)	2023/11/03	95	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Boron (B)	2023/11/03	NC	80 - 120	97	80 - 120	<0.001	mg/L	2.4	20		
9026303	Dissolved Cadmium (Cd)	2023/11/03	97	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9026303	Dissolved Calcium (Ca)	2023/11/03	NC	80 - 120	100	80 - 120	<0.02	mg/L	3.3	20		
9026303	Dissolved Cesium (Cs)	2023/11/03	96	80 - 120	106	80 - 120	<0.00002	mg/L	NC	N/A		
9026303	Dissolved Chromium (Cr)	2023/11/03	102	80 - 120	104	80 - 120	<0.0005	mg/L	NC	20		
9026303	Dissolved Cobalt (Co)	2023/11/03	98	80 - 120	102	80 - 120	<0.00005	mg/L	2.3	20		
9026303	Dissolved Copper (Cu)	2023/11/03	99	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Iron (Fe)	2023/11/03	NC	80 - 120	104	80 - 120	<0.005	mg/L	3.5	20		
9026303	Dissolved Lead (Pb)	2023/11/03	98	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9026303	Dissolved Lithium (Li)	2023/11/03	98	80 - 120	101	80 - 120	<0.0005	mg/L	10	20		
9026303	Dissolved Magnesium (Mg)	2023/11/03	NC	80 - 120	105	80 - 120	<0.005	mg/L	3.6	20		
9026303	Dissolved Manganese (Mn)	2023/11/03	NC	80 - 120	102	80 - 120	<0.0002	mg/L	3.6	20		
9026303	Dissolved Molybdenum (Mo)	2023/11/03	106	80 - 120	105	80 - 120	<0.00005	mg/L	NC	20		
9026303	Dissolved Nickel (Ni)	2023/11/03	98	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Phosphorus (P)	2023/11/03	95	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		
9026303	Dissolved Potassium (K)	2023/11/03	NC	80 - 120	110	80 - 120	<0.02	mg/L	3.2	20		
9026303	Dissolved Rubidium (Rb)	2023/11/03	97	80 - 120	108	80 - 120	<0.00002	mg/L	NC	N/A		
9026303	Dissolved Selenium (Se)	2023/11/03	104	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9026303	Dissolved Silicon (Si)	2023/11/03	NC	80 - 120	97	80 - 120	<0.005	mg/L	6.8	20		
9026303	Dissolved Silver (Ag)	2023/11/03	84	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9026303	Dissolved Sodium (Na)	2023/11/03	NC	80 - 120	107	80 - 120	<0.01	mg/L	0.59	20		
9026303	Dissolved Strontium (Sr)	2023/11/03	NC	80 - 120	104	80 - 120	<0.0001	mg/L	5.0	20		
9026303	Dissolved Tellurium (Te)	2023/11/03	95	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Thallium (Tl)	2023/11/03	100	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20		
9026303	Dissolved Thorium (Th)	2023/11/03	100	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
9026303	Dissolved Tin (Sn)	2023/11/03	102	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Titanium (Ti)	2023/11/03	98	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9026303	Dissolved Tungsten (W)	2023/11/03	108	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Uranium (U)	2023/11/03	102	80 - 120	102	80 - 120	<0.00001	mg/L	1.0	20		
9026303	Dissolved Vanadium (V)	2023/11/03	102	80 - 120	107	80 - 120	<0.00005	mg/L	0.19	20		
9026303	Dissolved Zinc (Zn)	2023/11/03	96	80 - 120	102	80 - 120	<0.0005	mg/L	NC	20		
9026303	Dissolved Zirconium (Zr)	2023/11/03	103	80 - 120	103	80 - 120	<0.0001	mg/L	4.3	20		
9033637	Dissolved Sulphate (SO4)	2023/11/10	NC	75 - 125	101	80 - 120	<1.0	mg/L	2.1	20		
9035044	Dissolved Chloride (Cl-)	2023/11/10	NC	80 - 120	99	80 - 120	<1.0	mg/L	4.9	20		
9041877	Alkalinity (Total as CaCO3)	2023/11/10			98	85 - 115	<1.0	mg/L	1.3	20		
9041905	pH	2023/11/10			102	98 - 103			0.77	N/A		
9041910	Conductivity	2023/11/10			100	85 - 115	<0.001	mS/cm	0.90	10		
9042386	Total Dissolved Solids	2023/11/13			100	90 - 110	<10	mg/L	0	20		
9055415	Dissolved Aluminum (Al)	2023/11/17	106	80 - 120	108	80 - 120	<0.0005	mg/L	4.2	20		
9055415	Dissolved Antimony (Sb)	2023/11/17	105	80 - 120	100	80 - 120	<0.0001	mg/L	0.68	20		
9055415	Dissolved Arsenic (As)	2023/11/17	98	80 - 120	99	80 - 120	<0.0001	mg/L	0.52	20		
9055415	Dissolved Barium (Ba)	2023/11/17	106	80 - 120	105	80 - 120	<0.0002	mg/L	1.4	20		
9055415	Dissolved Beryllium (Be)	2023/11/17	104	80 - 120	105	80 - 120	<0.00005	mg/L	NC	20		
9055415	Dissolved Bismuth (Bi)	2023/11/17	93	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9055415	Dissolved Boron (B)	2023/11/17	97	80 - 120	101	80 - 120	<0.001	mg/L	4.4	20		
9055415	Dissolved Cadmium (Cd)	2023/11/17	101	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9055415	Dissolved Calcium (Ca)	2023/11/17	NC	80 - 120	105	80 - 120	<0.02	mg/L	0.77	20		
9055415	Dissolved Cesium (Cs)	2023/11/17	106	80 - 120	104	80 - 120	<0.00002	mg/L	NC	N/A		
9055415	Dissolved Chromium (Cr)	2023/11/17	94	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9055415	Dissolved Cobalt (Co)	2023/11/17	99	80 - 120	101	80 - 120	<0.00005	mg/L	NC	20		

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			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9055415	Dissolved Copper (Cu)	2023/11/17	103	80 - 120	102	80 - 120	<0.0001	mg/L	2.2	20		
9055415	Dissolved Iron (Fe)	2023/11/17	100	80 - 120	102	80 - 120	<0.005	mg/L	0.28	20		
9055415	Dissolved Lead (Pb)	2023/11/17	96	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9055415	Dissolved Lithium (Li)	2023/11/17	104	80 - 120	108	80 - 120	<0.0005	mg/L	7.2	20		
9055415	Dissolved Magnesium (Mg)	2023/11/17	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.36	20		
9055415	Dissolved Manganese (Mn)	2023/11/17	96	80 - 120	97	80 - 120	<0.0002	mg/L	1.6	20		
9055415	Dissolved Molybdenum (Mo)	2023/11/17	102	80 - 120	97	80 - 120	<0.00005	mg/L	0.67	20		
9055415	Dissolved Nickel (Ni)	2023/11/17	96	80 - 120	98	80 - 120	<0.0001	mg/L	0.77	20		
9055415	Dissolved Phosphorus (P)	2023/11/17	103	80 - 120	93	80 - 120	<0.005	mg/L	NC	20		
9055415	Dissolved Potassium (K)	2023/11/17	100	80 - 120	104	80 - 120	<0.02	mg/L	0.39	20		
9055415	Dissolved Rubidium (Rb)	2023/11/17	98	80 - 120	99	80 - 120	<0.00002	mg/L	NC	N/A		
9055415	Dissolved Selenium (Se)	2023/11/17	103	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
9055415	Dissolved Silicon (Si)	2023/11/17	99	80 - 120	100	80 - 120	<0.005	mg/L	0.85	20		
9055415	Dissolved Silver (Ag)	2023/11/17	90	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9055415	Dissolved Sodium (Na)	2023/11/17	99	80 - 120	99	80 - 120	<0.01	mg/L	2.1	20		
9055415	Dissolved Strontium (Sr)	2023/11/17	94	80 - 120	95	80 - 120	<0.0001	mg/L	0.45	20		
9055415	Dissolved Tellurium (Te)	2023/11/17	103	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9055415	Dissolved Thallium (Tl)	2023/11/17	102	80 - 120	97	80 - 120	<0.000005	mg/L	NC	20		
9055415	Dissolved Thorium (Th)	2023/11/17	98	80 - 120	96	80 - 120	<0.0002	mg/L				
9055415	Dissolved Tin (Sn)	2023/11/17	103	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9055415	Dissolved Titanium (Ti)	2023/11/17	103	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9055415	Dissolved Tungsten (W)	2023/11/17	106	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9055415	Dissolved Uranium (U)	2023/11/17	97	80 - 120	94	80 - 120	<0.00001	mg/L	0.76	20		
9055415	Dissolved Vanadium (V)	2023/11/17	97	80 - 120	98	80 - 120	<0.00005	mg/L	4.7	20		
9055415	Dissolved Zinc (Zn)	2023/11/17	98	80 - 120	97	80 - 120	<0.0005	mg/L	1.4	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9055415	Dissolved Zirconium (Zr)	2023/11/17	107	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3W8782
Report Date: 2023/11/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: TP

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Colleen Acker, B.Sc, Scientific Service Specialist

Cristina Carriere, Senior Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 788879

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/08
Report #: R7902512
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3X4915
Received: 2023/10/24, 15:19

Sample Matrix: Ground Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	3	N/A	2023/11/01	ATL SOP-00205	SM 24 2310B m
Alkalinity	2	N/A	2023/10/30	CAM SOP-00448	SM 23 2320 B m
Alkalinity	1	N/A	2023/10/31	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	3	N/A	2023/10/31	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	3	N/A	2023/11/01	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	2	N/A	2023/10/30	CAM SOP-00414	SM 23 2510 m
Conductivity	1	N/A	2023/10/31	CAM SOP-00414	SM 23 2510 m
Fluoride	2	2023/10/27	2023/10/30	CAM SOP-00449	SM 23 4500-F C m
Fluoride	1	2023/10/30	2023/10/31	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2023/11/06	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	1	N/A	2023/11/08	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	3	2023/10/31	2023/10/31	CAM SOP-00453	EPA 7470 m
Mercury (low level)	3	2023/10/31	2023/10/31	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	3	2023/10/30	2023/10/30	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	2	N/A	2023/11/03	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	1	N/A	2023/11/07	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	3	N/A	2023/11/03	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	3	2023/10/30	2023/10/31	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	3	N/A	2023/11/02	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	1	2023/11/01	2023/11/01	CAL SOP-00270	SM 23 4500-CN m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2023/11/02	2023/11/02	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	3	2023/11/01	2023/11/02	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	3	N/A	2023/10/30	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	2	N/A	2023/10/28	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Nitrate & Nitrite as Nitrogen in Water (3)	1	N/A	2023/11/01	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	2	2023/10/27	2023/10/30	CAM SOP-00413	SM 4500H+ B m
pH	1	2023/10/30	2023/10/31	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (4)	3	N/A	2023/10/26		Field pH Meter
Sulphate by Automated Turbidimetry	3	N/A	2023/11/01	CAM SOP-00464	SM 23 4500-SO42- E m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 788879

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/08
Report #: R7902512
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3X4915
Received: 2023/10/24, 15:19

Sample Matrix: Ground Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Dissolved Solids	3	2023/10/30	2023/11/01	CAM SOP-00428	SM 23 2540C m
Field Temperature (4)	3	N/A	2023/10/26		Field Thermometer
Total Kjeldahl Nitrogen in Water	3	2023/10/30	2023/10/31	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	3	2023/10/30	2023/11/01	CAM SOP-00428	SM 23 2540D m
Turbidity	2	N/A	2023/10/27	CAM SOP-00417	SM 23 2130 B m
Turbidity	1	N/A	2023/10/31	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF GROUND WATER

Bureau Veritas ID		XKL040	XKL041			XKL042		
Sampling Date		2023/10/23 12:21	2023/10/23 12:46			2023/10/23 08:00		
COC Number		788879	788879			788879		
	UNITS	MW26-OB-23	MW26-BR-23	RDL	QC Batch	Duplicate 7	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	310	220	1.0	9008228	320	1.0	9008228
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.5	2.6	1.0	9008228	1.8	1.0	9008228
Hardness (CaCO3)	mg/L	320	170	1.0	9008976	320	1.0	9008976
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	<1.0	1.0	9008228	<1.0	1.0	9008228
Field Measurements								
Field Temperature	Celsius	9.1	8.4	N/A	ONSITE	-	N/A	ONSITE
Field Measured pH	pH	7.31	7.91		ONSITE	-		ONSITE
Inorganics								
Acidity	mg/L	8.0	<5.0	5.0	9020181	9.4	5.0	9020181
Total Ammonia-N	mg/L	0.11	0.34	0.050	9012881	<0.050	0.050	9012881
Conductivity	mS/cm	0.589	0.436	0.001	9012932	0.587	0.001	9016529
Free Cyanide (CN)	ug/L	<2.0 (1)	<2.0 (1)	2.0	9027018	<2.0 (1)	2.0	9027018
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	<0.00050	0.00050	9027027	<0.00050	0.00050	9027017
Total Dissolved Solids	mg/L	265	225	10	9015593	285	10	9015593
Fluoride (F-)	mg/L	0.24	0.47	0.10	9012935	0.26	0.10	9016532
Total Kjeldahl Nitrogen (TKN)	mg/L	0.49	0.63	0.20	9016596	0.22	0.20	9016596
pH	pH	7.93	8.11		9012937	7.78		9016531
Total Phosphorus (P)	mg/L	0.20	0.066	0.0010	9027016	0.15	0.0010	9027016
Total Suspended Solids	mg/L	420	350	3	9015350	290	2	9015350
Dissolved Sulphate (SO4)	mg/L	5.2	2.9	1.0	9011802	2.4	1.0	9017635
Turbidity	NTU	19	35	0.1	9011819	4.6	0.1	9015628
Alkalinity (Total as CaCO3)	mg/L	310	220	1.0	9012931	320	1.0	9016530
Dissolved Chloride (Cl-)	mg/L	3.9	5.2	1.0	9011799	<1.0	1.0	9017625
Nitrite (N)	mg/L	<0.010	<0.010	0.010	9011563	<0.010	0.010	9016395
Nitrate (N)	mg/L	<0.10	<0.10	0.10	9011563	<0.10	0.10	9016395
Nitrate + Nitrite (N)	mg/L	<0.10	<0.10	0.10	9011563	<0.10	0.10	9016395

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3X4915
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036

RESULTS OF ANALYSES OF GROUND WATER

Bureau Veritas ID		XKL042		
Sampling Date		2023/10/23 08:00		
COC Number		788879		
	UNITS	**Duplicate 7 Lab-Dup**	**RDL**	**QC Batch**
Inorganics				
Conductivity	mS/cm	0.591	0.001	9016529
Fluoride (F-)	mg/L	0.24	0.10	9016532
pH	pH	7.76		9016531
Alkalinity (Total as CaCO3)	mg/L	320	1.0	9016530

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (GROUND WATER)

Bureau Veritas ID		XKL040			XKL041		XKL042		
Sampling Date		2023/10/23 12:21			2023/10/23 12:46		2023/10/23 08:00		
COC Number		788879			788879		788879		
	UNITS	MW26-OB-23	RDL	QC Batch	MW26-BR-23	RDL	Duplicate 7	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0016	0.0005	9027290	0.0020	0.0005	0.0012	0.0005	9026303
. Aluminum (Al)	mg/L	1.39	0.0005	9026192	1.62	0.0005	0.863	0.0005	9026192
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9027290	0.0002	0.0001	<0.0001	0.0001	9026303
. Antimony (Sb)	mg/L	<0.0001	0.0001	9026192	0.0002	0.0001	<0.0001	0.0001	9026192
Dissolved Arsenic (As)	mg/L	0.0021	0.0001	9027290	0.0014	0.0001	0.0023	0.0001	9026303
. Arsenic (As)	mg/L	0.0034	0.0001	9026192	0.0017	0.0001	0.0022	0.0001	9026192
Dissolved Barium (Ba)	mg/L	0.0286	0.0002	9027290	0.0567	0.0002	0.0289	0.0002	9026303
. Barium (Ba)	mg/L	0.0429	0.0002	9026192	0.0719	0.0002	0.0376	0.0002	9026192
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9027290	<0.00005	0.00005	<0.00005	0.00005	9026303
. Beryllium (Be)	mg/L	0.00006	0.00005	9026192	0.00007	0.00005	<0.00005	0.00005	9026192
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9027290	<0.0001	0.0001	<0.0001	0.0001	9026303
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9026192	<0.0001	0.0001	<0.0001	0.0001	9026192
Dissolved Boron (B)	mg/L	0.015	0.001	9027290	0.053	0.001	0.015	0.001	9026303
. Boron (B)	mg/L	0.017	0.001	9026192	0.050	0.001	0.015	0.001	9026192
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9027290	<0.00001	0.00001	<0.00001	0.00001	9026303
. Cadmium (Cd)	mg/L	0.000037	0.000005	9026192	0.000016	0.000005	0.000024	0.000005	9026192
Dissolved Calcium (Ca)	mg/L	90.7	0.1	9027290	37.4	0.02	90.0	0.1	9026303
. Calcium (Ca)	mg/L	136	0.1	9026192	63.9	0.1	117	0.1	9026192
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9027290	<0.00002	0.00002	<0.00002	0.00002	9026303
. Cesium (Cs)	mg/L	0.00013	0.00002	9026192	0.00017	0.00002	0.00009	0.00002	9026192
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9027290	<0.0005	0.0005	<0.0005	0.0005	9026303
. Chromium (Cr)	mg/L	0.0039	0.0005	9026192	0.0077	0.0005	0.0026	0.0005	9026192
Dissolved Cobalt (Co)	mg/L	0.00091	0.00005	9027290	0.00048	0.00005	0.00095	0.00005	9026303
. Cobalt (Co)	mg/L	0.00182	0.00005	9026192	0.00238	0.00005	0.00167	0.00005	9026192
Dissolved Copper (Cu)	mg/L	0.0020	0.0001	9027290	0.0008	0.0001	0.0002	0.0001	9026303
. Copper (Cu)	mg/L	0.0049	0.0001	9026192	0.0264	0.0001	0.0028	0.0001	9026192
Dissolved Iron (Fe)	mg/L	0.012	0.005	9027290	0.246	0.005	<0.005	0.005	9026303
. Iron (Fe)	mg/L	1.86	0.005	9026192	3.73	0.005	1.26	0.005	9026192
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9027290	<0.00005	0.00005	<0.00005	0.00005	9026303
. Lead (Pb)	mg/L	0.00151	0.00005	9026192	0.00141	0.00005	0.00093	0.00005	9026192
Dissolved Lithium (Li)	mg/L	0.0069	0.0005	9027290	0.0091	0.0005	0.0069	0.0005	9026303

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (GROUND WATER)

Bureau Veritas ID		XKL040			XKL041		XKL042		
Sampling Date		2023/10/23 12:21			2023/10/23 12:46		2023/10/23 08:00		
COC Number		788879			788879		788879		
	UNITS	MW26-OB-23	RDL	QC Batch	MW26-BR-23	RDL	Duplicate 7	RDL	QC Batch
. Lithium (Li)	mg/L	0.0098	0.0005	9026192	0.0113	0.0005	0.0083	0.0005	9026192
Dissolved Magnesium (Mg)	mg/L	22.0	0.005	9027290	18.9	0.005	22.1	0.005	9026303
. Magnesium (Mg)	mg/L	36.4	0.005	9026192	23.5	0.005	31.3	0.005	9026192
Dissolved Manganese (Mn)	mg/L	0.246	0.0002	9027290	0.0286	0.0002	0.264	0.0002	9026303
. Manganese (Mn)	mg/L	0.256	0.0002	9026192	0.113	0.0002	0.277	0.0002	9026192
Mercury (Hg)	ug/L	<0.01	0.01	9018803	<0.01	0.01	<0.01	0.01	9018803
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9018815	<0.01	0.01	<0.01	0.01	9018815
Dissolved Molybdenum (Mo)	mg/L	0.00287	0.00005	9027290	0.0178	0.00005	0.00267	0.00005	9026303
. Molybdenum (Mo)	mg/L	0.00131	0.00005	9026192	0.0170	0.00005	0.00134	0.00005	9026192
Dissolved Nickel (Ni)	mg/L	0.0008	0.0001	9027290	0.0013	0.0001	0.0008	0.0001	9026303
. Nickel (Ni)	mg/L	0.0032	0.0001	9026192	0.0068	0.0001	0.0025	0.0001	9026192
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9027290	0.011	0.005	<0.005	0.005	9026303
. Phosphorus (P)	mg/L	0.175	0.005	9026192	0.103	0.005	0.118	0.005	9026192
Dissolved Potassium (K)	mg/L	3.16	0.02	9027290	3.85	0.02	3.06	0.02	9026303
. Potassium (K)	mg/L	3.35	0.02	9026192	4.23	0.02	2.98	0.02	9026192
Dissolved Rubidium (Rb)	mg/L	0.00180	0.00002	9027290	0.00150	0.00002	0.00177	0.00002	9026303
. Rubidium (Rb)	mg/L	0.00429	0.00002	9026192	0.00477	0.00002	0.00330	0.00002	9026192
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9027290	<0.0002	0.0002	<0.0002	0.0002	9026303
. Selenium (Se)	mg/L	0.00007	0.00005	9026192	<0.00005	0.00005	0.00007	0.00005	9026192
Dissolved Silicon (Si)	mg/L	7.82	0.025	9027290	4.97	0.025	7.29	0.025	9026303
. Silicon (Si)	mg/L	8.95	0.025	9026192	7.27	0.025	8.57	0.025	9026192
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9027290	<0.00001	0.00001	<0.00001	0.00001	9026303
. Silver (Ag)	mg/L	0.00002	0.00001	9026192	0.00106	0.00001	0.00002	0.00001	9026192
Dissolved Sodium (Na)	mg/L	5.47	0.01	9027290	27.2	0.01	5.43	0.01	9026303
. Sodium (Na)	mg/L	5.81	0.01	9026192	27.4	0.01	5.40	0.01	9026192
Dissolved Strontium (Sr)	mg/L	0.134	0.0001	9027290	0.243	0.0001	0.134	0.0001	9026303
. Strontium (Sr)	mg/L	0.159	0.0001	9026192	0.252	0.0001	0.148	0.0001	9026192
Dissolved Sulphur (S)	mg/L	2.0	0.5	9015279	1.3	0.5	2.0	0.5	9015279
Total Sulphur (S)	mg/L	2.2	0.5	9017277	1.5	0.5	2.0	0.5	9017277
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9027290	<0.0001	0.0001	<0.0001	0.0001	9026303
. Tellurium (Te)	mg/L	<0.0001	0.0001	9026192	<0.0001	0.0001	<0.0001	0.0001	9026192
Dissolved Thallium (Tl)	mg/L	0.000019	0.000005	9027290	<0.000005	0.000005	0.000017	0.000005	9026303

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (GROUND WATER)

Bureau Veritas ID		XKL040			XKL041		XKL042		
Sampling Date		2023/10/23 12:21			2023/10/23 12:46		2023/10/23 08:00		
COC Number		788879			788879		788879		
	UNITS	MW26-OB-23	RDL	QC Batch	MW26-BR-23	RDL	Duplicate 7	RDL	QC Batch
. Thallium (Tl)	mg/L	0.000047	0.000005	9026192	0.000028	0.000005	0.000038	0.000005	9026192
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9027290	<0.0002	0.0002	<0.0002	0.0002	9026303
. Thorium (Th)	mg/L	0.0003	0.0002	9026192	0.0009	0.0002	0.0002	0.0002	9026192
Dissolved Tin (Sn)	mg/L	0.0002	0.0001	9027290	0.0003	0.0001	<0.0001	0.0001	9026303
. Tin (Sn)	mg/L	0.0004	0.0001	9026192	0.0003	0.0001	0.0001	0.0001	9026192
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9027290	<0.0005	0.0005	<0.0005	0.0005	9026303
. Titanium (Ti)	mg/L	0.0670	0.0005	9026192	0.0852	0.0005	0.0502	0.0005	9026192
Dissolved Tungsten (W)	mg/L	0.0003	0.0001	9027290	0.156	0.0005	0.0003	0.0001	9026303
. Tungsten (W)	mg/L	<0.0001	0.0001	9026192	0.164	0.0005	0.0001	0.0001	9026192
Dissolved Uranium (U)	mg/L	0.00138	0.00001	9027290	0.00015	0.00001	0.00146	0.00001	9026303
. Uranium (U)	mg/L	0.00163	0.00001	9026192	0.00040	0.00001	0.00160	0.00001	9026192
Dissolved Vanadium (V)	mg/L	0.00023	0.00005	9027290	0.00012	0.00005	0.00019	0.00005	9026303
. Vanadium (V)	mg/L	0.00346	0.00005	9026192	0.00449	0.00005	0.00239	0.00005	9026192
Dissolved Zinc (Zn)	mg/L	0.0031	0.0005	9027290	0.0020	0.0005	0.0017	0.0005	9026303
. Zinc (Zn)	mg/L	0.0101	0.0005	9026192	0.0167	0.0005	0.0063	0.0005	9026192
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	9027290	<0.0001	0.0001	<0.0001	0.0001	9026303
. Zirconium (Zr)	mg/L	0.0005	0.0001	9026192	0.0014	0.0001	0.0004	0.0001	9026192

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		XKL042		
Sampling Date		2023/10/23 08:00		
COC Number		788879		
	UNITS	Duplicate 7 Lab-Dup	RDL	QC Batch
Metals				
Dissolved Sulphur (S)	mg/L	2.0	0.5	9015279

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3X4915
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036

TEST SUMMARY

Bureau Veritas ID: XKL040
Sample ID: MW26-OB-23
Matrix: Ground Water

Collected: 2023/10/23
Shipped:
Received: 2023/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9020181	N/A	2023/11/01	Brent Boudreau
Alkalinity	AT	9012931	N/A	2023/10/30	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9008228	N/A	2023/10/31	Automated Statchk
Chloride by Automated Colourimetry	KONE	9011799	N/A	2023/11/01	Massarat Jan
Conductivity	AT	9012932	N/A	2023/10/30	Surinder Rai
Fluoride	ISE	9012935	2023/10/27	2023/10/30	Surinder Rai
Hardness (calculated as CaCO3)		9008976	N/A	2023/11/08	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9018815	2023/10/31	2023/10/31	Thuy Linh Nguyen
Mercury (low level)	CV/AA	9018803	2023/10/31	2023/10/31	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	9015279	2023/10/30	2023/10/30	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9027290	N/A	2023/11/07	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/03	Nan Raykha
Total Metals Analysis by ICP	ICP	9017277	2023/10/30	2023/10/31	Suban Kanapathippllai
Cyanide (Free)	SPEC	9027018	N/A	2023/11/02	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9027027	2023/11/02	2023/11/02	Joshua Fine
Total Phosphorus Low Level Total	KONE	9027016	2023/11/01	2023/11/02	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9012881	N/A	2023/10/30	Shivani Shivani
Nitrate & Nitrite as Nitrogen in Water	LACH	9011563	N/A	2023/10/28	Chandra Nandlal
pH	AT	9012937	2023/10/27	2023/10/30	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Avishek Shrestha
Sulphate by Automated Turbidimetry	KONE	9011802	N/A	2023/11/01	Massarat Jan
Total Dissolved Solids	BAL	9015593	2023/10/30	2023/11/01	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Avishek Shrestha
Total Kjeldahl Nitrogen in Water	SKAL	9016596	2023/10/30	2023/10/31	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9015350	2023/10/30	2023/11/01	Darshan Patel
Turbidity	AT	9011819	N/A	2023/10/27	Leily Karimi

Bureau Veritas ID: XKL041
Sample ID: MW26-BR-23
Matrix: Ground Water

Collected: 2023/10/23
Shipped:
Received: 2023/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9020181	N/A	2023/11/01	Brent Boudreau
Alkalinity	AT	9012931	N/A	2023/10/30	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9008228	N/A	2023/10/31	Automated Statchk
Chloride by Automated Colourimetry	KONE	9011799	N/A	2023/11/01	Massarat Jan
Conductivity	AT	9012932	N/A	2023/10/30	Surinder Rai
Fluoride	ISE	9012935	2023/10/27	2023/10/30	Surinder Rai
Hardness (calculated as CaCO3)		9008976	N/A	2023/11/06	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9018815	2023/10/31	2023/10/31	Thuy Linh Nguyen
Mercury (low level)	CV/AA	9018803	2023/10/31	2023/10/31	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	9015279	2023/10/30	2023/10/30	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/03	Nan Raykha
Total Metals Analysis by ICP	ICP	9017277	2023/10/30	2023/10/31	Suban Kanapathippllai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XKL041
Sample ID: MW26-BR-23
Matrix: Ground Water

Collected: 2023/10/23
Shipped:
Received: 2023/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Cyanide (Free)	SPEC	9027018	N/A	2023/11/02	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9027027	2023/11/02	2023/11/02	Joshua Fine
Total Phosphorus Low Level Total	KONE	9027016	2023/11/01	2023/11/02	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9012881	N/A	2023/10/30	Shivani Shivani
Nitrate & Nitrite as Nitrogen in Water	LACH	9011563	N/A	2023/10/28	Chandra Nandlal
pH	AT	9012937	2023/10/27	2023/10/30	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Avishek Shrestha
Sulphate by Automated Turbidimetry	KONE	9011802	N/A	2023/11/01	Massarat Jan
Total Dissolved Solids	BAL	9015593	2023/10/30	2023/11/01	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Avishek Shrestha
Total Kjeldahl Nitrogen in Water	SKAL	9016596	2023/10/30	2023/10/31	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9015350	2023/10/30	2023/11/01	Darshan Patel
Turbidity	AT	9011819	N/A	2023/10/27	Leily Karimi

Bureau Veritas ID: XKL042
Sample ID: Duplicate 7
Matrix: Ground Water

Collected: 2023/10/23
Shipped:
Received: 2023/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9020181	N/A	2023/11/01	Brent Boudreau
Alkalinity	AT	9016530	N/A	2023/10/31	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9008228	N/A	2023/10/31	Automated Statchk
Chloride by Automated Colourimetry	KONE	9017625	N/A	2023/11/01	Alina Dobreanu
Conductivity	AT	9016529	N/A	2023/10/31	Surinder Rai
Fluoride	ISE	9016532	2023/10/30	2023/10/31	Surinder Rai
Hardness (calculated as CaCO3)		9008976	N/A	2023/11/06	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9018815	2023/10/31	2023/10/31	Thuy Linh Nguyen
Mercury (low level)	CV/AA	9018803	2023/10/31	2023/10/31	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	9015279	2023/10/30	2023/10/30	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9026192	N/A	2023/11/03	Nan Raykha
Total Metals Analysis by ICP	ICP	9017277	2023/10/30	2023/10/31	Suban Kanapathippllai
Cyanide (Free)	SPEC	9027018	N/A	2023/11/02	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9027017	2023/11/01	2023/11/01	Joshua Fine
Total Phosphorus Low Level Total	KONE	9027016	2023/11/01	2023/11/02	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9012881	N/A	2023/10/30	Shivani Shivani
Nitrate & Nitrite as Nitrogen in Water	LACH	9016395	N/A	2023/11/01	Chandra Nandlal
pH	AT	9016531	2023/10/30	2023/10/31	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Avishek Shrestha
Sulphate by Automated Turbidimetry	KONE	9017635	N/A	2023/11/01	Alina Dobreanu
Total Dissolved Solids	BAL	9015593	2023/10/30	2023/11/01	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Avishek Shrestha
Total Kjeldahl Nitrogen in Water	SKAL	9016596	2023/10/30	2023/10/31	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9015350	2023/10/30	2023/11/01	Darshan Patel
Turbidity	AT	9015628	N/A	2023/10/31	Leily Karimi

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3X4915
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036

TEST SUMMARY

Bureau Veritas ID: XKL042 Dup
Sample ID: Duplicate 7
Matrix: Ground Water

Collected: 2023/10/23
Shipped:
Received: 2023/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9016530	N/A	2023/10/31	Surinder Rai
Conductivity	AT	9016529	N/A	2023/10/31	Surinder Rai
Fluoride	ISE	9016532	2023/10/30	2023/10/31	Surinder Rai
Dissolved Metals Analysis by ICP	ICP	9015279	2023/10/30	2023/10/30	Suban Kanapathippllai
pH	AT	9016531	2023/10/30	2023/10/31	Surinder Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.0°C

Sample XKL040 [MW26-OB-23] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Sample XKL041 [MW26-BR-23] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Sample XKL042 [Duplicate 7] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9011563	Nitrate (N)	2023/10/28	99	80 - 120	98	80 - 120	<0.10	mg/L	1.0	20		
9011563	Nitrite (N)	2023/10/28	107	80 - 120	103	80 - 120	<0.010	mg/L	NC	20		
9011799	Dissolved Chloride (Cl-)	2023/11/01	89	80 - 120	99	80 - 120	<1.0	mg/L	13	20		
9011802	Dissolved Sulphate (SO4)	2023/11/01	90	75 - 125	97	80 - 120	<1.0	mg/L	2.7	20		
9011819	Turbidity	2023/10/27			99	80 - 120	<0.1	NTU	NC	20		
9012881	Total Ammonia-N	2023/10/30	98	75 - 125	102	80 - 120	<0.050	mg/L	16	20		
9012931	Alkalinity (Total as CaCO3)	2023/10/30			97	85 - 115	<1.0	mg/L	4.8	20		
9012932	Conductivity	2023/10/30			102	85 - 115	<0.001	mS/cm	1.1	10		
9012935	Fluoride (F-)	2023/10/30	93	80 - 120	100	80 - 120	<0.10	mg/L	3.3	20		
9012937	pH	2023/10/30			102	98 - 103			2.0	N/A		
9015279	Dissolved Sulphur (S)	2023/10/30	NC	80 - 120	94	80 - 120	<0.5	mg/L	0.051	25		
9015350	Total Suspended Solids	2023/11/01			97	85 - 115	<1	mg/L	18	20		
9015593	Total Dissolved Solids	2023/11/01			98	90 - 110	<10	mg/L	8.7	20		
9015628	Turbidity	2023/10/31			99	80 - 120	<0.1	NTU	3.7	20		
9016395	Nitrate (N)	2023/11/01	101	80 - 120	102	80 - 120	<0.10	mg/L	0.40	20		
9016395	Nitrite (N)	2023/11/01	104	80 - 120	105	80 - 120	<0.010	mg/L	4.8	20		
9016529	Conductivity	2023/10/31			100	85 - 115	<0.001	mS/cm	0.68	10		
9016530	Alkalinity (Total as CaCO3)	2023/10/31			97	85 - 115	<1.0	mg/L	0.76	20		
9016531	pH	2023/10/31			102	98 - 103			0.27	N/A		
9016532	Fluoride (F-)	2023/10/31	99	80 - 120	100	80 - 120	<0.10	mg/L	8.9	20		
9016596	Total Kjeldahl Nitrogen (TKN)	2023/10/31	119	80 - 120	96	80 - 120	<0.10	mg/L	8.7	20	102	80 - 120
9017277	Total Sulphur (S)	2023/10/31	103	80 - 120	96	80 - 120	<0.5	mg/L				
9017625	Dissolved Chloride (Cl-)	2023/11/01	NC	80 - 120	93	80 - 120	<1.0	mg/L	0.073	20		
9017635	Dissolved Sulphate (SO4)	2023/11/01	83	75 - 125	98	80 - 120	<1.0	mg/L	NC	20		
9018803	Mercury (Hg)	2023/10/31	108	75 - 125	105	80 - 120	<0.01	ug/L	NC	20		
9018815	Dissolved Mercury (Hg)	2023/10/31	107	75 - 125	105	80 - 120	<0.01	ug/L	NC	20		
9020181	Acidity	2023/11/01	104	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9026192	. Aluminum (Al)	2023/11/03	NC	80 - 120	97	80 - 120	<0.0005	mg/L	0.058	20		
9026192	. Antimony (Sb)	2023/11/03	110	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9026192	. Arsenic (As)	2023/11/03	NC	80 - 120	97	80 - 120	<0.0001	mg/L	2.9	20		
9026192	. Barium (Ba)	2023/11/03	NC	80 - 120	95	80 - 120	<0.0002	mg/L	0.39	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9026192	. Beryllium (Be)	2023/11/03	102	80 - 120	98	80 - 120	<0.00005	mg/L	4.2	20		
9026192	. Bismuth (Bi)	2023/11/03	91	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9026192	. Boron (B)	2023/11/03	NC	80 - 120	96	80 - 120	<0.001	mg/L	0.36	20		
9026192	. Cadmium (Cd)	2023/11/03	102	80 - 120	94	80 - 120	<0.000005	mg/L	0	20		
9026192	. Calcium (Ca)	2023/11/03	NC	80 - 120	95	80 - 120	<0.02	mg/L	2.2	20		
9026192	. Cesium (Cs)	2023/11/03	97	80 - 120	94	80 - 120	<0.00002	mg/L	2.1	20		
9026192	. Chromium (Cr)	2023/11/03	101	80 - 120	97	80 - 120	<0.0005	mg/L	1.2	20		
9026192	. Cobalt (Co)	2023/11/03	93	80 - 120	98	80 - 120	<0.00005	mg/L	1.3	20		
9026192	. Copper (Cu)	2023/11/03	99	80 - 120	96	80 - 120	<0.0001	mg/L	2.9	20		
9026192	. Iron (Fe)	2023/11/03	NC	80 - 120	99	80 - 120	<0.005	mg/L	0.12	20		
9026192	. Lead (Pb)	2023/11/03	94	80 - 120	101	80 - 120	<0.00005	mg/L	3.4	20		
9026192	. Lithium (Li)	2023/11/03	104	80 - 120	98	80 - 120	<0.0005	mg/L	2.8	20		
9026192	. Magnesium (Mg)	2023/11/03	NC	80 - 120	98	80 - 120	<0.005	mg/L	4.8	20		
9026192	. Manganese (Mn)	2023/11/03	NC	80 - 120	93	80 - 120	<0.0002	mg/L	1.6	20		
9026192	. Molybdenum (Mo)	2023/11/03	113	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9026192	. Nickel (Ni)	2023/11/03	91	80 - 120	98	80 - 120	<0.0001	mg/L	0.74	20		
9026192	. Phosphorus (P)	2023/11/03	NC	80 - 120	90	80 - 120	<0.005	mg/L	4.9	20		
9026192	. Potassium (K)	2023/11/03	NC	80 - 120	95	80 - 120	<0.02	mg/L	0.20	20		
9026192	. Rubidium (Rb)	2023/11/03	105	80 - 120	96	80 - 120	<0.00002	mg/L	1.1	20		
9026192	. Selenium (Se)	2023/11/03	103	80 - 120	102	80 - 120	<0.00005	mg/L	NC	20		
9026192	. Silicon (Si)	2023/11/03	NC	80 - 120	93	80 - 120	<0.005	mg/L	3.2	20		
9026192	. Silver (Ag)	2023/11/03	90	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9026192	. Sodium (Na)	2023/11/03	NC	80 - 120	98	80 - 120	<0.01	mg/L	3.4	20		
9026192	. Strontium (Sr)	2023/11/03	NC	80 - 120	94	80 - 120	<0.0001	mg/L	0.68	20		
9026192	. Tellurium (Te)	2023/11/03	101	80 - 120	91	80 - 120	<0.0001	mg/L	NC	20		
9026192	. Thallium (Tl)	2023/11/03	95	80 - 120	101	80 - 120	<0.000005	mg/L	6.1	20		
9026192	. Thorium (Th)	2023/11/03	101	80 - 120	96	80 - 120	<0.0002	mg/L	2.3	20		
9026192	. Tin (Sn)	2023/11/03	109	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9026192	. Titanium (Ti)	2023/11/03	NC	80 - 120	93	80 - 120	<0.0005	mg/L	1.5	20		
9026192	. Tungsten (W)	2023/11/03	104	80 - 120	105	80 - 120	<0.0001	mg/L	NC	20		
9026192	. Uranium (U)	2023/11/03	99	80 - 120	97	80 - 120	<0.00001	mg/L	1.3	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9026192	. Vanadium (V)	2023/11/03	100	80 - 120	97	80 - 120	<0.00005	mg/L	0.79	20		
9026192	. Zinc (Zn)	2023/11/03	NC	80 - 120	97	80 - 120	<0.0005	mg/L	0.28	20		
9026192	. Zirconium (Zr)	2023/11/03	110	80 - 120	95	80 - 120	<0.0001	mg/L	0.51	20		
9026303	Dissolved Aluminum (Al)	2023/11/03	101	80 - 120	100	80 - 120	<0.0005	mg/L	1.0	20		
9026303	Dissolved Antimony (Sb)	2023/11/03	100	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Arsenic (As)	2023/11/03	NC	80 - 120	103	80 - 120	<0.0001	mg/L	1.7	20		
9026303	Dissolved Barium (Ba)	2023/11/03	NC	80 - 120	103	80 - 120	<0.0002	mg/L	0.91	20		
9026303	Dissolved Beryllium (Be)	2023/11/03	95	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9026303	Dissolved Bismuth (Bi)	2023/11/03	95	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Boron (B)	2023/11/03	NC	80 - 120	97	80 - 120	<0.001	mg/L	2.4	20		
9026303	Dissolved Cadmium (Cd)	2023/11/03	97	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9026303	Dissolved Calcium (Ca)	2023/11/03	NC	80 - 120	100	80 - 120	<0.02	mg/L	3.3	20		
9026303	Dissolved Cesium (Cs)	2023/11/03	96	80 - 120	106	80 - 120	<0.00002	mg/L	NC	N/A		
9026303	Dissolved Chromium (Cr)	2023/11/03	102	80 - 120	104	80 - 120	<0.0005	mg/L	NC	20		
9026303	Dissolved Cobalt (Co)	2023/11/03	98	80 - 120	102	80 - 120	<0.00005	mg/L	2.3	20		
9026303	Dissolved Copper (Cu)	2023/11/03	99	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Iron (Fe)	2023/11/03	NC	80 - 120	104	80 - 120	<0.005	mg/L	3.5	20		
9026303	Dissolved Lead (Pb)	2023/11/03	98	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9026303	Dissolved Lithium (Li)	2023/11/03	98	80 - 120	101	80 - 120	<0.0005	mg/L	10	20		
9026303	Dissolved Magnesium (Mg)	2023/11/03	NC	80 - 120	105	80 - 120	<0.005	mg/L	3.6	20		
9026303	Dissolved Manganese (Mn)	2023/11/03	NC	80 - 120	102	80 - 120	<0.0002	mg/L	3.6	20		
9026303	Dissolved Molybdenum (Mo)	2023/11/03	106	80 - 120	105	80 - 120	<0.00005	mg/L	NC	20		
9026303	Dissolved Nickel (Ni)	2023/11/03	98	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Phosphorus (P)	2023/11/03	95	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		
9026303	Dissolved Potassium (K)	2023/11/03	NC	80 - 120	110	80 - 120	<0.02	mg/L	3.2	20		
9026303	Dissolved Rubidium (Rb)	2023/11/03	97	80 - 120	108	80 - 120	<0.00002	mg/L	NC	N/A		
9026303	Dissolved Selenium (Se)	2023/11/03	104	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9026303	Dissolved Silicon (Si)	2023/11/03	NC	80 - 120	97	80 - 120	<0.005	mg/L	6.8	20		
9026303	Dissolved Silver (Ag)	2023/11/03	84	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
9026303	Dissolved Sodium (Na)	2023/11/03	NC	80 - 120	107	80 - 120	<0.01	mg/L	0.59	20		
9026303	Dissolved Strontium (Sr)	2023/11/03	NC	80 - 120	104	80 - 120	<0.0001	mg/L	5.0	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9026303	Dissolved Tellurium (Te)	2023/11/03	95	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Thallium (Tl)	2023/11/03	100	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20		
9026303	Dissolved Thorium (Th)	2023/11/03	100	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
9026303	Dissolved Tin (Sn)	2023/11/03	102	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Titanium (Ti)	2023/11/03	98	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9026303	Dissolved Tungsten (W)	2023/11/03	108	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Uranium (U)	2023/11/03	102	80 - 120	102	80 - 120	<0.00001	mg/L	1.0	20		
9026303	Dissolved Vanadium (V)	2023/11/03	102	80 - 120	107	80 - 120	<0.00005	mg/L	0.19	20		
9026303	Dissolved Zinc (Zn)	2023/11/03	96	80 - 120	102	80 - 120	<0.0005	mg/L	NC	20		
9026303	Dissolved Zirconium (Zr)	2023/11/03	103	80 - 120	103	80 - 120	<0.0001	mg/L	4.3	20		
9027016	Total Phosphorus (P)	2023/11/02	119	80 - 120	95	80 - 120	<0.0010	mg/L			93	80 - 120
9027017	Strong Acid Dissoc. Cyanide (CN)	2023/11/01	96	80 - 120	104	80 - 120	<0.00050	mg/L				
9027018	Free Cyanide (CN)	2023/11/02	93	80 - 120	84	80 - 120	<2.0	ug/L				
9027027	Strong Acid Dissoc. Cyanide (CN)	2023/11/02	96	80 - 120	97	80 - 120	<0.00050	mg/L				
9027290	Dissolved Aluminum (Al)	2023/11/07	105	80 - 120	105	80 - 120	<0.0005	mg/L	1.1	20		
9027290	Dissolved Antimony (Sb)	2023/11/07	112	80 - 120	104	80 - 120	<0.0001	mg/L	2.6	20		
9027290	Dissolved Arsenic (As)	2023/11/07	102	80 - 120	102	80 - 120	<0.0001	mg/L	0.65	20		
9027290	Dissolved Barium (Ba)	2023/11/07	NC	80 - 120	99	80 - 120	<0.0002	mg/L	0.80	20		
9027290	Dissolved Beryllium (Be)	2023/11/07	97	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9027290	Dissolved Bismuth (Bi)	2023/11/07	90	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9027290	Dissolved Boron (B)	2023/11/07	91	80 - 120	95	80 - 120	<0.001	mg/L	1.7	20		
9027290	Dissolved Cadmium (Cd)	2023/11/07	105	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
9027290	Dissolved Calcium (Ca)	2023/11/07	NC	80 - 120	108	80 - 120	<0.02	mg/L	0.63	20		
9027290	Dissolved Cesium (Cs)	2023/11/07	98	80 - 120	100	80 - 120	<0.00002	mg/L	NC	N/A		
9027290	Dissolved Chromium (Cr)	2023/11/07	100	80 - 120	101	80 - 120	<0.0005	mg/L	NC	20		
9027290	Dissolved Cobalt (Co)	2023/11/07	96	80 - 120	102	80 - 120	<0.00005	mg/L	1.9	20		
9027290	Dissolved Copper (Cu)	2023/11/07	103	80 - 120	99	80 - 120	<0.0001	mg/L	1.7	20		
9027290	Dissolved Iron (Fe)	2023/11/07	99	80 - 120	104	80 - 120	<0.005	mg/L	0.82	20		
9027290	Dissolved Lead (Pb)	2023/11/07	95	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
9027290	Dissolved Lithium (Li)	2023/11/07	101	80 - 120	98	80 - 120	<0.0005	mg/L	2.6	20		
9027290	Dissolved Magnesium (Mg)	2023/11/07	NC	80 - 120	102	80 - 120	<0.005	mg/L	3.4	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9027290	Dissolved Manganese (Mn)	2023/11/07	NC	80 - 120	98	80 - 120	<0.0002	mg/L	1.0	20		
9027290	Dissolved Molybdenum (Mo)	2023/11/07	119	80 - 120	103	80 - 120	<0.00005	mg/L	3.2	20		
9027290	Dissolved Nickel (Ni)	2023/11/07	91	80 - 120	97	80 - 120	<0.0001	mg/L	2.6	20		
9027290	Dissolved Phosphorus (P)	2023/11/07	109	80 - 120	98	80 - 120	<0.005	mg/L	NC	20		
9027290	Dissolved Potassium (K)	2023/11/07	NC	80 - 120	105	80 - 120	<0.02	mg/L	0.18	20		
9027290	Dissolved Rubidium (Rb)	2023/11/07	103	80 - 120	108	80 - 120	<0.00002	mg/L	NC	N/A		
9027290	Dissolved Selenium (Se)	2023/11/07	103	80 - 120	103	80 - 120	<0.0002	mg/L	NC	20		
9027290	Dissolved Silicon (Si)	2023/11/07	NC	80 - 120	103	80 - 120	<0.005	mg/L	0.64	20		
9027290	Dissolved Silver (Ag)	2023/11/07	100	80 - 120	101	80 - 120	<0.00001	mg/L	NC	20		
9027290	Dissolved Sodium (Na)	2023/11/07	NC	80 - 120	102	80 - 120	<0.01	mg/L	0.84	20		
9027290	Dissolved Strontium (Sr)	2023/11/07	NC	80 - 120	100	80 - 120	<0.0001	mg/L	2.8	20		
9027290	Dissolved Tellurium (Te)	2023/11/07	105	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9027290	Dissolved Thallium (Tl)	2023/11/07	98	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9027290	Dissolved Thorium (Th)	2023/11/07	99	80 - 120	94	80 - 120	<0.0002	mg/L	NC	20		
9027290	Dissolved Tin (Sn)	2023/11/07	111	80 - 120	103	80 - 120	<0.0001	mg/L	0.88	20		
9027290	Dissolved Titanium (Ti)	2023/11/07	106	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		
9027290	Dissolved Tungsten (W)	2023/11/07	106	80 - 120	102	80 - 120	<0.0001	mg/L	0.43	20		
9027290	Dissolved Uranium (U)	2023/11/07	100	80 - 120	95	80 - 120	<0.00001	mg/L	1.9	20		
9027290	Dissolved Vanadium (V)	2023/11/07	100	80 - 120	99	80 - 120	<0.00005	mg/L	0.46	20		
9027290	Dissolved Zinc (Zn)	2023/11/07	NC	80 - 120	100	80 - 120	<0.0005	mg/L	0.12	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9027290	Dissolved Zirconium (Zr)	2023/11/07	112	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

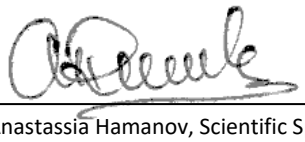
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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VALIDATION SIGNATURE PAGE

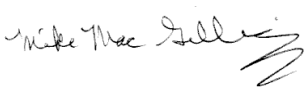
The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Mike MacGillivray, Scientific Specialist (Inorganics)

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 788336

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/08
Report #: R7901244
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3X4935
Received: 2023/10/24, 15:19

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	2	N/A	2023/11/01	ATL SOP-00205	SM 24 2310B m
Alkalinity	2	N/A	2023/10/30	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2023/10/31	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	2	N/A	2023/10/27	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	2	N/A	2023/10/30	CAM SOP-00414	SM 23 2510 m
Fluoride	2	2023/10/27	2023/10/30	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2023/11/06	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2023/10/31	2023/11/01	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	2	2023/10/31	2023/10/31	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	2	2023/10/30	2023/10/30	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	2	N/A	2023/11/03	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	2	N/A	2023/11/07	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	1	2023/10/30	2023/10/31	CAM SOP-00408	EPA 6010D m
Total Metals Analysis by ICP	1	2023/10/31	2023/11/01	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	2	N/A	2023/11/02	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2023/11/01	2023/11/01	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	2	2023/11/01	2023/11/02	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	2	N/A	2023/10/30	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	2	N/A	2023/10/28	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	2	2023/10/27	2023/10/30	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (4)	2	N/A	2023/10/26		Field pH Meter
Sulphate by Automated Turbidimetry	2	N/A	2023/10/27	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	2	2023/10/30	2023/11/01	CAM SOP-00428	SM 23 2540C m
Field Temperature (4)	2	N/A	2023/10/26		Field Thermometer
Total Kjeldahl Nitrogen in Water	2	2023/10/30	2023/10/31	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	2	2023/10/30	2023/11/01	CAM SOP-00428	SM 23 2540D m
Turbidity	2	N/A	2023/10/27	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8

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Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/08
Report #: R7901244
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3X4935
Received: 2023/10/24, 15:19

(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C3X4935
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: LV

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XKL117			XKL117			XKL118		
Sampling Date		2023/10/22 16:44			2023/10/22 16:44			2023/10/22 17:15		
COC Number		788336			788336			788336		
	UNITS	MW01-OB-18	RDL	QC Batch	MW01-OB-18 Lab-Dup	RDL	QC Batch	MW01-BR-18	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	510	1.0	9008228				430	1.0	9008228
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.1	1.0	9008228				3.0	1.0	9008228
Hardness (CaCO3)	mg/L	1500	1.0	9008976				1400	1.0	9008976
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9008228				<1.0	1.0	9008228
Field Measurements										
Field Temperature	Celsius	15.1	N/A	ONSITE				11.4	N/A	ONSITE
Field Measured pH	pH	6.98		ONSITE				7.09		ONSITE
Inorganics										
Acidity	mg/L	43	5.0	9020181				35	5.0	9020181
Total Ammonia-N	mg/L	1.2	0.050	9012767				<0.050	0.050	9012767
Conductivity	mS/cm	2.30	0.001	9012932				2.84	0.001	9012932
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9027022				<2.0 (1)	2.0	9027022
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00189	0.00050	9027020	0.00148	0.00050	9027020	0.00612	0.00050	9027020
Total Dissolved Solids	mg/L	1890	10	9015593				2320	10	9015593
Fluoride (F-)	mg/L	<0.10	0.10	9012935				0.25	0.10	9012935
Total Kjeldahl Nitrogen (TKN)	mg/L	1.3	0.20	9016596				0.68	0.50	9015966
pH	pH	7.63		9012937				7.87		9012937
Total Phosphorus (P)	mg/L	4.6	0.050	9027021				27	0.20	9027021
Total Suspended Solids	mg/L	71000	100	9015944				50000	100	9015944
Dissolved Sulphate (SO4)	mg/L	940	5.0	9010735				1400	6.0	9010735
Turbidity	NTU	19	0.1	9011819				11	0.1	9011819
Alkalinity (Total as CaCO3)	mg/L	510	1.0	9012931				430	1.0	9012931
Dissolved Chloride (Cl-)	mg/L	6.5	1.0	9010729				7.2	1.0	9010729
Nitrite (N)	mg/L	<0.010	0.010	9011563				<0.010	0.010	9011563
Nitrate (N)	mg/L	<0.10	0.10	9011563				1.38	0.10	9011563
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9011563				1.38	0.10	9011563

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3X4935
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: LV

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XKL118		
Sampling Date		2023/10/22 17:15		
COC Number		788336		
	UNITS	MW01-BR-18 Lab-Dup	RDL	QC Batch
Inorganics				
Conductivity	mS/cm	2.87	0.001	9012932
Fluoride (F-)	mg/L	0.25	0.10	9012935
pH	pH	7.71		9012937
Alkalinity (Total as CaCO3)	mg/L	450	1.0	9012931

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XKL117			XKL118		
Sampling Date		2023/10/22 16:44			2023/10/22 17:15		
COC Number		788336			788336		
	UNITS	MW01-OB-18	RDL	QC Batch	MW01-BR-18	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	<0.005	0.005	9026303	0.089	0.005	9026303
. Aluminum (Al)	mg/L	28.0	0.025	9032166	<0.005	0.005	9032166
Dissolved Antimony (Sb)	mg/L	0.006	0.001	9026303	<0.001	0.001	9026303
. Antimony (Sb)	mg/L	0.003	0.001	9032166	<0.001	0.001	9032166
Dissolved Arsenic (As)	mg/L	0.959	0.001	9026303	0.094	0.001	9026303
. Arsenic (As)	mg/L	2.13	0.005	9032166	0.014	0.001	9032166
Dissolved Barium (Ba)	mg/L	0.029	0.002	9026303	0.019	0.002	9026303
. Barium (Ba)	mg/L	0.102	0.002	9032166	0.087	0.002	9032166
Dissolved Beryllium (Be)	mg/L	<0.0005	0.0005	9026303	<0.0005	0.0005	9026303
. Beryllium (Be)	mg/L	0.0031	0.0005	9032166	<0.0005	0.0005	9032166
Dissolved Bismuth (Bi)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303
. Bismuth (Bi)	mg/L	<0.001	0.001	9032166	<0.001	0.001	9032166
Dissolved Boron (B)	mg/L	0.03	0.01	9026303	0.03	0.01	9026303
. Boron (B)	mg/L	0.05	0.01	9032166	0.03	0.01	9032166
Dissolved Cadmium (Cd)	mg/L	<0.0001	0.0001	9026303	<0.0001	0.0001	9026303
. Cadmium (Cd)	mg/L	0.00214	0.00005	9032166	0.00027	0.00005	9032166
Dissolved Calcium (Ca)	mg/L	280	0.2	9026303	277	0.2	9026303
. Calcium (Ca)	mg/L	750	1	9032166	1720	1	9032166
Dissolved Cesium (Cs)	mg/L	<0.0002	0.0002	9026303	<0.0002	0.0002	9026303
. Cesium (Cs)	mg/L	0.0024	0.0002	9032166	0.0003	0.0002	9032166
Dissolved Chromium (Cr)	mg/L	<0.005	0.005	9026303	<0.005	0.005	9026303
. Chromium (Cr)	mg/L	0.161	0.005	9032166	<0.005	0.005	9032166
Dissolved Cobalt (Co)	mg/L	<0.0005	0.0005	9026303	<0.0005	0.0005	9026303
. Cobalt (Co)	mg/L	0.0318	0.0005	9032166	0.0108	0.0005	9032166
Dissolved Copper (Cu)	mg/L	<0.001	0.001	9026303	0.001	0.001	9026303
. Copper (Cu)	mg/L	0.651	0.001	9032166	0.002	0.001	9032166
Dissolved Iron (Fe)	mg/L	8.42	0.05	9026303	4.44	0.05	9026303
. Iron (Fe)	mg/L	398	0.25	9032166	0.14	0.05	9032166
Dissolved Lead (Pb)	mg/L	<0.0005	0.0005	9026303	<0.0005	0.0005	9026303
. Lead (Pb)	mg/L	0.0547	0.0005	9032166	<0.0005	0.0005	9032166
Dissolved Lithium (Li)	mg/L	0.013	0.005	9026303	0.118	0.005	9026303

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XKL117			XKL118		
Sampling Date		2023/10/22 16:44			2023/10/22 17:15		
COC Number		788336			788336		
	UNITS	MW01-OB-18	RDL	QC Batch	MW01-BR-18	RDL	QC Batch
. Lithium (Li)	mg/L	0.047	0.005	9032166	0.128	0.005	9032166
Dissolved Magnesium (Mg)	mg/L	192	0.05	9026303	172	0.05	9026303
. Magnesium (Mg)	mg/L	329	0.05	9032166	185	0.05	9032166
Dissolved Manganese (Mn)	mg/L	0.072	0.002	9026303	0.237	0.002	9026303
. Manganese (Mn)	mg/L	7.06	0.002	9032166	3.02	0.002	9032166
Mercury (Hg)	mg/L	<0.0015	0.0015	9019561	<0.0015	0.0015	9019561
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9018815	<0.01	0.01	9018815
Dissolved Molybdenum (Mo)	mg/L	0.0022	0.0005	9026303	0.0039	0.0005	9026303
. Molybdenum (Mo)	mg/L	0.0005	0.0005	9032166	0.0017	0.0005	9032166
Dissolved Nickel (Ni)	mg/L	<0.001	0.001	9026303	0.002	0.001	9026303
. Nickel (Ni)	mg/L	0.093	0.001	9032166	0.031	0.001	9032166
Dissolved Phosphorus (P)	mg/L	<0.05	0.05	9026303	<0.05	0.05	9026303
. Phosphorus (P)	mg/L	7.06	0.05	9032166	<0.05	0.05	9032166
Dissolved Potassium (K)	mg/L	12.8	0.2	9026303	13.1	0.2	9026303
. Potassium (K)	mg/L	16.0	0.2	9032166	16.9	0.2	9032166
Dissolved Rubidium (Rb)	mg/L	0.0131	0.0002	9026303	0.0147	0.0002	9026303
. Rubidium (Rb)	mg/L	0.0366	0.0002	9032166	0.0310	0.0002	9032166
Dissolved Selenium (Se)	mg/L	<0.002	0.002	9026303	<0.002	0.002	9026303
. Selenium (Se)	mg/L	<0.0005	0.0005	9032166	<0.0005	0.0005	9032166
Dissolved Silicon (Si)	mg/L	11.9	0.05	9026303	9.13	0.05	9026303
. Silicon (Si)	mg/L	38.8	0.05	9032166	11.4	0.05	9032166
Dissolved Silver (Ag)	mg/L	<0.0001	0.0001	9026303	<0.0001	0.0001	9026303
. Silver (Ag)	mg/L	<0.0001	0.0001	9032166	<0.0001	0.0001	9032166
Dissolved Sodium (Na)	mg/L	8.6	0.1	9026303	183	0.1	9026303
. Sodium (Na)	mg/L	8.2	0.1	9032166	186	0.1	9032166
Dissolved Strontium (Sr)	mg/L	1.03	0.001	9026303	1.24	0.001	9026303
. Strontium (Sr)	mg/L	2.03	0.001	9032166	2.42	0.001	9032166
Dissolved Sulphur (S)	mg/L	330	0.5	9015279	430	0.5	9015279
Total Sulphur (S)	mg/L	360	0.5	9017277	460	5	9018445
Dissolved Tellurium (Te)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303
. Tellurium (Te)	mg/L	<0.001	0.001	9032166	<0.001	0.001	9032166
Dissolved Thallium (Tl)	mg/L	<0.00005	0.00005	9026303	<0.00005	0.00005	9026303

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Bureau Veritas Job #: C3X4935
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: LV

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XKL117			XKL118		
Sampling Date		2023/10/22 16:44			2023/10/22 17:15		
COC Number		788336			788336		
	UNITS	MW01-OB-18	RDL	QC Batch	MW01-BR-18	RDL	QC Batch
. Thallium (Tl)	mg/L	0.00025	0.00005	9032166	0.00006	0.00005	9032166
Dissolved Thorium (Th)	mg/L	<0.002	0.002	9026303	<0.002	0.002	9026303
. Thorium (Th)	mg/L	<0.002	0.002	9032166	<0.002	0.002	9032166
Dissolved Tin (Sn)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303
. Tin (Sn)	mg/L	<0.001	0.001	9032166	<0.001	0.001	9032166
Dissolved Titanium (Ti)	mg/L	<0.005	0.005	9026303	0.007	0.005	9026303
. Titanium (Ti)	mg/L	0.045	0.005	9032166	<0.005	0.005	9032166
Dissolved Tungsten (W)	mg/L	0.009	0.001	9026303	<0.001	0.001	9026303
. Tungsten (W)	mg/L	0.002	0.001	9032166	<0.001	0.001	9032166
Dissolved Uranium (U)	mg/L	0.0021	0.0001	9026303	0.0081	0.0001	9026303
. Uranium (U)	mg/L	0.0034	0.0001	9032166	0.0111	0.0001	9032166
Dissolved Vanadium (V)	mg/L	<0.0005	0.0005	9026303	<0.0005	0.0005	9026303
. Vanadium (V)	mg/L	0.0987	0.0005	9032166	<0.0005	0.0005	9032166
Dissolved Zinc (Zn)	mg/L	<0.005	0.005	9026303	<0.005	0.005	9026303
. Zinc (Zn)	mg/L	0.239	0.005	9032166	0.016	0.005	9032166
Dissolved Zirconium (Zr)	mg/L	<0.001	0.001	9026303	<0.001	0.001	9026303
. Zirconium (Zr)	mg/L	0.002	0.001	9032166	<0.001	0.001	9032166

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Bureau Veritas Job #: C3X4935
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: LV

TEST SUMMARY

Bureau Veritas ID: XKL117
Sample ID: MW01-OB-18
Matrix: Water

Collected: 2023/10/22
Shipped:
Received: 2023/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9020181	N/A	2023/11/01	Brent Boudreau
Alkalinity	AT	9012931	N/A	2023/10/30	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9008228	N/A	2023/10/31	Automated Statchk
Chloride by Automated Colourimetry	KONE	9010729	N/A	2023/10/27	Massarat Jan
Conductivity	AT	9012932	N/A	2023/10/30	Surinder Rai
Fluoride	ISE	9012935	2023/10/27	2023/10/30	Surinder Rai
Hardness (calculated as CaCO3)		9008976	N/A	2023/11/06	Automated Statchk
Mercury in Water by CVAA	CV/AA	9019561	2023/10/31	2023/11/01	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9018815	2023/10/31	2023/10/31	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	9015279	2023/10/30	2023/10/30	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9032166	N/A	2023/11/07	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9017277	2023/10/30	2023/10/31	Suban Kanapathippllai
Cyanide (Free)	SPEC	9027022	N/A	2023/11/02	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9027020	2023/11/01	2023/11/01	Joshua Fine
Total Phosphorus Low Level Total	KONE	9027021	2023/11/01	2023/11/02	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9012767	N/A	2023/10/30	Shivani Shivani
Nitrate & Nitrite as Nitrogen in Water	LACH	9011563	N/A	2023/10/28	Chandra Nandlal
pH	AT	9012937	2023/10/27	2023/10/30	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Avishek Shrestha
Sulphate by Automated Turbidimetry	KONE	9010735	N/A	2023/10/27	Massarat Jan
Total Dissolved Solids	BAL	9015593	2023/10/30	2023/11/01	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Avishek Shrestha
Total Kjeldahl Nitrogen in Water	SKAL	9016596	2023/10/30	2023/10/31	Rajni Tyagi
Total Suspended Solids	BAL	9015944	2023/10/30	2023/11/01	Shaneil Hall
Turbidity	AT	9011819	N/A	2023/10/27	Leily Karimi

Bureau Veritas ID: XKL117 Dup
Sample ID: MW01-OB-18
Matrix: Water

Collected: 2023/10/22
Shipped:
Received: 2023/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9027020	2023/11/01	2023/11/01	Joshua Fine

Bureau Veritas ID: XKL118
Sample ID: MW01-BR-18
Matrix: Water

Collected: 2023/10/22
Shipped:
Received: 2023/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9020181	N/A	2023/11/01	Brent Boudreau
Alkalinity	AT	9012931	N/A	2023/10/30	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9008228	N/A	2023/10/31	Automated Statchk
Chloride by Automated Colourimetry	KONE	9010729	N/A	2023/10/27	Massarat Jan
Conductivity	AT	9012932	N/A	2023/10/30	Surinder Rai

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Bureau Veritas Job #: C3X4935
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Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: LV

TEST SUMMARY

Bureau Veritas ID: XKL118
Sample ID: MW01-BR-18
Matrix: Water

Collected: 2023/10/22
Shipped:
Received: 2023/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	9012935	2023/10/27	2023/10/30	Surinder Rai
Hardness (calculated as CaCO3)		9008976	N/A	2023/11/06	Automated Statchk
Mercury in Water by CVAA	CV/AA	9019561	2023/10/31	2023/11/01	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9018815	2023/10/31	2023/10/31	Thuy Linh Nguyen
Dissolved Metals Analysis by ICP	ICP	9015279	2023/10/30	2023/10/30	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9026303	N/A	2023/11/03	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9032166	N/A	2023/11/07	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9018445	2023/10/31	2023/11/01	Suban Kanapathippllai
Cyanide (Free)	SPEC	9027022	N/A	2023/11/02	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9027020	2023/11/01	2023/11/01	Joshua Fine
Total Phosphorus Low Level Total	KONE	9027021	2023/11/01	2023/11/02	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9012767	N/A	2023/10/30	Shivani Shivani
Nitrate & Nitrite as Nitrogen in Water	LACH	9011563	N/A	2023/10/28	Chandra Nandlal
pH	AT	9012937	2023/10/27	2023/10/30	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Avishek Shrestha
Sulphate by Automated Turbidimetry	KONE	9010735	N/A	2023/10/27	Massarat Jan
Total Dissolved Solids	BAL	9015593	2023/10/30	2023/11/01	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Avishek Shrestha
Total Kjeldahl Nitrogen in Water	SKAL	9015966	2023/10/30	2023/10/31	Rajni Tyagi
Total Suspended Solids	BAL	9015944	2023/10/30	2023/11/01	Shaneil Hall
Turbidity	AT	9011819	N/A	2023/10/27	Leily Karimi

Bureau Veritas ID: XKL118 Dup
Sample ID: MW01-BR-18
Matrix: Water

Collected: 2023/10/22
Shipped:
Received: 2023/10/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9012931	N/A	2023/10/30	Surinder Rai
Conductivity	AT	9012932	N/A	2023/10/30	Surinder Rai
Fluoride	ISE	9012935	2023/10/27	2023/10/30	Surinder Rai
pH	AT	9012937	2023/10/27	2023/10/30	Surinder Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.3°C

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XKL117 [MW01-OB-18] : Acidity sample contained headspace.
TSS Analysis was performed past sample holding time. This may increase the variability associated with these results.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
TDS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
ICPMS Metals: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XKL118 [MW01-BR-18] : Acidity sample contained headspace.

TSS Analysis was performed past sample holding time. This may increase the variability associated with these results.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
TDS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3X4935
Report Date: 2023/11/08

QUALITY ASSURANCE REPORT

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: LV

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9010729	Dissolved Chloride (Cl-)	2023/10/27	NC	80 - 120	94	80 - 120	<1.0	mg/L	1.0	20		
9010735	Dissolved Sulphate (SO4)	2023/10/27	NC	75 - 125	95	80 - 120	<1.0	mg/L	1.9	20		
9011563	Nitrate (N)	2023/10/28	99	80 - 120	98	80 - 120	<0.10	mg/L	1.0	20		
9011563	Nitrite (N)	2023/10/28	107	80 - 120	103	80 - 120	<0.010	mg/L	NC	20		
9011819	Turbidity	2023/10/27			99	80 - 120	<0.1	NTU	NC	20		
9012767	Total Ammonia-N	2023/10/30	101	75 - 125	103	80 - 120	<0.050	mg/L	8.1	20		
9012931	Alkalinity (Total as CaCO3)	2023/10/30			97	85 - 115	<1.0	mg/L	4.8	20		
9012932	Conductivity	2023/10/30			102	85 - 115	<0.001	mS/cm	1.1	10		
9012935	Fluoride (F-)	2023/10/30	93	80 - 120	100	80 - 120	<0.10	mg/L	3.3	20		
9012937	pH	2023/10/30			102	98 - 103			2.0	N/A		
9015279	Dissolved Sulphur (S)	2023/10/30	NC	80 - 120	94	80 - 120	<0.5	mg/L	0.051	25		
9015593	Total Dissolved Solids	2023/11/01			98	90 - 110	<10	mg/L	8.7	20		
9015944	Total Suspended Solids	2023/11/01			97	85 - 115	<10	mg/L	NC	20		
9015966	Total Kjeldahl Nitrogen (TKN)	2023/10/31	107	80 - 120	93	80 - 120	<0.10	mg/L	11	20	97	80 - 120
9016596	Total Kjeldahl Nitrogen (TKN)	2023/10/31	119	80 - 120	96	80 - 120	<0.10	mg/L	8.7	20	102	80 - 120
9017277	Total Sulphur (S)	2023/10/31	103	80 - 120	96	80 - 120	<0.5	mg/L				
9018445	Total Sulphur (S)	2023/11/01	NC	80 - 120	97	80 - 120	<0.5	mg/L				
9018815	Dissolved Mercury (Hg)	2023/10/31	107	75 - 125	105	80 - 120	<0.01	ug/L	NC	20		
9019561	Mercury (Hg)	2023/11/01	109	75 - 125	103	80 - 120	<0.00010	mg/L	NC	20		
9020181	Acidity	2023/11/01	104	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9026303	Dissolved Aluminum (Al)	2023/11/03	101	80 - 120	100	80 - 120	<0.0005	mg/L	1.0	20		
9026303	Dissolved Antimony (Sb)	2023/11/03	100	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Arsenic (As)	2023/11/03	NC	80 - 120	103	80 - 120	<0.0001	mg/L	1.7	20		
9026303	Dissolved Barium (Ba)	2023/11/03	NC	80 - 120	103	80 - 120	<0.0002	mg/L	0.91	20		
9026303	Dissolved Beryllium (Be)	2023/11/03	95	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9026303	Dissolved Bismuth (Bi)	2023/11/03	95	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Boron (B)	2023/11/03	NC	80 - 120	97	80 - 120	<0.001	mg/L	2.4	20		
9026303	Dissolved Cadmium (Cd)	2023/11/03	97	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9026303	Dissolved Calcium (Ca)	2023/11/03	NC	80 - 120	100	80 - 120	<0.02	mg/L	3.3	20		
9026303	Dissolved Cesium (Cs)	2023/11/03	96	80 - 120	106	80 - 120	<0.00002	mg/L	NC	N/A		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9026303	Dissolved Chromium (Cr)	2023/11/03	102	80 - 120	104	80 - 120	<0.0005	mg/L	NC	20		
9026303	Dissolved Cobalt (Co)	2023/11/03	98	80 - 120	102	80 - 120	<0.00005	mg/L	2.3	20		
9026303	Dissolved Copper (Cu)	2023/11/03	99	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Iron (Fe)	2023/11/03	NC	80 - 120	104	80 - 120	<0.005	mg/L	3.5	20		
9026303	Dissolved Lead (Pb)	2023/11/03	98	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9026303	Dissolved Lithium (Li)	2023/11/03	98	80 - 120	101	80 - 120	<0.0005	mg/L	10	20		
9026303	Dissolved Magnesium (Mg)	2023/11/03	NC	80 - 120	105	80 - 120	<0.005	mg/L	3.6	20		
9026303	Dissolved Manganese (Mn)	2023/11/03	NC	80 - 120	102	80 - 120	<0.0002	mg/L	3.6	20		
9026303	Dissolved Molybdenum (Mo)	2023/11/03	106	80 - 120	105	80 - 120	<0.00005	mg/L	NC	20		
9026303	Dissolved Nickel (Ni)	2023/11/03	98	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Phosphorus (P)	2023/11/03	95	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		
9026303	Dissolved Potassium (K)	2023/11/03	NC	80 - 120	110	80 - 120	<0.02	mg/L	3.2	20		
9026303	Dissolved Rubidium (Rb)	2023/11/03	97	80 - 120	108	80 - 120	<0.00002	mg/L	NC	N/A		
9026303	Dissolved Selenium (Se)	2023/11/03	104	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9026303	Dissolved Silicon (Si)	2023/11/03	NC	80 - 120	97	80 - 120	<0.005	mg/L	6.8	20		
9026303	Dissolved Silver (Ag)	2023/11/03	84	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
9026303	Dissolved Sodium (Na)	2023/11/03	NC	80 - 120	107	80 - 120	<0.01	mg/L	0.59	20		
9026303	Dissolved Strontium (Sr)	2023/11/03	NC	80 - 120	104	80 - 120	<0.0001	mg/L	5.0	20		
9026303	Dissolved Tellurium (Te)	2023/11/03	95	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Thallium (Tl)	2023/11/03	100	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20		
9026303	Dissolved Thorium (Th)	2023/11/03	100	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
9026303	Dissolved Tin (Sn)	2023/11/03	102	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Titanium (Ti)	2023/11/03	98	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9026303	Dissolved Tungsten (W)	2023/11/03	108	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9026303	Dissolved Uranium (U)	2023/11/03	102	80 - 120	102	80 - 120	<0.00001	mg/L	1.0	20		
9026303	Dissolved Vanadium (V)	2023/11/03	102	80 - 120	107	80 - 120	<0.00005	mg/L	0.19	20		
9026303	Dissolved Zinc (Zn)	2023/11/03	96	80 - 120	102	80 - 120	<0.0005	mg/L	NC	20		
9026303	Dissolved Zirconium (Zr)	2023/11/03	103	80 - 120	103	80 - 120	<0.0001	mg/L	4.3	20		
9027020	Strong Acid Dissoc. Cyanide (CN)	2023/11/01	96	80 - 120	104	80 - 120	<0.00050	mg/L	NC	20		
9027021	Total Phosphorus (P)	2023/11/02	119	80 - 120	95	80 - 120	<0.0010	mg/L			93	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9027022	Free Cyanide (CN)	2023/11/02	93	80 - 120	84	80 - 120	<2.0	ug/L				
9032166	. Aluminum (Al)	2023/11/07	105	80 - 120	102	80 - 120	<0.0005	mg/L	1.7	20		
9032166	. Antimony (Sb)	2023/11/07	114	80 - 120	104	80 - 120	<0.0001	mg/L				
9032166	. Arsenic (As)	2023/11/07	103	80 - 120	97	80 - 120	<0.0001	mg/L				
9032166	. Barium (Ba)	2023/11/07	100	80 - 120	97	80 - 120	<0.0002	mg/L				
9032166	. Beryllium (Be)	2023/11/07	102	80 - 120	98	80 - 120	<0.00005	mg/L				
9032166	. Bismuth (Bi)	2023/11/07	99	80 - 120	103	80 - 120	<0.0001	mg/L				
9032166	. Boron (B)	2023/11/07	103	80 - 120	101	80 - 120	<0.001	mg/L				
9032166	. Cadmium (Cd)	2023/11/07	103	80 - 120	98	80 - 120	<0.000005	mg/L				
9032166	. Calcium (Ca)	2023/11/07	NC	80 - 120	101	80 - 120	<0.02	mg/L				
9032166	. Cesium (Cs)	2023/11/07	101	80 - 120	98	80 - 120	<0.00002	mg/L				
9032166	. Chromium (Cr)	2023/11/07	101	80 - 120	97	80 - 120	<0.0005	mg/L				
9032166	. Cobalt (Co)	2023/11/07	98	80 - 120	96	80 - 120	<0.00005	mg/L				
9032166	. Copper (Cu)	2023/11/07	100	80 - 120	98	80 - 120	<0.0001	mg/L				
9032166	. Iron (Fe)	2023/11/07	99	80 - 120	97	80 - 120	<0.005	mg/L				
9032166	. Lead (Pb)	2023/11/07	97	80 - 120	98	80 - 120	<0.00005	mg/L				
9032166	. Lithium (Li)	2023/11/07	103	80 - 120	102	80 - 120	<0.0005	mg/L				
9032166	. Magnesium (Mg)	2023/11/07	NC	80 - 120	95	80 - 120	<0.005	mg/L				
9032166	. Manganese (Mn)	2023/11/07	100	80 - 120	98	80 - 120	<0.0002	mg/L				
9032166	. Molybdenum (Mo)	2023/11/07	108	80 - 120	100	80 - 120	<0.00005	mg/L				
9032166	. Nickel (Ni)	2023/11/07	97	80 - 120	95	80 - 120	<0.0001	mg/L				
9032166	. Phosphorus (P)	2023/11/07	112	80 - 120	98	80 - 120	<0.005	mg/L				
9032166	. Potassium (K)	2023/11/07	100	80 - 120	95	80 - 120	<0.02	mg/L				
9032166	. Rubidium (Rb)	2023/11/07	100	80 - 120	96	80 - 120	<0.00002	mg/L				
9032166	. Selenium (Se)	2023/11/07	109	80 - 120	102	80 - 120	<0.00005	mg/L				
9032166	. Silicon (Si)	2023/11/07	104	80 - 120	101	80 - 120	<0.005	mg/L				
9032166	. Silver (Ag)	2023/11/07	102	80 - 120	100	80 - 120	<0.00001	mg/L				
9032166	. Sodium (Na)	2023/11/07	NC	80 - 120	96	80 - 120	<0.01	mg/L				
9032166	. Strontium (Sr)	2023/11/07	NC	80 - 120	98	80 - 120	<0.0001	mg/L				
9032166	. Tellurium (Te)	2023/11/07	104	80 - 120	95	80 - 120	<0.0001	mg/L				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9032166	. Thallium (Tl)	2023/11/07	100	80 - 120	100	80 - 120	<0.000005	mg/L				
9032166	. Thorium (Th)	2023/11/07	102	80 - 120	99	80 - 120	<0.0002	mg/L				
9032166	. Tin (Sn)	2023/11/07	107	80 - 120	100	80 - 120	<0.0001	mg/L				
9032166	. Titanium (Ti)	2023/11/07	103	80 - 120	97	80 - 120	<0.0005	mg/L				
9032166	. Tungsten (W)	2023/11/07	104	80 - 120	102	80 - 120	<0.0001	mg/L				
9032166	. Uranium (U)	2023/11/07	102	80 - 120	101	80 - 120	<0.00001	mg/L				
9032166	. Vanadium (V)	2023/11/07	102	80 - 120	96	80 - 120	<0.00005	mg/L				
9032166	. Zinc (Zn)	2023/11/07	101	80 - 120	96	80 - 120	<0.0005	mg/L				
9032166	. Zirconium (Zr)	2023/11/07	110	80 - 120	101	80 - 120	<0.0001	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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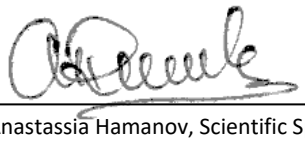
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3X4935
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: LV

VALIDATION SIGNATURE PAGE

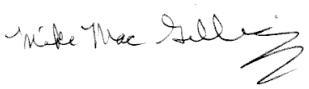
The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Mike MacGillivray, Scientific Specialist (Inorganics)

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 789740

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/08
Report #: R7902636
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3X5415
Received: 2023/10/25, 15:33

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	2	N/A	2023/11/02	ATL SOP-00205	SM 24 2310B m
Acidity (CaCO3) in water (1)	2	N/A	2023/11/03	ATL SOP-00205	SM 24 2310B m
Alkalinity	4	N/A	2023/11/01	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	4	N/A	2023/11/02	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	2	N/A	2023/11/01	CAM SOP-00463	SM 23 4500-Cl E m
Chloride by Automated Colourimetry	2	N/A	2023/11/02	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	4	N/A	2023/11/01	CAM SOP-00414	SM 23 2510 m
Fluoride	4	2023/10/31	2023/11/01	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2023/11/08	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2023/11/02	2023/11/02	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	4	2023/11/01	2023/11/02	CAM SOP-00453	EPA 7470 m
Mercury (low level)	2	2023/11/01	2023/11/02	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	4	2023/11/01	2023/11/02	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	4	N/A	2023/11/07	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	4	N/A	2023/11/07	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	4	2023/11/01	2023/11/02	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	4	N/A	2023/11/07	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	4	2023/11/07	2023/11/07	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	3	2023/11/04	2023/11/06	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total (2)	1	2023/11/04	2023/11/07	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	4	N/A	2023/11/02	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	4	N/A	2023/11/02	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	4	2023/10/31	2023/11/01	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (4)	4	N/A	2023/10/26		Field pH Meter
Sulphate by Automated Turbidimetry	2	N/A	2023/11/01	CAM SOP-00464	SM 23 4500-SO42- E m
Sulphate by Automated Turbidimetry	2	N/A	2023/11/02	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	4	2023/11/02	2023/11/04	CAM SOP-00428	SM 23 2540C m
Field Temperature (4)	4	N/A	2023/10/26		Field Thermometer
Total Kjeldahl Nitrogen in Water	2	2023/11/01	2023/11/01	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	2	2023/11/01	2023/11/02	CAM SOP-00938	OMOE E3516 m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 789740

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/08
Report #: R7902636
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3X5415
Received: 2023/10/25, 15:33

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Suspended Solids	2	2023/11/02	2023/11/03	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	2	2023/11/01	2023/11/01	CAM SOP-00428	SM 23 2540D m
Turbidity	4	N/A	2023/11/01	CAM SOP-00417	SM 23 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCCFP, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 789740

Attention: Laura Vares

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6 Twilight Bay
Geraldton, ON
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Report Date: 2023/11/08
Report #: R7902636
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CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3X5415
Received: 2023/10/25, 15:33

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XKN798			XKN799			XKN800		
Sampling Date		2023/10/23 13:06			2023/10/24 10:53			2023/10/24 11:48		
COC Number		789740			789740			789740		
	UNITS	DP-C	RDL	QC Batch	MW7-BR-23	RDL	QC Batch	BH23-01	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	290	1.0	9017583	230	1.0	9017583	310	1.0	9017583
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.4	1.0	9017583	2.1	1.0	9017583	1.3	1.0	9017583
Hardness (CaCO3)	mg/L	300	1.0	9017582	230	1.0	9017582	320	1.0	9017582
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9017583	<1.0	1.0	9017583	<1.0	1.0	9017583
Field Measurements										
Field Temperature	Celsius	8.6	N/A	ONSITE	8.9	N/A	ONSITE	7.9	N/A	ONSITE
Field Measured pH	pH	7.2		ONSITE	7.68		ONSITE	6.68		ONSITE
Inorganics										
Acidity	mg/L	16	5.0	9024113	5.2	5.0	9024113	28	5.0	9026154
Total Ammonia-N	mg/L	1.5	0.050	9021511	0.34	0.050	9021511	<0.050	0.050	9021511
Conductivity	mS/cm	0.545	0.001	9019961	0.490	0.001	9019961	0.596	0.001	9019961
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9037378	<2.0 (2)	2.0	9037378	<2.0 (2)	2.0	9037378
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9037377	<0.00050	0.00050	9037377	<0.00050	0.00050	9037377
Total Dissolved Solids	mg/L	330	10	9025176	270	10	9024340	325	10	9025176
Fluoride (F-)	mg/L	0.33	0.10	9019962	0.29	0.10	9019962	<0.10	0.10	9019962
Total Kjeldahl Nitrogen (TKN)	mg/L	1.8	0.50	9020536	0.35	0.20	9020536	0.17	0.10	9020536
pH	pH	7.94		9019963	7.99		9019963	7.63		9019963
Total Phosphorus (P)	mg/L	0.88 (3)	0.010	9037376	0.098	0.0010	9037376	0.0017	0.0010	9037376
Total Suspended Solids	mg/L	28000	100	9024933	220	1	9020372	47	1	9020372
Dissolved Sulphate (SO4)	mg/L	<1.0	1.0	9020014	26	1.0	9020025	8.2	1.0	9020014
Turbidity	NTU	4.0	0.1	9019934	11	0.1	9019934	1.5	0.1	9019934
Alkalinity (Total as CaCO3)	mg/L	290	1.0	9019958	230	1.0	9019958	320	1.0	9019958
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9020009	<1.0	1.0	9020023	1.1	1.0	9020009
Nitrite (N)	mg/L	<0.010	0.010	9019932	<0.010	0.010	9019932	0.068	0.010	9019932
Nitrate (N)	mg/L	<0.10	0.10	9019932	<0.10	0.10	9019932	<0.10	0.10	9019932

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
Sample was analyzed after holding time expired.
(2) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(3) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XKN798			XKN799			XKN800		
Sampling Date		2023/10/23 13:06			2023/10/24 10:53			2023/10/24 11:48		
COC Number		789740			789740			789740		
	UNITS	DP-C	RDL	QC Batch	MW7-BR-23	RDL	QC Batch	BH23-01	RDL	QC Batch
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9019932	<0.10	0.10	9019932	<0.10	0.10	9019932

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XKN800			XKN801		
Sampling Date		2023/10/24 11:48			2023/10/24 15:39		
COC Number		789740			789740		
	UNITS	BH23-01 Lab-Dup	RDL	QC Batch	Seep 10	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				370	1.0	9017583
Carb. Alkalinity (calc. as CaCO3)	mg/L				1.6	1.0	9017583
Hardness (CaCO3)	mg/L				1800	1.0	9017582
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	9017583
Field Measurements							
Field Temperature	Celsius				6.3	N/A	ONSITE
Field Measured pH	pH				6.83		ONSITE
Inorganics							
Acidity	mg/L				42	5.0	9026154
Total Ammonia-N	mg/L				0.37	0.050	9021511
Conductivity	mS/cm				4.20	0.001	9019961
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	9037378
Strong Acid Dissoc. Cyanide (CN)	mg/L				0.134	0.0025	9037377
Total Dissolved Solids	mg/L	340	10	9025176	3390	10	9025176
Fluoride (F-)	mg/L				0.16	0.10	9019962
Total Kjeldahl Nitrogen (TKN)	mg/L				1.6	0.50	9020536
pH	pH				7.66		9019963
Total Phosphorus (P)	mg/L				47 (2)	0.50	9037402
Total Suspended Solids	mg/L				5600	100	9024237
Dissolved Sulphate (SO4)	mg/L				1400	5.0	9020025
Turbidity	NTU				24	0.1	9019934
Alkalinity (Total as CaCO3)	mg/L				370	1.0	9019958
Dissolved Chloride (Cl-)	mg/L				410	6.0	9020023
Nitrite (N)	mg/L				<0.010	0.010	9019932
Nitrate (N)	mg/L				<0.10	0.10	9019932

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XKN800			XKN801		
Sampling Date		2023/10/24 11:48			2023/10/24 15:39		
COC Number		789740			789740		
	UNITS	**BH23-01 Lab-Dup**	**RDL**	**QC Batch**	**Seep 10**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	9019932

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XKN798			XKN798			XKN799		
Sampling Date		2023/10/23 13:06			2023/10/23 13:06			2023/10/24 10:53		
COC Number		789740			789740			789740		
	UNITS	DP-C	RDL	QC Batch	DP-C Lab-Dup	RDL	QC Batch	MW7-BR-23	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0007	0.0005	9027290	0.0008	0.0005	9027290	0.0046	0.0005	9027290
. Aluminum (Al)	mg/L	0.054	0.005	9032166				1.18	0.0005	9032166
Dissolved Antimony (Sb)	mg/L	0.0004	0.0001	9027290	0.0005	0.0001	9027290	0.0003	0.0001	9027290
. Antimony (Sb)	mg/L	<0.001	0.001	9032166				0.0002	0.0001	9032166
Dissolved Arsenic (As)	mg/L	0.0011	0.0001	9027290	0.0011	0.0001	9027290	0.0010	0.0001	9027290
. Arsenic (As)	mg/L	<0.001	0.001	9032166				0.0024	0.0001	9032166
Dissolved Barium (Ba)	mg/L	0.984	0.001	9027290	0.992	0.001	9027290	0.0202	0.0002	9027290
. Barium (Ba)	mg/L	1.74	0.002	9032166				0.0267	0.0002	9032166
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9027290	<0.00005	0.00005	9027290	<0.00005	0.00005	9027290
. Beryllium (Be)	mg/L	<0.0005	0.0005	9032166				<0.00005	0.00005	9032166
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9027290	<0.0001	0.0001	9027290	<0.0001	0.0001	9027290
. Bismuth (Bi)	mg/L	<0.001	0.001	9032166				<0.0001	0.0001	9032166
Dissolved Boron (B)	mg/L	0.042	0.001	9027290	0.043	0.001	9027290	0.030	0.001	9027290
. Boron (B)	mg/L	0.05	0.01	9032166				0.031	0.001	9032166
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9027290	<0.00001	0.00001	9027290	<0.00001	0.00001	9027290
. Cadmium (Cd)	mg/L	0.00042	0.00005	9032166				0.000007	0.000005	9032166
Dissolved Calcium (Ca)	mg/L	90.9	0.1	9027290	90.3	0.1	9027290	57.6	0.1	9027290
. Calcium (Ca)	mg/L	1560	1	9032166				57.0	0.1	9032166
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9027290	<0.00002	0.00002	9027290	0.00037	0.00002	9027290
. Cesium (Cs)	mg/L	<0.0002	0.0002	9032166				0.00058	0.00002	9032166
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9027290	<0.0005	0.0005	9027290	<0.0005	0.0005	9027290
. Chromium (Cr)	mg/L	<0.005	0.005	9032166				0.0051	0.0005	9032166
Dissolved Cobalt (Co)	mg/L	0.00052	0.00005	9027290	0.00053	0.00005	9027290	0.00008	0.00005	9027290
. Cobalt (Co)	mg/L	0.0063	0.0005	9032166				0.00091	0.00005	9032166
Dissolved Copper (Cu)	mg/L	0.0004	0.0001	9027290	0.0004	0.0001	9027290	<0.0001	0.0001	9027290
. Copper (Cu)	mg/L	0.002	0.001	9032166				0.0052	0.0001	9032166
Dissolved Iron (Fe)	mg/L	0.757	0.005	9027290	0.751	0.005	9027290	0.176	0.005	9027290
. Iron (Fe)	mg/L	0.52	0.05	9032166				2.13	0.005	9032166
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9027290	<0.00005	0.00005	9027290	<0.00005	0.00005	9027290
. Lead (Pb)	mg/L	<0.0005	0.0005	9032166				0.00087	0.00005	9032166

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Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XKN798			XKN798			XKN799		
Sampling Date		2023/10/23 13:06			2023/10/23 13:06			2023/10/24 10:53		
COC Number		789740			789740			789740		
	UNITS	DP-C	RDL	QC Batch	DP-C Lab-Dup	RDL	QC Batch	MW7-BR-23	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0088	0.0005	9027290	0.0091	0.0005	9027290	0.0120	0.0005	9027290
. Lithium (Li)	mg/L	0.012	0.005	9032166				0.0126	0.0005	9032166
Dissolved Magnesium (Mg)	mg/L	18.5	0.005	9027290	19.1	0.005	9027290	20.3	0.005	9027290
. Magnesium (Mg)	mg/L	28.9	0.05	9032166				22.6	0.005	9032166
Dissolved Manganese (Mn)	mg/L	0.118	0.0002	9027290	0.117	0.0002	9027290	0.0956	0.0002	9027290
. Manganese (Mn)	mg/L	2.17	0.002	9032166				0.131	0.0002	9032166
Mercury (Hg)	mg/L	<0.00010	0.00010	9023973						
Mercury (Hg)	ug/L							<0.01	0.01	9022388
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9022411	<0.01	0.01	9022411	<0.01	0.01	9022411
Dissolved Molybdenum (Mo)	mg/L	0.00092	0.00005	9027290	0.00095	0.00005	9027290	0.0143	0.00005	9027290
. Molybdenum (Mo)	mg/L	<0.0005	0.0005	9032166				0.0131	0.00005	9032166
Dissolved Nickel (Ni)	mg/L	0.0030	0.0001	9027290	0.0029	0.0001	9027290	0.0010	0.0001	9027290
. Nickel (Ni)	mg/L	0.016	0.001	9032166				0.0035	0.0001	9032166
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9027290	<0.005	0.005	9027290	0.007	0.005	9027290
. Phosphorus (P)	mg/L	<0.05	0.05	9032166				0.068	0.005	9032166
Dissolved Potassium (K)	mg/L	3.91	0.02	9027290	3.92	0.02	9027290	6.14	0.02	9027290
. Potassium (K)	mg/L	4.1	0.2	9032166				6.14	0.02	9032166
Dissolved Rubidium (Rb)	mg/L	0.00292	0.00002	9027290	0.00289	0.00002	9027290	0.00721	0.00002	9027290
. Rubidium (Rb)	mg/L	0.0067	0.0002	9032166				0.00729	0.00002	9032166
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9027290	<0.0002	0.0002	9027290	<0.0002	0.0002	9027290
. Selenium (Se)	mg/L	<0.0005	0.0005	9032166				<0.00005	0.00005	9032166
Dissolved Silicon (Si)	mg/L	7.34	0.025	9027290	7.30	0.025	9027290	5.08	0.025	9027290
. Silicon (Si)	mg/L	7.55	0.05	9032166				6.45	0.025	9032166
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9027290	<0.00001	0.00001	9027290	<0.00001	0.00001	9027290
. Silver (Ag)	mg/L	<0.0001	0.0001	9032166				0.00171	0.00001	9032166
Dissolved Sodium (Na)	mg/L	6.96	0.01	9027290	7.02	0.01	9027290	15.7	0.01	9027290
. Sodium (Na)	mg/L	7.2	0.1	9032166				16.8	0.01	9032166
Dissolved Strontium (Sr)	mg/L	0.255	0.0001	9027290	0.248	0.0001	9027290	0.295	0.0001	9027290
. Strontium (Sr)	mg/L	1.20	0.001	9032166				0.324	0.0001	9032166
Dissolved Sulphur (S)	mg/L	<0.5	0.5	9020512	<0.5	0.5	9020512	9.5	0.5	9020512
Total Sulphur (S)	mg/L	6	5	9020896				8.6	0.5	9020896

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Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XKN798			XKN798			XKN799		
Sampling Date		2023/10/23 13:06			2023/10/23 13:06			2023/10/24 10:53		
COC Number		789740			789740			789740		
	UNITS	DP-C	RDL	QC Batch	DP-C Lab-Dup	RDL	QC Batch	MW7-BR-23	RDL	QC Batch
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9027290	<0.0001	0.0001	9027290	<0.0001	0.0001	9027290
. Tellurium (Te)	mg/L	<0.001	0.001	9032166				<0.0001	0.0001	9032166
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9027290	<0.000005	0.000005	9027290	<0.000005	0.000005	9027290
. Thallium (Tl)	mg/L	0.00009	0.00005	9032166				0.000008	0.000005	9032166
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9027290	<0.0002	0.0002	9027290	<0.0002	0.0002	9027290
. Thorium (Th)	mg/L	<0.002	0.002	9032166				0.0003	0.0002	9032166
Dissolved Tin (Sn)	mg/L	0.0001	0.0001	9027290	0.0001	0.0001	9027290	0.0004	0.0001	9027290
. Tin (Sn)	mg/L	<0.001	0.001	9032166				0.0011	0.0001	9032166
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9027290	<0.0005	0.0005	9027290	<0.0005	0.0005	9027290
. Titanium (Ti)	mg/L	<0.005	0.005	9032166				0.0451	0.0005	9032166
Dissolved Tungsten (W)	mg/L	0.0005	0.0001	9027290	0.0005	0.0001	9027290	0.126	0.0005	9027290
. Tungsten (W)	mg/L	<0.001	0.001	9032166				0.133	0.0005	9032166
Dissolved Uranium (U)	mg/L	0.00016	0.00001	9027290	0.00016	0.00001	9027290	0.00009	0.00001	9027290
. Uranium (U)	mg/L	0.0075	0.0001	9032166				0.00018	0.00001	9032166
Dissolved Vanadium (V)	mg/L	0.00022	0.00005	9027290	0.00022	0.00005	9027290	0.00011	0.00005	9027290
. Vanadium (V)	mg/L	<0.0005	0.0005	9032166				0.00266	0.00005	9032166
Dissolved Zinc (Zn)	mg/L	0.180	0.0005	9027290	0.180	0.0005	9027290	2.72	0.0025	9027290
. Zinc (Zn)	mg/L	1.83	0.005	9032166				2.87	0.0025	9032166
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	9027290	<0.0001	0.0001	9027290	<0.0001	0.0001	9027290
. Zirconium (Zr)	mg/L	<0.001	0.001	9032166				0.0008	0.0001	9032166

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XKN800			XKN801		
Sampling Date		2023/10/24 11:48			2023/10/24 15:39		
COC Number		789740			789740		
	UNITS	BH23-01	RDL	QC Batch	Seep 10	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	0.0111	0.0005	9027290	0.0026	0.0025	9027290
. Aluminum (Al)	mg/L	0.196	0.0005	9032166	0.465	0.005	9032166
Dissolved Antimony (Sb)	mg/L	0.0001	0.0001	9027290	<0.0005	0.0005	9027290
. Antimony (Sb)	mg/L	0.0001	0.0001	9032166	<0.001	0.001	9032166
Dissolved Arsenic (As)	mg/L	0.0013	0.0001	9027290	1.35	0.005	9027290
. Arsenic (As)	mg/L	0.0021	0.0001	9032166	59.7	0.5	9032166
Dissolved Barium (Ba)	mg/L	0.0304	0.0002	9027290	0.044	0.001	9027290
. Barium (Ba)	mg/L	0.0356	0.0002	9032166	0.235	0.002	9032166
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9027290	<0.00025	0.00025	9027290
. Beryllium (Be)	mg/L	<0.00005	0.00005	9032166	<0.0005	0.0005	9032166
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9027290	<0.0005	0.0005	9027290
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9032166	<0.001	0.001	9032166
Dissolved Boron (B)	mg/L	0.007	0.001	9027290	0.064	0.005	9027290
. Boron (B)	mg/L	0.006	0.001	9032166	0.07	0.01	9032166
Dissolved Cadmium (Cd)	mg/L	0.00005	0.00001	9027290	<0.00005	0.00005	9027290
. Cadmium (Cd)	mg/L	0.000061	0.000005	9032166	0.00006	0.00005	9032166
Dissolved Calcium (Ca)	mg/L	98.0	0.1	9027290	454	1	9027290
. Calcium (Ca)	mg/L	94.2	0.1	9032166	527	1	9032166
Dissolved Cesium (Cs)	mg/L	0.00004	0.00002	9027290	<0.0001	0.0001	9027290
. Cesium (Cs)	mg/L	0.00006	0.00002	9032166	<0.0002	0.0002	9032166
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9027290	<0.0025	0.0025	9027290
. Chromium (Cr)	mg/L	0.0013	0.0005	9032166	<0.005	0.005	9032166
Dissolved Cobalt (Co)	mg/L	0.00157	0.00005	9027290	0.00107	0.00025	9027290
. Cobalt (Co)	mg/L	0.00197	0.00005	9032166	0.0041	0.0005	9032166
Dissolved Copper (Cu)	mg/L	0.0030	0.0001	9027290	0.0006	0.0005	9027290
. Copper (Cu)	mg/L	0.0039	0.0001	9032166	0.004	0.001	9032166
Dissolved Iron (Fe)	mg/L	0.062	0.005	9027290	0.961	0.025	9027290
. Iron (Fe)	mg/L	0.383	0.005	9032166	180	0.25	9032166
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9027290	<0.00025	0.00025	9027290
. Lead (Pb)	mg/L	0.00022	0.00005	9032166	0.0018	0.0005	9032166
Dissolved Lithium (Li)	mg/L	0.0010	0.0005	9027290	0.0107	0.0025	9027290

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XKN800			XKN801		
Sampling Date		2023/10/24 11:48			2023/10/24 15:39		
COC Number		789740			789740		
	UNITS	BH23-01	RDL	QC Batch	Seep 10	RDL	QC Batch
. Lithium (Li)	mg/L	0.0014	0.0005	9032166	0.012	0.005	9032166
Dissolved Magnesium (Mg)	mg/L	17.2	0.005	9027290	170	0.025	9027290
. Magnesium (Mg)	mg/L	16.8	0.005	9032166	167	0.05	9032166
Dissolved Manganese (Mn)	mg/L	0.611	0.0002	9027290	0.649	0.001	9027290
. Manganese (Mn)	mg/L	0.609	0.0002	9032166	1.89	0.002	9032166
Mercury (Hg)	mg/L				<0.0015	0.0015	9023973
Mercury (Hg)	ug/L	<0.01	0.01	9022388			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9022411	<0.01	0.01	9022411
Dissolved Molybdenum (Mo)	mg/L	0.00081	0.00005	9027290	<0.00025	0.00025	9027290
. Molybdenum (Mo)	mg/L	0.00078	0.00005	9032166	<0.0005	0.0005	9032166
Dissolved Nickel (Ni)	mg/L	0.0174	0.0001	9027290	0.0007	0.0005	9027290
. Nickel (Ni)	mg/L	0.0195	0.0001	9032166	0.006	0.001	9032166
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9027290	0.028	0.025	9027290
. Phosphorus (P)	mg/L	0.008	0.005	9032166	1.80	0.05	9032166
Dissolved Potassium (K)	mg/L	2.41	0.02	9027290	29.8	0.1	9027290
. Potassium (K)	mg/L	2.50	0.02	9032166	28.0	0.2	9032166
Dissolved Rubidium (Rb)	mg/L	0.00464	0.00002	9027290	0.0067	0.0001	9027290
. Rubidium (Rb)	mg/L	0.00502	0.00002	9032166	0.0068	0.0002	9032166
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9027290	<0.001	0.001	9027290
. Selenium (Se)	mg/L	0.00006	0.00005	9032166	<0.0005	0.0005	9032166
Dissolved Silicon (Si)	mg/L	5.86	0.025	9027290	8.84	0.025	9027290
. Silicon (Si)	mg/L	5.89	0.025	9032166	14.2	0.05	9032166
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9027290	<0.00005	0.00005	9027290
. Silver (Ag)	mg/L	0.00005	0.00001	9032166	<0.0001	0.0001	9032166
Dissolved Sodium (Na)	mg/L	1.75	0.01	9027290	342	0.5	9027290
. Sodium (Na)	mg/L	1.80	0.01	9032166	292	0.1	9032166
Dissolved Strontium (Sr)	mg/L	0.103	0.0001	9027290	2.32	0.0005	9027290
. Strontium (Sr)	mg/L	0.102	0.0001	9032166	3.02	0.001	9032166
Dissolved Sulphur (S)	mg/L	2.7	0.5	9020512	480	0.5	9020512
Total Sulphur (S)	mg/L	2.7	0.5	9020896	500	5	9020896
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9027290	<0.0005	0.0005	9027290
. Tellurium (Te)	mg/L	<0.0001	0.0001	9032166	<0.001	0.001	9032166

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XKN800			XKN801		
Sampling Date		2023/10/24 11:48			2023/10/24 15:39		
COC Number		789740			789740		
	UNITS	BH23-01	RDL	QC Batch	Seep 10	RDL	QC Batch
Dissolved Thallium (Tl)	mg/L	0.000025	0.000005	9027290	<0.000025	0.000025	9027290
. Thallium (Tl)	mg/L	0.000026	0.000005	9032166	<0.00005	0.00005	9032166
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9027290	<0.001	0.001	9027290
. Thorium (Th)	mg/L	<0.0002	0.0002	9032166	<0.002	0.002	9032166
Dissolved Tin (Sn)	mg/L	0.0001	0.0001	9027290	<0.0005	0.0005	9027290
. Tin (Sn)	mg/L	0.0002	0.0001	9032166	<0.001	0.001	9032166
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9027290	<0.0025	0.0025	9027290
. Titanium (Ti)	mg/L	0.0138	0.0005	9032166	0.014	0.005	9032166
Dissolved Tungsten (W)	mg/L	0.0035	0.0001	9027290	0.0005	0.0005	9027290
. Tungsten (W)	mg/L	0.0052	0.0001	9032166	0.002	0.001	9032166
Dissolved Uranium (U)	mg/L	0.00065	0.00001	9027290	0.00009	0.00005	9027290
. Uranium (U)	mg/L	0.00074	0.00001	9032166	0.0002	0.0001	9032166
Dissolved Vanadium (V)	mg/L	0.00027	0.00005	9027290	<0.00025	0.00025	9027290
. Vanadium (V)	mg/L	0.00075	0.00005	9032166	0.0035	0.0005	9032166
Dissolved Zinc (Zn)	mg/L	1.20	0.0005	9027290	0.0033	0.0025	9027290
. Zinc (Zn)	mg/L	2.03	0.0025	9032166	0.037	0.005	9032166
Dissolved Zirconium (Zr)	mg/L	0.0005	0.0001	9027290	<0.0005	0.0005	9027290
. Zirconium (Zr)	mg/L	0.0006	0.0001	9032166	0.002	0.001	9032166

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: XKN798
Sample ID: DP-C
Matrix: Water

Collected: 2023/10/23
Shipped:
Received: 2023/10/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9024113	N/A	2023/11/02	Brent Boudreau
Alkalinity	AT	9019958	N/A	2023/11/01	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9017583	N/A	2023/11/02	Automated Statchk
Chloride by Automated Colourimetry	KONE	9020009	N/A	2023/11/02	Massarat Jan
Conductivity	AT	9019961	N/A	2023/11/01	Nachiketa Gohil
Fluoride	ISE	9019962	2023/10/31	2023/11/01	Nachiketa Gohil
Hardness (calculated as CaCO3)		9017582	N/A	2023/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	9023973	2023/11/02	2023/11/02	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9022411	2023/11/01	2023/11/02	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9020512	2023/11/01	2023/11/02	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9027290	N/A	2023/11/07	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9032166	N/A	2023/11/07	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9020896	2023/11/01	2023/11/02	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9037377	2023/11/07	2023/11/07	Joshua Fine
Total Phosphorus Low Level Total	KONE	9037376	2023/11/04	2023/11/06	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9021511	N/A	2023/11/02	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9019932	N/A	2023/11/02	Chandra Nandlal
pH	AT	9019963	2023/10/31	2023/11/01	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Jimmy Liu
Sulphate by Automated Turbidimetry	KONE	9020014	N/A	2023/11/02	Massarat Jan
Total Dissolved Solids	BAL	9025176	2023/11/02	2023/11/04	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9020536	2023/11/01	2023/11/02	Rajni Tyagi
Total Suspended Solids	BAL	9024933	2023/11/02	2023/11/03	Shaneil Hall
Turbidity	AT	9019934	N/A	2023/11/01	Leily Karimi

Bureau Veritas ID: XKN798 Dup
Sample ID: DP-C
Matrix: Water

Collected: 2023/10/23
Shipped:
Received: 2023/10/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	9022411	2023/11/01	2023/11/02	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9020512	2023/11/01	2023/11/02	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9027290	N/A	2023/11/07	Nan Raykha

Bureau Veritas ID: XKN799
Sample ID: MW7-BR-23
Matrix: Water

Collected: 2023/10/24
Shipped:
Received: 2023/10/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9024113	N/A	2023/11/02	Brent Boudreau
Alkalinity	AT	9019958	N/A	2023/11/01	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9017583	N/A	2023/11/02	Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XKN799
Sample ID: MW7-BR-23
Matrix: Water

Collected: 2023/10/24
Shipped:
Received: 2023/10/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	9020023	N/A	2023/11/01	Alina Dobreanu
Conductivity	AT	9019961	N/A	2023/11/01	Nachiketa Gohil
Fluoride	ISE	9019962	2023/10/31	2023/11/01	Nachiketa Gohil
Hardness (calculated as CaCO3)		9017582	N/A	2023/11/08	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9022411	2023/11/01	2023/11/02	Gagandeep Rai
Mercury (low level)	CV/AA	9022388	2023/11/01	2023/11/02	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9020512	2023/11/01	2023/11/02	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9027290	N/A	2023/11/07	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9032166	N/A	2023/11/07	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9020896	2023/11/01	2023/11/02	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9037377	2023/11/07	2023/11/07	Joshua Fine
Total Phosphorus Low Level Total	KONE	9037376	2023/11/04	2023/11/06	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9021511	N/A	2023/11/02	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9019932	N/A	2023/11/02	Chandra Nandlal
pH	AT	9019963	2023/10/31	2023/11/01	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Jimmy Liu
Sulphate by Automated Turbidimetry	KONE	9020025	N/A	2023/11/01	Alina Dobreanu
Total Dissolved Solids	BAL	9024340	2023/11/02	2023/11/04	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9020536	2023/11/01	2023/11/01	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9020372	2023/11/01	2023/11/01	Darshan Patel
Turbidity	AT	9019934	N/A	2023/11/01	Leily Karimi

Bureau Veritas ID: XKN800
Sample ID: BH23-01
Matrix: Water

Collected: 2023/10/24
Shipped:
Received: 2023/10/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9026154	N/A	2023/11/03	Brent Boudreau
Alkalinity	AT	9019958	N/A	2023/11/01	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9017583	N/A	2023/11/02	Automated Statchk
Chloride by Automated Colourimetry	KONE	9020009	N/A	2023/11/02	Massarat Jan
Conductivity	AT	9019961	N/A	2023/11/01	Nachiketa Gohil
Fluoride	ISE	9019962	2023/10/31	2023/11/01	Nachiketa Gohil
Hardness (calculated as CaCO3)		9017582	N/A	2023/11/08	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9022411	2023/11/01	2023/11/02	Gagandeep Rai
Mercury (low level)	CV/AA	9022388	2023/11/01	2023/11/02	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9020512	2023/11/01	2023/11/02	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9027290	N/A	2023/11/07	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9032166	N/A	2023/11/07	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9020896	2023/11/01	2023/11/02	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9037377	2023/11/07	2023/11/07	Joshua Fine

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Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: XKN800
Sample ID: BH23-01
Matrix: Water

Collected: 2023/10/24
Shipped:
Received: 2023/10/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Phosphorus Low Level Total	KONE	9037376	2023/11/04	2023/11/06	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9021511	N/A	2023/11/02	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9019932	N/A	2023/11/02	Chandra Nandlal
pH	AT	9019963	2023/10/31	2023/11/01	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Jimmy Liu
Sulphate by Automated Turbidimetry	KONE	9020014	N/A	2023/11/02	Massarat Jan
Total Dissolved Solids	BAL	9025176	2023/11/02	2023/11/04	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9020536	2023/11/01	2023/11/01	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9020372	2023/11/01	2023/11/01	Darshan Patel
Turbidity	AT	9019934	N/A	2023/11/01	Leily Karimi

Bureau Veritas ID: XKN800 Dup
Sample ID: BH23-01
Matrix: Water

Collected: 2023/10/24
Shipped:
Received: 2023/10/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	9025176	2023/11/02	2023/11/04	Razieh Tabesh

Bureau Veritas ID: XKN801
Sample ID: Seep 10
Matrix: Water

Collected: 2023/10/24
Shipped:
Received: 2023/10/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9026154	N/A	2023/11/03	Brent Boudreau
Alkalinity	AT	9019958	N/A	2023/11/01	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9017583	N/A	2023/11/02	Automated Statchk
Chloride by Automated Colourimetry	KONE	9020023	N/A	2023/11/01	Alina Dobreanu
Conductivity	AT	9019961	N/A	2023/11/01	Nachiketa Gohil
Fluoride	ISE	9019962	2023/10/31	2023/11/01	Nachiketa Gohil
Hardness (calculated as CaCO3)		9017582	N/A	2023/11/08	Automated Statchk
Mercury in Water by CVAA	CV/AA	9023973	2023/11/02	2023/11/02	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9022411	2023/11/01	2023/11/02	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9020512	2023/11/01	2023/11/02	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9027290	N/A	2023/11/07	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9032166	N/A	2023/11/07	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9020896	2023/11/01	2023/11/02	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9037377	2023/11/07	2023/11/07	Joshua Fine
Total Phosphorus Low Level Total	KONE	9037402	2023/11/04	2023/11/07	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9021511	N/A	2023/11/02	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9019932	N/A	2023/11/02	Chandra Nandlal
pH	AT	9019963	2023/10/31	2023/11/01	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Jimmy Liu

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: XKN801
Sample ID: Seep 10
Matrix: Water

Collected: 2023/10/24
Shipped:
Received: 2023/10/25

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sulphate by Automated Turbidimetry	KONE	9020025	N/A	2023/11/01	Alina Dobreanu
Total Dissolved Solids	BAL	9025176	2023/11/02	2023/11/04	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/10/26	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9020536	2023/11/01	2023/11/02	Rajni Tyagi
Total Suspended Solids	BAL	9024237	2023/11/02	2023/11/03	Darshan Patel
Turbidity	AT	9019934	N/A	2023/11/01	Leily Karimi

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	4.0°C
Package 2	5.0°C

TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.
TDS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XKN798 [DP-C] : Acidity sample contained headspace.

Metals analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used. Sample was analyzed past method specified hold time for Cyanide (Free). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Cyanide (total).

Sample XKN799 [MW7-BR-23] : TDS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

Sample XKN800 [BH23-01] : Acidity sample contained headspace.

Sample XKN801 [Seep 10] : Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
Metals analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Acidity sample contained headspace.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9019932	Nitrate (N)	2023/11/02	95	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
9019932	Nitrite (N)	2023/11/02	104	80 - 120	106	80 - 120	<0.010	mg/L	NC	20		
9019934	Turbidity	2023/11/01			100	80 - 120	<0.1	NTU	2.3	20		
9019958	Alkalinity (Total as CaCO3)	2023/11/01			95	85 - 115	<1.0	mg/L	1.8	20		
9019961	Conductivity	2023/11/01			102	85 - 115	<0.001	mS/cm	0.54	10		
9019962	Fluoride (F-)	2023/11/01	98	80 - 120	97	80 - 120	<0.10	mg/L	NC	20		
9019963	pH	2023/11/01			102	98 - 103			1.3	N/A		
9020009	Dissolved Chloride (Cl-)	2023/11/02	88	80 - 120	101	80 - 120	<1.0	mg/L	1.4	20		
9020014	Dissolved Sulphate (SO4)	2023/11/02	NC	75 - 125	99	80 - 120	<1.0	mg/L	1.4	20		
9020023	Dissolved Chloride (Cl-)	2023/11/01	79 (1)	80 - 120	92	80 - 120	<1.0	mg/L	NC	20		
9020025	Dissolved Sulphate (SO4)	2023/11/01	83	75 - 125	98	80 - 120	<1.0	mg/L	NC	20		
9020372	Total Suspended Solids	2023/11/01			96	85 - 115	<1	mg/L	15	20		
9020512	Dissolved Sulphur (S)	2023/11/02	97	80 - 120	98	80 - 120	<0.5	mg/L	NC	25		
9020536	Total Kjeldahl Nitrogen (TKN)	2023/11/01	114	80 - 120	106	80 - 120	<0.10	mg/L	NC	20	97	80 - 120
9020896	Total Sulphur (S)	2023/11/02	97	80 - 120	96	80 - 120	<0.5	mg/L				
9021511	Total Ammonia-N	2023/11/02	103	75 - 125	102	80 - 120	<0.050	mg/L	NC	20		
9022388	Mercury (Hg)	2023/11/02	110	75 - 125	109	80 - 120	<0.01	ug/L	NC	20		
9022411	Dissolved Mercury (Hg)	2023/11/02	107	75 - 125	110	80 - 120	<0.01	ug/L	NC	20		
9023973	Mercury (Hg)	2023/11/02	106	75 - 125	107	80 - 120	<0.00010	mg/L	NC	20		
9024113	Acidity	2023/11/02	88	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9024237	Total Suspended Solids	2023/11/03			97	85 - 115	<10	mg/L	NC	20		
9024340	Total Dissolved Solids	2023/11/04			95	90 - 110	<10	mg/L	4.2	20		
9024933	Total Suspended Solids	2023/11/03			96	85 - 115	<10	mg/L	2.4	20		
9025176	Total Dissolved Solids	2023/11/04			102	90 - 110	<10	mg/L	4.5	20		
9026154	Acidity	2023/11/03	104	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9027290	Dissolved Aluminum (Al)	2023/11/07	105	80 - 120	105	80 - 120	<0.0005	mg/L	1.1	20		
9027290	Dissolved Antimony (Sb)	2023/11/07	112	80 - 120	104	80 - 120	<0.0001	mg/L	2.6	20		
9027290	Dissolved Arsenic (As)	2023/11/07	102	80 - 120	102	80 - 120	<0.0001	mg/L	0.65	20		
9027290	Dissolved Barium (Ba)	2023/11/07	NC	80 - 120	99	80 - 120	<0.0002	mg/L	0.80	20		
9027290	Dissolved Beryllium (Be)	2023/11/07	97	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9027290	Dissolved Bismuth (Bi)	2023/11/07	90	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9027290	Dissolved Boron (B)	2023/11/07	91	80 - 120	95	80 - 120	<0.001	mg/L	1.7	20		
9027290	Dissolved Cadmium (Cd)	2023/11/07	105	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
9027290	Dissolved Calcium (Ca)	2023/11/07	NC	80 - 120	108	80 - 120	<0.02	mg/L	0.63	20		
9027290	Dissolved Cesium (Cs)	2023/11/07	98	80 - 120	100	80 - 120	<0.00002	mg/L	NC	N/A		
9027290	Dissolved Chromium (Cr)	2023/11/07	100	80 - 120	101	80 - 120	<0.0005	mg/L	NC	20		
9027290	Dissolved Cobalt (Co)	2023/11/07	96	80 - 120	102	80 - 120	<0.00005	mg/L	1.9	20		
9027290	Dissolved Copper (Cu)	2023/11/07	103	80 - 120	99	80 - 120	<0.0001	mg/L	1.7	20		
9027290	Dissolved Iron (Fe)	2023/11/07	99	80 - 120	104	80 - 120	<0.005	mg/L	0.82	20		
9027290	Dissolved Lead (Pb)	2023/11/07	95	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
9027290	Dissolved Lithium (Li)	2023/11/07	101	80 - 120	98	80 - 120	<0.0005	mg/L	2.6	20		
9027290	Dissolved Magnesium (Mg)	2023/11/07	NC	80 - 120	102	80 - 120	<0.005	mg/L	3.4	20		
9027290	Dissolved Manganese (Mn)	2023/11/07	NC	80 - 120	98	80 - 120	<0.0002	mg/L	1.0	20		
9027290	Dissolved Molybdenum (Mo)	2023/11/07	119	80 - 120	103	80 - 120	<0.00005	mg/L	3.2	20		
9027290	Dissolved Nickel (Ni)	2023/11/07	91	80 - 120	97	80 - 120	<0.0001	mg/L	2.6	20		
9027290	Dissolved Phosphorus (P)	2023/11/07	109	80 - 120	98	80 - 120	<0.005	mg/L	NC	20		
9027290	Dissolved Potassium (K)	2023/11/07	NC	80 - 120	105	80 - 120	<0.02	mg/L	0.18	20		
9027290	Dissolved Rubidium (Rb)	2023/11/07	103	80 - 120	108	80 - 120	<0.00002	mg/L	NC	N/A		
9027290	Dissolved Selenium (Se)	2023/11/07	103	80 - 120	103	80 - 120	<0.0002	mg/L	NC	20		
9027290	Dissolved Silicon (Si)	2023/11/07	NC	80 - 120	103	80 - 120	<0.005	mg/L	0.64	20		
9027290	Dissolved Silver (Ag)	2023/11/07	100	80 - 120	101	80 - 120	<0.00001	mg/L	NC	20		
9027290	Dissolved Sodium (Na)	2023/11/07	NC	80 - 120	102	80 - 120	<0.01	mg/L	0.84	20		
9027290	Dissolved Strontium (Sr)	2023/11/07	NC	80 - 120	100	80 - 120	<0.0001	mg/L	2.8	20		
9027290	Dissolved Tellurium (Te)	2023/11/07	105	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9027290	Dissolved Thallium (Tl)	2023/11/07	98	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9027290	Dissolved Thorium (Th)	2023/11/07	99	80 - 120	94	80 - 120	<0.0002	mg/L	NC	20		
9027290	Dissolved Tin (Sn)	2023/11/07	111	80 - 120	103	80 - 120	<0.0001	mg/L	0.88	20		
9027290	Dissolved Titanium (Ti)	2023/11/07	106	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		
9027290	Dissolved Tungsten (W)	2023/11/07	106	80 - 120	102	80 - 120	<0.0001	mg/L	0.43	20		
9027290	Dissolved Uranium (U)	2023/11/07	100	80 - 120	95	80 - 120	<0.00001	mg/L	1.9	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9027290	Dissolved Vanadium (V)	2023/11/07	100	80 - 120	99	80 - 120	<0.00005	mg/L	0.46	20		
9027290	Dissolved Zinc (Zn)	2023/11/07	NC	80 - 120	100	80 - 120	<0.0005	mg/L	0.12	20		
9027290	Dissolved Zirconium (Zr)	2023/11/07	112	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9032166	. Aluminum (Al)	2023/11/07	105	80 - 120	102	80 - 120	<0.0005	mg/L	1.7	20		
9032166	. Antimony (Sb)	2023/11/07	114	80 - 120	104	80 - 120	<0.0001	mg/L				
9032166	. Arsenic (As)	2023/11/07	103	80 - 120	97	80 - 120	<0.0001	mg/L				
9032166	. Barium (Ba)	2023/11/07	100	80 - 120	97	80 - 120	<0.0002	mg/L				
9032166	. Beryllium (Be)	2023/11/07	102	80 - 120	98	80 - 120	<0.00005	mg/L				
9032166	. Bismuth (Bi)	2023/11/07	99	80 - 120	103	80 - 120	<0.0001	mg/L				
9032166	. Boron (B)	2023/11/07	103	80 - 120	101	80 - 120	<0.001	mg/L				
9032166	. Cadmium (Cd)	2023/11/07	103	80 - 120	98	80 - 120	<0.000005	mg/L				
9032166	. Calcium (Ca)	2023/11/07	NC	80 - 120	101	80 - 120	<0.02	mg/L				
9032166	. Cesium (Cs)	2023/11/07	101	80 - 120	98	80 - 120	<0.00002	mg/L				
9032166	. Chromium (Cr)	2023/11/07	101	80 - 120	97	80 - 120	<0.0005	mg/L				
9032166	. Cobalt (Co)	2023/11/07	98	80 - 120	96	80 - 120	<0.00005	mg/L				
9032166	. Copper (Cu)	2023/11/07	100	80 - 120	98	80 - 120	<0.0001	mg/L				
9032166	. Iron (Fe)	2023/11/07	99	80 - 120	97	80 - 120	<0.005	mg/L				
9032166	. Lead (Pb)	2023/11/07	97	80 - 120	98	80 - 120	<0.00005	mg/L				
9032166	. Lithium (Li)	2023/11/07	103	80 - 120	102	80 - 120	<0.0005	mg/L				
9032166	. Magnesium (Mg)	2023/11/07	NC	80 - 120	95	80 - 120	<0.005	mg/L				
9032166	. Manganese (Mn)	2023/11/07	100	80 - 120	98	80 - 120	<0.0002	mg/L				
9032166	. Molybdenum (Mo)	2023/11/07	108	80 - 120	100	80 - 120	<0.00005	mg/L				
9032166	. Nickel (Ni)	2023/11/07	97	80 - 120	95	80 - 120	<0.0001	mg/L				
9032166	. Phosphorus (P)	2023/11/07	112	80 - 120	98	80 - 120	<0.005	mg/L				
9032166	. Potassium (K)	2023/11/07	100	80 - 120	95	80 - 120	<0.02	mg/L				
9032166	. Rubidium (Rb)	2023/11/07	100	80 - 120	96	80 - 120	<0.00002	mg/L				
9032166	. Selenium (Se)	2023/11/07	109	80 - 120	102	80 - 120	<0.00005	mg/L				
9032166	. Silicon (Si)	2023/11/07	104	80 - 120	101	80 - 120	<0.005	mg/L				
9032166	. Silver (Ag)	2023/11/07	102	80 - 120	100	80 - 120	<0.00001	mg/L				
9032166	. Sodium (Na)	2023/11/07	NC	80 - 120	96	80 - 120	<0.01	mg/L				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9032166	. Strontium (Sr)	2023/11/07	NC	80 - 120	98	80 - 120	<0.0001	mg/L				
9032166	. Tellurium (Te)	2023/11/07	104	80 - 120	95	80 - 120	<0.0001	mg/L				
9032166	. Thallium (Tl)	2023/11/07	100	80 - 120	100	80 - 120	<0.000005	mg/L				
9032166	. Thorium (Th)	2023/11/07	102	80 - 120	99	80 - 120	<0.0002	mg/L				
9032166	. Tin (Sn)	2023/11/07	107	80 - 120	100	80 - 120	<0.0001	mg/L				
9032166	. Titanium (Ti)	2023/11/07	103	80 - 120	97	80 - 120	<0.0005	mg/L				
9032166	. Tungsten (W)	2023/11/07	104	80 - 120	102	80 - 120	<0.0001	mg/L				
9032166	. Uranium (U)	2023/11/07	102	80 - 120	101	80 - 120	<0.00001	mg/L				
9032166	. Vanadium (V)	2023/11/07	102	80 - 120	96	80 - 120	<0.00005	mg/L				
9032166	. Zinc (Zn)	2023/11/07	101	80 - 120	96	80 - 120	<0.0005	mg/L				
9032166	. Zirconium (Zr)	2023/11/07	110	80 - 120	101	80 - 120	<0.0001	mg/L				
9037376	Total Phosphorus (P)	2023/11/06	107	80 - 120	99	80 - 120	<0.0010	mg/L			89	80 - 120
9037377	Strong Acid Dissoc. Cyanide (CN)	2023/11/07	48 (1)	80 - 120	101	80 - 120	<0.00050	mg/L				
9037378	Free Cyanide (CN)	2023/11/07	94	80 - 120	91	80 - 120	<2.0	ug/L				
9037402	Total Phosphorus (P)	2023/11/07	NC	80 - 120	99	80 - 120	<0.0010	mg/L			96	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Bureau Veritas Job #: C3X5415
Report Date: 2023/11/08

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Janah Rhyno, Scientific Specialist

Mike MacGillivray, Scientific Specialist (Inorganics)

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 791394

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/16
Report #: R7913706
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Y3381
Received: 2023/10/31, 16:09

Sample Matrix: Ground Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	1	N/A	2023/11/08	ATL SOP-00205	SM 24 2310B m
Alkalinity	1	N/A	2023/11/04	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2023/11/06	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	1	N/A	2023/11/07	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	1	N/A	2023/11/04	CAM SOP-00414	SM 23 2510 m
Petroleum Hydrocarbons F2-F4 in Water (3)	1	2023/11/07	2023/11/07	CAM SOP-00316	CCME PHC-CWS m
Fluoride	1	2023/11/04	2023/11/04	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2023/11/08	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	1	2023/11/07	2023/11/07	CAM SOP-00453	EPA 7470 m
Mercury (low level)	1	2023/11/06	2023/11/06	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	1	2023/11/06	2023/11/08	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	1	N/A	2023/11/08	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2023/11/08	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	1	2023/11/07	2023/11/07	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	1	N/A	2023/11/07	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	1	2023/11/15	2023/11/15	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	1	2023/11/06	2023/11/06	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	1	N/A	2023/11/06	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (4)	1	N/A	2023/11/13	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2023/11/04	2023/11/04	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (5)	1	N/A	2023/11/02		Field pH Meter
Sulphate by Automated Turbidimetry	1	N/A	2023/11/07	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	1	2023/11/03	2023/11/04	CAM SOP-00428	SM 23 2540C m
Field Temperature (5)	1	N/A	2023/11/02		Field Thermometer
Total Kjeldahl Nitrogen in Water	1	2023/11/03	2023/11/06	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	1	2023/11/03	2023/11/04	CAM SOP-00428	SM 23 2540D m
Turbidity	1	N/A	2023/11/03	CAM SOP-00417	SM 23 2130 B m
Volatile Organic Compounds and F1 PHCs	1	N/A	2023/11/07	CAM SOP-00230	EPA 8260C m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9

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6 Twilight Bay
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Report Date: 2023/11/16
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BUREAU VERITAS JOB #: C3Y3381

Received: 2023/10/31, 16:09

(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(4) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C3Y3381
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036

RESULTS OF ANALYSES OF GROUND WATER

Bureau Veritas ID		XMH186			XMH186		
Sampling Date		2023/10/26 11:30			2023/10/26 11:30		
COC Number		791394			791394		
	UNITS	POND M1 DRAIN	RDL	QC Batch	POND M1 DRAIN Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	400	1.0	9024163			
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.0	1.0	9024163			
Hardness (CaCO3)	mg/L	440	1.0	9024164			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9024163			
Field Measurements							
Field Temperature	Celsius	5.6	N/A	ONSITE			
Field Measured pH	pH	7.08		ONSITE			
Inorganics							
Acidity	mg/L	36	5.0	9035651			
Total Ammonia-N	mg/L	0.16	0.050	9028435			
Conductivity	mS/cm	0.823	0.001	9029272			
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9037378			
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00056	0.00050	9052138			
Total Dissolved Solids	mg/L	430	10	9027029			
Fluoride (F-)	mg/L	<0.10	0.10	9029276			
Total Kjeldahl Nitrogen (TKN)	mg/L	0.56	0.10	9028434			
pH	pH	7.72		9029279			
Total Phosphorus (P)	mg/L	0.020	0.0010	9038257			
Total Suspended Solids	mg/L	1700	3	9027023			
Dissolved Sulphate (SO4)	mg/L	11	1.0	9027521			
Turbidity	NTU	8.2	0.1	9026924			
Alkalinity (Total as CaCO3)	mg/L	400	1.0	9029270			
Dissolved Chloride (Cl-)	mg/L	23	1.0	9027518			
Nitrite (N)	mg/L	<0.010	0.010	9028730	<0.010	0.010	9028730
Nitrate (N)	mg/L	<0.10	0.10	9028730	<0.10	0.10	9028730

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
Sample pH <12, preservation incomplete. Due to volatility of analyte, a low bias in the results is likely.

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Bureau Veritas Job #: C3Y3381
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036

RESULTS OF ANALYSES OF GROUND WATER

Bureau Veritas ID		XMH186			XMH186		
Sampling Date		2023/10/26 11:30			2023/10/26 11:30		
COC Number		791394			791394		
	UNITS	**POND M1 DRAIN**	**RDL**	**QC Batch**	**POND M1 DRAIN Lab-Dup**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9028730	<0.10	0.10	9028730

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (GROUND WATER)

Bureau Veritas ID		XMH186			XMH186		
Sampling Date		2023/10/26 11:30			2023/10/26 11:30		
COC Number		791394			791394		
	UNITS	POND M1 DRAIN	RDL	QC Batch	POND M1 DRAIN Lab-Dup	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	0.0133	0.0005	9033749	0.0135	0.0005	9033749
. Aluminum (Al)	mg/L	0.0609	0.0005	9035554			
Dissolved Antimony (Sb)	mg/L	0.0001	0.0001	9033749	0.0002	0.0001	9033749
. Antimony (Sb)	mg/L	<0.0001	0.0001	9035554			
Dissolved Arsenic (As)	mg/L	0.0075	0.0001	9033749	0.0076	0.0001	9033749
. Arsenic (As)	mg/L	0.0216	0.0001	9035554			
Dissolved Barium (Ba)	mg/L	0.0375	0.0002	9033749	0.0377	0.0002	9033749
. Barium (Ba)	mg/L	0.0393	0.0002	9035554			
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9033749	<0.00005	0.00005	9033749
. Beryllium (Be)	mg/L	<0.00005	0.00005	9035554			
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9033749	<0.0001	0.0001	9033749
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9035554			
Dissolved Boron (B)	mg/L	0.010	0.001	9033749	0.010	0.001	9033749
. Boron (B)	mg/L	0.010	0.001	9035554			
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9033749	<0.00001	0.00001	9033749
. Cadmium (Cd)	mg/L	0.000013	0.000005	9035554			
Dissolved Calcium (Ca)	mg/L	135	0.1	9033749	134	0.1	9033749
. Calcium (Ca)	mg/L	132	0.1	9035554			
Dissolved Cesium (Cs)	mg/L	0.00007	0.00002	9033749	0.00007	0.00002	9033749
. Cesium (Cs)	mg/L	0.00008	0.00002	9035554			
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9033749	<0.0005	0.0005	9033749
. Chromium (Cr)	mg/L	0.0006	0.0005	9035554			
Dissolved Cobalt (Co)	mg/L	0.0178	0.00005	9033749	0.0180	0.00005	9033749
. Cobalt (Co)	mg/L	0.0188	0.00005	9035554			
Dissolved Copper (Cu)	mg/L	0.0007	0.0001	9033749	0.0006	0.0001	9033749
. Copper (Cu)	mg/L	0.0014	0.0001	9035554			
Dissolved Iron (Fe)	mg/L	0.769	0.005	9033749	0.770	0.005	9033749
. Iron (Fe)	mg/L	2.36	0.005	9035554			
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9033749	<0.00005	0.00005	9033749
. Lead (Pb)	mg/L	0.00014	0.00005	9035554			

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Bureau Veritas ID		XMH186			XMH186		
Sampling Date		2023/10/26 11:30			2023/10/26 11:30		
COC Number		791394			791394		
	UNITS	POND M1 DRAIN	RDL	QC Batch	POND M1 DRAIN Lab-Dup	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0015	0.0005	9033749	0.0015	0.0005	9033749
. Lithium (Li)	mg/L	0.0015	0.0005	9035554			
Dissolved Magnesium (Mg)	mg/L	24.5	0.005	9033749	24.4	0.005	9033749
. Magnesium (Mg)	mg/L	25.3	0.005	9035554			
Dissolved Manganese (Mn)	mg/L	5.66	0.002	9033749	5.56	0.002	9033749
. Manganese (Mn)	mg/L	5.64	0.002	9035554			
Mercury (Hg)	ug/L	<0.01	0.01	9031278			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9034575	<0.01	0.01	9034575
Dissolved Molybdenum (Mo)	mg/L	0.00164	0.00005	9033749	0.00163	0.00005	9033749
. Molybdenum (Mo)	mg/L	0.00159	0.00005	9035554			
Dissolved Nickel (Ni)	mg/L	0.0074	0.0001	9033749	0.0074	0.0001	9033749
. Nickel (Ni)	mg/L	0.0079	0.0001	9035554			
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9033749	<0.005	0.005	9033749
. Phosphorus (P)	mg/L	0.023	0.005	9035554			
Dissolved Potassium (K)	mg/L	2.30	0.02	9033749	2.29	0.02	9033749
. Potassium (K)	mg/L	2.28	0.02	9035554			
Dissolved Rubidium (Rb)	mg/L	0.00285	0.00002	9033749	0.00284	0.00002	9033749
. Rubidium (Rb)	mg/L	0.00296	0.00002	9035554			
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9033749	<0.0002	0.0002	9033749
. Selenium (Se)	mg/L	0.00012	0.00005	9035554			
Dissolved Silicon (Si)	mg/L	7.30	0.025	9033749	7.37	0.025	9033749
. Silicon (Si)	mg/L	7.20	0.025	9035554			
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9033749	<0.00001	0.00001	9033749
. Silver (Ag)	mg/L	<0.00001	0.00001	9035554			
Dissolved Sodium (Na)	mg/L	9.68	0.01	9033749	9.68	0.01	9033749
. Sodium (Na)	mg/L	9.84	0.01	9035554			
Dissolved Strontium (Sr)	mg/L	0.237	0.0001	9033749	0.235	0.0001	9033749
. Strontium (Sr)	mg/L	0.238	0.0001	9035554			
Dissolved Sulphur (S)	mg/L	3.0	0.5	9030935			
Total Sulphur (S)	mg/L	3.0	0.5	9032995			
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9033749	<0.0001	0.0001	9033749

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ELEMENTS BY ATOMIC SPECTROSCOPY (GROUND WATER)

Bureau Veritas ID		XMH186			XMH186		
Sampling Date		2023/10/26 11:30			2023/10/26 11:30		
COC Number		791394			791394		
	UNITS	POND M1 DRAIN	RDL	QC Batch	POND M1 DRAIN Lab-Dup	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	9035554			
Dissolved Thallium (Tl)	mg/L	0.000023	0.000005	9033749	0.000021	0.000005	9033749
. Thallium (Tl)	mg/L	0.000031	0.000005	9035554			
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9033749	<0.0002	0.0002	9033749
. Thorium (Th)	mg/L	<0.0002	0.0002	9035554			
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9033749	<0.0001	0.0001	9033749
. Tin (Sn)	mg/L	<0.0001	0.0001	9035554			
Dissolved Titanium (Ti)	mg/L	0.0007	0.0005	9033749	0.0007	0.0005	9033749
. Titanium (Ti)	mg/L	0.0039	0.0005	9035554			
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	9033749	<0.0001	0.0001	9033749
. Tungsten (W)	mg/L	<0.0001	0.0001	9035554			
Dissolved Uranium (U)	mg/L	0.00118	0.00001	9033749	0.00117	0.00001	9033749
. Uranium (U)	mg/L	0.00118	0.00001	9035554			
Dissolved Vanadium (V)	mg/L	0.00055	0.00005	9033749	0.00053	0.00005	9033749
. Vanadium (V)	mg/L	0.00123	0.00005	9035554			
Dissolved Zinc (Zn)	mg/L	0.0023	0.0005	9033749	0.0024	0.0005	9033749
. Zinc (Zn)	mg/L	0.0060	0.0005	9035554			
Dissolved Zirconium (Zr)	mg/L	0.0021	0.0001	9033749	0.0021	0.0001	9033749
. Zirconium (Zr)	mg/L	0.0026	0.0001	9035554			

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VOLATILE ORGANICS BY GC/MS (GROUND WATER)

Bureau Veritas ID		XMH186		
Sampling Date		2023/10/26 11:30		
COC Number		791394		
	UNITS	POND M1 DRAIN	RDL	QC Batch
Volatile Organics				
Benzene	ug/L	<0.17	0.17	9030070
Chloroform	ug/L	<0.20	0.20	9030070
1,2-Dichlorobenzene	ug/L	<0.50	0.50	9030070
1,4-Dichlorobenzene	ug/L	<0.50	0.50	9030070
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	9030070
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	9030070
Ethylbenzene	ug/L	<0.20	0.20	9030070
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	9030070
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	9030070
Tetrachloroethylene	ug/L	<0.20	0.20	9030070
Toluene	ug/L	<0.20	0.20	9030070
Trichloroethylene	ug/L	<0.20	0.20	9030070
p+m-Xylene	ug/L	<0.20	0.20	9030070
o-Xylene	ug/L	<0.20	0.20	9030070
Total Xylenes	ug/L	<0.20	0.20	9030070
F1 (C6-C10)	ug/L	<25	25	9030070
F1 (C6-C10) - BTEX	ug/L	<25	25	9030070
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	98		9030070
D4-1,2-Dichloroethane	%	104		9030070
D8-Toluene	%	90		9030070

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QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		XMH186		
Sampling Date		2023/10/26 11:30		
COC Number		791394		
	UNITS	POND M1 DRAIN	RDL	QC Batch
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	9032771
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	9032771
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	9032771
Reached Baseline at C50	ug/L	Yes		9032771
Surrogate Recovery (%)				
o-Terphenyl	%	97		9032771

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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TEST SUMMARY

Bureau Veritas ID: XMH186
Sample ID: POND M1 DRAIN
Matrix: Ground Water

Collected: 2023/10/26
Shipped:
Received: 2023/10/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9035651	N/A	2023/11/08	Brent Boudreau
Alkalinity	AT	9029270	N/A	2023/11/04	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9024163	N/A	2023/11/06	Automated Statchk
Chloride by Automated Colourimetry	KONE	9027518	N/A	2023/11/07	Massarat Jan
Conductivity	AT	9029272	N/A	2023/11/04	Nachiketa Gohil
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9032771	2023/11/07	2023/11/07	Jeevaraj Jeevaratrnam
Fluoride	ISE	9029276	2023/11/04	2023/11/04	Nachiketa Gohil
Hardness (calculated as CaCO3)		9024164	N/A	2023/11/08	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Mercury (low level)	CV/AA	9031278	2023/11/06	2023/11/06	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9030935	2023/11/06	2023/11/08	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9033749	N/A	2023/11/08	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9035554	N/A	2023/11/08	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9032995	2023/11/07	2023/11/07	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9052138	2023/11/15	2023/11/15	Joshua Fine
Total Phosphorus Low Level Total	KONE	9038257	2023/11/06	2023/11/06	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9028435	N/A	2023/11/06	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9028730	N/A	2023/11/13	Chandra Nandlal
pH	AT	9029279	2023/11/04	2023/11/04	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Alam Joseph
Sulphate by Automated Turbidimetry	KONE	9027521	N/A	2023/11/07	Massarat Jan
Total Dissolved Solids	BAL	9027029	2023/11/03	2023/11/04	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Alam Joseph
Total Kjeldahl Nitrogen in Water	SKAL	9028434	2023/11/03	2023/11/06	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9027023	2023/11/03	2023/11/04	Darshan Patel
Turbidity	AT	9026924	N/A	2023/11/03	Leily Karimi
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9030070	N/A	2023/11/07	Juan Pangilinan

Bureau Veritas ID: XMH186 Dup
Sample ID: POND M1 DRAIN
Matrix: Ground Water

Collected: 2023/10/26
Shipped:
Received: 2023/10/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9033749	N/A	2023/11/08	Azita Fazaeli
Nitrate & Nitrite as Nitrogen in Water	LACH	9028730	N/A	2023/11/13	Chandra Nandlal

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.3°C

Sample XMH186 [POND M1 DRAIN] : TDS/TSS Analysis: Analysis was performed past sample holding time. This may increase the variability associated with these results.

TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace. Sample was analyzed past method specified hold time for Cyanide (total). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9030070	4-Bromofluorobenzene	2023/11/07	102	70 - 130	102	70 - 130	97	%				
9030070	D4-1,2-Dichloroethane	2023/11/07	104	70 - 130	101	70 - 130	103	%				
9030070	D8-Toluene	2023/11/07	103	70 - 130	105	70 - 130	92	%				
9032771	o-Terphenyl	2023/11/07	98	60 - 130	100	60 - 130	96	%				
9026924	Turbidity	2023/11/03			101	80 - 120	<0.1	NTU	19	20		
9027023	Total Suspended Solids	2023/11/04			95	85 - 115	<1	mg/L	2.7	20		
9027029	Total Dissolved Solids	2023/11/04			97	90 - 110	<10	mg/L	0	20		
9027518	Dissolved Chloride (Cl-)	2023/11/07	NC	80 - 120	99	80 - 120	<1.0	mg/L	0.93	20		
9027521	Dissolved Sulphate (SO4)	2023/11/07	NC	75 - 125	101	80 - 120	<1.0	mg/L	0.58	20		
9028434	Total Kjeldahl Nitrogen (TKN)	2023/11/06	109	80 - 120	99	80 - 120	<0.10	mg/L	7.4	20	99	80 - 120
9028435	Total Ammonia-N	2023/11/06	97	75 - 125	101	80 - 120	<0.050	mg/L	2.5	20		
9028730	Nitrate (N)	2023/11/13	90	80 - 120	101	80 - 120	<0.10	mg/L	NC	20		
9028730	Nitrite (N)	2023/11/13	104	80 - 120	104	80 - 120	<0.010	mg/L	NC	20		
9029270	Alkalinity (Total as CaCO3)	2023/11/04			95	85 - 115	<1.0	mg/L	1.1	20		
9029272	Conductivity	2023/11/04			100	85 - 115	<0.001	mS/cm	0.90	10		
9029276	Fluoride (F-)	2023/11/04	100	80 - 120	96	80 - 120	<0.10	mg/L	NC	20		
9029279	pH	2023/11/04			102	98 - 103			0.11	N/A		
9030070	1,1,2,2-Tetrachloroethane	2023/11/07	96	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
9030070	1,2-Dichlorobenzene	2023/11/07	86	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
9030070	1,4-Dichlorobenzene	2023/11/07	97	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
9030070	Benzene	2023/11/07	82	70 - 130	90	70 - 130	<0.17	ug/L	NC	30		
9030070	Chloroform	2023/11/07	94	70 - 130	102	70 - 130	<0.20	ug/L	NC	30		
9030070	cis-1,2-Dichloroethylene	2023/11/07	92	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
9030070	Ethylbenzene	2023/11/07	77	70 - 130	86	70 - 130	<0.20	ug/L	NC	30		
9030070	F1 (C6-C10) - BTEX	2023/11/07					<25	ug/L	NC	30		
9030070	F1 (C6-C10)	2023/11/07	79	60 - 140	85	60 - 140	<25	ug/L	NC	30		
9030070	Methylene Chloride(Dichloromethane)	2023/11/07	91	70 - 130	97	70 - 130	<2.0	ug/L	NC	30		
9030070	o-Xylene	2023/11/07	73	70 - 130	81	70 - 130	<0.20	ug/L	NC	30		
9030070	p+m-Xylene	2023/11/07	84	70 - 130	93	70 - 130	<0.20	ug/L	NC	30		
9030070	Tetrachloroethylene	2023/11/07	85	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
9030070	Toluene	2023/11/07	82	70 - 130	91	70 - 130	<0.20	ug/L	NC	30		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9030070	Total Xylenes	2023/11/07					<0.20	ug/L	NC	30		
9030070	trans-1,3-Dichloropropene	2023/11/07	91	70 - 130	104	70 - 130	<0.40	ug/L	NC	30		
9030070	Trichloroethylene	2023/11/07	87	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
9030935	Dissolved Sulphur (S)	2023/11/08	NC	80 - 120	95	80 - 120	<0.5	mg/L	0.38	25		
9031278	Mercury (Hg)	2023/11/06	113	75 - 125	109	80 - 120	<0.01	ug/L	NC	20		
9032771	F2 (C10-C16 Hydrocarbons)	2023/11/07	109	60 - 130	99	60 - 130	<100	ug/L	NC	30		
9032771	F3 (C16-C34 Hydrocarbons)	2023/11/07	111	60 - 130	105	60 - 130	<200	ug/L	NC	30		
9032771	F4 (C34-C50 Hydrocarbons)	2023/11/07	113	60 - 130	106	60 - 130	<200	ug/L	NC	30		
9032995	Total Sulphur (S)	2023/11/07	NC	80 - 120	95	80 - 120	<0.5	mg/L				
9033749	Dissolved Aluminum (Al)	2023/11/08	102	80 - 120	103	80 - 120	<0.0005	mg/L	1.2	20		
9033749	Dissolved Antimony (Sb)	2023/11/08	114	80 - 120	106	80 - 120	<0.0001	mg/L	7.6	20		
9033749	Dissolved Arsenic (As)	2023/11/08	101	80 - 120	96	80 - 120	<0.0001	mg/L	1.3	20		
9033749	Dissolved Barium (Ba)	2023/11/08	102	80 - 120	103	80 - 120	<0.0002	mg/L	0.33	20		
9033749	Dissolved Beryllium (Be)	2023/11/08	96	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9033749	Dissolved Bismuth (Bi)	2023/11/08	95	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9033749	Dissolved Boron (B)	2023/11/08	102	80 - 120	99	80 - 120	<0.001	mg/L	0.50	20		
9033749	Dissolved Cadmium (Cd)	2023/11/08	102	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
9033749	Dissolved Calcium (Ca)	2023/11/08	NC	80 - 120	103	80 - 120	<0.02	mg/L	0.30	20		
9033749	Dissolved Cesium (Cs)	2023/11/08	103	80 - 120	104	80 - 120	<0.00002	mg/L	NC	N/A		
9033749	Dissolved Chromium (Cr)	2023/11/08	98	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
9033749	Dissolved Cobalt (Co)	2023/11/08	93	80 - 120	96	80 - 120	<0.00005	mg/L	0.99	20		
9033749	Dissolved Copper (Cu)	2023/11/08	97	80 - 120	97	80 - 120	<0.0001	mg/L	6.4	20		
9033749	Dissolved Iron (Fe)	2023/11/08	96	80 - 120	97	80 - 120	<0.005	mg/L	0.14	20		
9033749	Dissolved Lead (Pb)	2023/11/08	95	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9033749	Dissolved Lithium (Li)	2023/11/08	104	80 - 120	103	80 - 120	<0.0005	mg/L	1.2	20		
9033749	Dissolved Magnesium (Mg)	2023/11/08	NC	80 - 120	95	80 - 120	<0.005	mg/L	0.24	20		
9033749	Dissolved Manganese (Mn)	2023/11/08	NC	80 - 120	97	80 - 120	<0.0002	mg/L	1.8	20		
9033749	Dissolved Molybdenum (Mo)	2023/11/08	111	80 - 120	102	80 - 120	<0.00005	mg/L	0.79	20		
9033749	Dissolved Nickel (Ni)	2023/11/08	90	80 - 120	95	80 - 120	<0.0001	mg/L	0.88	20		
9033749	Dissolved Phosphorus (P)	2023/11/08	111	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		
9033749	Dissolved Potassium (K)	2023/11/08	100	80 - 120	100	80 - 120	<0.02	mg/L	0.19	20		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9033749	Dissolved Rubidium (Rb)	2023/11/08	101	80 - 120	99	80 - 120	<0.00002	mg/L	NC	N/A		
9033749	Dissolved Selenium (Se)	2023/11/08	105	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
9033749	Dissolved Silicon (Si)	2023/11/08	NC	80 - 120	103	80 - 120	<0.005	mg/L	0.87	20		
9033749	Dissolved Silver (Ag)	2023/11/08	73 (1)	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
9033749	Dissolved Sodium (Na)	2023/11/08	NC	80 - 120	96	80 - 120	<0.01	mg/L	0.024	20		
9033749	Dissolved Strontium (Sr)	2023/11/08	NC	80 - 120	100	80 - 120	<0.0001	mg/L	0.70	20		
9033749	Dissolved Tellurium (Te)	2023/11/08	103	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9033749	Dissolved Thallium (Tl)	2023/11/08	97	80 - 120	99	80 - 120	<0.000005	mg/L	9.1	20		
9033749	Dissolved Thorium (Th)	2023/11/08	101	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9033749	Dissolved Tin (Sn)	2023/11/08	112	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9033749	Dissolved Titanium (Ti)	2023/11/08	106	80 - 120	104	80 - 120	<0.0005	mg/L	6.4	20		
9033749	Dissolved Tungsten (W)	2023/11/08	103	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9033749	Dissolved Uranium (U)	2023/11/08	101	80 - 120	99	80 - 120	<0.00001	mg/L	0.76	20		
9033749	Dissolved Vanadium (V)	2023/11/08	103	80 - 120	99	80 - 120	<0.00005	mg/L	5.0	20		
9033749	Dissolved Zinc (Zn)	2023/11/08	89	80 - 120	95	80 - 120	<0.0005	mg/L	4.1	20		
9033749	Dissolved Zirconium (Zr)	2023/11/08	115	80 - 120	105	80 - 120	<0.0001	mg/L	0.52	20		
9034575	Dissolved Mercury (Hg)	2023/11/07	107	75 - 125	110	80 - 120	<0.01	ug/L	NC	20		
9035554	. Aluminum (Al)	2023/11/08	97	80 - 120	99	80 - 120	<0.0005	mg/L	0.63	20		
9035554	. Antimony (Sb)	2023/11/08	114	80 - 120	106	80 - 120	<0.0001	mg/L				
9035554	. Arsenic (As)	2023/11/08	105	80 - 120	99	80 - 120	<0.0001	mg/L				
9035554	. Barium (Ba)	2023/11/08	102	80 - 120	97	80 - 120	<0.0002	mg/L				
9035554	. Beryllium (Be)	2023/11/08	102	80 - 120	99	80 - 120	<0.00005	mg/L				
9035554	. Bismuth (Bi)	2023/11/08	98	80 - 120	103	80 - 120	<0.0001	mg/L				
9035554	. Boron (B)	2023/11/08	103	80 - 120	99	80 - 120	<0.001	mg/L				
9035554	. Cadmium (Cd)	2023/11/08	104	80 - 120	99	80 - 120	<0.000005	mg/L				
9035554	. Calcium (Ca)	2023/11/08	NC	80 - 120	99	80 - 120	<0.02	mg/L				
9035554	. Cesium (Cs)	2023/11/08	103	80 - 120	100	80 - 120	<0.00002	mg/L				
9035554	. Chromium (Cr)	2023/11/08	99	80 - 120	97	80 - 120	<0.0005	mg/L				
9035554	. Cobalt (Co)	2023/11/08	96	80 - 120	97	80 - 120	<0.00005	mg/L				
9035554	. Copper (Cu)	2023/11/08	99	80 - 120	96	80 - 120	<0.0001	mg/L				
9035554	. Iron (Fe)	2023/11/08	99	80 - 120	98	80 - 120	<0.005	mg/L				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9035554	. Lead (Pb)	2023/11/08	97	80 - 120	96	80 - 120	<0.00005	mg/L				
9035554	. Lithium (Li)	2023/11/08	105	80 - 120	103	80 - 120	<0.0005	mg/L				
9035554	. Magnesium (Mg)	2023/11/08	NC	80 - 120	97	80 - 120	<0.005	mg/L				
9035554	. Manganese (Mn)	2023/11/08	100	80 - 120	99	80 - 120	<0.0002	mg/L				
9035554	. Molybdenum (Mo)	2023/11/08	107	80 - 120	100	80 - 120	<0.00005	mg/L				
9035554	. Nickel (Ni)	2023/11/08	96	80 - 120	97	80 - 120	<0.0001	mg/L				
9035554	. Phosphorus (P)	2023/11/08	111	80 - 120	101	80 - 120	<0.005	mg/L				
9035554	. Potassium (K)	2023/11/08	102	80 - 120	98	80 - 120	<0.02	mg/L				
9035554	. Rubidium (Rb)	2023/11/08	103	80 - 120	102	80 - 120	<0.00002	mg/L				
9035554	. Selenium (Se)	2023/11/08	107	80 - 120	101	80 - 120	<0.00005	mg/L				
9035554	. Silicon (Si)	2023/11/08	98	80 - 120	98	80 - 120	<0.005	mg/L				
9035554	. Silver (Ag)	2023/11/08	101	80 - 120	99	80 - 120	<0.00001	mg/L				
9035554	. Sodium (Na)	2023/11/08	NC	80 - 120	97	80 - 120	<0.01	mg/L				
9035554	. Strontium (Sr)	2023/11/08	NC	80 - 120	101	80 - 120	<0.0001	mg/L				
9035554	. Tellurium (Te)	2023/11/08	109	80 - 120	100	80 - 120	<0.0001	mg/L				
9035554	. Thallium (Tl)	2023/11/08	99	80 - 120	98	80 - 120	<0.000005	mg/L				
9035554	. Thorium (Th)	2023/11/08	103	80 - 120	100	80 - 120	<0.0002	mg/L				
9035554	. Tin (Sn)	2023/11/08	108	80 - 120	103	80 - 120	<0.0001	mg/L				
9035554	. Titanium (Ti)	2023/11/08	101	80 - 120	100	80 - 120	<0.0005	mg/L				
9035554	. Tungsten (W)	2023/11/08	102	80 - 120	100	80 - 120	<0.0001	mg/L				
9035554	. Uranium (U)	2023/11/08	102	80 - 120	108	80 - 120	<0.00001	mg/L				
9035554	. Vanadium (V)	2023/11/08	102	80 - 120	98	80 - 120	<0.00005	mg/L				
9035554	. Zinc (Zn)	2023/11/08	101	80 - 120	99	80 - 120	<0.0005	mg/L				
9035554	. Zirconium (Zr)	2023/11/08	110	80 - 120	102	80 - 120	<0.0001	mg/L				
9035651	Acidity	2023/11/08	88	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9037378	Free Cyanide (CN)	2023/11/07	94	80 - 120	91	80 - 120	<2.0	ug/L				
9038257	Total Phosphorus (P)	2023/11/06	96	80 - 120	92	80 - 120	<0.0010	mg/L	NC	20	80	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9052138	Strong Acid Dissoc. Cyanide (CN)	2023/11/15	99	80 - 120	105	80 - 120	<0.00050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, probable matrix interference

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Janah Rhyno, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 793725

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/16
Report #: R7914435
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Y3918
Received: 2023/11/01, 15:35

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	6	N/A	2023/11/08	ATL SOP-00205	SM 24 2310B m
Alkalinity	6	N/A	2023/11/04	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	6	N/A	2023/11/06	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	2	N/A	2023/11/06	CAM SOP-00463	SM 23 4500-Cl E m
Chloride by Automated Colourimetry	3	N/A	2023/11/07	CAM SOP-00463	SM 23 4500-Cl E m
Chloride by Automated Colourimetry	1	N/A	2023/11/09	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	6	N/A	2023/11/04	CAM SOP-00414	SM 23 2510 m
Dissolved Organic Carbon (DOC) (3)	1	N/A	2023/11/06	CAM SOP-00446	SM 23 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2023/11/08	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	1	2023/11/08	2023/11/08	CAM SOP-00316	CCME PHC-CWS m
Fluoride	6	2023/11/04	2023/11/04	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	6	N/A	2023/11/15	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	1	2023/11/08	2023/11/08	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	6	2023/11/07	2023/11/07	CAM SOP-00453	EPA 7470 m
Mercury (low level)	5	2023/11/06	2023/11/06	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	6	2023/11/06	2023/11/08	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	6	N/A	2023/11/14	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	3	N/A	2023/11/10	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	3	N/A	2023/11/09	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	4	2023/11/07	2023/11/07	CAM SOP-00408	EPA 6010D m
Total Metals Analysis by ICP	2	2023/11/07	2023/11/08	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	6	N/A	2023/11/07	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	6	2023/11/15	2023/11/15	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	5	2023/11/06	2023/11/06	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total (2)	1	2023/11/06	2023/11/07	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	6	N/A	2023/11/07	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (5)	6	N/A	2023/11/15	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	6	2023/11/04	2023/11/04	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (6)	6	N/A	2023/11/02		Field pH Meter
Sulphate by Automated Turbidimetry	2	N/A	2023/11/06	CAM SOP-00464	SM 23 4500-SO42- E m

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 793725

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/16
Report #: R7914435
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Y3918
Received: 2023/11/01, 15:35

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Sulphate by Automated Turbidimetry	3	N/A	2023/11/07	CAM SOP-00464	SM 23 4500-SO42- E m
Sulphate by Automated Turbidimetry	1	N/A	2023/11/09	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	6	2023/11/07	2023/11/08	CAM SOP-00428	SM 23 2540C m
Field Temperature (6)	6	N/A	2023/11/02		Field Thermometer
Total Kjeldahl Nitrogen in Water	4	2023/11/06	2023/11/07	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	2	2023/11/06	2023/11/08	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	3	2023/11/07	2023/11/08	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	3	2023/11/07	2023/11/08	CAM SOP-00428	SM 23 2540D m
Turbidity	6	N/A	2023/11/03	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(6) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C3Y3918
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XMJ801			XMJ802			XMJ803		
Sampling Date		2023/10/31 15:10			2023/10/31 10:09			2023/10/31 11:55		
COC Number		793725			793725			793725		
	UNITS	Mac 1	RDL	QC Batch	MW23-04	RDL	QC Batch	MW02-OB-18	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	270	1.0	9026386	210	1.0	9026386	140	1.0	9026386
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9026386	1.4	1.0	9026386	<1.0	1.0	9026386
Hardness (CaCO3)	mg/L	360	1.0	9026385	210	1.0	9026385	2300	1.0	9026385
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9026386	<1.0	1.0	9026386	<1.0	1.0	9026386
Field Measurements										
Field Temperature	Celsius	5.1	N/A	ONSITE	6.3	N/A	ONSITE	5.8	N/A	ONSITE
Field Measured pH	pH	6.48		ONSITE	7.58		ONSITE	6.84		ONSITE
Inorganics										
Acidity	mg/L	53	5.0	9035651	5.0	5.0	9035651	35	5.0	9035651
Total Ammonia-N	mg/L	<0.050	0.050	9031824	0.086	0.050	9031824	1.6	0.050	9031824
Conductivity	mS/cm	0.729	0.001	9029272	0.395	0.001	9029272	3.45	0.001	9029272
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9037378	<2.0 (1)	2.0	9037378	<2.0 (1)	2.0	9037378
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00090	0.00050	9052138	<0.00050	0.00050	9052138	0.0914	0.00050	9052138
Total Dissolved Solids	mg/L	415	10	9029436	215	10	9029436	3390	10	9029436
Fluoride (F-)	mg/L	<0.10	0.10	9029276	<0.10	0.10	9029276	0.21	0.10	9029276
Total Kjeldahl Nitrogen (TKN)	mg/L	0.32	0.10	9032324	0.75	0.20	9032324	2.5	0.20	9032324
Dissolved Organic Carbon	mg/L				1.4	0.40	9027530			
pH	pH	7.41		9029279	7.86		9029279	7.13		9029279
Total Phosphorus (P)	mg/L	0.14 (2)	0.010	9038257	1.2 (2)	0.010	9038257	6.3	0.10	9038257
Total Suspended Solids	mg/L	81	1	9032949	36000	200	9034753	23000	500	9034753
Dissolved Sulphate (SO4)	mg/L	80	1.0	9028232	3.3	1.0	9027521	2100	10	9027521
Turbidity	NTU	8.6	0.1	9027614	39	0.1	9027614	81	0.1	9026924
Alkalinity (Total as CaCO3)	mg/L	270	1.0	9029270	210	1.0	9029270	140	1.0	9029270
Dissolved Chloride (Cl-)	mg/L	24	1.0	9028223	<1.0	1.0	9027518	4.2	1.0	9027518
Nitrite (N)	mg/L	0.017	0.010	9028220	<0.010	0.010	9028220	<0.010	0.010	9028220
Nitrate (N)	mg/L	0.68	0.10	9028220	<0.10	0.10	9028220	<0.10	0.10	9028220

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C3Y3918
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XMJ801			XMJ802			XMJ803		
Sampling Date		2023/10/31 15:10			2023/10/31 10:09			2023/10/31 11:55		
COC Number		793725			793725			793725		
	UNITS	Mac 1	RDL	QC Batch	MW23-04	RDL	QC Batch	MW02-OB-18	RDL	QC Batch
Nitrate + Nitrite (N)	mg/L	0.70	0.10	9028220	<0.10	0.10	9028220	<0.10	0.10	9028220

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XMJ804			XMJ805			XMJ805		
Sampling Date		2023/10/31 12:47			2023/10/31 14:34			2023/10/31 14:34		
COC Number		793725			793725			793725		
	UNITS	MWS-14-04	RDL	QC Batch	MW8-OB-14	RDL	QC Batch	MW8-OB-14 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	320	1.0	9026386	310	1.0	9026386			
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.7	1.0	9026386	2.3	1.0	9026386			
Hardness (CaCO3)	mg/L	330	1.0	9026385	280	1.0	9026385			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9026386	<1.0	1.0	9026386			
Field Measurements										
Field Temperature	Celsius	4.9	N/A	ONSITE	6.6	N/A	ONSITE			
Field Measured pH	pH	7.53		ONSITE	7.38		ONSITE			
Inorganics										
Acidity	mg/L	13	5.0	9035651	18	5.0	9035651			
Total Ammonia-N	mg/L	<0.050	0.050	9031824	0.12	0.050	9031824			
Conductivity	mS/cm	0.616	0.001	9029272	0.557	0.001	9029272			
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9037378	<2.0 (1)	2.0	9037378			
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00080	0.00050	9052138	0.00180	0.00050	9052138			
Total Dissolved Solids	mg/L	305	10	9029436	285	10	9029436			
Fluoride (F-)	mg/L	0.16	0.10	9029276	0.59	0.10	9029276			
Total Kjeldahl Nitrogen (TKN)	mg/L	0.11	0.10	9032324	0.39	0.10	9032324			
pH	pH	7.76		9029279	7.89		9029279			
Total Phosphorus (P)	mg/L	0.058	0.0010	9038257	1.2 (2)	0.010	9038257			
Total Suspended Solids	mg/L	93	3	9032949	17000	200	9034753			
Dissolved Sulphate (SO4)	mg/L	15	1.0	9029646	<1.0	1.0	9028232	<1.0	1.0	9028232
Turbidity	NTU	17	0.1	9027614	30	0.1	9027614			
Alkalinity (Total as CaCO3)	mg/L	320	1.0	9029270	310	1.0	9029270			
Dissolved Chloride (Cl-)	mg/L	1.8	1.0	9029644	<1.0	1.0	9028223	<1.0	1.0	9028223
Nitrite (N)	mg/L	<0.010	0.010	9028220	<0.010	0.010	9028220			
Nitrate (N)	mg/L	0.11	0.10	9028220	<0.10	0.10	9028220			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Bureau Veritas Job #: C3Y3918
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XMJ804			XMJ805			XMJ805		
Sampling Date		2023/10/31 12:47			2023/10/31 14:34			2023/10/31 14:34		
COC Number		793725			793725			793725		
	UNITS	**MWS-14-04**	**RDL**	**QC Batch**	**MW8-OB-14**	**RDL**	**QC Batch**	**MW8-OB-14 Lab-Dup**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	0.11	0.10	9028220	<0.10	0.10	9028220			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XMJ806			XMJ806		
Sampling Date		2023/10/31 08:00			2023/10/31 08:00		
COC Number		793725			793725		
	UNITS	Duplicate 8	RDL	QC Batch	Duplicate 8 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	320	1.0	9026386			
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.7	1.0	9026386			
Hardness (CaCO3)	mg/L	330	1.0	9026385			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9026386			
Field Measurements							
Field Temperature	Celsius	-	N/A	ONSITE			
Field Measured pH	pH	-		ONSITE			
Inorganics							
Acidity	mg/L	19	5.0	9035651			
Total Ammonia-N	mg/L	<0.050	0.050	9031824			
Conductivity	mS/cm	0.611	0.001	9029272			
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9037378			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9052138			
Total Dissolved Solids	mg/L	325	10	9029436			
Fluoride (F-)	mg/L	0.17	0.10	9029276			
Total Kjeldahl Nitrogen (TKN)	mg/L	0.21	0.10	9032324			
pH	pH	7.76		9029279			
Total Phosphorus (P)	mg/L	0.061	0.0010	9038257			
Total Suspended Solids	mg/L	86	2	9032949			
Dissolved Sulphate (SO4)	mg/L	15	1.0	9027521			
Turbidity	NTU	11	0.1	9027614	12	0.1	9027614
Alkalinity (Total as CaCO3)	mg/L	320	1.0	9029270			
Dissolved Chloride (Cl-)	mg/L	2.4	1.0	9027518			
Nitrite (N)	mg/L	<0.010	0.010	9028220			
Nitrate (N)	mg/L	0.12	0.10	9028220			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Bureau Veritas Job #: C3Y3918
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XMJ806			XMJ806		
Sampling Date		2023/10/31 08:00			2023/10/31 08:00		
COC Number		793725			793725		
	UNITS	**Duplicate 8**	**RDL**	**QC Batch**	**Duplicate 8 Lab-Dup**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	0.12	0.10	9028220			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XMJ801		XMJ802			XMJ803		
Sampling Date		2023/10/31 15:10		2023/10/31 10:09			2023/10/31 11:55		
COC Number		793725		793725			793725		
	UNITS	Mac 1	RDL	MW23-04	RDL	QC Batch	MW02-OB-18	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0192	0.0005	0.0040	0.0005	9042568	<0.05	0.05	9042568
. Aluminum (Al)	mg/L	0.737	0.0025	8.52	0.005	9038025	1.47	0.005	9038025
Dissolved Antimony (Sb)	mg/L	0.0007	0.0001	0.0002	0.0001	9042568	<0.01	0.01	9042568
. Antimony (Sb)	mg/L	0.0008	0.0005	<0.001	0.001	9038025	0.001	0.001	9038025
Dissolved Arsenic (As)	mg/L	0.0015	0.0001	0.0009	0.0001	9042568	30.4	0.1	9042568
. Arsenic (As)	mg/L	0.0047	0.0005	0.011	0.001	9038025	31.7	0.1	9038025
Dissolved Barium (Ba)	mg/L	0.0338	0.0002	0.0142	0.0002	9042568	<0.02	0.02	9042568
. Barium (Ba)	mg/L	0.049	0.001	0.122	0.002	9038025	0.025	0.002	9038025
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9042568	<0.005	0.005	9042568
. Beryllium (Be)	mg/L	<0.00025	0.00025	0.0005	0.0005	9038025	<0.0005	0.0005	9038025
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9042568	<0.01	0.01	9042568
. Bismuth (Bi)	mg/L	<0.0005	0.0005	<0.001	0.001	9038025	<0.001	0.001	9038025
Dissolved Boron (B)	mg/L	0.006	0.001	0.009	0.001	9042568	2.2	0.1	9042568
. Boron (B)	mg/L	0.009	0.005	0.05	0.01	9038025	1.95	0.01	9038025
Dissolved Cadmium (Cd)	mg/L	0.00014	0.00001	<0.00001	0.00001	9042568	<0.001	0.001	9042568
. Cadmium (Cd)	mg/L	0.000395	0.000025	0.00071	0.00005	9038025	0.00011	0.00005	9038025
Dissolved Calcium (Ca)	mg/L	108	0.1	62.1	0.1	9042568	562	2	9042568
. Calcium (Ca)	mg/L	119	0.1	686	1	9038025	589	1	9038025
Dissolved Cesium (Cs)	mg/L	0.00003	0.00002	0.00006	0.00002	9042568	<0.002	0.002	9042568
. Cesium (Cs)	mg/L	<0.0001	0.0001	0.0015	0.0002	9038025	0.0003	0.0002	9038025
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9042568	<0.05	0.05	9042568
. Chromium (Cr)	mg/L	0.0029	0.0025	0.043	0.005	9038025	0.007	0.005	9038025
Dissolved Cobalt (Co)	mg/L	0.00121	0.00005	0.00333	0.00005	9042568	0.008	0.005	9042568
. Cobalt (Co)	mg/L	0.00283	0.00025	0.0946	0.0005	9038025	0.0097	0.0005	9038025
Dissolved Copper (Cu)	mg/L	0.0050	0.0001	0.0010	0.0001	9042568	<0.01	0.01	9042568
. Copper (Cu)	mg/L	0.0416	0.0005	0.079	0.001	9038025	0.004	0.001	9038025
Dissolved Iron (Fe)	mg/L	0.022	0.005	<0.005	0.005	9042568	3.0	0.5	9042568
. Iron (Fe)	mg/L	9.38	0.025	11.5	0.05	9038025	16.5	0.05	9038025
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9042568	<0.005	0.005	9042568
. Lead (Pb)	mg/L	0.0141	0.00025	0.0213	0.0005	9038025	0.0070	0.0005	9038025
Dissolved Lithium (Li)	mg/L	<0.0005	0.0005	0.0017	0.0005	9042568	0.12	0.05	9042568

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XMJ801		XMJ802			XMJ803		
Sampling Date		2023/10/31 15:10		2023/10/31 10:09			2023/10/31 11:55		
COC Number		793725		793725			793725		
	UNITS	Mac 1	RDL	MW23-04	RDL	QC Batch	MW02-OB-18	RDL	QC Batch
. Lithium (Li)	mg/L	<0.0025	0.0025	0.013	0.005	9038025	0.116	0.005	9038025
Dissolved Magnesium (Mg)	mg/L	22.9	0.005	13.2	0.005	9042568	218	0.5	9042568
. Magnesium (Mg)	mg/L	22.8	0.025	157	0.05	9038025	222	0.05	9038025
Dissolved Manganese (Mn)	mg/L	0.102	0.0002	0.125	0.0002	9042568	0.99	0.02	9042568
. Manganese (Mn)	mg/L	0.140	0.001	1.53	0.002	9038025	1.29	0.002	9038025
Mercury (Hg)	mg/L						<0.0015	0.0015	9036581
Mercury (Hg)	ug/L	<0.01	0.01	0.10	0.01	9031278			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9034575	<0.01	0.01	9034575
Dissolved Molybdenum (Mo)	mg/L	0.00027	0.00005	0.00159	0.00005	9042568	0.018	0.005	9042568
. Molybdenum (Mo)	mg/L	<0.00025	0.00025	<0.0005	0.0005	9038025	0.0193	0.0005	9038025
Dissolved Nickel (Ni)	mg/L	0.0074	0.0001	0.0062	0.0001	9042568	<0.01	0.01	9042568
. Nickel (Ni)	mg/L	0.0156	0.0005	0.072	0.001	9038025	0.009	0.001	9038025
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	<0.005	0.005	9042568	<0.5	0.5	9042568
. Phosphorus (P)	mg/L	0.040	0.025	1.27	0.05	9038025	0.25	0.05	9038025
Dissolved Potassium (K)	mg/L	2.65	0.02	2.70	0.02	9042568	28	2	9042568
. Potassium (K)	mg/L	2.6	0.1	4.2	0.2	9038025	28.2	0.2	9038025
Dissolved Rubidium (Rb)	mg/L	0.00112	0.00002	0.00550	0.00002	9042568	0.006	0.002	9042568
. Rubidium (Rb)	mg/L	0.0014	0.0001	0.0165	0.0002	9038025	0.0085	0.0002	9038025
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9042568	<0.02	0.02	9042568
. Selenium (Se)	mg/L	<0.00025	0.00025	<0.0005	0.0005	9038025	<0.0005	0.0005	9038025
Dissolved Silicon (Si)	mg/L	3.57	0.005	4.20	0.005	9042568	8.3	0.5	9042568
. Silicon (Si)	mg/L	4.44	0.025	12.7	0.05	9038025	9.98	0.05	9038025
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9042568	<0.001	0.001	9042568
. Silver (Ag)	mg/L	0.00006	0.00005	<0.0001	0.0001	9038025	<0.0001	0.0001	9038025
Dissolved Sodium (Na)	mg/L	12.1	0.01	1.62	0.01	9042568	62	1	9042568
. Sodium (Na)	mg/L	11.7	0.05	2.0	0.1	9038025	66.7	0.1	9038025
Dissolved Strontium (Sr)	mg/L	0.928	0.0001	0.0605	0.0001	9042568	1.47	0.01	9042568
. Strontium (Sr)	mg/L	0.923	0.0005	0.418	0.001	9038025	1.54	0.001	9038025
Dissolved Sulphur (S)	mg/L	27	0.5	1.4	0.5	9030935	730	5	9030935
Total Sulphur (S)	mg/L	29	0.5	2.3	0.5	9032995	760	5	9032995
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9042568	<0.01	0.01	9042568
. Tellurium (Te)	mg/L	<0.0005	0.0005	<0.001	0.001	9038025	<0.001	0.001	9038025

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QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XMJ801		XMJ802			XMJ803		
Sampling Date		2023/10/31 15:10		2023/10/31 10:09			2023/10/31 11:55		
COC Number		793725		793725			793725		
	UNITS	**Mac 1**	**RDL**	**MW23-04**	**RDL**	**QC Batch**	**MW02-OB-18**	**RDL**	**QC Batch**
Dissolved Thallium (Tl)	mg/L	0.000011	0.000005	0.000031	0.000005	9042568	<0.0005	0.0005	9042568
. Thallium (Tl)	mg/L	0.000027	0.000025	0.00024	0.00005	9038025	<0.00005	0.00005	9038025
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9042568	<0.02	0.02	9042568
. Thorium (Th)	mg/L	<0.001	0.001	<0.002	0.002	9038025	<0.002	0.002	9038025
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9042568	<0.01	0.01	9042568
. Tin (Sn)	mg/L	<0.0005	0.0005	<0.001	0.001	9038025	<0.001	0.001	9038025
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9042568	<0.05	0.05	9042568
. Titanium (Ti)	mg/L	0.0135	0.0025	0.046	0.005	9038025	0.033	0.005	9038025
Dissolved Tungsten (W)	mg/L	0.0014	0.0001	0.0002	0.0001	9042568	<0.01	0.01	9042568
. Tungsten (W)	mg/L	0.0023	0.0005	<0.001	0.001	9038025	0.004	0.001	9038025
Dissolved Uranium (U)	mg/L	0.00055	0.00001	0.00029	0.00001	9042568	0.004	0.001	9042568
. Uranium (U)	mg/L	0.00085	0.00005	0.0016	0.0001	9038025	0.0042	0.0001	9038025
Dissolved Vanadium (V)	mg/L	0.00011	0.00005	0.00018	0.00005	9042568	<0.005	0.005	9042568
. Vanadium (V)	mg/L	0.00205	0.00025	0.0224	0.0005	9038025	0.0038	0.0005	9038025
Dissolved Zinc (Zn)	mg/L	0.0017	0.0005	0.0006	0.0005	9042568	<0.05	0.05	9042568
. Zinc (Zn)	mg/L	0.0268	0.0025	0.067	0.005	9038025	0.053	0.005	9038025
Dissolved Zirconium (Zr)	mg/L	0.0003	0.0001	<0.0001	0.0001	9042568	<0.01	0.01	9042568
. Zirconium (Zr)	mg/L	0.0008	0.0005	0.002	0.001	9038025	0.002	0.001	9038025

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XMJ804		XMJ805		XMJ806		
Sampling Date		2023/10/31 12:47		2023/10/31 14:34		2023/10/31 08:00		
COC Number		793725		793725		793725		
	UNITS	MWS-14-04	RDL	MW8-OB-14	RDL	Duplicate 8	RDL	QC Batch
Metals								
Dissolved Aluminum (Al)	mg/L	0.0012	0.0005	0.0040	0.0005	0.0008	0.0005	9042568
. Aluminum (Al)	mg/L	0.741	0.0005	2.44	0.0025	0.751	0.0005	9038025
Dissolved Antimony (Sb)	mg/L	0.0003	0.0001	<0.0001	0.0001	0.0004	0.0001	9042568
. Antimony (Sb)	mg/L	0.0009	0.0001	<0.0005	0.0005	0.0005	0.0001	9038025
Dissolved Arsenic (As)	mg/L	0.0027	0.0001	0.0052	0.0001	0.0030	0.0001	9042568
. Arsenic (As)	mg/L	0.167	0.0005	0.0131	0.0005	0.0055	0.0001	9038025
Dissolved Barium (Ba)	mg/L	0.137	0.0002	0.0289	0.0002	0.138	0.0002	9042568
. Barium (Ba)	mg/L	0.133	0.0002	0.064	0.001	0.170	0.0002	9038025
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	<0.00005	0.00005	9042568
. Beryllium (Be)	mg/L	0.00013	0.00005	<0.00025	0.00025	0.00017	0.00005	9038025
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	<0.0001	0.0001	9042568
. Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0005	0.0005	<0.0001	0.0001	9038025
Dissolved Boron (B)	mg/L	0.021	0.001	0.046	0.001	0.020	0.001	9042568
. Boron (B)	mg/L	0.024	0.001	0.064	0.005	0.019	0.001	9038025
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00001	0.00001	<0.00001	0.00001	9042568
. Cadmium (Cd)	mg/L	0.000022	0.000005	0.000137	0.000025	0.000015	0.000005	9038025
Dissolved Calcium (Ca)	mg/L	94.3	0.1	69.3	0.1	93.5	0.1	9042568
. Calcium (Ca)	mg/L	87.8	0.1	362	0.2	101	0.1	9038025
Dissolved Cesium (Cs)	mg/L	0.00028	0.00002	<0.00002	0.00002	0.00027	0.00002	9042568
. Cesium (Cs)	mg/L	0.00067	0.00002	0.0002	0.0001	0.00089	0.00002	9038025
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	<0.0005	0.0005	9042568
. Chromium (Cr)	mg/L	0.0022	0.0005	0.0078	0.0025	0.0023	0.0005	9038025
Dissolved Cobalt (Co)	mg/L	0.00007	0.00005	0.00090	0.00005	0.00008	0.00005	9042568
. Cobalt (Co)	mg/L	0.00078	0.00005	0.00475	0.00025	0.00119	0.00005	9038025
Dissolved Copper (Cu)	mg/L	0.0014	0.0001	0.0002	0.0001	0.0007	0.0001	9042568
. Copper (Cu)	mg/L	0.0083	0.0001	0.0110	0.0005	0.0067	0.0001	9038025
Dissolved Iron (Fe)	mg/L	0.043	0.005	0.209	0.005	0.024	0.005	9042568
. Iron (Fe)	mg/L	1.80	0.005	4.45	0.025	1.76	0.005	9038025
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	<0.00005	0.00005	<0.00005	0.00005	9042568
. Lead (Pb)	mg/L	0.00305	0.00005	0.00466	0.00025	0.00538	0.00005	9038025
Dissolved Lithium (Li)	mg/L	0.0039	0.0005	0.0085	0.0005	0.0039	0.0005	9042568

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XMJ804		XMJ805		XMJ806		
Sampling Date		2023/10/31 12:47		2023/10/31 14:34		2023/10/31 08:00		
COC Number		793725		793725		793725		
	UNITS	MWS-14-04	RDL	MW8-OB-14	RDL	Duplicate 8	RDL	QC Batch
. Lithium (Li)	mg/L	0.0049	0.0005	0.0138	0.0025	0.0047	0.0005	9038025
Dissolved Magnesium (Mg)	mg/L	23.4	0.005	26.0	0.005	23.0	0.005	9042568
. Magnesium (Mg)	mg/L	24.5	0.005	115	0.025	23.9	0.005	9038025
Dissolved Manganese (Mn)	mg/L	0.0240	0.0002	0.144	0.0002	0.0216	0.0002	9042568
. Manganese (Mn)	mg/L	0.0478	0.0002	0.528	0.001	0.0855	0.0002	9038025
Mercury (Hg)	ug/L	<0.01	0.01	0.03	0.01	<0.01	0.01	9031278
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	<0.01	0.01	9034575
Dissolved Molybdenum (Mo)	mg/L	0.00236	0.00005	0.00596	0.00005	0.00239	0.00005	9042568
. Molybdenum (Mo)	mg/L	0.00207	0.00005	0.00225	0.00025	0.00081	0.00005	9038025
Dissolved Nickel (Ni)	mg/L	0.0007	0.0001	0.0032	0.0001	0.0007	0.0001	9042568
. Nickel (Ni)	mg/L	0.0037	0.0005	0.0092	0.0005	0.0046	0.0001	9038025
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	0.010	0.005	<0.005	0.005	9042568
. Phosphorus (P)	mg/L	0.050	0.005	1.05	0.025	0.043	0.005	9038025
Dissolved Potassium (K)	mg/L	0.96	0.02	3.68	0.02	0.96	0.02	9042568
. Potassium (K)	mg/L	1.29	0.02	4.0	0.1	1.03	0.02	9038025
Dissolved Rubidium (Rb)	mg/L	0.00146	0.00002	0.00084	0.00002	0.00151	0.00002	9042568
. Rubidium (Rb)	mg/L	0.00234	0.00002	0.0044	0.0001	0.00268	0.00002	9038025
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	9042568
. Selenium (Se)	mg/L	0.00081	0.00005	<0.00025	0.00025	0.00042	0.00005	9038025
Dissolved Silicon (Si)	mg/L	7.07	0.025	7.57	0.025	7.08	0.025	9042568
. Silicon (Si)	mg/L	8.06	0.025	11.5	0.025	8.07	0.025	9038025
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	<0.00001	0.00001	9042568
. Silver (Ag)	mg/L	0.00037	0.00001	<0.00005	0.00005	0.00060	0.00001	9038025
Dissolved Sodium (Na)	mg/L	6.37	0.01	12.1	0.01	6.28	0.01	9042568
. Sodium (Na)	mg/L	6.83	0.01	12.4	0.05	6.21	0.01	9038025
Dissolved Strontium (Sr)	mg/L	0.271	0.0001	0.190	0.0001	0.271	0.0001	9042568
. Strontium (Sr)	mg/L	0.268	0.0001	0.337	0.0005	0.275	0.0001	9038025
Dissolved Sulphur (S)	mg/L	5.9	0.5	0.5	0.5	6.1	0.5	9030935
Total Sulphur (S)	mg/L	10	0.5	0.7	0.5	6.3	0.5	9032995
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	<0.0001	0.0001	9042568
. Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0005	0.0005	<0.0001	0.0001	9038025
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	0.000006	0.000005	<0.000005	0.000005	9042568

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XMJ804		XMJ805		XMJ806		
Sampling Date		2023/10/31 12:47		2023/10/31 14:34		2023/10/31 08:00		
COC Number		793725		793725		793725		
	UNITS	MWS-14-04	RDL	MW8-OB-14	RDL	Duplicate 8	RDL	QC Batch
. Thallium (Tl)	mg/L	0.000007	0.000005	0.000084	0.000025	0.000014	0.000005	9038025
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	<0.0002	0.0002	9042568
. Thorium (Th)	mg/L	0.0007	0.0002	0.002	0.001	0.0010	0.0002	9038025
Dissolved Tin (Sn)	mg/L	0.0001	0.0001	<0.0001	0.0001	<0.0001	0.0001	9042568
. Tin (Sn)	mg/L	0.0002	0.0001	<0.0005	0.0005	0.0002	0.0001	9038025
Dissolved Titanium (Ti)	mg/L	0.0007	0.0005	0.0009	0.0005	0.0005	0.0005	9042568
. Titanium (Ti)	mg/L	0.0324	0.0005	0.110	0.0025	0.0378	0.0005	9038025
Dissolved Tungsten (W)	mg/L	0.0006	0.0001	<0.0001	0.0001	0.0006	0.0001	9042568
. Tungsten (W)	mg/L	0.0007	0.0001	<0.0005	0.0005	0.0004	0.0001	9038025
Dissolved Uranium (U)	mg/L	0.00225	0.00001	0.00159	0.00001	0.00224	0.00001	9042568
. Uranium (U)	mg/L	0.00280	0.00001	0.00222	0.00005	0.00264	0.00001	9038025
Dissolved Vanadium (V)	mg/L	0.00006	0.00005	0.00012	0.00005	<0.00005	0.00005	9042568
. Vanadium (V)	mg/L	0.00162	0.00005	0.00786	0.00025	0.00210	0.00005	9038025
Dissolved Zinc (Zn)	mg/L	0.0043	0.0005	0.0011	0.0005	0.0035	0.0005	9042568
. Zinc (Zn)	mg/L	0.0194	0.0005	0.0218	0.0025	0.0084	0.0005	9038025
Dissolved Zirconium (Zr)	mg/L	0.0005	0.0001	0.0001	0.0001	0.0005	0.0001	9042568
. Zirconium (Zr)	mg/L	0.0059	0.0001	0.0017	0.0005	0.0058	0.0001	9038025

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		XMJ802		
Sampling Date		2023/10/31 10:09		
COC Number		793725		
	UNITS	MW23-04	RDL	QC Batch
BTEX & F1 Hydrocarbons				
F1 (C6-C10)	ug/L	<25	25	9032399
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	9035826
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	9035826
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	9035826
Reached Baseline at C50	ug/L	Yes		9035826
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	96		9032399
4-Bromofluorobenzene	%	99		9032399
D10-o-Xylene	%	96		9032399
D4-1,2-Dichloroethane	%	114		9032399
o-Terphenyl	%	97		9035826

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XMJ801
Sample ID: Mac 1
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9035651	N/A	2023/11/08	Brent Boudreau
Alkalinity	AT	9029270	N/A	2023/11/04	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9026386	N/A	2023/11/06	Automated Statchk
Chloride by Automated Colourimetry	KONE	9028223	N/A	2023/11/06	Massarat Jan
Conductivity	AT	9029272	N/A	2023/11/04	Nachiketa Gohil
Fluoride	ISE	9029276	2023/11/04	2023/11/04	Nachiketa Gohil
Hardness (calculated as CaCO3)		9026385	N/A	2023/11/15	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Mercury (low level)	CV/AA	9031278	2023/11/06	2023/11/06	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9030935	2023/11/06	2023/11/08	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042568	N/A	2023/11/14	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9038025	N/A	2023/11/09	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9032995	2023/11/07	2023/11/07	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9052138	2023/11/15	2023/11/15	Joshua Fine
Total Phosphorus Low Level Total	KONE	9038257	2023/11/06	2023/11/06	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9031824	N/A	2023/11/07	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9028220	N/A	2023/11/15	Chandra Nandlal
pH	AT	9029279	2023/11/04	2023/11/04	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	9028232	N/A	2023/11/06	Massarat Jan
Total Dissolved Solids	BAL	9029436	2023/11/07	2023/11/08	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	9032324	2023/11/06	2023/11/07	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9032949	2023/11/07	2023/11/08	Shaneil Hall
Turbidity	AT	9027614	N/A	2023/11/03	Leily Karimi

Bureau Veritas ID: XMJ802
Sample ID: MW23-04
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9035651	N/A	2023/11/08	Brent Boudreau
Alkalinity	AT	9029270	N/A	2023/11/04	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9026386	N/A	2023/11/06	Automated Statchk
Chloride by Automated Colourimetry	KONE	9027518	N/A	2023/11/07	Massarat Jan
Conductivity	AT	9029272	N/A	2023/11/04	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9027530	N/A	2023/11/06	Gyulshen Idriz
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9032399	N/A	2023/11/08	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9035826	2023/11/08	2023/11/08	Anna Stuglik-Rolland
Fluoride	ISE	9029276	2023/11/04	2023/11/04	Nachiketa Gohil
Hardness (calculated as CaCO3)		9026385	N/A	2023/11/15	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Mercury (low level)	CV/AA	9031278	2023/11/06	2023/11/06	Gagandeep Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y3918
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: XMJ802
Sample ID: MW23-04
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	9030935	2023/11/06	2023/11/08	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042568	N/A	2023/11/14	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9038025	N/A	2023/11/10	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9032995	2023/11/07	2023/11/08	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9052138	2023/11/15	2023/11/15	Joshua Fine
Total Phosphorus Low Level Total	KONE	9038257	2023/11/06	2023/11/06	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9031824	N/A	2023/11/07	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9028220	N/A	2023/11/15	Chandra Nandlal
pH	AT	9029279	2023/11/04	2023/11/04	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	9027521	N/A	2023/11/07	Massarat Jan
Total Dissolved Solids	BAL	9029436	2023/11/07	2023/11/08	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	9032324	2023/11/06	2023/11/08	Kruti Jitesh Patel
Total Suspended Solids	BAL	9034753	2023/11/07	2023/11/08	Shaneil Hall
Turbidity	AT	9027614	N/A	2023/11/03	Leily Karimi

Bureau Veritas ID: XMJ803
Sample ID: MW02-OB-18
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9035651	N/A	2023/11/08	Brent Boudreau
Alkalinity	AT	9029270	N/A	2023/11/04	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9026386	N/A	2023/11/06	Automated Statchk
Chloride by Automated Colourimetry	KONE	9027518	N/A	2023/11/07	Massarat Jan
Conductivity	AT	9029272	N/A	2023/11/04	Nachiketa Gohil
Fluoride	ISE	9029276	2023/11/04	2023/11/04	Nachiketa Gohil
Hardness (calculated as CaCO3)		9026385	N/A	2023/11/15	Automated Statchk
Mercury in Water by CVAA	CV/AA	9036581	2023/11/08	2023/11/08	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9030935	2023/11/06	2023/11/08	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042568	N/A	2023/11/14	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9038025	N/A	2023/11/10	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9032995	2023/11/07	2023/11/08	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9052138	2023/11/15	2023/11/15	Joshua Fine
Total Phosphorus Low Level Total	KONE	9038257	2023/11/06	2023/11/07	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9031824	N/A	2023/11/07	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9028220	N/A	2023/11/15	Chandra Nandlal
pH	AT	9029279	2023/11/04	2023/11/04	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	9027521	N/A	2023/11/07	Massarat Jan

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y3918
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: XMJ803
Sample ID: MW02-OB-18
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	9029436	2023/11/07	2023/11/08	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	9032324	2023/11/06	2023/11/08	Kruti Jitesh Patel
Total Suspended Solids	BAL	9034753	2023/11/07	2023/11/08	Shaneil Hall
Turbidity	AT	9026924	N/A	2023/11/03	Leily Karimi

Bureau Veritas ID: XMJ804
Sample ID: MWS-14-04
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9035651	N/A	2023/11/08	Brent Boudreau
Alkalinity	AT	9029270	N/A	2023/11/04	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9026386	N/A	2023/11/06	Automated Statchk
Chloride by Automated Colourimetry	KONE	9029644	N/A	2023/11/09	Alina Dobreanu
Conductivity	AT	9029272	N/A	2023/11/04	Nachiketa Gohil
Fluoride	ISE	9029276	2023/11/04	2023/11/04	Nachiketa Gohil
Hardness (calculated as CaCO3)		9026385	N/A	2023/11/15	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Mercury (low level)	CV/AA	9031278	2023/11/06	2023/11/06	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9030935	2023/11/06	2023/11/08	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042568	N/A	2023/11/14	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9038025	N/A	2023/11/09	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9032995	2023/11/07	2023/11/07	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9052138	2023/11/15	2023/11/15	Joshua Fine
Total Phosphorus Low Level Total	KONE	9038257	2023/11/06	2023/11/06	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9031824	N/A	2023/11/07	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9028220	N/A	2023/11/15	Chandra Nandlal
pH	AT	9029279	2023/11/04	2023/11/04	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	9029646	N/A	2023/11/09	Alina Dobreanu
Total Dissolved Solids	BAL	9029436	2023/11/07	2023/11/08	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	9032324	2023/11/06	2023/11/07	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9032949	2023/11/07	2023/11/08	Shaneil Hall
Turbidity	AT	9027614	N/A	2023/11/03	Leily Karimi

Bureau Veritas ID: XMJ805
Sample ID: MW8-OB-14
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9035651	N/A	2023/11/08	Brent Boudreau

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: XMJ805
Sample ID: MW8-OB-14
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9029270	N/A	2023/11/04	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9026386	N/A	2023/11/06	Automated Statchk
Chloride by Automated Colourimetry	KONE	9028223	N/A	2023/11/06	Massarat Jan
Conductivity	AT	9029272	N/A	2023/11/04	Nachiketa Gohil
Fluoride	ISE	9029276	2023/11/04	2023/11/04	Nachiketa Gohil
Hardness (calculated as CaCO3)		9026385	N/A	2023/11/15	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Mercury (low level)	CV/AA	9031278	2023/11/06	2023/11/06	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9030935	2023/11/06	2023/11/08	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042568	N/A	2023/11/14	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9038025	N/A	2023/11/10	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9032995	2023/11/07	2023/11/07	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9052138	2023/11/15	2023/11/15	Joshua Fine
Total Phosphorus Low Level Total	KONE	9038257	2023/11/06	2023/11/06	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9031824	N/A	2023/11/07	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9028220	N/A	2023/11/15	Chandra Nandlal
pH	AT	9029279	2023/11/04	2023/11/04	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	9028232	N/A	2023/11/06	Massarat Jan
Total Dissolved Solids	BAL	9029436	2023/11/07	2023/11/08	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	9032324	2023/11/06	2023/11/07	Kruti Jitesh Patel
Total Suspended Solids	BAL	9034753	2023/11/07	2023/11/08	Shaneil Hall
Turbidity	AT	9027614	N/A	2023/11/03	Leily Karimi

Bureau Veritas ID: XMJ805 Dup
Sample ID: MW8-OB-14
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	9028223	N/A	2023/11/06	Massarat Jan
Sulphate by Automated Turbidimetry	KONE	9028232	N/A	2023/11/06	Massarat Jan

Bureau Veritas ID: XMJ806
Sample ID: Duplicate 8
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9035651	N/A	2023/11/08	Brent Boudreau
Alkalinity	AT	9029270	N/A	2023/11/04	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9026386	N/A	2023/11/06	Automated Statchk
Chloride by Automated Colourimetry	KONE	9027518	N/A	2023/11/07	Massarat Jan
Conductivity	AT	9029272	N/A	2023/11/04	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y3918
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: XMJ806
Sample ID: Duplicate 8
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	9029276	2023/11/04	2023/11/04	Nachiketa Gohil
Hardness (calculated as CaCO3)		9026385	N/A	2023/11/15	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Mercury (low level)	CV/AA	9031278	2023/11/06	2023/11/06	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9030935	2023/11/06	2023/11/08	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042568	N/A	2023/11/14	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9038025	N/A	2023/11/09	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9032995	2023/11/07	2023/11/07	Suban Kanapathippllai
Cyanide (Free)	SPEC	9037378	N/A	2023/11/07	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9052138	2023/11/15	2023/11/15	Joshua Fine
Total Phosphorus Low Level Total	KONE	9038257	2023/11/06	2023/11/06	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9031824	N/A	2023/11/07	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9028220	N/A	2023/11/15	Chandra Nandlal
pH	AT	9029279	2023/11/04	2023/11/04	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Sulphate by Automated Turbidimetry	KONE	9027521	N/A	2023/11/07	Massarat Jan
Total Dissolved Solids	BAL	9029436	2023/11/07	2023/11/08	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/02	Aneri Pandya
Total Kjeldahl Nitrogen in Water	SKAL	9032324	2023/11/06	2023/11/07	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9032949	2023/11/07	2023/11/08	Shaneil Hall
Turbidity	AT	9027614	N/A	2023/11/03	Leily Karimi

Bureau Veritas ID: XMJ806 Dup
Sample ID: Duplicate 8
Matrix: Water

Collected: 2023/10/31
Shipped:
Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	AT	9027614	N/A	2023/11/03	Leily Karimi

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.3°C
Package 2	2.7°C

Acidity samples in job contained headspace.

Sample XMJ801 [Mac 1] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
Sample was analyzed past method specified hold time for Cyanide (total). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample XMJ802 [MW23-04] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
Sample was analyzed past method specified hold time for Cyanide (total). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample XMJ803 [MW02-OB-18] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
Sample was analyzed past method specified hold time for Cyanide (total). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample XMJ804 [MWS-14-04] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used Sample was analyzed past method specified hold time for Cyanide (total). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample XMJ805 [MW8-OB-14] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
Sample was analyzed past method specified hold time for Cyanide (total). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample XMJ806 [Duplicate 8] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used Sample was analyzed past method specified hold time for Cyanide (total). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9032399	1,4-Difluorobenzene	2023/11/08	96	70 - 130	104	70 - 130	96	%				
9032399	4-Bromofluorobenzene	2023/11/08	99	70 - 130	96	70 - 130	99	%				
9032399	D10-o-Xylene	2023/11/08	106	70 - 130	106	70 - 130	101	%				
9032399	D4-1,2-Dichloroethane	2023/11/08	114	70 - 130	124	70 - 130	107	%				
9035826	o-Terphenyl	2023/11/09	99	60 - 130	98	60 - 130	94	%				
9026924	Turbidity	2023/11/03			101	80 - 120	<0.1	NTU	19	20		
9027518	Dissolved Chloride (Cl-)	2023/11/07	NC	80 - 120	99	80 - 120	<1.0	mg/L	0.93	20		
9027521	Dissolved Sulphate (SO4)	2023/11/07	NC	75 - 125	101	80 - 120	<1.0	mg/L	0.58	20		
9027530	Dissolved Organic Carbon	2023/11/06	95	80 - 120	99	80 - 120	<0.40	mg/L	4.9	20		
9027614	Turbidity	2023/11/03			101	80 - 120	<0.1	NTU	7.2	20		
9028220	Nitrate (N)	2023/11/15	96	80 - 120	95	80 - 120	<0.10	mg/L	NC	20		
9028220	Nitrite (N)	2023/11/15	104	80 - 120	108	80 - 120	<0.010	mg/L				
9028223	Dissolved Chloride (Cl-)	2023/11/06	97	80 - 120	99	80 - 120	<1.0	mg/L	NC	20		
9028232	Dissolved Sulphate (SO4)	2023/11/06	90	75 - 125	101	80 - 120	<1.0	mg/L	NC	20		
9029270	Alkalinity (Total as CaCO3)	2023/11/04			95	85 - 115	<1.0	mg/L	1.1	20		
9029272	Conductivity	2023/11/04			100	85 - 115	<0.001	mS/cm	0.90	10		
9029276	Fluoride (F-)	2023/11/04	100	80 - 120	96	80 - 120	<0.10	mg/L	NC	20		
9029279	pH	2023/11/04			102	98 - 103			0.11	N/A		
9029436	Total Dissolved Solids	2023/11/08			98	90 - 110	<10	mg/L	0.38	20		
9029644	Dissolved Chloride (Cl-)	2023/11/09	NC	80 - 120	95	80 - 120	<1.0	mg/L	1.8	20		
9029646	Dissolved Sulphate (SO4)	2023/11/09	87	75 - 125	97	80 - 120	<1.0	mg/L	5.3	20		
9030935	Dissolved Sulphur (S)	2023/11/08	NC	80 - 120	95	80 - 120	<0.5	mg/L	0.38	25		
9031278	Mercury (Hg)	2023/11/06	113	75 - 125	109	80 - 120	<0.01	ug/L	NC	20		
9031824	Total Ammonia-N	2023/11/07	100	75 - 125	102	80 - 120	<0.050	mg/L	1.1	20		
9032324	Total Kjeldahl Nitrogen (TKN)	2023/11/07	114	80 - 120	95	80 - 120	<0.10	mg/L	11	20	102	80 - 120
9032399	F1 (C6-C10)	2023/11/08	108	60 - 140	112	60 - 140	<25	ug/L	NC	30		
9032949	Total Suspended Solids	2023/11/08			98	85 - 115	<1	mg/L	18	20		
9032995	Total Sulphur (S)	2023/11/07	NC	80 - 120	95	80 - 120	<0.5	mg/L				
9034575	Dissolved Mercury (Hg)	2023/11/07	107	75 - 125	110	80 - 120	<0.01	ug/L	NC	20		
9034753	Total Suspended Solids	2023/11/08			96	85 - 115	<10	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9035651	Acidity	2023/11/08	88	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9035826	F2 (C10-C16 Hydrocarbons)	2023/11/08	81	60 - 130	99	60 - 130	<100	ug/L	NC	30		
9035826	F3 (C16-C34 Hydrocarbons)	2023/11/08	82	60 - 130	102	60 - 130	<200	ug/L	NC	30		
9035826	F4 (C34-C50 Hydrocarbons)	2023/11/08	83	60 - 130	101	60 - 130	<200	ug/L	NC	30		
9036581	Mercury (Hg)	2023/11/08	96	75 - 125	91	80 - 120	<0.00010	mg/L	NC	20		
9037378	Free Cyanide (CN)	2023/11/07	94	80 - 120	91	80 - 120	<2.0	ug/L				
9038025	. Aluminum (Al)	2023/11/09	111	80 - 120	105	80 - 120	<0.0005	mg/L	5.7	20		
9038025	. Antimony (Sb)	2023/11/09	108	80 - 120	103	80 - 120	<0.0001	mg/L	4.7	20		
9038025	. Arsenic (As)	2023/11/09	100	80 - 120	98	80 - 120	<0.0001	mg/L	0.053	20		
9038025	. Barium (Ba)	2023/11/09	101	80 - 120	101	80 - 120	<0.0002	mg/L	2.9	20		
9038025	. Beryllium (Be)	2023/11/09	96	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9038025	. Bismuth (Bi)	2023/11/09	91	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9038025	. Boron (B)	2023/11/09	NC	80 - 120	101	80 - 120	<0.001	mg/L	1.3	20		
9038025	. Cadmium (Cd)	2023/11/09	96	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9038025	. Calcium (Ca)	2023/11/09	NC	80 - 120	105	80 - 120	<0.02	mg/L	0.32	20		
9038025	. Cesium (Cs)	2023/11/09	100	80 - 120	102	80 - 120	<0.00002	mg/L	1.8	20		
9038025	. Chromium (Cr)	2023/11/09	105	80 - 120	99	80 - 120	<0.0005	mg/L	NC	20		
9038025	. Cobalt (Co)	2023/11/09	100	80 - 120	97	80 - 120	<0.00005	mg/L	2.6	20		
9038025	. Copper (Cu)	2023/11/09	102	80 - 120	98	80 - 120	<0.0001	mg/L	7.7	20		
9038025	. Iron (Fe)	2023/11/09	103	80 - 120	100	80 - 120	<0.005	mg/L	0.68	20		
9038025	. Lead (Pb)	2023/11/09	93	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9038025	. Lithium (Li)	2023/11/09	102	80 - 120	102	80 - 120	<0.0005	mg/L	0.068	20		
9038025	. Magnesium (Mg)	2023/11/09	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.0049	20		
9038025	. Manganese (Mn)	2023/11/09	101	80 - 120	99	80 - 120	<0.0002	mg/L	0.91	20		
9038025	. Molybdenum (Mo)	2023/11/09	115	80 - 120	100	80 - 120	<0.00005	mg/L	1.8	20		
9038025	. Nickel (Ni)	2023/11/09	96	80 - 120	98	80 - 120	<0.0001	mg/L	2.5	20		
9038025	. Phosphorus (P)	2023/11/09	111	80 - 120	101	80 - 120	<0.005	mg/L	NC	20		
9038025	. Potassium (K)	2023/11/09	NC	80 - 120	100	80 - 120	<0.02	mg/L	0.16	20		
9038025	. Rubidium (Rb)	2023/11/09	99	80 - 120	100	80 - 120	<0.00002	mg/L	0.14	20		
9038025	. Selenium (Se)	2023/11/09	109	80 - 120	103	80 - 120	<0.00005	mg/L	3.3	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9038025	. Silicon (Si)	2023/11/09	NC	80 - 120	104	80 - 120	<0.005	mg/L	0.27	20		
9038025	. Silver (Ag)	2023/11/09	86	80 - 120	103	80 - 120	<0.00001	mg/L	NC	20		
9038025	. Sodium (Na)	2023/11/09	NC	80 - 120	101	80 - 120	<0.01	mg/L	0.37	20		
9038025	. Strontium (Sr)	2023/11/09	NC	80 - 120	100	80 - 120	<0.0001	mg/L	1.1	20		
9038025	. Tellurium (Te)	2023/11/09	94	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9038025	. Thallium (Tl)	2023/11/09	93	80 - 120	97	80 - 120	<0.000005	mg/L	NC	20		
9038025	. Thorium (Th)	2023/11/09	101	80 - 120	97	80 - 120	<0.0002	mg/L	NC	20		
9038025	. Tin (Sn)	2023/11/09	108	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9038025	. Titanium (Ti)	2023/11/09	111	80 - 120	102	80 - 120	<0.0005	mg/L	NC	20		
9038025	. Tungsten (W)	2023/11/09	105	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9038025	. Uranium (U)	2023/11/09	100	80 - 120	95	80 - 120	<0.00001	mg/L	3.7	20		
9038025	. Vanadium (V)	2023/11/09	110	80 - 120	100	80 - 120	<0.00005	mg/L	4.6	20		
9038025	. Zinc (Zn)	2023/11/09	89	80 - 120	99	80 - 120	<0.0005	mg/L	9.5	20		
9038025	. Zirconium (Zr)	2023/11/09	118	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9038257	Total Phosphorus (P)	2023/11/06	96	80 - 120	92	80 - 120	<0.0010	mg/L	NC	20	80	80 - 120
9042568	Dissolved Aluminum (Al)	2023/11/10	102	80 - 120	99	80 - 120	<0.0005	mg/L				
9042568	Dissolved Antimony (Sb)	2023/11/10	110	80 - 120	103	80 - 120	<0.0001	mg/L				
9042568	Dissolved Arsenic (As)	2023/11/10	105	80 - 120	99	80 - 120	<0.0001	mg/L				
9042568	Dissolved Barium (Ba)	2023/11/10	NC	80 - 120	98	80 - 120	<0.0002	mg/L				
9042568	Dissolved Beryllium (Be)	2023/11/10	98	80 - 120	99	80 - 120	<0.00005	mg/L				
9042568	Dissolved Bismuth (Bi)	2023/11/10	95	80 - 120	102	80 - 120	<0.0001	mg/L				
9042568	Dissolved Boron (B)	2023/11/10	98	80 - 120	98	80 - 120	<0.001	mg/L				
9042568	Dissolved Cadmium (Cd)	2023/11/10	100	80 - 120	98	80 - 120	<0.00001	mg/L				
9042568	Dissolved Calcium (Ca)	2023/11/14	NC	80 - 120	101	80 - 120	<0.02	mg/L	2.7	20		
9042568	Dissolved Cesium (Cs)	2023/11/10	100	80 - 120	98	80 - 120	<0.00002	mg/L				
9042568	Dissolved Chromium (Cr)	2023/11/10	103	80 - 120	97	80 - 120	<0.0005	mg/L				
9042568	Dissolved Cobalt (Co)	2023/11/10	97	80 - 120	97	80 - 120	<0.00005	mg/L				
9042568	Dissolved Copper (Cu)	2023/11/10	97	80 - 120	99	80 - 120	<0.0001	mg/L				
9042568	Dissolved Iron (Fe)	2023/11/14	101	80 - 120	99	80 - 120	<0.005	mg/L	0.38	20		
9042568	Dissolved Lead (Pb)	2023/11/10	93	80 - 120	96	80 - 120	<0.00005	mg/L				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9042568	Dissolved Lithium (Li)	2023/11/10	103	80 - 120	103	80 - 120	<0.0005	mg/L				
9042568	Dissolved Magnesium (Mg)	2023/11/14	NC	80 - 120	96	80 - 120	<0.005	mg/L	0.83	20		
9042568	Dissolved Manganese (Mn)	2023/11/10	101	80 - 120	99	80 - 120	<0.0002	mg/L				
9042568	Dissolved Molybdenum (Mo)	2023/11/10	111	80 - 120	101	80 - 120	<0.00005	mg/L				
9042568	Dissolved Nickel (Ni)	2023/11/10	95	80 - 120	98	80 - 120	<0.0001	mg/L				
9042568	Dissolved Phosphorus (P)	2023/11/10	108	80 - 120	97	80 - 120	<0.005	mg/L				
9042568	Dissolved Potassium (K)	2023/11/14	103	80 - 120	97	80 - 120	<0.02	mg/L	1.2	20		
9042568	Dissolved Rubidium (Rb)	2023/11/10	103	80 - 120	98	80 - 120	<0.00002	mg/L				
9042568	Dissolved Selenium (Se)	2023/11/10	107	80 - 120	102	80 - 120	<0.0002	mg/L				
9042568	Dissolved Silicon (Si)	2023/11/10	NC	80 - 120	99	80 - 120	<0.005	mg/L				
9042568	Dissolved Silver (Ag)	2023/11/10	98	80 - 120	100	80 - 120	<0.00001	mg/L				
9042568	Dissolved Sodium (Na)	2023/11/14	NC	80 - 120	97	80 - 120	<0.01	mg/L	0.43	20		
9042568	Dissolved Strontium (Sr)	2023/11/10	NC	80 - 120	98	80 - 120	<0.0001	mg/L				
9042568	Dissolved Tellurium (Te)	2023/11/10	98	80 - 120	96	80 - 120	<0.0001	mg/L				
9042568	Dissolved Thallium (Tl)	2023/11/10	98	80 - 120	98	80 - 120	<0.000005	mg/L				
9042568	Dissolved Thorium (Th)	2023/11/10	103	80 - 120	100	80 - 120	<0.0002	mg/L				
9042568	Dissolved Tin (Sn)	2023/11/10	107	80 - 120	100	80 - 120	<0.0001	mg/L				
9042568	Dissolved Titanium (Ti)	2023/11/10	103	80 - 120	99	80 - 120	<0.0005	mg/L				
9042568	Dissolved Tungsten (W)	2023/11/10	105	80 - 120	101	80 - 120	<0.0001	mg/L				
9042568	Dissolved Uranium (U)	2023/11/10	108	80 - 120	105	80 - 120	<0.00001	mg/L				
9042568	Dissolved Vanadium (V)	2023/11/10	106	80 - 120	98	80 - 120	<0.00005	mg/L				
9042568	Dissolved Zinc (Zn)	2023/11/10	92	80 - 120	99	80 - 120	<0.0005	mg/L				
9042568	Dissolved Zirconium (Zr)	2023/11/10	113	80 - 120	101	80 - 120	<0.0001	mg/L				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9052138	Strong Acid Dissoc. Cyanide (CN)	2023/11/15	99	80 - 120	105	80 - 120	<0.00050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Bureau Veritas Job #: C3Y3918
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

Janah Rhyno, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 794469

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/16
Report #: R7915114
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Y5682
Received: 2023/11/02, 16:03

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	3	N/A	2023/11/08	ATL SOP-00205	SM 24 2310B m
Alkalinity	3	N/A	2023/11/08	CAM SOP-00448	SM 23 2320 B m
Carbonate, Bicarbonate and Hydroxide	3	N/A	2023/11/08	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	3	N/A	2023/11/09	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	3	N/A	2023/11/09	CAM SOP-00414	SM 23 2510 m
Fluoride	3	2023/11/06	2023/11/08	CAM SOP-00449	SM 23 4500-F C m
Hardness (calculated as CaCO3)	3	N/A	2023/11/16	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	3	2023/11/07	2023/11/07	CAM SOP-00453	EPA 7470 m
Mercury (low level)	3	2023/11/06	2023/11/06	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	3	2023/11/06	2023/11/08	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	3	N/A	2023/11/15	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	2	N/A	2023/11/10	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2023/11/09	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	1	2023/11/07	2023/11/07	CAM SOP-00408	EPA 6010D m
Total Metals Analysis by ICP	2	2023/11/07	2023/11/08	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	3	N/A	2023/11/09	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	3	2023/11/15	2023/11/15	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	3	2023/11/08	2023/11/08	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	3	N/A	2023/11/06	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	3	N/A	2023/11/13	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	3	2023/11/06	2023/11/08	CAM SOP-00413	SM 4500H+ B m
Field Measured pH (4)	1	N/A	2023/11/03		Field pH Meter
Sulphate by Automated Turbidimetry	3	N/A	2023/11/09	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	1	2023/11/06	2023/11/07	CAM SOP-00428	SM 23 2540C m
Total Dissolved Solids	2	2023/11/08	2023/11/09	CAM SOP-00428	SM 23 2540C m
Field Temperature (4)	1	N/A	2023/11/03		Field Thermometer
Total Kjeldahl Nitrogen in Water	3	2023/11/08	2023/11/09	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	2	2023/11/06	2023/11/07	CAM SOP-00428	SM 23 2540D m
Low Level Total Suspended Solids	1	2023/11/08	2023/11/09	CAM SOP-00428	SM 23 2540D m
Turbidity	3	N/A	2023/11/04	CAM SOP-00417	SM 23 2130 B m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 794469

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/16
Report #: R7915114
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Y5682

Received: 2023/11/02, 16:03

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C3Y5682
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XMT581			XMT582			XMT582		
Sampling Date		2023/11/01 08:00			2023/11/01 12:23			2023/11/01 12:23		
COC Number		794469			794469			794469		
	UNITS	Duplicate 10	RDL	QC Batch	SEEP 6	RDL	QC Batch	SEEP 6 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	460	1.0	9028798	460	1.0	9028798			
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.1	1.0	9028798	<1.0	1.0	9028798			
Hardness (CaCO3)	mg/L	2500	1.0	9028807	2400	1.0	9028807			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9028798	<1.0	1.0	9028798			
Field Measurements										
Field Temperature	Celsius	0	N/A	ONSITE						
Field Measured pH	pH	0		ONSITE						
Inorganics										
Acidity	mg/L	84	5.0	9035651	78	5.0	9035651			
Total Ammonia-N	mg/L	0.91	0.050	9032099	0.93	0.050	9032099	0.93	0.050	9032099
Conductivity	mS/cm	3.63	0.001	9031830	3.64	0.001	9031830			
Free Cyanide (CN)	ug/L	6.6 (1)	2.0	9052139	5.9 (1)	2.0	9052139			
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0150	0.00050	9052138	0.0140	0.00050	9052138			
Total Dissolved Solids	mg/L	3660	10	9036922	3610	10	9036922			
Fluoride (F-)	mg/L	0.21	0.10	9031826	0.24	0.10	9031826			
Total Kjeldahl Nitrogen (TKN)	mg/L	1.6	0.20	9036547	1.8	0.20	9036547			
pH	pH	7.40		9031832	7.34		9031832			
Total Phosphorus (P)	mg/L	0.43	0.0050	9052137	0.47	0.0050	9052137			
Total Suspended Solids	mg/L	34	1	9036022	32	1	9030410			
Dissolved Sulphate (SO4)	mg/L	2000	10	9029646	2000	10	9029646			
Turbidity	NTU	55	0.1	9029268	37	0.1	9029268			
Alkalinity (Total as CaCO3)	mg/L	460	1.0	9031828	460	1.0	9031828			
Dissolved Chloride (Cl-)	mg/L	2.3	1.0	9029644	2.6	1.0	9029644			
Nitrite (N)	mg/L	<0.010	0.010	9029685	<0.010	0.010	9029685			
Nitrate (N)	mg/L	<0.10	0.10	9029685	<0.10	0.10	9029685			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9029685	<0.10	0.10	9029685			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y5682
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XMT583			XMT583		
Sampling Date		2023/11/01 14:51			2023/11/01 14:51		
COC Number		794469			794469		
	UNITS	MW22-OB-21	RDL	QC Batch	MW22-OB-21 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	250	1.0	9028798			
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.7	1.0	9028798			
Hardness (CaCO3)	mg/L	240	1.0	9028807			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9028798			
Inorganics							
Acidity	mg/L	10	5.0	9035651			
Total Ammonia-N	mg/L	0.17	0.050	9032099			
Conductivity	mS/cm	0.469	0.001	9031830	0.473	0.001	9031830
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9052139			
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00060	0.00050	9052138			
Total Dissolved Solids	mg/L	245	10	9030402			
Fluoride (F-)	mg/L	0.63	0.10	9031826	0.58	0.10	9031826
Total Kjeldahl Nitrogen (TKN)	mg/L	0.32	0.10	9036547			
pH	pH	8.05		9031832	7.89		9031832
Total Phosphorus (P)	mg/L	0.026	0.0010	9052137	0.025	0.0010	9052137
Total Suspended Solids	mg/L	140	1	9030410			
Dissolved Sulphate (SO4)	mg/L	<1.0	1.0	9029646			
Turbidity	NTU	7.7	0.1	9029268			
Alkalinity (Total as CaCO3)	mg/L	260	1.0	9031828	260	1.0	9031828
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9029644			
Nitrite (N)	mg/L	<0.010	0.010	9029685			
Nitrate (N)	mg/L	<0.10	0.10	9029685			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9029685			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XMT581		XMT582		XMT583		
Sampling Date		2023/11/01 08:00		2023/11/01 12:23		2023/11/01 14:51		
COC Number		794469		794469		794469		
	UNITS	Duplicate 10	RDL	SEEP 6	RDL	MW22-OB-21	RDL	QC Batch
Metals								
Dissolved Aluminum (Al)	mg/L	<0.0025	0.0025	<0.025	0.025	0.0019	0.0005	9042578
. Aluminum (Al)	mg/L	<0.0025	0.0025	0.0049	0.0025	0.202	0.0005	9038025
Dissolved Antimony (Sb)	mg/L	<0.0005	0.0005	<0.005	0.005	<0.0001	0.0001	9042578
. Antimony (Sb)	mg/L	<0.0005	0.0005	<0.0005	0.0005	<0.0001	0.0001	9038025
Dissolved Arsenic (As)	mg/L	5.40	0.05	5.47	0.05	0.0038	0.0001	9042578
. Arsenic (As)	mg/L	6.57	0.05	7.59	0.05	0.0122	0.0001	9038025
Dissolved Barium (Ba)	mg/L	0.019	0.001	0.02	0.01	0.0469	0.0002	9042578
. Barium (Ba)	mg/L	0.019	0.001	0.020	0.001	0.0480	0.0002	9038025
Dissolved Beryllium (Be)	mg/L	<0.00025	0.00025	<0.0025	0.0025	<0.00005	0.00005	9042578
. Beryllium (Be)	mg/L	<0.00025	0.00025	<0.00025	0.00025	<0.00005	0.00005	9038025
Dissolved Bismuth (Bi)	mg/L	<0.0005	0.0005	<0.005	0.005	<0.0001	0.0001	9042578
. Bismuth (Bi)	mg/L	<0.0005	0.0005	<0.0005	0.0005	<0.0001	0.0001	9038025
Dissolved Boron (B)	mg/L	0.144	0.005	0.14	0.05	0.028	0.001	9042578
. Boron (B)	mg/L	0.131	0.005	0.131	0.005	0.024	0.001	9038025
Dissolved Cadmium (Cd)	mg/L	<0.00005	0.00005	<0.0005	0.0005	<0.00001	0.00001	9042578
. Cadmium (Cd)	mg/L	<0.000025	0.000025	<0.000025	0.000025	<0.000005	0.000005	9038025
Dissolved Calcium (Ca)	mg/L	557	1	538	1	55.9	0.1	9042578
. Calcium (Ca)	mg/L	550	1	565	1	60.8	0.1	9038025
Dissolved Cesium (Cs)	mg/L	<0.0001	0.0001	<0.001	0.001	<0.00002	0.00002	9042578
. Cesium (Cs)	mg/L	<0.0001	0.0001	<0.0001	0.0001	0.00002	0.00002	9038025
Dissolved Chromium (Cr)	mg/L	<0.0025	0.0025	<0.025	0.025	<0.0005	0.0005	9042578
. Chromium (Cr)	mg/L	<0.0025	0.0025	<0.0025	0.0025	0.0011	0.0005	9038025
Dissolved Cobalt (Co)	mg/L	0.0175	0.00025	0.0164	0.0025	0.00020	0.00005	9042578
. Cobalt (Co)	mg/L	0.0172	0.00025	0.0175	0.00025	0.00039	0.00005	9038025
Dissolved Copper (Cu)	mg/L	<0.0005	0.0005	<0.005	0.005	0.0006	0.0001	9042578
. Copper (Cu)	mg/L	<0.0005	0.0005	<0.0005	0.0005	0.0005	0.0001	9038025
Dissolved Iron (Fe)	mg/L	8.93	0.025	8.19	0.25	2.96	0.005	9042578
. Iron (Fe)	mg/L	10.0	0.025	11.0	0.025	3.38	0.005	9038025
Dissolved Lead (Pb)	mg/L	<0.00025	0.00025	<0.0025	0.0025	<0.00005	0.00005	9042578
. Lead (Pb)	mg/L	<0.00025	0.00025	<0.00025	0.00025	0.00026	0.00005	9038025
Dissolved Lithium (Li)	mg/L	0.0294	0.0025	0.028	0.025	0.0116	0.0005	9042578

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y5682
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XMT581		XMT582		XMT583		
Sampling Date		2023/11/01 08:00		2023/11/01 12:23		2023/11/01 14:51		
COC Number		794469		794469		794469		
	UNITS	Duplicate 10	RDL	SEEP 6	RDL	MW22-OB-21	RDL	QC Batch
. Lithium (Li)	mg/L	0.0298	0.0025	0.0298	0.0025	0.0119	0.0005	9038025
Dissolved Magnesium (Mg)	mg/L	262	0.05	254	0.25	24.3	0.005	9042578
. Magnesium (Mg)	mg/L	267	0.05	270	0.05	24.8	0.005	9038025
Dissolved Manganese (Mn)	mg/L	1.17	0.001	1.09	0.01	0.0732	0.0002	9042578
. Manganese (Mn)	mg/L	1.15	0.001	1.20	0.001	0.0855	0.0002	9038025
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	<0.01	0.01	9031278
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	<0.01	0.01	9034575
Dissolved Molybdenum (Mo)	mg/L	0.00481	0.00025	0.0030	0.0025	0.0121	0.00005	9042578
. Molybdenum (Mo)	mg/L	0.00461	0.00025	0.00472	0.00025	0.0117	0.00005	9038025
Dissolved Nickel (Ni)	mg/L	0.0110	0.0005	0.006	0.005	0.0013	0.0001	9042578
. Nickel (Ni)	mg/L	0.0112	0.0005	0.0114	0.0005	0.0018	0.0001	9038025
Dissolved Phosphorus (P)	mg/L	<0.025	0.025	<0.25	0.25	0.011	0.005	9042578
. Phosphorus (P)	mg/L	<0.025	0.025	<0.025	0.025	0.039	0.005	9038025
Dissolved Potassium (K)	mg/L	48.4	0.1	45	1	4.82	0.02	9042578
. Potassium (K)	mg/L	47.6	0.1	48.2	0.1	4.61	0.02	9038025
Dissolved Rubidium (Rb)	mg/L	0.0066	0.0001	0.006	0.001	0.00128	0.00002	9042578
. Rubidium (Rb)	mg/L	0.0065	0.0001	0.0067	0.0001	0.00160	0.00002	9038025
Dissolved Selenium (Se)	mg/L	<0.001	0.001	<0.01	0.01	<0.0002	0.0002	9042578
. Selenium (Se)	mg/L	<0.00025	0.00025	<0.00025	0.00025	<0.00005	0.00005	9038025
Dissolved Silicon (Si)	mg/L	9.68	0.025	8.92	0.25	7.33	0.025	9042578
. Silicon (Si)	mg/L	9.65	0.025	9.68	0.025	6.87	0.025	9038025
Dissolved Silver (Ag)	mg/L	<0.00005	0.00005	<0.0005	0.0005	<0.00001	0.00001	9042578
. Silver (Ag)	mg/L	<0.00005	0.00005	<0.00005	0.00005	<0.00001	0.00001	9038025
Dissolved Sodium (Na)	mg/L	13.8	0.05	13.1	0.5	7.59	0.01	9042578
. Sodium (Na)	mg/L	13.4	0.05	13.6	0.05	7.26	0.01	9038025
Dissolved Strontium (Sr)	mg/L	3.82	0.0005	3.59	0.005	0.264	0.0001	9042578
. Strontium (Sr)	mg/L	3.89	0.0005	4.04	0.0005	0.265	0.0001	9038025
Dissolved Sulphur (S)	mg/L	680	5	680	5	<0.5	0.5	9030935
Total Sulphur (S)	mg/L	700	5	720	5	<0.5	0.5	9032995
Dissolved Tellurium (Te)	mg/L	<0.0005	0.0005	<0.005	0.005	<0.0001	0.0001	9042578
. Tellurium (Te)	mg/L	<0.0005	0.0005	<0.0005	0.0005	<0.0001	0.0001	9038025
Dissolved Thallium (Tl)	mg/L	<0.000025	0.000025	<0.00025	0.00025	<0.000005	0.000005	9042578

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y5682
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XMT581		XMT582		XMT583		
Sampling Date		2023/11/01 08:00		2023/11/01 12:23		2023/11/01 14:51		
COC Number		794469		794469		794469		
	UNITS	**Duplicate 10**	**RDL**	**SEEP 6**	**RDL**	**MW22-OB-21**	**RDL**	**QC Batch**
. Thallium (Tl)	mg/L	<0.000025	0.000025	<0.000025	0.000025	0.000005	0.000005	9038025
Dissolved Thorium (Th)	mg/L	<0.001	0.001	<0.01	0.01	<0.0002	0.0002	9042578
. Thorium (Th)	mg/L	<0.001	0.001	<0.001	0.001	<0.0002	0.0002	9038025
Dissolved Tin (Sn)	mg/L	<0.0005	0.0005	<0.005	0.005	<0.0001	0.0001	9042578
. Tin (Sn)	mg/L	<0.0005	0.0005	<0.0005	0.0005	0.0003	0.0001	9038025
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	<0.025	0.025	0.0006	0.0005	9042578
. Titanium (Ti)	mg/L	<0.0025	0.0025	<0.0025	0.0025	0.0156	0.0005	9038025
Dissolved Tungsten (W)	mg/L	<0.0005	0.0005	<0.005	0.005	0.0003	0.0001	9042578
. Tungsten (W)	mg/L	<0.0005	0.0005	<0.0005	0.0005	0.0003	0.0001	9038025
Dissolved Uranium (U)	mg/L	0.00071	0.00005	0.0006	0.0005	0.00019	0.00001	9042578
. Uranium (U)	mg/L	0.00070	0.00005	0.00070	0.00005	0.00023	0.00001	9038025
Dissolved Vanadium (V)	mg/L	<0.00025	0.00025	<0.0025	0.0025	0.00006	0.00005	9042578
. Vanadium (V)	mg/L	<0.00025	0.00025	<0.00025	0.00025	0.00065	0.00005	9038025
Dissolved Zinc (Zn)	mg/L	<0.0025	0.0025	<0.025	0.025	0.0036	0.0005	9042578
. Zinc (Zn)	mg/L	<0.0025	0.0025	<0.0025	0.0025	0.0559	0.0005	9038025
Dissolved Zirconium (Zr)	mg/L	<0.0005	0.0005	<0.005	0.005	<0.0001	0.0001	9042578
. Zirconium (Zr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	0.0005	0.0001	9038025

RDL = Reportable Detection Limit
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Bureau Veritas Job #: C3Y5682
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: XMT581
Sample ID: Duplicate 10
Matrix: Water

Collected: 2023/11/01
Shipped:
Received: 2023/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9035651	N/A	2023/11/08	Brent Boudreau
Alkalinity	AT	9031828	N/A	2023/11/08	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9028798	N/A	2023/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	9029644	N/A	2023/11/09	Alina Dobreanu
Conductivity	AT	9031830	N/A	2023/11/09	Nachiketa Gohil
Fluoride	ISE	9031826	2023/11/06	2023/11/08	Nachiketa Gohil
Hardness (calculated as CaCO3)		9028807	N/A	2023/11/16	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Mercury (low level)	CV/AA	9031278	2023/11/06	2023/11/06	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9030935	2023/11/06	2023/11/08	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042578	N/A	2023/11/15	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9038025	N/A	2023/11/10	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9032995	2023/11/07	2023/11/08	Suban Kanapathippllai
Cyanide (Free)	SPEC	9052139	N/A	2023/11/09	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9052138	2023/11/15	2023/11/15	Joshua Fine
Total Phosphorus Low Level Total	KONE	9052137	2023/11/08	2023/11/08	Carlo Truong
Total Ammonia-N	LACH/NH4	9032099	N/A	2023/11/06	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9029685	N/A	2023/11/13	Chandra Nandlal
pH	AT	9031832	2023/11/06	2023/11/08	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/03	Raj Jagdish Masani
Sulphate by Automated Turbidimetry	KONE	9029646	N/A	2023/11/09	Alina Dobreanu
Total Dissolved Solids	BAL	9036922	2023/11/08	2023/11/09	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2023/11/03	Raj Jagdish Masani
Total Kjeldahl Nitrogen in Water	SKAL	9036547	2023/11/08	2023/11/09	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9036022	2023/11/08	2023/11/09	Shaneil Hall
Turbidity	AT	9029268	N/A	2023/11/04	Leily Karimi

Bureau Veritas ID: XMT582
Sample ID: SEEP 6
Matrix: Water

Collected: 2023/11/01
Shipped:
Received: 2023/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9035651	N/A	2023/11/08	Brent Boudreau
Alkalinity	AT	9031828	N/A	2023/11/08	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9028798	N/A	2023/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	9029644	N/A	2023/11/09	Alina Dobreanu
Conductivity	AT	9031830	N/A	2023/11/09	Nachiketa Gohil
Fluoride	ISE	9031826	2023/11/06	2023/11/08	Nachiketa Gohil
Hardness (calculated as CaCO3)		9028807	N/A	2023/11/16	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Mercury (low level)	CV/AA	9031278	2023/11/06	2023/11/06	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9030935	2023/11/06	2023/11/08	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042578	N/A	2023/11/15	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9038025	N/A	2023/11/10	Azita Fazaeli

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y5682
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: XMT582
Sample ID: SEEP 6
Matrix: Water

Collected: 2023/11/01
Shipped:
Received: 2023/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Metals Analysis by ICP	ICP	9032995	2023/11/07	2023/11/08	Suban Kanapathippllai
Cyanide (Free)	SPEC	9052139	N/A	2023/11/09	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9052138	2023/11/15	2023/11/15	Joshua Fine
Total Phosphorus Low Level Total	KONE	9052137	2023/11/08	2023/11/08	Carlo Truong
Total Ammonia-N	LACH/NH4	9032099	N/A	2023/11/06	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9029685	N/A	2023/11/13	Chandra Nandlal
pH	AT	9031832	2023/11/06	2023/11/08	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	9029646	N/A	2023/11/09	Alina Dobreanu
Total Dissolved Solids	BAL	9036922	2023/11/08	2023/11/09	Tina Teng
Total Kjeldahl Nitrogen in Water	SKAL	9036547	2023/11/08	2023/11/09	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9030410	2023/11/06	2023/11/07	Razieh Tabesh
Turbidity	AT	9029268	N/A	2023/11/04	Leily Karimi

Bureau Veritas ID: XMT582 Dup
Sample ID: SEEP 6
Matrix: Water

Collected: 2023/11/01
Shipped:
Received: 2023/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	9032099	N/A	2023/11/06	Prabhjot Kaur

Bureau Veritas ID: XMT583
Sample ID: MW22-OB-21
Matrix: Water

Collected: 2023/11/01
Shipped:
Received: 2023/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9035651	N/A	2023/11/08	Brent Boudreau
Alkalinity	AT	9031828	N/A	2023/11/08	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9028798	N/A	2023/11/08	Automated Statchk
Chloride by Automated Colourimetry	KONE	9029644	N/A	2023/11/09	Alina Dobreanu
Conductivity	AT	9031830	N/A	2023/11/09	Nachiketa Gohil
Fluoride	ISE	9031826	2023/11/06	2023/11/08	Nachiketa Gohil
Hardness (calculated as CaCO3)		9028807	N/A	2023/11/16	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9034575	2023/11/07	2023/11/07	Gagandeep Rai
Mercury (low level)	CV/AA	9031278	2023/11/06	2023/11/06	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9030935	2023/11/06	2023/11/08	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042578	N/A	2023/11/15	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9038025	N/A	2023/11/09	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9032995	2023/11/07	2023/11/07	Suban Kanapathippllai
Cyanide (Free)	SPEC	9052139	N/A	2023/11/09	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9052138	2023/11/15	2023/11/15	Joshua Fine
Total Phosphorus Low Level Total	KONE	9052137	2023/11/08	2023/11/08	Carlo Truong
Total Ammonia-N	LACH/NH4	9032099	N/A	2023/11/06	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9029685	N/A	2023/11/13	Chandra Nandlal
pH	AT	9031832	2023/11/06	2023/11/08	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y5682
Report Date: 2023/11/16

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: XMT583
Sample ID: MW22-OB-21
Matrix: Water

Collected: 2023/11/01
Shipped:
Received: 2023/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sulphate by Automated Turbidimetry	KONE	9029646	N/A	2023/11/09	Alina Dobreanu
Total Dissolved Solids	BAL	9030402	2023/11/06	2023/11/07	Darshan Patel
Total Kjeldahl Nitrogen in Water	SKAL	9036547	2023/11/08	2023/11/09	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9030410	2023/11/06	2023/11/07	Razieh Tabesh
Turbidity	AT	9029268	N/A	2023/11/04	Leily Karimi

Bureau Veritas ID: XMT583 Dup
Sample ID: MW22-OB-21
Matrix: Water

Collected: 2023/11/01
Shipped:
Received: 2023/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9031828	N/A	2023/11/08	Nachiketa Gohil
Conductivity	AT	9031830	N/A	2023/11/08	Nachiketa Gohil
Fluoride	ISE	9031826	2023/11/06	2023/11/08	Nachiketa Gohil
Total Phosphorus Low Level Total	KONE	9052137	2023/11/08	2023/11/08	Carlo Truong
pH	AT	9031832	2023/11/06	2023/11/08	Nachiketa Gohil

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.7°C

Sample XMT581 [Duplicate 10] : Acidity sample contained headspace.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XMT582 [SEEP 6] : Acidity sample contained headspace.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample XMT583 [MW22-OB-21] : Acidity sample contained headspace.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y5682
Report Date: 2023/11/16

QUALITY ASSURANCE REPORT

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9029268	Turbidity	2023/11/04			100	80 - 120	<0.1	NTU	1.9	20		
9029644	Dissolved Chloride (Cl-)	2023/11/09	NC	80 - 120	95	80 - 120	<1.0	mg/L	1.8	20		
9029646	Dissolved Sulphate (SO4)	2023/11/09	87	75 - 125	97	80 - 120	<1.0	mg/L	5.3	20		
9029685	Nitrate (N)	2023/11/13	98	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
9029685	Nitrite (N)	2023/11/13	103	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
9030402	Total Dissolved Solids	2023/11/07			98	90 - 110	<10	mg/L	0	20		
9030410	Total Suspended Solids	2023/11/07			98	85 - 115	<1	mg/L	11	20		
9030935	Dissolved Sulphur (S)	2023/11/08	NC	80 - 120	95	80 - 120	<0.5	mg/L	0.38	25		
9031278	Mercury (Hg)	2023/11/06	113	75 - 125	109	80 - 120	<0.01	ug/L	NC	20		
9031826	Fluoride (F-)	2023/11/08	98	80 - 120	103	80 - 120	<0.10	mg/L	7.6	20		
9031828	Alkalinity (Total as CaCO3)	2023/11/08			101	85 - 115	<1.0	mg/L	1.2	20		
9031830	Conductivity	2023/11/08			103	85 - 115	<0.001	mS/cm	0.85	10		
9031832	pH	2023/11/08			102	98 - 103			2.0	N/A		
9032099	Total Ammonia-N	2023/11/06	98	75 - 125	102	80 - 120	<0.050	mg/L	0.64	20		
9032995	Total Sulphur (S)	2023/11/07	NC	80 - 120	95	80 - 120	<0.5	mg/L				
9034575	Dissolved Mercury (Hg)	2023/11/07	107	75 - 125	110	80 - 120	<0.01	ug/L	NC	20		
9035651	Acidity	2023/11/08	88	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9036022	Total Suspended Solids	2023/11/09			96	85 - 115	<1	mg/L	NC	20		
9036547	Total Kjeldahl Nitrogen (TKN)	2023/11/09	94	80 - 120	107	80 - 120	<0.10	mg/L	17	20	100	80 - 120
9036922	Total Dissolved Solids	2023/11/09			100	90 - 110	<10	mg/L	3.5	20		
9038025	. Aluminum (Al)	2023/11/09	111	80 - 120	105	80 - 120	<0.0005	mg/L	5.7	20		
9038025	. Antimony (Sb)	2023/11/09	108	80 - 120	103	80 - 120	<0.0001	mg/L	4.7	20		
9038025	. Arsenic (As)	2023/11/09	100	80 - 120	98	80 - 120	<0.0001	mg/L	0.053	20		
9038025	. Barium (Ba)	2023/11/09	101	80 - 120	101	80 - 120	<0.0002	mg/L	2.9	20		
9038025	. Beryllium (Be)	2023/11/09	96	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9038025	. Bismuth (Bi)	2023/11/09	91	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9038025	. Boron (B)	2023/11/09	NC	80 - 120	101	80 - 120	<0.001	mg/L	1.3	20		
9038025	. Cadmium (Cd)	2023/11/09	96	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9038025	. Calcium (Ca)	2023/11/09	NC	80 - 120	105	80 - 120	<0.02	mg/L	0.32	20		
9038025	. Cesium (Cs)	2023/11/09	100	80 - 120	102	80 - 120	<0.00002	mg/L	1.8	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9038025	. Chromium (Cr)	2023/11/09	105	80 - 120	99	80 - 120	<0.0005	mg/L	NC	20		
9038025	. Cobalt (Co)	2023/11/09	100	80 - 120	97	80 - 120	<0.00005	mg/L	2.6	20		
9038025	. Copper (Cu)	2023/11/09	102	80 - 120	98	80 - 120	<0.0001	mg/L	7.7	20		
9038025	. Iron (Fe)	2023/11/09	103	80 - 120	100	80 - 120	<0.005	mg/L	0.68	20		
9038025	. Lead (Pb)	2023/11/09	93	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9038025	. Lithium (Li)	2023/11/09	102	80 - 120	102	80 - 120	<0.0005	mg/L	0.068	20		
9038025	. Magnesium (Mg)	2023/11/09	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.0049	20		
9038025	. Manganese (Mn)	2023/11/09	101	80 - 120	99	80 - 120	<0.0002	mg/L	0.91	20		
9038025	. Molybdenum (Mo)	2023/11/09	115	80 - 120	100	80 - 120	<0.00005	mg/L	1.8	20		
9038025	. Nickel (Ni)	2023/11/09	96	80 - 120	98	80 - 120	<0.0001	mg/L	2.5	20		
9038025	. Phosphorus (P)	2023/11/09	111	80 - 120	101	80 - 120	<0.005	mg/L	NC	20		
9038025	. Potassium (K)	2023/11/09	NC	80 - 120	100	80 - 120	<0.02	mg/L	0.16	20		
9038025	. Rubidium (Rb)	2023/11/09	99	80 - 120	100	80 - 120	<0.00002	mg/L	0.14	20		
9038025	. Selenium (Se)	2023/11/09	109	80 - 120	103	80 - 120	<0.00005	mg/L	3.3	20		
9038025	. Silicon (Si)	2023/11/09	NC	80 - 120	104	80 - 120	<0.005	mg/L	0.27	20		
9038025	. Silver (Ag)	2023/11/09	86	80 - 120	103	80 - 120	<0.00001	mg/L	NC	20		
9038025	. Sodium (Na)	2023/11/09	NC	80 - 120	101	80 - 120	<0.01	mg/L	0.37	20		
9038025	. Strontium (Sr)	2023/11/09	NC	80 - 120	100	80 - 120	<0.0001	mg/L	1.1	20		
9038025	. Tellurium (Te)	2023/11/09	94	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9038025	. Thallium (Tl)	2023/11/09	93	80 - 120	97	80 - 120	<0.000005	mg/L	NC	20		
9038025	. Thorium (Th)	2023/11/09	101	80 - 120	97	80 - 120	<0.0002	mg/L	NC	20		
9038025	. Tin (Sn)	2023/11/09	108	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9038025	. Titanium (Ti)	2023/11/09	111	80 - 120	102	80 - 120	<0.0005	mg/L	NC	20		
9038025	. Tungsten (W)	2023/11/09	105	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9038025	. Uranium (U)	2023/11/09	100	80 - 120	95	80 - 120	<0.00001	mg/L	3.7	20		
9038025	. Vanadium (V)	2023/11/09	110	80 - 120	100	80 - 120	<0.00005	mg/L	4.6	20		
9038025	. Zinc (Zn)	2023/11/09	89	80 - 120	99	80 - 120	<0.0005	mg/L	9.5	20		
9038025	. Zirconium (Zr)	2023/11/09	118	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9042578	Dissolved Aluminum (Al)	2023/11/14	106	80 - 120	101	80 - 120	<0.0005	mg/L				
9042578	Dissolved Antimony (Sb)	2023/11/14	114	80 - 120	105	80 - 120	<0.0001	mg/L				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9042578	Dissolved Arsenic (As)	2023/11/14	108	80 - 120	99	80 - 120	<0.0001	mg/L				
9042578	Dissolved Barium (Ba)	2023/11/14	NC	80 - 120	102	80 - 120	<0.0002	mg/L				
9042578	Dissolved Beryllium (Be)	2023/11/14	98	80 - 120	101	80 - 120	<0.00005	mg/L				
9042578	Dissolved Bismuth (Bi)	2023/11/14	93	80 - 120	101	80 - 120	<0.0001	mg/L				
9042578	Dissolved Boron (B)	2023/11/14	96	80 - 120	99	80 - 120	<0.001	mg/L				
9042578	Dissolved Cadmium (Cd)	2023/11/14	102	80 - 120	99	80 - 120	<0.00001	mg/L				
9042578	Dissolved Calcium (Ca)	2023/11/14	NC	80 - 120	100	80 - 120	<0.02	mg/L	1.9	20		
9042578	Dissolved Cesium (Cs)	2023/11/14	102	80 - 120	103	80 - 120	<0.00002	mg/L				
9042578	Dissolved Chromium (Cr)	2023/11/14	103	80 - 120	98	80 - 120	<0.0005	mg/L				
9042578	Dissolved Cobalt (Co)	2023/11/14	97	80 - 120	96	80 - 120	<0.00005	mg/L				
9042578	Dissolved Copper (Cu)	2023/11/14	98	80 - 120	100	80 - 120	<0.0001	mg/L				
9042578	Dissolved Iron (Fe)	2023/11/14	101	80 - 120	97	80 - 120	<0.005	mg/L	NC	20		
9042578	Dissolved Lead (Pb)	2023/11/14	94	80 - 120	97	80 - 120	<0.00005	mg/L				
9042578	Dissolved Lithium (Li)	2023/11/14	106	80 - 120	106	80 - 120	<0.0005	mg/L				
9042578	Dissolved Magnesium (Mg)	2023/11/14	NC	80 - 120	98	80 - 120	<0.005	mg/L	0.60	20		
9042578	Dissolved Manganese (Mn)	2023/11/14	101	80 - 120	97	80 - 120	<0.0002	mg/L				
9042578	Dissolved Molybdenum (Mo)	2023/11/14	117	80 - 120	103	80 - 120	<0.00005	mg/L				
9042578	Dissolved Nickel (Ni)	2023/11/14	94	80 - 120	97	80 - 120	<0.0001	mg/L				
9042578	Dissolved Phosphorus (P)	2023/11/14	113	80 - 120	101	80 - 120	<0.005	mg/L				
9042578	Dissolved Potassium (K)	2023/11/14	105	80 - 120	99	80 - 120	<0.02	mg/L	2.0	20		
9042578	Dissolved Rubidium (Rb)	2023/11/14	105	80 - 120	100	80 - 120	<0.00002	mg/L				
9042578	Dissolved Selenium (Se)	2023/11/14	111	80 - 120	102	80 - 120	<0.0002	mg/L				
9042578	Dissolved Silicon (Si)	2023/11/14	NC	80 - 120	100	80 - 120	<0.005	mg/L				
9042578	Dissolved Silver (Ag)	2023/11/14	98	80 - 120	100	80 - 120	<0.00001	mg/L				
9042578	Dissolved Sodium (Na)	2023/11/14	NC	80 - 120	97	80 - 120	<0.01	mg/L	0.43	20		
9042578	Dissolved Strontium (Sr)	2023/11/14	NC	80 - 120	98	80 - 120	<0.0001	mg/L				
9042578	Dissolved Tellurium (Te)	2023/11/14	98	80 - 120	96	80 - 120	<0.0001	mg/L				
9042578	Dissolved Thallium (Tl)	2023/11/14	95	80 - 120	97	80 - 120	<0.000005	mg/L				
9042578	Dissolved Thorium (Th)	2023/11/14	103	80 - 120	98	80 - 120	<0.0002	mg/L				
9042578	Dissolved Tin (Sn)	2023/11/14	113	80 - 120	103	80 - 120	<0.0001	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9042578	Dissolved Titanium (Ti)	2023/11/14	107	80 - 120	101	80 - 120	<0.0005	mg/L				
9042578	Dissolved Tungsten (W)	2023/11/14	108	80 - 120	102	80 - 120	<0.0001	mg/L				
9042578	Dissolved Uranium (U)	2023/11/14	98	80 - 120	95	80 - 120	<0.00001	mg/L				
9042578	Dissolved Vanadium (V)	2023/11/14	107	80 - 120	100	80 - 120	<0.00005	mg/L				
9042578	Dissolved Zinc (Zn)	2023/11/14	89	80 - 120	98	80 - 120	<0.0005	mg/L				
9042578	Dissolved Zirconium (Zr)	2023/11/14	119	80 - 120	104	80 - 120	<0.0001	mg/L				
9052137	Total Phosphorus (P)	2023/11/08	NC	80 - 120	92	80 - 120	<0.0010 (1)	mg/L	3.8	20	87	80 - 120
9052138	Strong Acid Dissoc. Cyanide (CN)	2023/11/15	99	80 - 120	105	80 - 120	<0.00050	mg/L				
9052139	Free Cyanide (CN)	2023/11/09	89	80 - 120	97	80 - 120	<2.0	ug/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x RDL acceptable for low level analysis

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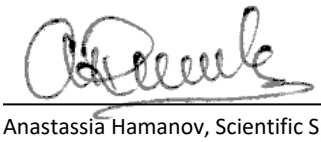
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y5682
Report Date: 2023/11/16

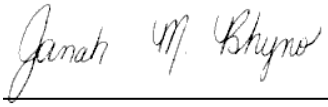
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

VALIDATION SIGNATURE PAGE

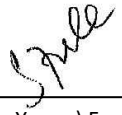
The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Janah Rhyno, Scientific Specialist



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 795422

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/17
Report #: R7917101
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Y8402
Received: 2023/11/03, 17:07

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	5	N/A	2023/11/13	ATL SOP-00205	SM 24 2310B m
Alkalinity	5	N/A	2023/11/09	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	5	N/A	2023/11/10	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	5	N/A	2023/11/13	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	5	N/A	2023/11/09	CAM SOP-00414	SM 23 2510 m
Dissolved Organic Carbon (DOC) (3)	1	N/A	2023/11/09	CAM SOP-00446	SM 24 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2023/11/10	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	5	2023/11/10	2023/11/10	CAM SOP-00316	CCME PHC-CWS m
Fluoride	5	2023/11/08	2023/11/09	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2023/11/15	CAM SOP 00102/00408/00447	SM 2340 B
Hardness (calculated as CaCO3)	4	N/A	2023/11/16	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	5	2023/11/10	2023/11/10	CAM SOP-00453	EPA 7470 m
Mercury (low level)	5	2023/11/10	2023/11/10	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	5	2023/11/09	2023/11/14	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	1	N/A	2023/11/14	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	4	N/A	2023/11/15	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2023/11/14	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	4	N/A	2023/11/15	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	5	2023/11/09	2023/11/13	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	5	N/A	2023/11/15	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	3	2023/11/16	2023/11/16	CAL SOP-00270	SM 23 4500-CN m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2023/11/16	2023/11/17	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	5	2023/11/14	2023/11/15	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	5	N/A	2023/11/10	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (5)	5	N/A	2023/11/15	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	5	2023/11/08	2023/11/09	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (6)	6	N/A	2023/11/07		Field pH Meter
Sulphate by Automated Turbidimetry	5	N/A	2023/11/13	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	5	2023/11/09	2023/11/10	CAM SOP-00428	SM 23 2540C m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 795422

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/17
Report #: R7917101
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Y8402
Received: 2023/11/03, 17:07

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Field Temperature (6)	6	N/A	2023/11/07		Field Thermometer
Total Kjeldahl Nitrogen in Water	5	2023/11/09	2023/11/10	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	5	2023/11/09	2023/11/10	CAM SOP-00428	SM 23 2540D m
Turbidity	5	N/A	2023/11/08	CAM SOP-00417	SM 23 2130 B m
Volatile Organic Compounds and F1 PHCs	2	N/A	2023/11/10	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds and F1 PHCs	2	N/A	2023/11/11	CAM SOP-00230	EPA 8260C m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(6) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y8402
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XNJ111			XNJ111			XNJ112		
Sampling Date		2023/11/02 09:58			2023/11/02 09:58			2023/11/02 11:06		
COC Number		795422			795422			795422		
	UNITS	MW23-OB-21	RDL	QC Batch	MW23-OB-21 Lab-Dup	RDL	QC Batch	MW21-BR-21	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	260	1.0	9036371				300	1.0	9036371
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.4	1.0	9036371				<1.0	1.0	9036371
Hardness (CaCO3)	mg/L	260	1.0	9036372				420	1.0	9036372
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9036371				<1.0	1.0	9036371
Field Measurements										
Field Temperature	Celsius	7.1	N/A	ONSITE				7.9	N/A	ONSITE
Field Measured pH	pH	7.22		ONSITE				6.43		ONSITE
Inorganics										
Acidity	mg/L	14	5.0	9045244				90	5.0	9045244
Total Ammonia-N	mg/L	0.15	0.050	9040346				0.32	0.050	9040346
Conductivity	mS/cm	0.510	0.001	9037833				0.855	0.001	9037833
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9055510				2.1 (1)	2.0	9055510
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9055508				<0.00050 (2)	0.00050	9055508
Total Dissolved Solids	mg/L	240	10	9039570				540	10	9039570
Fluoride (F-)	mg/L	0.11	0.10	9037834				<0.10	0.10	9037834
Total Kjeldahl Nitrogen (TKN)	mg/L	0.32	0.10	9039685				0.85	0.10	9039685
pH	pH	7.76		9037835				7.16		9037835
Total Phosphorus (P)	mg/L	0.0046	0.0010	9057757	0.0045	0.0010	9057757	0.0085	0.0010	9057757
Total Suspended Solids	mg/L	35	1	9039232				36	1	9039232
Dissolved Sulphate (SO4)	mg/L	8.1	1.0	9038108				28	1.0	9038108
Turbidity	NTU	5.0	0.1	9035036				6.6	0.1	9035036
Alkalinity (Total as CaCO3)	mg/L	270	1.0	9037831				300	1.0	9037831
Dissolved Chloride (Cl-)	mg/L	1.7	1.0	9038074				70	1.0	9038074
Nitrite (N)	mg/L	<0.010	0.010	9037751	<0.010	0.010	9037751	<0.010	0.010	9036940
Nitrate (N)	mg/L	<0.10	0.10	9037751	<0.10	0.10	9037751	0.85	0.10	9036940
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9037751	<0.10	0.10	9037751	0.85	0.10	9036940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y8402
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XNJ113			XNJ114		XNJ115		
Sampling Date		2023/11/02 14:44			2023/11/02 15:10		2023/11/02 12:13		
COC Number		795422			795422		795422		
	UNITS	MW5-OB1-13	RDL	QC Batch	MW5-OB2-23	QC Batch	MW11-BR-14	RDL	QC Batch
Calculated Parameters									
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	210	1.0	9036371			370	1.0	9036371
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.2	1.0	9036371			1.7	1.0	9036371
Hardness (CaCO3)	mg/L	230	1.0	9036372			340	1.0	9036372
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9036371			<1.0	1.0	9036371
Field Measurements									
Field Temperature	Celsius	5.6	N/A	ONSITE	5.5	ONSITE	7.4	N/A	ONSITE
Field Measured pH	pH	7.32		ONSITE	7.60	ONSITE	7.22		ONSITE
Inorganics									
Acidity	mg/L	7.4	5.0	9045244			19	5.0	9045244
Total Ammonia-N	mg/L	<0.050	0.050	9040346			<0.050	0.050	9040346
Conductivity	mS/cm	0.438	0.001	9037833			0.686	0.001	9037833
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9055510			<2.0 (1)	2.0	9055510
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00101	0.00050	9055508			0.00089	0.00050	9055508
Total Dissolved Solids	mg/L	225	10	9039570			380	10	9039570
Fluoride (F-)	mg/L	<0.10	0.10	9037834			0.18	0.10	9037834
Total Kjeldahl Nitrogen (TKN)	mg/L	0.22	0.10	9039685			0.26	0.10	9039685
pH	pH	7.79		9037835			7.70		9037835
Total Phosphorus (P)	mg/L	0.017	0.0010	9057757			<0.0010	0.0010	9057757
Total Suspended Solids	mg/L	4	1	9039232			3	1	9039232
Dissolved Sulphate (SO4)	mg/L	9.3	1.0	9038108			8.3	1.0	9038108
Turbidity	NTU	4.3	0.1	9035036			0.5	0.1	9035036
Alkalinity (Total as CaCO3)	mg/L	220	1.0	9037831			370	1.0	9037831
Dissolved Chloride (Cl-)	mg/L	4.2	1.0	9038074			2.1	1.0	9038074
Nitrite (N)	mg/L	<0.010	0.010	9036940			<0.010	0.010	9036940
Nitrate (N)	mg/L	<0.10	0.10	9036940			<0.10	0.10	9036940
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9036940			<0.10	0.10	9036940

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Bureau Veritas Job #: C3Y8402
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XNJ115			XNJ116			XNJ116		
Sampling Date		2023/11/02 12:13			2023/11/02 12:39			2023/11/02 12:39		
COC Number		795422			795422			795422		
	UNITS	MW11-BR-14 Lab-Dup	RDL	QC Batch	MW11-OB-14	RDL	QC Batch	MW11-OB-14 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				180	1.0	9036371			
Carb. Alkalinity (calc. as CaCO3)	mg/L				1.0	1.0	9036371			
Hardness (CaCO3)	mg/L				150	1.0	9036372			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	9036371			
Field Measurements										
Field Temperature	Celsius				6.4	N/A	ONSITE			
Field Measured pH	pH				7.22		ONSITE			
Inorganics										
Acidity	mg/L				8.2	5.0	9045244			
Total Ammonia-N	mg/L				<0.050	0.050	9040346	<0.050	0.050	9040346
Conductivity	mS/cm				0.364	0.001	9037833	0.367	0.001	9037833
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	9055510			
Strong Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	9055508			
Total Dissolved Solids	mg/L	380	10	9039570	230	10	9039570			
Fluoride (F-)	mg/L				0.22	0.10	9037834	0.22	0.10	9037834
Total Kjeldahl Nitrogen (TKN)	mg/L				0.40	0.10	9039685			
Dissolved Organic Carbon	mg/L				14	0.40	9038045			
pH	pH				7.78		9037835	7.72		9037835
Total Phosphorus (P)	mg/L				0.093	0.0010	9057757			
Total Suspended Solids	mg/L	3	1	9039232	41	1	9039232			
Dissolved Sulphate (SO4)	mg/L				9.9	1.0	9038108	10	1.0	9038108
Turbidity	NTU				7.8	0.1	9035036			
Alkalinity (Total as CaCO3)	mg/L				180	1.0	9037831	180	1.0	9037831
Dissolved Chloride (Cl-)	mg/L				1.7	1.0	9038074	1.7	1.0	9038074
Nitrite (N)	mg/L				<0.010	0.010	9036940			
Nitrate (N)	mg/L				0.16	0.10	9036940			
Nitrate + Nitrite (N)	mg/L				0.16	0.10	9036940			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNJ111			XNJ111			XNJ112		
Sampling Date		2023/11/02 09:58			2023/11/02 09:58			2023/11/02 11:06		
COC Number		795422			795422			795422		
	UNITS	MW23-OB-21	RDL	QC Batch	MW23-OB-21 Lab-Dup	RDL	QC Batch	MW21-BR-21	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0036	0.0005	9042578				0.061	0.005	9042578
. Aluminum (Al)	mg/L	0.0813	0.0005	9045768				0.070	0.005	9045768
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9042578				<0.001	0.001	9042578
. Antimony (Sb)	mg/L	<0.0001	0.0001	9045768				<0.001	0.001	9045768
Dissolved Arsenic (As)	mg/L	0.0018	0.0001	9042578				0.009	0.001	9042578
. Arsenic (As)	mg/L	0.0029	0.0001	9045768				0.010	0.001	9045768
Dissolved Barium (Ba)	mg/L	0.0282	0.0002	9042578				0.013	0.002	9042578
. Barium (Ba)	mg/L	0.0290	0.0002	9045768				0.014	0.002	9045768
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9042578				<0.0005	0.0005	9042578
. Beryllium (Be)	mg/L	<0.00005	0.00005	9045768				<0.0005	0.0005	9045768
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9042578				<0.001	0.001	9042578
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9045768				<0.001	0.001	9045768
Dissolved Boron (B)	mg/L	0.010	0.001	9042578				<0.01	0.01	9042578
. Boron (B)	mg/L	0.011	0.001	9045768				<0.01	0.01	9045768
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9042578				<0.0001	0.0001	9042578
. Cadmium (Cd)	mg/L	<0.000005	0.000005	9045768				0.00007	0.00005	9045768
Dissolved Calcium (Ca)	mg/L	79.7	0.1	9042578				130	0.2	9042578
. Calcium (Ca)	mg/L	80.2	0.1	9045768				128	0.2	9045768
Dissolved Cesium (Cs)	mg/L	0.00003	0.00002	9042578				<0.0002	0.0002	9042578
. Cesium (Cs)	mg/L	0.00004	0.00002	9045768				<0.0002	0.0002	9045768
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9042578				<0.005	0.005	9042578
. Chromium (Cr)	mg/L	<0.0005	0.0005	9045768				<0.005	0.005	9045768
Dissolved Cobalt (Co)	mg/L	0.00065	0.00005	9042578				0.153	0.0005	9042578
. Cobalt (Co)	mg/L	0.00073	0.00005	9045768				0.150	0.0005	9045768
Dissolved Copper (Cu)	mg/L	0.0004	0.0001	9042578				0.002	0.001	9042578
. Copper (Cu)	mg/L	0.0008	0.0001	9045768				0.008	0.001	9045768
Dissolved Iron (Fe)	mg/L	0.398	0.005	9042578				14.3	0.05	9042578
. Iron (Fe)	mg/L	0.691	0.005	9045768				15.3	0.05	9045768
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9042578				<0.0005	0.0005	9042578
. Lead (Pb)	mg/L	0.00009	0.00005	9045768				<0.0005	0.0005	9045768

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNJ111			XNJ111			XNJ112		
Sampling Date		2023/11/02 09:58			2023/11/02 09:58			2023/11/02 11:06		
COC Number		795422			795422			795422		
	UNITS	MW23-OB-21	RDL	QC Batch	MW23-OB-21 Lab-Dup	RDL	QC Batch	MW21-BR-21	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0022	0.0005	9042578				<0.005	0.005	9042578
. Lithium (Li)	mg/L	0.0023	0.0005	9045768				<0.005	0.005	9045768
Dissolved Magnesium (Mg)	mg/L	15.6	0.005	9042578				22.4	0.05	9042578
. Magnesium (Mg)	mg/L	15.7	0.005	9045768				22.3	0.05	9045768
Dissolved Manganese (Mn)	mg/L	0.439	0.0002	9042578				11.8	0.01	9042578
. Manganese (Mn)	mg/L	0.437	0.0002	9045768				11.3	0.01	9045768
Mercury (Hg)	ug/L	<0.01	0.01	9042178				<0.01	0.01	9042178
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9042149				<0.01	0.01	9042149
Dissolved Molybdenum (Mo)	mg/L	0.00128	0.00005	9042578				0.0009	0.0005	9042578
. Molybdenum (Mo)	mg/L	0.00130	0.00005	9045768				0.0008	0.0005	9045768
Dissolved Nickel (Ni)	mg/L	0.0013	0.0001	9042578				0.025	0.001	9042578
. Nickel (Ni)	mg/L	0.0014	0.0001	9045768				0.026	0.001	9045768
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9042578				<0.05	0.05	9042578
. Phosphorus (P)	mg/L	0.007	0.005	9045768				<0.05	0.05	9045768
Dissolved Potassium (K)	mg/L	0.79	0.02	9042578				0.5	0.2	9042578
. Potassium (K)	mg/L	0.83	0.02	9045768				0.5	0.2	9045768
Dissolved Rubidium (Rb)	mg/L	0.00137	0.00002	9042578				0.0013	0.0002	9042578
. Rubidium (Rb)	mg/L	0.00149	0.00002	9045768				0.0013	0.0002	9045768
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9042578				<0.002	0.002	9042578
. Selenium (Se)	mg/L	<0.00005	0.00005	9045768				<0.0005	0.0005	9045768
Dissolved Silicon (Si)	mg/L	6.08	0.025	9042578				7.15	0.05	9042578
. Silicon (Si)	mg/L	6.31	0.025	9045768				7.09	0.05	9045768
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9042578				<0.0001	0.0001	9042578
. Silver (Ag)	mg/L	<0.00001	0.00001	9045768				<0.0001	0.0001	9045768
Dissolved Sodium (Na)	mg/L	7.83	0.01	9042578				14.8	0.1	9042578
. Sodium (Na)	mg/L	8.75	0.01	9045768				14.8	0.1	9045768
Dissolved Strontium (Sr)	mg/L	0.159	0.0001	9042578				0.154	0.001	9042578
. Strontium (Sr)	mg/L	0.163	0.0001	9045768				0.152	0.001	9045768
Dissolved Sulphur (S)	mg/L	2.4	0.5	9038781	2.4	0.5	9038781	8.5	0.5	9038781
Total Sulphur (S)	mg/L	2.6	0.5	9038625				8.6	0.5	9038625
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9042578				<0.001	0.001	9042578

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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNJ111			XNJ111			XNJ112		
Sampling Date		2023/11/02 09:58			2023/11/02 09:58			2023/11/02 11:06		
COC Number		795422			795422			795422		
	UNITS	MW23-OB-21	RDL	QC Batch	MW23-OB-21 Lab-Dup	RDL	QC Batch	MW21-BR-21	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	9045768				<0.001	0.001	9045768
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9042578				<0.00005	0.00005	9042578
. Thallium (Tl)	mg/L	<0.000005	0.000005	9045768				<0.00005	0.00005	9045768
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9042578				<0.002	0.002	9042578
. Thorium (Th)	mg/L	<0.0002	0.0002	9045768				<0.002	0.002	9045768
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9042578				<0.001	0.001	9042578
. Tin (Sn)	mg/L	<0.0001	0.0001	9045768				<0.001	0.001	9045768
Dissolved Titanium (Ti)	mg/L	0.0005	0.0005	9042578				<0.005	0.005	9042578
. Titanium (Ti)	mg/L	0.0036	0.0005	9045768				<0.005	0.005	9045768
Dissolved Tungsten (W)	mg/L	0.0012	0.0001	9042578				<0.001	0.001	9042578
. Tungsten (W)	mg/L	0.0013	0.0001	9045768				<0.001	0.001	9045768
Dissolved Uranium (U)	mg/L	0.00065	0.00001	9042578				0.0015	0.0001	9042578
. Uranium (U)	mg/L	0.00066	0.00001	9045768				0.0016	0.0001	9045768
Dissolved Vanadium (V)	mg/L	0.00015	0.00005	9042578				0.0010	0.0005	9042578
. Vanadium (V)	mg/L	0.00035	0.00005	9045768				0.0011	0.0005	9045768
Dissolved Zinc (Zn)	mg/L	0.0060	0.0005	9042578				0.104	0.005	9042578
. Zinc (Zn)	mg/L	0.0333	0.0005	9045768				0.136	0.005	9045768
Dissolved Zirconium (Zr)	mg/L	0.0005	0.0001	9042578				0.002	0.001	9042578
. Zirconium (Zr)	mg/L	0.0006	0.0001	9045768				0.002	0.001	9045768

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNJ113			XNJ113			XNJ115		
Sampling Date		2023/11/02 14:44			2023/11/02 14:44			2023/11/02 12:13		
COC Number		795422			795422			795422		
	UNITS	MW5-OB1-13	RDL	QC Batch	MW5-OB1-13 Lab-Dup	RDL	QC Batch	MW11-BR-14	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0013	0.0005	9042578				0.0066	0.0005	9042578
. Aluminum (Al)	mg/L	0.0081	0.0005	9045768				0.0138	0.0005	9045768
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9042578				0.0002	0.0001	9042578
. Antimony (Sb)	mg/L	<0.0001	0.0001	9045768				0.0001	0.0001	9045768
Dissolved Arsenic (As)	mg/L	0.0066	0.0001	9042578				0.0059	0.0001	9042578
. Arsenic (As)	mg/L	0.0068	0.0001	9045768				0.0041	0.0001	9045768
Dissolved Barium (Ba)	mg/L	0.0206	0.0002	9042578				0.0560	0.0002	9042578
. Barium (Ba)	mg/L	0.0202	0.0002	9045768				0.0611	0.0002	9045768
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9042578				<0.00005	0.00005	9042578
. Beryllium (Be)	mg/L	<0.00005	0.00005	9045768				<0.00005	0.00005	9045768
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9042578				<0.0001	0.0001	9042578
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9045768				<0.0001	0.0001	9045768
Dissolved Boron (B)	mg/L	0.007	0.001	9042578				0.023	0.001	9042578
. Boron (B)	mg/L	0.006	0.001	9045768				0.025	0.001	9045768
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9042578				0.00001	0.00001	9042578
. Cadmium (Cd)	mg/L	<0.000005	0.000005	9045768				0.000009	0.000005	9045768
Dissolved Calcium (Ca)	mg/L	72.5	0.1	9042578				102	0.1	9042578
. Calcium (Ca)	mg/L	71.9	0.1	9045768				108	0.1	9045768
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9042578				<0.00002	0.00002	9042578
. Cesium (Cs)	mg/L	<0.00002	0.00002	9045768				<0.00002	0.00002	9045768
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9042578				<0.0005	0.0005	9042578
. Chromium (Cr)	mg/L	<0.0005	0.0005	9045768				<0.0005	0.0005	9045768
Dissolved Cobalt (Co)	mg/L	<0.00005	0.00005	9042578				0.00649	0.00005	9042578
. Cobalt (Co)	mg/L	0.00006	0.00005	9045768				0.00294	0.00005	9045768
Dissolved Copper (Cu)	mg/L	0.0008	0.0001	9042578				0.0016	0.0001	9042578
. Copper (Cu)	mg/L	<0.0001	0.0001	9045768				0.0027	0.0001	9045768
Dissolved Iron (Fe)	mg/L	1.13	0.005	9042578				0.144	0.005	9042578
. Iron (Fe)	mg/L	1.12	0.005	9045768				0.142	0.005	9045768
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9042578				0.00012	0.00005	9042578
. Lead (Pb)	mg/L	<0.00005	0.00005	9045768				0.00018	0.00005	9045768

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNJ113			XNJ113			XNJ115		
Sampling Date		2023/11/02 14:44			2023/11/02 14:44			2023/11/02 12:13		
COC Number		795422			795422			795422		
	UNITS	MW5-OB1-13	RDL	QC Batch	MW5-OB1-13 Lab-Dup	RDL	QC Batch	MW11-BR-14	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0015	0.0005	9042578				<0.0005	0.0005	9042578
. Lithium (Li)	mg/L	0.0015	0.0005	9045768				<0.0005	0.0005	9045768
Dissolved Magnesium (Mg)	mg/L	11.9	0.005	9042578				19.7	0.005	9042578
. Magnesium (Mg)	mg/L	12.0	0.005	9045768				20.6	0.005	9045768
Dissolved Manganese (Mn)	mg/L	0.142	0.0002	9042578				1.68	0.001	9042578
. Manganese (Mn)	mg/L	0.141	0.0002	9045768				1.53	0.001	9045768
Mercury (Hg)	ug/L	<0.01	0.01	9042178	<0.01	0.01	9042178	<0.01	0.01	9042178
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9042149				<0.01	0.01	9042149
Dissolved Molybdenum (Mo)	mg/L	0.00088	0.00005	9042578				0.0103	0.00005	9042578
. Molybdenum (Mo)	mg/L	0.00077	0.00005	9045768				0.0132	0.00005	9045768
Dissolved Nickel (Ni)	mg/L	<0.0001	0.0001	9042578				0.0043	0.0001	9042578
. Nickel (Ni)	mg/L	0.0001	0.0001	9045768				0.0017	0.0001	9045768
Dissolved Phosphorus (P)	mg/L	0.019	0.005	9042578				<0.005	0.005	9042578
. Phosphorus (P)	mg/L	0.020	0.005	9045768				0.007	0.005	9045768
Dissolved Potassium (K)	mg/L	0.54	0.02	9042578				1.99	0.02	9042578
. Potassium (K)	mg/L	0.53	0.02	9045768				2.16	0.02	9045768
Dissolved Rubidium (Rb)	mg/L	0.00039	0.00002	9042578				0.00480	0.00002	9042578
. Rubidium (Rb)	mg/L	0.00038	0.00002	9045768				0.00507	0.00002	9045768
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9042578				<0.0002	0.0002	9042578
. Selenium (Se)	mg/L	<0.00005	0.00005	9045768				0.00009	0.00005	9045768
Dissolved Silicon (Si)	mg/L	6.78	0.025	9042578				7.01	0.025	9042578
. Silicon (Si)	mg/L	6.78	0.025	9045768				7.14	0.025	9045768
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9042578				<0.00001	0.00001	9042578
. Silver (Ag)	mg/L	<0.00001	0.00001	9045768				<0.00001	0.00001	9045768
Dissolved Sodium (Na)	mg/L	2.38	0.01	9042578				15.7	0.01	9042578
. Sodium (Na)	mg/L	2.42	0.01	9045768				19.3	0.01	9045768
Dissolved Strontium (Sr)	mg/L	0.112	0.0001	9042578				0.280	0.0001	9042578
. Strontium (Sr)	mg/L	0.111	0.0001	9045768				0.308	0.0001	9045768
Dissolved Sulphur (S)	mg/L	3.2	0.5	9038781				1.7	0.5	9038781
Total Sulphur (S)	mg/L	3.3	0.5	9038625				2.2	0.5	9038625
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9042578				<0.0001	0.0001	9042578

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y8402
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNJ113			XNJ113			XNJ115		
Sampling Date		2023/11/02 14:44			2023/11/02 14:44			2023/11/02 12:13		
COC Number		795422			795422			795422		
	UNITS	MW5-OB1-13	RDL	QC Batch	MW5-OB1-13 Lab-Dup	RDL	QC Batch	MW11-BR-14	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	9045768				<0.0001	0.0001	9045768
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9042578				0.000008	0.000005	9042578
. Thallium (Tl)	mg/L	<0.000005	0.000005	9045768				0.000006	0.000005	9045768
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9042578				<0.0002	0.0002	9042578
. Thorium (Th)	mg/L	<0.0002	0.0002	9045768				<0.0002	0.0002	9045768
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9042578				<0.0001	0.0001	9042578
. Tin (Sn)	mg/L	<0.0001	0.0001	9045768				<0.0001	0.0001	9045768
Dissolved Titanium (Ti)	mg/L	0.0006	0.0005	9042578				0.0008	0.0005	9042578
. Titanium (Ti)	mg/L	0.0014	0.0005	9045768				0.0011	0.0005	9045768
Dissolved Tungsten (W)	mg/L	0.0009	0.0001	9042578				0.0028	0.0001	9042578
. Tungsten (W)	mg/L	0.0008	0.0001	9045768				0.0031	0.0001	9045768
Dissolved Uranium (U)	mg/L	0.00002	0.00001	9042578				0.00326	0.00001	9042578
. Uranium (U)	mg/L	0.00002	0.00001	9045768				0.00356	0.00001	9045768
Dissolved Vanadium (V)	mg/L	0.00019	0.00005	9042578				0.00065	0.00005	9042578
. Vanadium (V)	mg/L	0.00019	0.00005	9045768				0.00073	0.00005	9045768
Dissolved Zinc (Zn)	mg/L	0.0018	0.0005	9042578				0.0014	0.0005	9042578
. Zinc (Zn)	mg/L	0.0014	0.0005	9045768				0.0011	0.0005	9045768
Dissolved Zirconium (Zr)	mg/L	0.0006	0.0001	9042578				0.0008	0.0001	9042578
. Zirconium (Zr)	mg/L	0.0006	0.0001	9045768				0.0005	0.0001	9045768

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNJ116		
Sampling Date		2023/11/02 12:39		
COC Number		795422		
	UNITS	MW11-OB-14	RDL	QC Batch
Metals				
Dissolved Aluminum (Al)	mg/L	0.0222	0.0005	9042578
. Aluminum (Al)	mg/L	0.279	0.0005	9045768
Dissolved Antimony (Sb)	mg/L	0.0008	0.0001	9042578
. Antimony (Sb)	mg/L	0.0011	0.0001	9045768
Dissolved Arsenic (As)	mg/L	0.0034	0.0001	9042578
. Arsenic (As)	mg/L	0.0082	0.0001	9045768
Dissolved Barium (Ba)	mg/L	0.104	0.0002	9042578
. Barium (Ba)	mg/L	0.186	0.0002	9045768
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9042578
. Beryllium (Be)	mg/L	<0.00005	0.00005	9045768
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9042578
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9045768
Dissolved Boron (B)	mg/L	0.006	0.001	9042578
. Boron (B)	mg/L	0.007	0.001	9045768
Dissolved Cadmium (Cd)	mg/L	0.00001	0.00001	9042578
. Cadmium (Cd)	mg/L	0.000019	0.000005	9045768
Dissolved Calcium (Ca)	mg/L	49.5	0.1	9042578
. Calcium (Ca)	mg/L	44.7	0.1	9045768
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9042578
. Cesium (Cs)	mg/L	0.00003	0.00002	9045768
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9042578
. Chromium (Cr)	mg/L	0.0008	0.0005	9045768
Dissolved Cobalt (Co)	mg/L	0.00065	0.00005	9042578
. Cobalt (Co)	mg/L	0.00077	0.00005	9045768
Dissolved Copper (Cu)	mg/L	0.0069	0.0001	9042578
. Copper (Cu)	mg/L	0.0061	0.0001	9045768
Dissolved Iron (Fe)	mg/L	0.090	0.005	9042578
. Iron (Fe)	mg/L	0.518	0.005	9045768
Dissolved Lead (Pb)	mg/L	0.00008	0.00005	9042578
. Lead (Pb)	mg/L	0.00097	0.00005	9045768
Dissolved Lithium (Li)	mg/L	<0.0005	0.0005	9042578

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNJ116		
Sampling Date		2023/11/02 12:39		
COC Number		795422		
	UNITS	MW11-OB-14	RDL	QC Batch
. Lithium (Li)	mg/L	0.0005	0.0005	9045768
Dissolved Magnesium (Mg)	mg/L	5.42	0.005	9042578
. Magnesium (Mg)	mg/L	5.33	0.005	9045768
Dissolved Manganese (Mn)	mg/L	0.272	0.0002	9042578
. Manganese (Mn)	mg/L	0.121	0.0002	9045768
Mercury (Hg)	ug/L	0.01	0.01	9042178
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9042149
Dissolved Molybdenum (Mo)	mg/L	0.0031	0.0005	9042578
. Molybdenum (Mo)	mg/L	0.00248	0.00005	9045768
Dissolved Nickel (Ni)	mg/L	0.0011	0.0001	9042578
. Nickel (Ni)	mg/L	0.0017	0.0001	9045768
Dissolved Phosphorus (P)	mg/L	0.006	0.005	9042578
. Phosphorus (P)	mg/L	0.031	0.005	9045768
Dissolved Potassium (K)	mg/L	2.18	0.02	9042578
. Potassium (K)	mg/L	2.21	0.02	9045768
Dissolved Rubidium (Rb)	mg/L	0.00136	0.00002	9042578
. Rubidium (Rb)	mg/L	0.00171	0.00002	9045768
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9042578
. Selenium (Se)	mg/L	0.00008	0.00005	9045768
Dissolved Silicon (Si)	mg/L	3.81	0.005	9042578
. Silicon (Si)	mg/L	4.13	0.005	9045768
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9042578
. Silver (Ag)	mg/L	<0.00001	0.00001	9045768
Dissolved Sodium (Na)	mg/L	32.3	0.01	9042578
. Sodium (Na)	mg/L	38.8	0.01	9045768
Dissolved Strontium (Sr)	mg/L	0.0895	0.0001	9042578
. Strontium (Sr)	mg/L	0.0898	0.0001	9045768
Dissolved Sulphur (S)	mg/L	2.6	0.5	9038781
Total Sulphur (S)	mg/L	2.7	0.5	9038625
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9042578
. Tellurium (Te)	mg/L	<0.0001	0.0001	9045768
Dissolved Thallium (Tl)	mg/L	0.000009	0.000005	9042578

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNJ116		
Sampling Date		2023/11/02 12:39		
COC Number		795422		
	UNITS	MW11-OB-14	RDL	QC Batch
. Thallium (Tl)	mg/L	0.000012	0.000005	9045768
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9042578
. Thorium (Th)	mg/L	<0.0002	0.0002	9045768
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9042578
. Tin (Sn)	mg/L	<0.0001	0.0001	9045768
Dissolved Titanium (Ti)	mg/L	0.0018	0.0005	9042578
. Titanium (Ti)	mg/L	0.0118	0.0005	9045768
Dissolved Tungsten (W)	mg/L	0.0002	0.0001	9042578
. Tungsten (W)	mg/L	0.0001	0.0001	9045768
Dissolved Uranium (U)	mg/L	0.00251	0.00001	9042578
. Uranium (U)	mg/L	0.00239	0.00001	9045768
Dissolved Vanadium (V)	mg/L	0.00100	0.00005	9042578
. Vanadium (V)	mg/L	0.00156	0.00005	9045768
Dissolved Zinc (Zn)	mg/L	0.0019	0.0005	9042578
. Zinc (Zn)	mg/L	0.0037	0.0005	9045768
Dissolved Zirconium (Zr)	mg/L	0.0006	0.0001	9042578
. Zirconium (Zr)	mg/L	0.0010	0.0001	9045768

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VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		XNJ111	XNJ111	XNJ112	XNJ113	XNJ114		
Sampling Date		2023/11/02 09:58	2023/11/02 09:58	2023/11/02 11:06	2023/11/02 14:44	2023/11/02 15:10		
COC Number		795422	795422	795422	795422	795422		
	UNITS	MW23-OB-21	MW23-OB-21 Lab-Dup	MW21-BR-21	MW5-OB1-13	MW5-OB2-23	RDL	QC Batch
Volatile Organics								
Benzene	ug/L	<0.17	<0.17	<0.17	<0.17	0.20	0.17	9038761
Chloroform	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9038761
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	9038761
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	9038761
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	9038761
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	9038761
Ethylbenzene	ug/L	<0.20	<0.20	0.24	<0.20	<0.20	0.20	9038761
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	9038761
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	9038761
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9038761
Toluene	ug/L	<0.20	<0.20	2.0	7.2	1.4	0.20	9038761
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9038761
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9038761
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9038761
Total Xylenes	ug/L	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9038761
F1 (C6-C10)	ug/L	<25	<25	<25	<25	<25	25	9038761
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	<25	25	9038761
Surrogate Recovery (%)								
4-Bromofluorobenzene	%	94	94	93	94	94		9038761
D4-1,2-Dichloroethane	%	95	96	102	97	98		9038761
D8-Toluene	%	95	95	93	95	94		9038761

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		XNJ111	XNJ112	XNJ112	XNJ113	XNJ114		
Sampling Date		2023/11/02 09:58	2023/11/02 11:06	2023/11/02 11:06	2023/11/02 14:44	2023/11/02 15:10		
COC Number		795422	795422	795422	795422	795422		
	UNITS	MW23-OB-21	MW21-BR-21	MW21-BR-21 Lab-Dup	MW5-OB1-13	MW5-OB2-23	RDL	QC Batch
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	<100	<100	100	9041369
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	200	9041369
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	<200	200	9041369
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes	Yes		9041369
Surrogate Recovery (%)								
o-Terphenyl	%	96	94	91	92	91		9041369

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		XNJ116			XNJ116		
Sampling Date		2023/11/02 12:39			2023/11/02 12:39		
COC Number		795422			795422		
	UNITS	MW11-OB-14	RDL	QC Batch	MW11-OB-14 Lab-Dup	RDL	QC Batch
BTEX & F1 Hydrocarbons							
F1 (C6-C10)	ug/L	<25	25	9041195	<25	25	9041195
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	9041369			
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	9041369			
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	9041369			
Reached Baseline at C50	ug/L	Yes		9041369			
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	100		9041195	102		9041195
4-Bromofluorobenzene	%	104		9041195	107		9041195
D10-o-Xylene	%	96		9041195	95		9041195
D4-1,2-Dichloroethane	%	84		9041195	87		9041195
o-Terphenyl	%	93		9041369			

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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y8402
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XNJ111
Sample ID: MW23-OB-21
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9045244	N/A	2023/11/13	Brent Boudreau
Alkalinity	AT	9037831	N/A	2023/11/09	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9036371	N/A	2023/11/10	Automated Statchk
Chloride by Automated Colourimetry	KONE	9038074	N/A	2023/11/13	Massarat Jan
Conductivity	AT	9037833	N/A	2023/11/09	Nachiketa Gohil
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9041369	2023/11/10	2023/11/10	Agnieszka Brzuzy-Snopko
Fluoride	ISE	9037834	2023/11/08	2023/11/09	Nachiketa Gohil
Hardness (calculated as CaCO3)		9036372	N/A	2023/11/16	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9042149	2023/11/10	2023/11/10	Gagandeep Rai
Mercury (low level)	CV/AA	9042178	2023/11/10	2023/11/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9038781	2023/11/09	2023/11/14	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042578	N/A	2023/11/15	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9045768	N/A	2023/11/15	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9038625	2023/11/09	2023/11/13	Suban Kanapathippllai
Cyanide (Free)	SPEC	9055510	N/A	2023/11/15	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9055508	2023/11/16	2023/11/16	Ming Dong
Total Phosphorus Low Level Total	KONE	9057757	2023/11/14	2023/11/15	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9040346	N/A	2023/11/10	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9037751	N/A	2023/11/15	Viorica Rotaru
pH	AT	9037835	2023/11/08	2023/11/09	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Sulphate by Automated Turbidimetry	KONE	9038108	N/A	2023/11/13	Massarat Jan
Total Dissolved Solids	BAL	9039570	2023/11/09	2023/11/10	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9039685	2023/11/09	2023/11/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9039232	2023/11/09	2023/11/10	Shaneil Hall
Turbidity	AT	9035036	N/A	2023/11/08	Leily Karimi
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9038761	N/A	2023/11/10	Dina Wang

Bureau Veritas ID: XNJ111 Dup
Sample ID: MW23-OB-21
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	9038781	2023/11/09	2023/11/14	Suban Kanapathippllai
Total Phosphorus Low Level Total	KONE	9057757	2023/11/14	2023/11/15	Mary Anne Dela Cruz
Nitrate & Nitrite as Nitrogen in Water	LACH	9037751	N/A	2023/11/15	Viorica Rotaru
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9038761	N/A	2023/11/10	Dina Wang

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Bureau Veritas Job #: C3Y8402
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XNJ112
Sample ID: MW21-BR-21
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9045244	N/A	2023/11/13	Brent Boudreau
Alkalinity	AT	9037831	N/A	2023/11/09	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9036371	N/A	2023/11/10	Automated Statchk
Chloride by Automated Colourimetry	KONE	9038074	N/A	2023/11/13	Massarat Jan
Conductivity	AT	9037833	N/A	2023/11/09	Nachiketa Gohil
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9041369	2023/11/10	2023/11/10	Agnieszka Brzuzy-Snopko
Fluoride	ISE	9037834	2023/11/08	2023/11/09	Nachiketa Gohil
Hardness (calculated as CaCO3)		9036372	N/A	2023/11/15	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9042149	2023/11/10	2023/11/10	Gagandeep Rai
Mercury (low level)	CV/AA	9042178	2023/11/10	2023/11/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9038781	2023/11/09	2023/11/14	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042578	N/A	2023/11/14	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9045768	N/A	2023/11/14	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9038625	2023/11/09	2023/11/13	Suban Kanapathippllai
Cyanide (Free)	SPEC	9055510	N/A	2023/11/15	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9055508	2023/11/17	2023/11/17	Ming Dong
Total Phosphorus Low Level Total	KONE	9057757	2023/11/14	2023/11/15	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9040346	N/A	2023/11/10	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9036940	N/A	2023/11/15	Viorica Rotaru
pH	AT	9037835	2023/11/08	2023/11/09	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Sulphate by Automated Turbidimetry	KONE	9038108	N/A	2023/11/13	Massarat Jan
Total Dissolved Solids	BAL	9039570	2023/11/09	2023/11/10	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9039685	2023/11/09	2023/11/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9039232	2023/11/09	2023/11/10	Shaneil Hall
Turbidity	AT	9035036	N/A	2023/11/08	Leily Karimi
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9038761	N/A	2023/11/10	Dina Wang

Bureau Veritas ID: XNJ112 Dup
Sample ID: MW21-BR-21
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9041369	2023/11/10	2023/11/10	Agnieszka Brzuzy-Snopko

Bureau Veritas ID: XNJ113
Sample ID: MW5-OB1-13
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9045244	N/A	2023/11/13	Brent Boudreau
Alkalinity	AT	9037831	N/A	2023/11/09	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9036371	N/A	2023/11/10	Automated Statchk

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Bureau Veritas Job #: C3Y8402
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XNJ113
Sample ID: MW5-OB1-13
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	9038074	N/A	2023/11/13	Massarat Jan
Conductivity	AT	9037833	N/A	2023/11/09	Nachiketa Gohil
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9041369	2023/11/10	2023/11/10	Agnieszka Brzuzy-Snopko
Fluoride	ISE	9037834	2023/11/08	2023/11/09	Nachiketa Gohil
Hardness (calculated as CaCO3)		9036372	N/A	2023/11/16	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9042149	2023/11/10	2023/11/10	Gagandeep Rai
Mercury (low level)	CV/AA	9042178	2023/11/10	2023/11/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9038781	2023/11/09	2023/11/14	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042578	N/A	2023/11/15	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9045768	N/A	2023/11/15	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9038625	2023/11/09	2023/11/13	Suban Kanapathippllai
Cyanide (Free)	SPEC	9055510	N/A	2023/11/15	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9055508	2023/11/16	2023/11/16	Ming Dong
Total Phosphorus Low Level Total	KONE	9057757	2023/11/14	2023/11/15	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9040346	N/A	2023/11/10	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9036940	N/A	2023/11/15	Viorica Rotaru
pH	AT	9037835	2023/11/08	2023/11/09	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Sulphate by Automated Turbidimetry	KONE	9038108	N/A	2023/11/13	Massarat Jan
Total Dissolved Solids	BAL	9039570	2023/11/09	2023/11/10	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9039685	2023/11/09	2023/11/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9039232	2023/11/09	2023/11/10	Shaneil Hall
Turbidity	AT	9035036	N/A	2023/11/08	Leily Karimi
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9038761	N/A	2023/11/11	Dina Wang

Bureau Veritas ID: XNJ113 Dup
Sample ID: MW5-OB1-13
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (low level)	CV/AA	9042178	2023/11/10	2023/11/10	Gagandeep Rai

Bureau Veritas ID: XNJ114
Sample ID: MW5-OB2-23
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9041369	2023/11/10	2023/11/10	Agnieszka Brzuzy-Snopko
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9038761	N/A	2023/11/11	Dina Wang

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Y8402
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: XNJ115
Sample ID: MW11-BR-14
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9045244	N/A	2023/11/13	Brent Boudreau
Alkalinity	AT	9037831	N/A	2023/11/09	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9036371	N/A	2023/11/10	Automated Statchk
Chloride by Automated Colourimetry	KONE	9038074	N/A	2023/11/13	Massarat Jan
Conductivity	AT	9037833	N/A	2023/11/09	Nachiketa Gohil
Fluoride	ISE	9037834	2023/11/08	2023/11/09	Nachiketa Gohil
Hardness (calculated as CaCO3)		9036372	N/A	2023/11/16	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9042149	2023/11/10	2023/11/10	Gagandeep Rai
Mercury (low level)	CV/AA	9042178	2023/11/10	2023/11/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9038781	2023/11/09	2023/11/14	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042578	N/A	2023/11/15	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9045768	N/A	2023/11/15	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9038625	2023/11/09	2023/11/13	Suban Kanapathippllai
Cyanide (Free)	SPEC	9055510	N/A	2023/11/15	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9055508	2023/11/16	2023/11/16	Ming Dong
Total Phosphorus Low Level Total	KONE	9057757	2023/11/14	2023/11/15	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9040346	N/A	2023/11/10	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9036940	N/A	2023/11/15	Viorica Rotaru
pH	AT	9037835	2023/11/08	2023/11/09	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Sulphate by Automated Turbidimetry	KONE	9038108	N/A	2023/11/13	Massarat Jan
Total Dissolved Solids	BAL	9039570	2023/11/09	2023/11/10	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9039685	2023/11/09	2023/11/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9039232	2023/11/09	2023/11/10	Shaneil Hall
Turbidity	AT	9035036	N/A	2023/11/08	Leily Karimi

Bureau Veritas ID: XNJ115 Dup
Sample ID: MW11-BR-14
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	9039570	2023/11/09	2023/11/10	Razieh Tabesh
Low Level Total Suspended Solids	BAL	9039232	2023/11/09	2023/11/10	Shaneil Hall

Bureau Veritas ID: XNJ116
Sample ID: MW11-OB-14
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9045244	N/A	2023/11/13	Brent Boudreau
Alkalinity	AT	9037831	N/A	2023/11/09	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9036371	N/A	2023/11/10	Automated Statchk
Chloride by Automated Colourimetry	KONE	9038074	N/A	2023/11/13	Massarat Jan

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TEST SUMMARY

Bureau Veritas ID: XNJ116
Sample ID: MW11-OB-14
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	9037833	N/A	2023/11/09	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9038045	N/A	2023/11/09	Nimarta Singh
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9041195	N/A	2023/11/10	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9041369	2023/11/10	2023/11/10	Agnieszka Brzuzy-Snopko
Fluoride	ISE	9037834	2023/11/08	2023/11/09	Nachiketa Gohil
Hardness (calculated as CaCO3)		9036372	N/A	2023/11/16	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9042149	2023/11/10	2023/11/10	Gagandeep Rai
Mercury (low level)	CV/AA	9042178	2023/11/10	2023/11/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9038781	2023/11/09	2023/11/14	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9042578	N/A	2023/11/15	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9045768	N/A	2023/11/15	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9038625	2023/11/09	2023/11/13	Suban Kanapathippllai
Cyanide (Free)	SPEC	9055510	N/A	2023/11/15	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9055508	2023/11/17	2023/11/17	Ming Dong
Total Phosphorus Low Level Total	KONE	9057757	2023/11/14	2023/11/15	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9040346	N/A	2023/11/10	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9036940	N/A	2023/11/15	Viorica Rotaru
pH	AT	9037835	2023/11/08	2023/11/09	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Sulphate by Automated Turbidimetry	KONE	9038108	N/A	2023/11/13	Massarat Jan
Total Dissolved Solids	BAL	9039570	2023/11/09	2023/11/10	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2023/11/07	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9039685	2023/11/09	2023/11/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9039232	2023/11/09	2023/11/10	Shaneil Hall
Turbidity	AT	9035036	N/A	2023/11/08	Leily Karimi

Bureau Veritas ID: XNJ116 Dup
Sample ID: MW11-OB-14
Matrix: Water

Collected: 2023/11/02
Shipped:
Received: 2023/11/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9037831	N/A	2023/11/09	Nachiketa Gohil
Chloride by Automated Colourimetry	KONE	9038074	N/A	2023/11/13	Massarat Jan
Conductivity	AT	9037833	N/A	2023/11/09	Nachiketa Gohil
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9041195	N/A	2023/11/10	Domnica Andronescu
Fluoride	ISE	9037834	2023/11/08	2023/11/09	Nachiketa Gohil
Total Ammonia-N	LACH/NH4	9040346	N/A	2023/11/10	Prabhjot Kaur
pH	AT	9037835	2023/11/08	2023/11/09	Nachiketa Gohil
Sulphate by Automated Turbidimetry	KONE	9038108	N/A	2023/11/13	Massarat Jan

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.7°C
Package 2	2.0°C

Sample XNJ111 [MW23-OB-21] : Acidity sample contained headspace.

Sample XNJ112 [MW21-BR-21] : Acidity sample contained headspace.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample was analyzed past method specified hold time for Cyanide (total). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample XNJ113 [MW5-OB1-13] : Acidity sample contained headspace.

Sample XNJ115 [MW11-BR-14] : Acidity sample contained headspace.

Sample XNJ116 [MW11-OB-14] : Acidity sample contained headspace. Sample was analyzed past method specified hold time for Cyanide (total). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9038761	4-Bromofluorobenzene	2023/11/10	97	70 - 130	98	70 - 130	94	%				
9038761	D4-1,2-Dichloroethane	2023/11/10	96	70 - 130	92	70 - 130	96	%				
9038761	D8-Toluene	2023/11/10	104	70 - 130	105	70 - 130	95	%				
9041195	1,4-Difluorobenzene	2023/11/10	98	70 - 130	91	70 - 130	99	%				
9041195	4-Bromofluorobenzene	2023/11/10	111	70 - 130	111	70 - 130	106	%				
9041195	D10-o-Xylene	2023/11/10	104	70 - 130	86	70 - 130	96	%				
9041195	D4-1,2-Dichloroethane	2023/11/10	84	70 - 130	96	70 - 130	84	%				
9041369	o-Terphenyl	2023/11/10	94	60 - 130	95	60 - 130	96	%				
9035036	Turbidity	2023/11/08			101	80 - 120	<0.1	NTU	1.2	20		
9036940	Nitrate (N)	2023/11/15	93	80 - 120	99	80 - 120	<0.10	mg/L	1.5	20		
9036940	Nitrite (N)	2023/11/15	98	80 - 120	108	80 - 120	<0.010	mg/L	4.1	20		
9037751	Nitrate (N)	2023/11/15	96	80 - 120	91	80 - 120	<0.10	mg/L	NC	20		
9037751	Nitrite (N)	2023/11/15	108	80 - 120	107	80 - 120	<0.010	mg/L	NC	20		
9037831	Alkalinity (Total as CaCO3)	2023/11/09			96	85 - 115	<1.0	mg/L	1.7	20		
9037833	Conductivity	2023/11/09			101	85 - 115	<0.001	mS/cm	0.82	10		
9037834	Fluoride (F-)	2023/11/09	98	80 - 120	101	80 - 120	<0.10	mg/L	2.6	20		
9037835	pH	2023/11/09			102	98 - 103			0.80	N/A		
9038045	Dissolved Organic Carbon	2023/11/09	96	80 - 120	99	80 - 120	<0.40	mg/L	NC	20		
9038074	Dissolved Chloride (Cl-)	2023/11/13	100	80 - 120	96	80 - 120	<1.0	mg/L	1.0	20		
9038108	Dissolved Sulphate (SO4)	2023/11/13	100	75 - 125	96	80 - 120	<1.0	mg/L	0.52	20		
9038625	Total Sulphur (S)	2023/11/13	NC	80 - 120	99	80 - 120	<0.5	mg/L	1.9	25		
9038761	1,1,2,2-Tetrachloroethane	2023/11/10	108	70 - 130	105	70 - 130	<0.50	ug/L	NC	30		
9038761	1,2-Dichlorobenzene	2023/11/10	100	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
9038761	1,4-Dichlorobenzene	2023/11/10	113	70 - 130	114	70 - 130	<0.50	ug/L	NC	30		
9038761	Benzene	2023/11/10	95	70 - 130	96	70 - 130	<0.17	ug/L	NC	30		
9038761	Chloroform	2023/11/10	100	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
9038761	cis-1,2-Dichloroethylene	2023/11/10	100	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
9038761	Ethylbenzene	2023/11/10	82	70 - 130	86	70 - 130	<0.20	ug/L	NC	30		
9038761	F1 (C6-C10) - BTEX	2023/11/10					<25	ug/L	NC	30		
9038761	F1 (C6-C10)	2023/11/10	96	60 - 140	95	60 - 140	<25	ug/L	NC	30		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9038761	Methylene Chloride(Dichloromethane)	2023/11/10	101	70 - 130	100	70 - 130	<2.0	ug/L	NC	30		
9038761	o-Xylene	2023/11/10	76	70 - 130	81	70 - 130	<0.20	ug/L	NC	30		
9038761	p+m-Xylene	2023/11/10	82	70 - 130	87	70 - 130	<0.20	ug/L	NC	30		
9038761	Tetrachloroethylene	2023/11/10	97	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
9038761	Toluene	2023/11/10	92	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
9038761	Total Xylenes	2023/11/10					<0.20	ug/L	NC	30		
9038761	trans-1,3-Dichloropropene	2023/11/10	87	70 - 130	87	70 - 130	<0.40	ug/L	NC	30		
9038761	Trichloroethylene	2023/11/10	95	70 - 130	96	70 - 130	<0.20	ug/L	NC	30		
9038781	Dissolved Sulphur (S)	2023/11/14	NC	80 - 120	96	80 - 120	<0.5	mg/L	0.50	25		
9039232	Total Suspended Solids	2023/11/10			97	85 - 115	<1	mg/L	6.1	20		
9039570	Total Dissolved Solids	2023/11/10			100	90 - 110	<10	mg/L	0	20		
9039685	Total Kjeldahl Nitrogen (TKN)	2023/11/10	NC	80 - 120	99	80 - 120	<0.10	mg/L	5.2	20	111	80 - 120
9040346	Total Ammonia-N	2023/11/10	104	75 - 125	104	80 - 120	<0.050	mg/L	NC	20		
9041195	F1 (C6-C10)	2023/11/10	114	60 - 140	101	60 - 140	<25	ug/L	NC	30		
9041369	F2 (C10-C16 Hydrocarbons)	2023/11/10	105	60 - 130	103	60 - 130	<100	ug/L	NC	30		
9041369	F3 (C16-C34 Hydrocarbons)	2023/11/10	107	60 - 130	105	60 - 130	<200	ug/L	NC	30		
9041369	F4 (C34-C50 Hydrocarbons)	2023/11/10	110	60 - 130	108	60 - 130	<200	ug/L	NC	30		
9042149	Dissolved Mercury (Hg)	2023/11/10	100	75 - 125	100	80 - 120	<0.01	ug/L	NC	20		
9042178	Mercury (Hg)	2023/11/10	99	75 - 125	100	80 - 120	<0.01	ug/L	NC	20		
9042578	Dissolved Aluminum (Al)	2023/11/14	106	80 - 120	101	80 - 120	<0.0005	mg/L				
9042578	Dissolved Antimony (Sb)	2023/11/14	114	80 - 120	105	80 - 120	<0.0001	mg/L				
9042578	Dissolved Arsenic (As)	2023/11/14	108	80 - 120	99	80 - 120	<0.0001	mg/L				
9042578	Dissolved Barium (Ba)	2023/11/14	NC	80 - 120	102	80 - 120	<0.0002	mg/L				
9042578	Dissolved Beryllium (Be)	2023/11/14	98	80 - 120	101	80 - 120	<0.00005	mg/L				
9042578	Dissolved Bismuth (Bi)	2023/11/14	93	80 - 120	101	80 - 120	<0.0001	mg/L				
9042578	Dissolved Boron (B)	2023/11/14	96	80 - 120	99	80 - 120	<0.001	mg/L				
9042578	Dissolved Cadmium (Cd)	2023/11/14	102	80 - 120	99	80 - 120	<0.00001	mg/L				
9042578	Dissolved Calcium (Ca)	2023/11/14	NC	80 - 120	100	80 - 120	<0.02	mg/L	1.9	20		
9042578	Dissolved Cesium (Cs)	2023/11/14	102	80 - 120	103	80 - 120	<0.00002	mg/L				
9042578	Dissolved Chromium (Cr)	2023/11/14	103	80 - 120	98	80 - 120	<0.0005	mg/L				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9042578	Dissolved Cobalt (Co)	2023/11/14	97	80 - 120	96	80 - 120	<0.00005	mg/L				
9042578	Dissolved Copper (Cu)	2023/11/14	98	80 - 120	100	80 - 120	<0.0001	mg/L				
9042578	Dissolved Iron (Fe)	2023/11/14	101	80 - 120	97	80 - 120	<0.005	mg/L	NC	20		
9042578	Dissolved Lead (Pb)	2023/11/14	94	80 - 120	97	80 - 120	<0.00005	mg/L				
9042578	Dissolved Lithium (Li)	2023/11/14	106	80 - 120	106	80 - 120	<0.0005	mg/L				
9042578	Dissolved Magnesium (Mg)	2023/11/14	NC	80 - 120	98	80 - 120	<0.005	mg/L	0.60	20		
9042578	Dissolved Manganese (Mn)	2023/11/14	101	80 - 120	97	80 - 120	<0.0002	mg/L				
9042578	Dissolved Molybdenum (Mo)	2023/11/14	117	80 - 120	103	80 - 120	<0.00005	mg/L				
9042578	Dissolved Nickel (Ni)	2023/11/14	94	80 - 120	97	80 - 120	<0.0001	mg/L				
9042578	Dissolved Phosphorus (P)	2023/11/14	113	80 - 120	101	80 - 120	<0.005	mg/L				
9042578	Dissolved Potassium (K)	2023/11/14	105	80 - 120	99	80 - 120	<0.02	mg/L	2.0	20		
9042578	Dissolved Rubidium (Rb)	2023/11/14	105	80 - 120	100	80 - 120	<0.00002	mg/L				
9042578	Dissolved Selenium (Se)	2023/11/14	111	80 - 120	102	80 - 120	<0.0002	mg/L				
9042578	Dissolved Silicon (Si)	2023/11/14	NC	80 - 120	100	80 - 120	<0.005	mg/L				
9042578	Dissolved Silver (Ag)	2023/11/14	98	80 - 120	100	80 - 120	<0.00001	mg/L				
9042578	Dissolved Sodium (Na)	2023/11/14	NC	80 - 120	97	80 - 120	<0.01	mg/L	0.43	20		
9042578	Dissolved Strontium (Sr)	2023/11/14	NC	80 - 120	98	80 - 120	<0.0001	mg/L				
9042578	Dissolved Tellurium (Te)	2023/11/14	98	80 - 120	96	80 - 120	<0.0001	mg/L				
9042578	Dissolved Thallium (Tl)	2023/11/14	95	80 - 120	97	80 - 120	<0.000005	mg/L				
9042578	Dissolved Thorium (Th)	2023/11/14	103	80 - 120	98	80 - 120	<0.0002	mg/L				
9042578	Dissolved Tin (Sn)	2023/11/14	113	80 - 120	103	80 - 120	<0.0001	mg/L				
9042578	Dissolved Titanium (Ti)	2023/11/14	107	80 - 120	101	80 - 120	<0.0005	mg/L				
9042578	Dissolved Tungsten (W)	2023/11/14	108	80 - 120	102	80 - 120	<0.0001	mg/L				
9042578	Dissolved Uranium (U)	2023/11/14	98	80 - 120	95	80 - 120	<0.00001	mg/L				
9042578	Dissolved Vanadium (V)	2023/11/14	107	80 - 120	100	80 - 120	<0.00005	mg/L				
9042578	Dissolved Zinc (Zn)	2023/11/14	89	80 - 120	98	80 - 120	<0.0005	mg/L				
9042578	Dissolved Zirconium (Zr)	2023/11/14	119	80 - 120	104	80 - 120	<0.0001	mg/L				
9045244	Acidity	2023/11/13	86	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9045768	. Aluminum (Al)	2023/11/14	114	80 - 120	97	80 - 120	<0.0005	mg/L	9.6	20		
9045768	. Antimony (Sb)	2023/11/14	110	80 - 120	108	80 - 120	<0.0001	mg/L	2.8	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9045768	. Arsenic (As)	2023/11/14	104	80 - 120	99	80 - 120	<0.0001	mg/L	0.41	20		
9045768	. Barium (Ba)	2023/11/14	101	80 - 120	99	80 - 120	<0.0002	mg/L	4.8	20		
9045768	. Beryllium (Be)	2023/11/14	88	80 - 120	101	80 - 120	<0.00005	mg/L	NC	20		
9045768	. Bismuth (Bi)	2023/11/14	87	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9045768	. Boron (B)	2023/11/14	NC	80 - 120	94	80 - 120	<0.001	mg/L	0.057	20		
9045768	. Cadmium (Cd)	2023/11/14	95	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20		
9045768	. Calcium (Ca)	2023/11/14	NC	80 - 120	99	80 - 120	<0.02	mg/L	0.071	20		
9045768	. Cesium (Cs)	2023/11/14	102	80 - 120	99	80 - 120	<0.00002	mg/L	2.4	20		
9045768	. Chromium (Cr)	2023/11/14	107	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
9045768	. Cobalt (Co)	2023/11/14	101	80 - 120	96	80 - 120	<0.00005	mg/L	0.18	20		
9045768	. Copper (Cu)	2023/11/14	103	80 - 120	98	80 - 120	<0.0001	mg/L	0.71	20		
9045768	. Iron (Fe)	2023/11/14	103	80 - 120	98	80 - 120	<0.005	mg/L	1.1	20		
9045768	. Lead (Pb)	2023/11/14	91	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9045768	. Lithium (Li)	2023/11/14	100	80 - 120	105	80 - 120	<0.0005	mg/L	0.78	20		
9045768	. Magnesium (Mg)	2023/11/14	NC	80 - 120	95	80 - 120	<0.005	mg/L	0.36	20		
9045768	. Manganese (Mn)	2023/11/14	100	80 - 120	97	80 - 120	<0.0002	mg/L	0.32	20		
9045768	. Molybdenum (Mo)	2023/11/14	121 (1)	80 - 120	103	80 - 120	<0.00005	mg/L	2.1	20		
9045768	. Nickel (Ni)	2023/11/14	96	80 - 120	96	80 - 120	<0.0001	mg/L	5.8	20		
9045768	. Phosphorus (P)	2023/11/14	119	80 - 120	97	80 - 120	<0.005	mg/L	NC	20		
9045768	. Potassium (K)	2023/11/14	NC	80 - 120	96	80 - 120	<0.02	mg/L	1.1	20		
9045768	. Rubidium (Rb)	2023/11/14	NC	80 - 120	99	80 - 120	<0.00002	mg/L	1.1	20		
9045768	. Selenium (Se)	2023/11/14	113	80 - 120	103	80 - 120	<0.00005	mg/L	NC	20		
9045768	. Silicon (Si)	2023/11/14	108	80 - 120	97	80 - 120	<0.005	mg/L	1.7	20		
9045768	. Silver (Ag)	2023/11/14	86	80 - 120	101	80 - 120	<0.00001	mg/L	NC	20		
9045768	. Sodium (Na)	2023/11/14	NC	80 - 120	95	80 - 120	<0.01	mg/L	0.33	20		
9045768	. Strontium (Sr)	2023/11/14	NC	80 - 120	98	80 - 120	<0.0001	mg/L	3.1	20		
9045768	. Tellurium (Te)	2023/11/14	91	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9045768	. Thallium (Tl)	2023/11/14	92	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9045768	. Thorium (Th)	2023/11/14	100	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9045768	. Tin (Sn)	2023/11/14	110	80 - 120	104	80 - 120	<0.0001	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9045768	. Titanium (Ti)	2023/11/14	109	80 - 120	99	80 - 120	<0.0005	mg/L	NC	20		
9045768	. Tungsten (W)	2023/11/14	109	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9045768	. Uranium (U)	2023/11/14	99	80 - 120	99	80 - 120	<0.00001	mg/L	0.69	20		
9045768	. Vanadium (V)	2023/11/14	114	80 - 120	98	80 - 120	<0.00005	mg/L	2.8	20		
9045768	. Zinc (Zn)	2023/11/14	86	80 - 120	98	80 - 120	<0.0005	mg/L	2.3	20		
9045768	. Zirconium (Zr)	2023/11/14	122 (1)	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9055508	Strong Acid Dissoc. Cyanide (CN)	2023/11/16	95	80 - 120	108	80 - 120	<0.00050	mg/L				
9055510	Free Cyanide (CN)	2023/11/15	87	80 - 120	95	80 - 120	<2.0	ug/L				
9057757	Total Phosphorus (P)	2023/11/15	103	80 - 120	104	80 - 120	<0.0010	mg/L	2.7	20	97	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

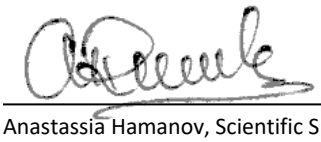
(1) Matrix Spike exceeds acceptance limits, probable matrix interference

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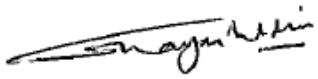
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

VALIDATION SIGNATURE PAGE

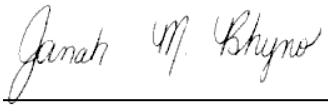
The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics



Janah Rhyno, Scientific Specialist



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 796132

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/17
Report #: R7917104
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Z0205
Received: 2023/11/07, 14:50

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	1	N/A	2023/11/13	ATL SOP-00205	SM 24 2310B m
Alkalinity	1	N/A	2023/11/10	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2023/11/10	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	1	N/A	2023/11/13	CAM SOP-00463	SM 23 4500-Cl E m
Conductivity	1	N/A	2023/11/10	CAM SOP-00414	SM 23 2510 m
Fluoride	1	2023/11/08	2023/11/10	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2023/11/15	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	1	2023/11/10	2023/11/10	CAM SOP-00453	EPA 7470 m
Mercury (low level)	1	2023/11/10	2023/11/10	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	1	2023/11/13	2023/11/14	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	1	N/A	2023/11/14	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2023/11/14	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	1	2023/11/10	2023/11/13	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	1	N/A	2023/11/15	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	1	2023/11/16	2023/11/17	CAL SOP-00270	SM 23 4500-CN m
Total Phosphorus Low Level Total (2)	1	2023/11/15	2023/11/15	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	1	N/A	2023/11/10	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	1	N/A	2023/11/13	CAM SOP-00440	SM 23 4500-NO3I/NO2B
pH	1	2023/11/08	2023/11/10	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (4)	1	N/A	2023/11/08		Field pH Meter
Sulphate by Automated Turbidimetry	1	N/A	2023/11/13	CAM SOP-00464	SM 23 4500-SO42- E m
Total Dissolved Solids	1	2023/11/10	2023/11/13	CAM SOP-00428	SM 23 2540C m
Field Temperature (4)	1	N/A	2023/11/08		Field Thermometer
Total Kjeldahl Nitrogen in Water	1	2023/11/10	2023/11/13	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	1	2023/11/09	2023/11/10	CAM SOP-00428	SM 23 2540D m
Turbidity	1	N/A	2023/11/08	CAM SOP-00417	SM 23 2130 B m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 796132

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2023/11/17
Report #: R7917104
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C3Z0205
Received: 2023/11/07, 14:50

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C3Z0205
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XNS488			XNS488		
Sampling Date		2023/11/05 13:14			2023/11/05 13:14		
COC Number		796132			796132		
	UNITS	MW12-OB-14	RDL	QC Batch	MW12-OB-14 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	190	1.0	9036371			
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.6	1.0	9036371			
Hardness (CaCO3)	mg/L	190	1.0	9036372			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9036371			
Field Measurements							
Field Temperature	Celsius	7.1	N/A	ONSITE			
Field Measured pH	pH	7.55		ONSITE			
Inorganics							
Acidity	mg/L	6.8	5.0	9045244			
Total Ammonia-N	mg/L	<0.050	0.050	9041046			
Conductivity	mS/cm	0.382	0.001	9038052			
Free Cyanide (CN)	ug/L	2.1 (1)	2.0	9055510			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050 (2)	0.00050	9055508			
Total Dissolved Solids	mg/L	225	10	9042386			
Fluoride (F-)	mg/L	0.11	0.10	9038053			
Total Kjeldahl Nitrogen (TKN)	mg/L	<0.10	0.10	9042802	<0.10	0.10	9042802
pH	pH	7.95		9038055			
Total Phosphorus (P)	mg/L	0.060	0.0010	9057611			
Total Suspended Solids	mg/L	3100	5	9039232			
Dissolved Sulphate (SO4)	mg/L	11	1.0	9038144			
Turbidity	NTU	3.5	0.1	9037870			
Alkalinity (Total as CaCO3)	mg/L	190	1.0	9038047			
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9038141			
Nitrite (N)	mg/L	<0.010	0.010	9037880			
Nitrate (N)	mg/L	<0.10	0.10	9037880			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Z0205
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		XNS488			XNS488		
Sampling Date		2023/11/05 13:14			2023/11/05 13:14		
COC Number		796132			796132		
	UNITS	**MW12-OB-14**	**RDL**	**QC Batch**	**MW12-OB-14 Lab-Dup**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9037880			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNS488			XNS488		
Sampling Date		2023/11/05 13:14			2023/11/05 13:14		
COC Number		796132			796132		
	UNITS	MW12-OB-14	RDL	QC Batch	MW12-OB-14 Lab-Dup	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	0.0007	0.0005	9047470	0.0007	0.0005	9047470
. Aluminum (Al)	mg/L	0.633	0.0005	9047450			
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9047470	<0.0001	0.0001	9047470
. Antimony (Sb)	mg/L	<0.0001	0.0001	9047450			
Dissolved Arsenic (As)	mg/L	0.0005	0.0001	9047470	0.0005	0.0001	9047470
. Arsenic (As)	mg/L	0.0012	0.0001	9047450			
Dissolved Barium (Ba)	mg/L	0.0223	0.0002	9047470	0.0225	0.0002	9047470
. Barium (Ba)	mg/L	0.0328	0.0002	9047450			
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9047470	<0.00005	0.00005	9047470
. Beryllium (Be)	mg/L	<0.00005	0.00005	9047450			
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9047470	<0.0001	0.0001	9047470
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9047450			
Dissolved Boron (B)	mg/L	0.006	0.001	9047470	0.007	0.001	9047470
. Boron (B)	mg/L	0.009	0.001	9047450			
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9047470	<0.00001	0.00001	9047470
. Cadmium (Cd)	mg/L	0.000022	0.000005	9047450			
Dissolved Calcium (Ca)	mg/L	55.0	0.1	9047470	55.2	0.1	9047470
. Calcium (Ca)	mg/L	99.3	0.1	9047450			
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9047470	<0.00002	0.00002	9047470
. Cesium (Cs)	mg/L	0.00007	0.00002	9047450			
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9047470	<0.0005	0.0005	9047470
. Chromium (Cr)	mg/L	0.0022	0.0005	9047450			
Dissolved Cobalt (Co)	mg/L	<0.00005	0.00005	9047470	<0.00005	0.00005	9047470
. Cobalt (Co)	mg/L	0.00066	0.00005	9047450			
Dissolved Copper (Cu)	mg/L	0.0002	0.0001	9047470	0.0002	0.0001	9047470
. Copper (Cu)	mg/L	0.0019	0.0001	9047450			
Dissolved Iron (Fe)	mg/L	0.012	0.005	9047470	0.012	0.005	9047470
. Iron (Fe)	mg/L	1.04	0.005	9047450			
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9047470	<0.00005	0.00005	9047470
. Lead (Pb)	mg/L	0.00083	0.00005	9047450			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNS488			XNS488		
Sampling Date		2023/11/05 13:14			2023/11/05 13:14		
COC Number		796132			796132		
	UNITS	MW12-OB-14	RDL	QC Batch	MW12-OB-14 Lab-Dup	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0025	0.0005	9047470	0.0026	0.0005	9047470
. Lithium (Li)	mg/L	0.0036	0.0005	9047450			
Dissolved Magnesium (Mg)	mg/L	13.0	0.005	9047470	13.3	0.005	9047470
. Magnesium (Mg)	mg/L	27.2	0.005	9047450			
Dissolved Manganese (Mn)	mg/L	0.0068	0.0002	9047470	0.0070	0.0002	9047470
. Manganese (Mn)	mg/L	0.0724	0.0002	9047450			
Mercury (Hg)	ug/L	<0.01	0.01	9042178			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9042149			
Dissolved Molybdenum (Mo)	mg/L	0.00082	0.00005	9047470	0.00083	0.00005	9047470
. Molybdenum (Mo)	mg/L	0.00070	0.00005	9047450			
Dissolved Nickel (Ni)	mg/L	<0.0001	0.0001	9047470	<0.0001	0.0001	9047470
. Nickel (Ni)	mg/L	0.0014	0.0001	9047450			
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9047470	<0.005	0.005	9047470
. Phosphorus (P)	mg/L	0.194	0.005	9047450			
Dissolved Potassium (K)	mg/L	1.80	0.02	9047470	1.76	0.02	9047470
. Potassium (K)	mg/L	2.03	0.02	9047450			
Dissolved Rubidium (Rb)	mg/L	0.00228	0.00002	9047470	0.00232	0.00002	9047470
. Rubidium (Rb)	mg/L	0.00322	0.00002	9047450			
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9047470	<0.0002	0.0002	9047470
. Selenium (Se)	mg/L	<0.00005	0.00005	9047450			
Dissolved Silicon (Si)	mg/L	4.29	0.005	9047470	4.28	0.005	9047470
. Silicon (Si)	mg/L	5.02	0.025	9047450			
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9047470	<0.00001	0.00001	9047470
. Silver (Ag)	mg/L	<0.00001	0.00001	9047450			
Dissolved Sodium (Na)	mg/L	1.95	0.01	9047470	1.97	0.01	9047470
. Sodium (Na)	mg/L	2.05	0.01	9047450			
Dissolved Strontium (Sr)	mg/L	0.0468	0.0001	9047470	0.0471	0.0001	9047470
. Strontium (Sr)	mg/L	0.0735	0.0001	9047450			
Dissolved Sulphur (S)	mg/L	3.9	0.5	9045604			
Total Sulphur (S)	mg/L	4.0	0.5	9041675			
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9047470	<0.0001	0.0001	9047470

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		XNS488			XNS488		
Sampling Date		2023/11/05 13:14			2023/11/05 13:14		
COC Number		796132			796132		
	UNITS	MW12-OB-14	RDL	QC Batch	MW12-OB-14 Lab-Dup	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	9047450			
Dissolved Thallium (Tl)	mg/L	0.000013	0.000005	9047470	0.000012	0.000005	9047470
. Thallium (Tl)	mg/L	0.000028	0.000005	9047450			
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9047470	<0.0002	0.0002	9047470
. Thorium (Th)	mg/L	0.0005	0.0002	9047450			
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9047470	<0.0001	0.0001	9047470
. Tin (Sn)	mg/L	<0.0001	0.0001	9047450			
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9047470	<0.0005	0.0005	9047470
. Titanium (Ti)	mg/L	0.0450	0.0005	9047450			
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	9047470	<0.0001	0.0001	9047470
. Tungsten (W)	mg/L	<0.0001	0.0001	9047450			
Dissolved Uranium (U)	mg/L	0.00096	0.00001	9047470	0.00097	0.00001	9047470
. Uranium (U)	mg/L	0.00132	0.00001	9047450			
Dissolved Vanadium (V)	mg/L	0.00019	0.00005	9047470	0.00019	0.00005	9047470
. Vanadium (V)	mg/L	0.00193	0.00005	9047450			
Dissolved Zinc (Zn)	mg/L	0.0048	0.0005	9047470	0.0048	0.0005	9047470
. Zinc (Zn)	mg/L	0.0134	0.0005	9047450			
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	9047470	<0.0001	0.0001	9047470
. Zirconium (Zr)	mg/L	0.0005	0.0001	9047450			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Z0205
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: XNS488
Sample ID: MW12-OB-14
Matrix: Water

Collected: 2023/11/05
Shipped:
Received: 2023/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9045244	N/A	2023/11/13	Brent Boudreau
Alkalinity	AT	9038047	N/A	2023/11/10	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9036371	N/A	2023/11/10	Automated Statchk
Chloride by Automated Colourimetry	KONE	9038141	N/A	2023/11/13	Massarat Jan
Conductivity	AT	9038052	N/A	2023/11/10	Surinder Rai
Fluoride	ISE	9038053	2023/11/08	2023/11/10	Surinder Rai
Hardness (calculated as CaCO3)		9036372	N/A	2023/11/15	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9042149	2023/11/10	2023/11/10	Gagandeep Rai
Mercury (low level)	CV/AA	9042178	2023/11/10	2023/11/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9045604	2023/11/13	2023/11/14	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9047470	N/A	2023/11/14	Arefa Dabhad
Metals in Water by ICPMS (low level)	ICP1/MS	9047450	N/A	2023/11/14	Arefa Dabhad
Total Metals Analysis by ICP	ICP	9041675	2023/11/10	2023/11/13	Suban Kanapathippllai
Cyanide (Free)	SPEC	9055510	N/A	2023/11/15	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9055508	2023/11/17	2023/11/17	Ming Dong
Total Phosphorus Low Level Total	KONE	9057611	2023/11/15	2023/11/15	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9041046	N/A	2023/11/10	Prabhjot Kaur
Nitrate & Nitrite as Nitrogen in Water	LACH	9037880	N/A	2023/11/13	Chandra Nandlal
pH	AT	9038055	2023/11/08	2023/11/10	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2023/11/08	Sattyajita Bastola
Sulphate by Automated Turbidimetry	KONE	9038144	N/A	2023/11/13	Massarat Jan
Total Dissolved Solids	BAL	9042386	2023/11/10	2023/11/13	Shaneil Hall
Field Measured pH	PH	ONSITE	N/A	2023/11/08	Sattyajita Bastola
Total Kjeldahl Nitrogen in Water	SKAL	9042802	2023/11/10	2023/11/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9039232	2023/11/09	2023/11/10	Shaneil Hall
Turbidity	AT	9037870	N/A	2023/11/08	Leily Karimi

Bureau Veritas ID: XNS488 Dup
Sample ID: MW12-OB-14
Matrix: Water

Collected: 2023/11/05
Shipped:
Received: 2023/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS (low level)	ICP1/MS	9047470	N/A	2023/11/14	Arefa Dabhad
Total Kjeldahl Nitrogen in Water	SKAL	9042802	2023/11/10	2023/11/13	Rajni Tyagi

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.0°C

Sample XNS488 [MW12-OB-14] : TSS Analysis: Due to the nature of the sample, a smaller than usual portion of the sample was used.
Acidity sample contained headspace.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9037870	Turbidity	2023/11/08			101	80 - 120	<0.1	NTU	0.34	20		
9037880	Nitrate (N)	2023/11/13	100	80 - 120	98	80 - 120	<0.10	mg/L	0.12	20		
9037880	Nitrite (N)	2023/11/13	104	80 - 120	105	80 - 120	<0.010	mg/L				
9038047	Alkalinity (Total as CaCO3)	2023/11/10			98	85 - 115	<1.0	mg/L	0.53	20		
9038052	Conductivity	2023/11/10			102	85 - 115	<0.001	mS/cm	0	10		
9038053	Fluoride (F-)	2023/11/10	101	80 - 120	101	80 - 120	<0.10	mg/L	NC	20		
9038055	pH	2023/11/10			102	98 - 103			2.0	N/A		
9038141	Dissolved Chloride (Cl-)	2023/11/13	98	80 - 120	97	80 - 120	<1.0	mg/L	NC	20		
9038144	Dissolved Sulphate (SO4)	2023/11/13	NC	75 - 125	95	80 - 120	<1.0	mg/L	0.84	20		
9039232	Total Suspended Solids	2023/11/10			97	85 - 115	<1	mg/L	6.1	20		
9041046	Total Ammonia-N	2023/11/10	98	75 - 125	104	80 - 120	<0.050	mg/L	0.23	20		
9041675	Total Sulphur (S)	2023/11/13	98	80 - 120	100	80 - 120	<0.5	mg/L				
9042149	Dissolved Mercury (Hg)	2023/11/10	100	75 - 125	100	80 - 120	<0.01	ug/L	NC	20		
9042178	Mercury (Hg)	2023/11/10	99	75 - 125	100	80 - 120	<0.01	ug/L	NC	20		
9042386	Total Dissolved Solids	2023/11/13			100	90 - 110	<10	mg/L	0	20		
9042802	Total Kjeldahl Nitrogen (TKN)	2023/11/13	100	80 - 120	98	80 - 120	<0.10	mg/L	NC	20	97	80 - 120
9045244	Acidity	2023/11/13	86	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9045604	Dissolved Sulphur (S)	2023/11/14	100	80 - 120	100	80 - 120	<0.5	mg/L				
9047450	. Aluminum (Al)	2023/11/14	100	80 - 120	96	80 - 120	<0.0005	mg/L	4.4	20		
9047450	. Antimony (Sb)	2023/11/14	112	80 - 120	103	80 - 120	<0.0001	mg/L				
9047450	. Arsenic (As)	2023/11/14	103	80 - 120	98	80 - 120	<0.0001	mg/L				
9047450	. Barium (Ba)	2023/11/14	103	80 - 120	102	80 - 120	<0.0002	mg/L				
9047450	. Beryllium (Be)	2023/11/14	97	80 - 120	95	80 - 120	<0.00005	mg/L				
9047450	. Bismuth (Bi)	2023/11/14	91	80 - 120	94	80 - 120	<0.0001	mg/L				
9047450	. Boron (B)	2023/11/14	95	80 - 120	95	80 - 120	<0.001	mg/L				
9047450	. Cadmium (Cd)	2023/11/14	104	80 - 120	98	80 - 120	<0.000005	mg/L				
9047450	. Calcium (Ca)	2023/11/14	NC	80 - 120	97	80 - 120	<0.02	mg/L				
9047450	. Cesium (Cs)	2023/11/14	102	80 - 120	102	80 - 120	<0.00002	mg/L				
9047450	. Chromium (Cr)	2023/11/14	98	80 - 120	96	80 - 120	<0.0005	mg/L				
9047450	. Cobalt (Co)	2023/11/14	99	80 - 120	96	80 - 120	<0.00005	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9047450	. Copper (Cu)	2023/11/14	101	80 - 120	96	80 - 120	<0.0001	mg/L				
9047450	. Iron (Fe)	2023/11/14	102	80 - 120	97	80 - 120	<0.005	mg/L				
9047450	. Lead (Pb)	2023/11/14	98	80 - 120	98	80 - 120	<0.00005	mg/L				
9047450	. Lithium (Li)	2023/11/14	108	80 - 120	101	80 - 120	<0.0005	mg/L				
9047450	. Magnesium (Mg)	2023/11/14	NC	80 - 120	96	80 - 120	<0.005	mg/L				
9047450	. Manganese (Mn)	2023/11/14	101	80 - 120	97	80 - 120	<0.0002	mg/L				
9047450	. Molybdenum (Mo)	2023/11/14	104	80 - 120	96	80 - 120	<0.00005	mg/L				
9047450	. Nickel (Ni)	2023/11/14	96	80 - 120	96	80 - 120	<0.0001	mg/L				
9047450	. Phosphorus (P)	2023/11/14	105	80 - 120	100	80 - 120	<0.005	mg/L				
9047450	. Potassium (K)	2023/11/14	102	80 - 120	101	80 - 120	<0.02	mg/L				
9047450	. Rubidium (Rb)	2023/11/14	102	80 - 120	101	80 - 120	<0.00002	mg/L				
9047450	. Selenium (Se)	2023/11/14	105	80 - 120	97	80 - 120	<0.00005	mg/L				
9047450	. Silicon (Si)	2023/11/14	106	80 - 120	97	80 - 120	<0.005	mg/L				
9047450	. Silver (Ag)	2023/11/14	96	80 - 120	92	80 - 120	<0.00001	mg/L				
9047450	. Sodium (Na)	2023/11/14	NC	80 - 120	97	80 - 120	<0.01	mg/L				
9047450	. Strontium (Sr)	2023/11/14	NC	80 - 120	100	80 - 120	<0.0001	mg/L				
9047450	. Tellurium (Te)	2023/11/14	107	80 - 120	103	80 - 120	<0.0001	mg/L				
9047450	. Thallium (Tl)	2023/11/14	100	80 - 120	98	80 - 120	<0.000005	mg/L				
9047450	. Thorium (Th)	2023/11/14	102	80 - 120	97	80 - 120	<0.0002	mg/L				
9047450	. Tin (Sn)	2023/11/14	110	80 - 120	102	80 - 120	<0.0001	mg/L				
9047450	. Titanium (Ti)	2023/11/14	108	80 - 120	97	80 - 120	<0.0005	mg/L				
9047450	. Tungsten (W)	2023/11/14	102	80 - 120	99	80 - 120	<0.0001	mg/L				
9047450	. Uranium (U)	2023/11/14	105	80 - 120	98	80 - 120	<0.00001	mg/L				
9047450	. Vanadium (V)	2023/11/14	100	80 - 120	96	80 - 120	<0.00005	mg/L				
9047450	. Zinc (Zn)	2023/11/14	100	80 - 120	97	80 - 120	<0.0005	mg/L				
9047450	. Zirconium (Zr)	2023/11/14	111	80 - 120	101	80 - 120	<0.0001	mg/L				
9047470	Dissolved Aluminum (Al)	2023/11/14	100	80 - 120	94	80 - 120	<0.0005	mg/L	2.2	20		
9047470	Dissolved Antimony (Sb)	2023/11/14	108	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9047470	Dissolved Arsenic (As)	2023/11/14	99	80 - 120	98	80 - 120	<0.0001	mg/L	1.3	20		
9047470	Dissolved Barium (Ba)	2023/11/14	99	80 - 120	99	80 - 120	<0.0002	mg/L	0.89	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9047470	Dissolved Beryllium (Be)	2023/11/14	97	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9047470	Dissolved Bismuth (Bi)	2023/11/14	90	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9047470	Dissolved Boron (B)	2023/11/14	97	80 - 120	95	80 - 120	<0.001	mg/L	3.7	20		
9047470	Dissolved Cadmium (Cd)	2023/11/14	102	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9047470	Dissolved Calcium (Ca)	2023/11/14	NC	80 - 120	97	80 - 120	<0.02	mg/L	0.46	20		
9047470	Dissolved Cesium (Cs)	2023/11/14	98	80 - 120	99	80 - 120	<0.00002	mg/L	NC	N/A		
9047470	Dissolved Chromium (Cr)	2023/11/14	97	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
9047470	Dissolved Cobalt (Co)	2023/11/14	93	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9047470	Dissolved Copper (Cu)	2023/11/14	95	80 - 120	97	80 - 120	<0.0001	mg/L	2.5	20		
9047470	Dissolved Iron (Fe)	2023/11/14	98	80 - 120	101	80 - 120	<0.005	mg/L	0.60	20		
9047470	Dissolved Lead (Pb)	2023/11/14	97	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
9047470	Dissolved Lithium (Li)	2023/11/14	104	80 - 120	101	80 - 120	<0.0005	mg/L	1.9	20		
9047470	Dissolved Magnesium (Mg)	2023/11/14	NC	80 - 120	98	80 - 120	<0.005	mg/L	2.6	20		
9047470	Dissolved Manganese (Mn)	2023/11/14	98	80 - 120	98	80 - 120	<0.0002	mg/L	2.1	20		
9047470	Dissolved Molybdenum (Mo)	2023/11/14	104	80 - 120	95	80 - 120	<0.00005	mg/L	1.5	20		
9047470	Dissolved Nickel (Ni)	2023/11/14	95	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9047470	Dissolved Phosphorus (P)	2023/11/14	104	80 - 120	97	80 - 120	<0.005	mg/L	NC	20		
9047470	Dissolved Potassium (K)	2023/11/14	96	80 - 120	101	80 - 120	<0.02	mg/L	2.1	20		
9047470	Dissolved Rubidium (Rb)	2023/11/14	101	80 - 120	99	80 - 120	<0.00002	mg/L	1.9	N/A		
9047470	Dissolved Selenium (Se)	2023/11/14	103	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9047470	Dissolved Silicon (Si)	2023/11/14	NC	80 - 120	94	80 - 120	<0.005	mg/L	0.36	20		
9047470	Dissolved Silver (Ag)	2023/11/14	95	80 - 120	91	80 - 120	<0.00001	mg/L	NC	20		
9047470	Dissolved Sodium (Na)	2023/11/14	96	80 - 120	99	80 - 120	<0.01	mg/L	0.59	20		
9047470	Dissolved Strontium (Sr)	2023/11/14	100	80 - 120	99	80 - 120	<0.0001	mg/L	0.71	20		
9047470	Dissolved Tellurium (Te)	2023/11/14	100	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9047470	Dissolved Thallium (Tl)	2023/11/14	103	80 - 120	101	80 - 120	<0.000005	mg/L	8.0	20		
9047470	Dissolved Thorium (Th)	2023/11/14	102	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20		
9047470	Dissolved Tin (Sn)	2023/11/14	105	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9047470	Dissolved Titanium (Ti)	2023/11/14	103	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
9047470	Dissolved Tungsten (W)	2023/11/14	103	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9047470	Dissolved Uranium (U)	2023/11/14	104	80 - 120	98	80 - 120	<0.00001	mg/L	0.83	20		
9047470	Dissolved Vanadium (V)	2023/11/14	99	80 - 120	98	80 - 120	<0.00005	mg/L	1.6	20		
9047470	Dissolved Zinc (Zn)	2023/11/14	96	80 - 120	100	80 - 120	<0.0005	mg/L	0.56	20		
9047470	Dissolved Zirconium (Zr)	2023/11/14	108	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9055508	Strong Acid Dissoc. Cyanide (CN)	2023/11/16	95	80 - 120	108	80 - 120	<0.00050	mg/L				
9055510	Free Cyanide (CN)	2023/11/15	87	80 - 120	95	80 - 120	<2.0	ug/L				
9057611	Total Phosphorus (P)	2023/11/15	108	80 - 120	103	80 - 120	0.0013, RDL=0.0010 (1)	mg/L			89	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Method blank exceeds acceptance limits, 2x RDL acceptable for low level analysis

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C3Z0205
Report Date: 2023/11/17

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Janah Rhyno, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 890744

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/05/13
Report #: R8146763
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4D2249
Received: 2024/05/02, 16:18

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	2	N/A	2024/05/09	ATL SOP-00205	SM 24 2310B m
Alkalinity	1	N/A	2024/05/12	CAM SOP-00448	SM 24 2320 B m
Alkalinity	1	N/A	2024/05/09	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2024/05/09	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	1	N/A	2024/05/10	CAM SOP-00463	SM 24 4500-Cl E m
Chloride by Automated Colourimetry	1	N/A	2024/05/08	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	2	N/A	2024/05/09	CAM SOP-00414	SM 24 2510 m
Fluoride	2	2024/05/06	2024/05/09	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2024/05/09	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	2	2024/05/08	2024/05/08	CAM SOP-00453	EPA 7470 m
Mercury (low level)	2	2024/05/08	2024/05/08	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	2	2024/05/06	2024/05/09	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	1	N/A	2024/05/10	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	1	N/A	2024/05/09	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	2	N/A	2024/05/08	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	2	2024/05/07	2024/05/07	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	2	N/A	2024/05/09	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2024/05/08	2024/05/08	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	2	2024/05/09	2024/05/09	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	2	N/A	2024/05/07	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	2	N/A	2024/05/06	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	2	2024/05/06	2024/05/09	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	2	N/A	2024/05/03		Field pH Meter
Sulphate by Automated Turbidimetry	1	N/A	2024/05/10	CAM SOP-00464	SM 24 4500-SO42- E m
Sulphate by Automated Turbidimetry	1	N/A	2024/05/08	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	2	2024/05/06	2024/05/07	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	2	N/A	2024/05/03		Field Thermometer
Total Kjeldahl Nitrogen in Water	1	2024/05/06	2024/05/07	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	1	2024/05/06	2024/05/08	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	1	2024/05/04	2024/05/08	CAM SOP-00428	SM 24 2540D m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 890744

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/05/13
Report #: R8146763
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4D2249
Received: 2024/05/02, 16:18

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Low Level Total Suspended Solids	1	2024/05/07	2024/05/08	CAM SOP-00428	SM 24 2540D m
Turbidity	2	N/A	2024/05/04	CAM SOP-00417	SM 24 2130 B

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4D2249
Report Date: 2024/05/13

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZBL990			ZBL990			ZBL991		
Sampling Date		2024/05/01 14:22			2024/05/01 14:22			2024/05/01 14:46		
COC Number		890744			890744			890744		
	UNITS	MW20-BR-21	RDL	QC Batch	MW20-BR-21 Lab-Dup	RDL	QC Batch	MW20-OB-21	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	2.0	1.0	9372146				180	1.0	9372146
Carb. Alkalinity (calc. as CaCO3)	mg/L	180	1.0	9372146				11	1.0	9372146
Hardness (CaCO3)	mg/L	630	1.0	9372141				190	1.0	9372141
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	480	1.0	9372146				<1.0	1.0	9372146
Field Measurements										
Field Temperature	Celsius	8.0	N/A	ONSITE				6.2	N/A	ONSITE
Field Measured pH	pH	12.35		ONSITE				8.91		ONSITE
Inorganics										
Acidity	mg/L	<5.0	5.0	9382495	<5.0	5.0	9382495	<5.0	5.0	9382495
Total Ammonia-N	mg/L	1.6	0.050	9376276				<0.050	0.050	9376276
Conductivity	mS/cm	3.11	0.001	9374966	3.11	N/A	9374966	0.382	0.001	9374966
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9384617				<2.0 (1)	2.0	9384617
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9387622				<0.00050	0.00050	9387622
Total Dissolved Solids	mg/L	880	10	9375189				250	10	9375189
Fluoride (F-)	mg/L	0.29	0.10	9374970	0.27	0.10	9374970	0.16	0.10	9374970
Total Kjeldahl Nitrogen (TKN)	mg/L	2.2	0.10	9376000				<0.10	0.10	9376000
pH	pH	12.0		9374969	12.0		9374969	8.80		9374969
Total Phosphorus (P)	mg/L	0.0057	0.0010	9387145				0.026	0.0010	9387145
Total Suspended Solids	mg/L	120	1	9373999				100	2	9377044
Dissolved Sulphate (SO4)	mg/L	1.9	1.0	9385228				27	1.0	9373634
Turbidity	NTU	4.0	0.1	9373651				6.9	0.1	9373651
Alkalinity (Total as CaCO3)	mg/L	660	1.0	9385365				190	1.0	9374968
Dissolved Chloride (Cl-)	mg/L	3.1	1.0	9385193				<1.0	1.0	9373631
Nitrite (N)	mg/L	0.016	0.010	9373612				<0.010	0.010	9373612
Nitrate (N)	mg/L	<0.10	0.10	9373612				0.93	0.10	9373612
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9373612				0.93	0.10	9373612

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4D2249
Report Date: 2024/05/13

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZBL991		
Sampling Date		2024/05/01 14:46		
COC Number		890744		
	UNITS	**MW20-OB-21 Lab-Dup**	**RDL**	**QC Batch**
Inorganics				
Total Dissolved Solids	mg/L	250	10	9375189

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4D2249
Report Date: 2024/05/13

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZBL990			ZBL990			ZBL991		
Sampling Date		2024/05/01 14:22			2024/05/01 14:22			2024/05/01 14:46		
COC Number		890744			890744			890744		
	UNITS	MW20-BR-21	RDL	QC Batch	MW20-BR-21 Lab-Dup	RDL	QC Batch	MW20-OB-21	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.301	0.0025	9385736				<0.0025	0.0025	9381072
. Aluminum (Al)	mg/L	0.385	0.0005	9381058				0.214	0.0025	9381058
Dissolved Antimony (Sb)	mg/L	<0.0005	0.0005	9385736				<0.0005	0.0005	9381072
. Antimony (Sb)	mg/L	0.0006	0.0001	9381058				<0.0005	0.0005	9381058
Dissolved Arsenic (As)	mg/L	0.0016	0.0005	9385736				<0.0005	0.0005	9381072
. Arsenic (As)	mg/L	0.0034	0.0001	9381058				0.0011	0.0005	9381058
Dissolved Barium (Ba)	mg/L	0.429	0.001	9385736				0.009	0.001	9381072
. Barium (Ba)	mg/L	0.474	0.0002	9381058				0.012	0.001	9381058
Dissolved Beryllium (Be)	mg/L	<0.00025	0.00025	9385736				<0.00025	0.00025	9381072
. Beryllium (Be)	mg/L	<0.00005	0.00005	9381058				<0.00025	0.00025	9381058
Dissolved Bismuth (Bi)	mg/L	<0.0005	0.0005	9385736				<0.0005	0.0005	9381072
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9381058				<0.0005	0.0005	9381058
Dissolved Boron (B)	mg/L	<0.005	0.005	9385736				<0.005	0.005	9381072
. Boron (B)	mg/L	0.003	0.001	9381058				0.005	0.005	9381058
Dissolved Cadmium (Cd)	mg/L	<0.00005	0.00005	9385736				<0.00005	0.00005	9381072
. Cadmium (Cd)	mg/L	0.000005	0.000005	9381058				<0.000025	0.000025	9381058
Dissolved Calcium (Ca)	mg/L	250	0.2	9385736				53.1	0.1	9381072
. Calcium (Ca)	mg/L	242	0.2	9381058				60.3	0.1	9381058
Dissolved Cesium (Cs)	mg/L	<0.0001	0.0001	9385736				<0.0001	0.0001	9381072
. Cesium (Cs)	mg/L	0.00011	0.00002	9381058				<0.0001	0.0001	9381058
Dissolved Chromium (Cr)	mg/L	<0.0025	0.0025	9385736				<0.0025	0.0025	9381072
. Chromium (Cr)	mg/L	0.0007	0.0005	9381058				<0.0025	0.0025	9381058
Dissolved Cobalt (Co)	mg/L	<0.00025	0.00025	9385736				<0.00025	0.00025	9381072
. Cobalt (Co)	mg/L	0.00015	0.00005	9381058				<0.00025	0.00025	9381058
Dissolved Copper (Cu)	mg/L	0.0024	0.0005	9385736				<0.0005	0.0005	9381072
. Copper (Cu)	mg/L	0.0028	0.0001	9381058				0.0010	0.0005	9381058
Dissolved Iron (Fe)	mg/L	<0.025	0.025	9385736				<0.025	0.025	9381072
. Iron (Fe)	mg/L	0.211	0.005	9381058				0.394	0.025	9381058
Dissolved Lead (Pb)	mg/L	0.00066	0.00025	9385736				<0.00025	0.00025	9381072
. Lead (Pb)	mg/L	0.00090	0.00005	9381058				0.00043	0.00025	9381058

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4D2249
Report Date: 2024/05/13

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZBL990			ZBL990			ZBL991		
Sampling Date		2024/05/01 14:22			2024/05/01 14:22			2024/05/01 14:46		
COC Number		890744			890744			890744		
	UNITS	MW20-BR-21	RDL	QC Batch	MW20-BR-21 Lab-Dup	RDL	QC Batch	MW20-OB-21	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0228	0.0025	9385736				<0.0025	0.0025	9381072
. Lithium (Li)	mg/L	0.0244	0.0005	9381058				<0.0025	0.0025	9381058
Dissolved Magnesium (Mg)	mg/L	<0.025	0.025	9385736				13.1	0.025	9381072
. Magnesium (Mg)	mg/L	0.209	0.005	9381058				14.3	0.025	9381058
Dissolved Manganese (Mn)	mg/L	<0.001	0.001	9385736				<0.001	0.001	9381072
. Manganese (Mn)	mg/L	0.0036	0.0002	9381058				0.016	0.001	9381058
Mercury (Hg)	ug/L	<0.01	0.01	9380079				<0.01	0.01	9380079
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9380088				<0.01	0.01	9380088
Dissolved Molybdenum (Mo)	mg/L	0.0284	0.00025	9385736				0.00030	0.00025	9381072
. Molybdenum (Mo)	mg/L	0.0298	0.00005	9381058				0.00043	0.00025	9381058
Dissolved Nickel (Ni)	mg/L	0.0134	0.0005	9385736				<0.0005	0.0005	9381072
. Nickel (Ni)	mg/L	0.0134	0.0001	9381058				0.0005	0.0005	9381058
Dissolved Phosphorus (P)	mg/L	<0.025	0.025	9385736				<0.025	0.025	9381072
. Phosphorus (P)	mg/L	0.015	0.005	9381058				0.034	0.025	9381058
Dissolved Potassium (K)	mg/L	14.7	0.1	9385736				1.0	0.1	9381072
. Potassium (K)	mg/L	15.8	0.02	9381058				1.2	0.1	9381058
Dissolved Rubidium (Rb)	mg/L	0.0274	0.0001	9385736				0.0006	0.0001	9381072
. Rubidium (Rb)	mg/L	0.0297	0.00002	9381058				0.0011	0.0001	9381058
Dissolved Selenium (Se)	mg/L	<0.001	0.001	9385736				<0.001	0.001	9381072
. Selenium (Se)	mg/L	0.00020	0.00005	9381058				0.00096	0.00025	9381058
Dissolved Silicon (Si)	mg/L	0.731	0.025	9385736				4.50	0.025	9381072
. Silicon (Si)	mg/L	1.24	0.005	9381058				5.09	0.025	9381058
Dissolved Silver (Ag)	mg/L	<0.00005	0.00005	9385736				<0.00005	0.00005	9381072
. Silver (Ag)	mg/L	<0.00001	0.00001	9381058				<0.00005	0.00005	9381058
Dissolved Sodium (Na)	mg/L	93.3	0.05	9385736				2.51	0.05	9381072
. Sodium (Na)	mg/L	91.0	0.05	9381058				2.74	0.05	9381058
Dissolved Strontium (Sr)	mg/L	1.19	0.0005	9385736				0.0498	0.0005	9381072
. Strontium (Sr)	mg/L	1.26	0.0001	9381058				0.0562	0.0005	9381058
Dissolved Sulphur (S)	mg/L	1.1	0.5	9374990	1.1	0.5	9374990	5.4	0.5	9374990
Total Sulphur (S)	mg/L	1.1	0.5	9377048				6.1	0.5	9377048
Dissolved Tellurium (Te)	mg/L	<0.0005	0.0005	9385736				<0.0005	0.0005	9381072

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZBL990			ZBL990			ZBL991		
Sampling Date		2024/05/01 14:22			2024/05/01 14:22			2024/05/01 14:46		
COC Number		890744			890744			890744		
	UNITS	MW20-BR-21	RDL	QC Batch	MW20-BR-21 Lab-Dup	RDL	QC Batch	MW20-OB-21	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	9381058				<0.0005	0.0005	9381058
Dissolved Thallium (Tl)	mg/L	<0.000025	0.000025	9385736				<0.000025	0.000025	9381072
. Thallium (Tl)	mg/L	0.000018	0.000005	9381058				<0.000025	0.000025	9381058
Dissolved Thorium (Th)	mg/L	<0.001	0.001	9385736				<0.001	0.001	9381072
. Thorium (Th)	mg/L	<0.0002	0.0002	9381058				<0.001	0.001	9381058
Dissolved Tin (Sn)	mg/L	0.0005	0.0005	9385736				<0.0005	0.0005	9381072
. Tin (Sn)	mg/L	0.0008	0.0001	9381058				<0.0005	0.0005	9381058
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	9385736				<0.0025	0.0025	9381072
. Titanium (Ti)	mg/L	0.0061	0.0025	9381058				0.0126	0.0025	9381058
Dissolved Tungsten (W)	mg/L	0.0058	0.0005	9385736				<0.0005	0.0005	9381072
. Tungsten (W)	mg/L	0.0047	0.0001	9381058				<0.0005	0.0005	9381058
Dissolved Uranium (U)	mg/L	<0.00005	0.00005	9385736				0.00030	0.00005	9381072
. Uranium (U)	mg/L	0.00001	0.00001	9381058				0.00039	0.00005	9381058
Dissolved Vanadium (V)	mg/L	0.00077	0.00025	9385736				0.00028	0.00025	9381072
. Vanadium (V)	mg/L	0.00103	0.00005	9381058				0.00078	0.00025	9381058
Dissolved Zinc (Zn)	mg/L	1.10	0.0025	9385736				0.0783	0.0025	9381072
. Zinc (Zn)	mg/L	2.42	0.0025	9381058				0.197	0.0025	9381058
Dissolved Zirconium (Zr)	mg/L	<0.0005	0.0005	9385736				<0.0005	0.0005	9381072
. Zirconium (Zr)	mg/L	<0.0001	0.0001	9381058				<0.0005	0.0005	9381058

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4D2249
Report Date: 2024/05/13

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZBL990
Sample ID: MW20-BR-21
Matrix: Water

Collected: 2024/05/01
Shipped:
Received: 2024/05/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9382495	N/A	2024/05/09	Brent Boudreau
Alkalinity	AT	9385365	N/A	2024/05/12	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9372146	N/A	2024/05/09	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9385193	N/A	2024/05/10	Massarat Jan
Conductivity	AT	9374966	N/A	2024/05/09	Gurparteek KAUR
Fluoride	ISE	9374970	2024/05/06	2024/05/09	Nachiketa Gohil
Hardness (calculated as CaCO3)		9372141	N/A	2024/05/09	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9380088	2024/05/08	2024/05/08	Gagandeep Rai
Mercury (low level)	CV/AA	9380079	2024/05/08	2024/05/08	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9374990	2024/05/06	2024/05/09	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9385736	N/A	2024/05/10	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9381058	N/A	2024/05/08	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9377048	2024/05/07	2024/05/07	Suban Kanapathippllai
Cyanide (Free)	SPEC	9384617	N/A	2024/05/09	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9387622	2024/05/08	2024/05/08	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9387145	2024/05/09	2024/05/09	Carlo Truong
Total Ammonia-N	LACH/NH4	9376276	N/A	2024/05/07	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9373612	N/A	2024/05/06	Samuel Law
pH	AT	9374969	2024/05/06	2024/05/09	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/05/03	Viyushti Patel
Sulphate by Automated Turbidimetry	SKAL	9385228	N/A	2024/05/10	Massarat Jan
Total Dissolved Solids	BAL	9375189	2024/05/06	2024/05/07	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/05/03	Viyushti Patel
Total Kjeldahl Nitrogen in Water	SKAL	9376000	2024/05/06	2024/05/08	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9373999	2024/05/04	2024/05/08	Madhav Somani
Turbidity	AT	9373651	N/A	2024/05/04	Kien Tran

Bureau Veritas ID: ZBL990 Dup
Sample ID: MW20-BR-21
Matrix: Water

Collected: 2024/05/01
Shipped:
Received: 2024/05/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9382495	N/A	2024/05/09	Brent Boudreau
Conductivity	AT	9374966	N/A	2024/05/09	Gurparteek KAUR
Fluoride	ISE	9374970	2024/05/06	2024/05/09	Nachiketa Gohil
Dissolved Metals Analysis by ICP	ICP	9374990	2024/05/06	2024/05/09	Suban Kanapathippllai
pH	AT	9374969	2024/05/06	2024/05/09	Nachiketa Gohil

Bureau Veritas ID: ZBL991
Sample ID: MW20-OB-21
Matrix: Water

Collected: 2024/05/01
Shipped:
Received: 2024/05/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9382495	N/A	2024/05/09	Brent Boudreau

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4D2249
Report Date: 2024/05/13

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZBL991
Sample ID: MW20-OB-21
Matrix: Water

Collected: 2024/05/01
Shipped:
Received: 2024/05/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9374968	N/A	2024/05/09	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9372146	N/A	2024/05/09	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9373631	N/A	2024/05/08	Alina Dobreanu
Conductivity	AT	9374966	N/A	2024/05/09	Gurparteek KAUR
Fluoride	ISE	9374970	2024/05/06	2024/05/09	Nachiketa Gohil
Hardness (calculated as CaCO3)		9372141	N/A	2024/05/09	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9380088	2024/05/08	2024/05/08	Gagandeep Rai
Mercury (low level)	CV/AA	9380079	2024/05/08	2024/05/08	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9374990	2024/05/06	2024/05/09	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9381072	N/A	2024/05/09	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9381058	N/A	2024/05/08	Azita Fazaeli
Total Metals Analysis by ICP	ICP	9377048	2024/05/07	2024/05/07	Suban Kanapathippllai
Cyanide (Free)	SPEC	9384617	N/A	2024/05/09	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9387622	2024/05/08	2024/05/08	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9387145	2024/05/09	2024/05/09	Carlo Truong
Total Ammonia-N	LACH/NH4	9376276	N/A	2024/05/07	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9373612	N/A	2024/05/06	Samuel Law
pH	AT	9374969	2024/05/06	2024/05/09	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/05/03	Viyushti Patel
Sulphate by Automated Turbidimetry	SKAL	9373634	N/A	2024/05/08	Alina Dobreanu
Total Dissolved Solids	BAL	9375189	2024/05/06	2024/05/07	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/05/03	Viyushti Patel
Total Kjeldahl Nitrogen in Water	SKAL	9376000	2024/05/06	2024/05/07	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9377044	2024/05/07	2024/05/08	Razieh Tabesh
Turbidity	AT	9373651	N/A	2024/05/04	Kien Tran

Bureau Veritas ID: ZBL991 Dup
Sample ID: MW20-OB-21
Matrix: Water

Collected: 2024/05/01
Shipped:
Received: 2024/05/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	9375189	2024/05/06	2024/05/07	Razieh Tabesh

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.3°C

Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZBL990 [MW20-BR-21] : Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZBL991 [MW20-OB-21] : Acidity sample contained headspace.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4D2249
Report Date: 2024/05/13

QUALITY ASSURANCE REPORT

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9373612	Nitrate (N)	2024/05/06	86	80 - 120	90	80 - 120	<0.10	mg/L	NC	20		
9373612	Nitrite (N)	2024/05/06	101	80 - 120	96	80 - 120	<0.010	mg/L	NC	20		
9373631	Dissolved Chloride (Cl-)	2024/05/08	98	80 - 120	98	80 - 120	<1.0	mg/L	9.1	20		
9373634	Dissolved Sulphate (SO4)	2024/05/08	98	75 - 125	95	80 - 120	<1.0	mg/L	1.9	20		
9373651	Turbidity	2024/05/04			99	80 - 120	<0.1	NTU	5.5	20		
9373999	Total Suspended Solids	2024/05/08			98	80 - 120	<1	mg/L	18	20		
9374966	Conductivity	2024/05/09			100	85 - 115	<0.001	mS/cm	0	10		
9374968	Alkalinity (Total as CaCO3)	2024/05/09			100	85 - 115	<1.0	mg/L				
9374969	pH	2024/05/09			101	98 - 103			0.10	N/A		
9374970	Fluoride (F-)	2024/05/09	100	80 - 120	108	80 - 120	<0.10	mg/L	4.2	20		
9374990	Dissolved Sulphur (S)	2024/05/09	NC	80 - 120	97	80 - 120	<0.5	mg/L	0.36	20		
9375189	Total Dissolved Solids	2024/05/07			95	80 - 120	<10	mg/L	0	20		
9376000	Total Kjeldahl Nitrogen (TKN)	2024/05/07	99	80 - 120	103	80 - 120	<0.10	mg/L	NC	20	98	80 - 120
9376276	Total Ammonia-N	2024/05/07	94	75 - 125	97	80 - 120	<0.050	mg/L	NC	20		
9377044	Total Suspended Solids	2024/05/08			101	80 - 120	<1	mg/L	6.1	20		
9377048	Total Sulphur (S)	2024/05/07	NC	80 - 120	97	80 - 120	<0.5	mg/L				
9380079	Mercury (Hg)	2024/05/08	95	75 - 125	97	80 - 120	<0.01	ug/L	0.93	20		
9380088	Dissolved Mercury (Hg)	2024/05/08	97	75 - 125	93	80 - 120	<0.01	ug/L	NC	20		
9381058	. Aluminum (Al)	2024/05/08	NC	80 - 120	102	80 - 120	<0.0005	mg/L	0.23	20		
9381058	. Antimony (Sb)	2024/05/08	120	80 - 120	106	80 - 120	<0.0001	mg/L				
9381058	. Arsenic (As)	2024/05/08	112	80 - 120	100	80 - 120	<0.0001	mg/L				
9381058	. Barium (Ba)	2024/05/08	106	80 - 120	103	80 - 120	<0.0002	mg/L				
9381058	. Beryllium (Be)	2024/05/08	116	80 - 120	104	80 - 120	<0.00005	mg/L				
9381058	. Bismuth (Bi)	2024/05/08	99	80 - 120	100	80 - 120	<0.0001	mg/L				
9381058	. Boron (B)	2024/05/08	111	80 - 120	103	80 - 120	<0.001	mg/L				
9381058	. Cadmium (Cd)	2024/05/08	112	80 - 120	100	80 - 120	<0.000005	mg/L				
9381058	. Calcium (Ca)	2024/05/08	NC	80 - 120	101	80 - 120	<0.02	mg/L				
9381058	. Cesium (Cs)	2024/05/08	104	80 - 120	103	80 - 120	<0.00002	mg/L				
9381058	. Chromium (Cr)	2024/05/08	100	80 - 120	95	80 - 120	<0.0005	mg/L				
9381058	. Cobalt (Co)	2024/05/08	103	80 - 120	97	80 - 120	<0.00005	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9381058	. Copper (Cu)	2024/05/08	106	80 - 120	101	80 - 120	<0.0001	mg/L				
9381058	. Iron (Fe)	2024/05/08	104	80 - 120	100	80 - 120	<0.005	mg/L				
9381058	. Lead (Pb)	2024/05/08	101	80 - 120	100	80 - 120	<0.00005	mg/L				
9381058	. Lithium (Li)	2024/05/08	111	80 - 120	103	80 - 120	<0.0005	mg/L				
9381058	. Magnesium (Mg)	2024/05/08	NC	80 - 120	98	80 - 120	<0.005	mg/L				
9381058	. Manganese (Mn)	2024/05/08	103	80 - 120	98	80 - 120	<0.0002	mg/L				
9381058	. Molybdenum (Mo)	2024/05/08	112	80 - 120	101	80 - 120	<0.00005	mg/L				
9381058	. Nickel (Ni)	2024/05/08	100	80 - 120	97	80 - 120	<0.0001	mg/L				
9381058	. Phosphorus (P)	2024/05/08	119	80 - 120	105	80 - 120	<0.005	mg/L				
9381058	. Potassium (K)	2024/05/08	105	80 - 120	100	80 - 120	<0.02	mg/L				
9381058	. Rubidium (Rb)	2024/05/08	102	80 - 120	98	80 - 120	<0.00002	mg/L				
9381058	. Selenium (Se)	2024/05/08	115	80 - 120	101	80 - 120	<0.00005	mg/L				
9381058	. Silicon (Si)	2024/05/08	106	80 - 120	102	80 - 120	<0.005	mg/L				
9381058	. Silver (Ag)	2024/05/08	106	80 - 120	101	80 - 120	<0.00001	mg/L				
9381058	. Sodium (Na)	2024/05/08	NC	80 - 120	99	80 - 120	<0.01	mg/L				
9381058	. Strontium (Sr)	2024/05/08	NC	80 - 120	99	80 - 120	<0.0001	mg/L				
9381058	. Tellurium (Te)	2024/05/08	116	80 - 120	100	80 - 120	<0.0001	mg/L				
9381058	. Thallium (Tl)	2024/05/08	102	80 - 120	102	80 - 120	<0.000005	mg/L				
9381058	. Thorium (Th)	2024/05/08	96	80 - 120	102	80 - 120	<0.0002	mg/L				
9381058	. Tin (Sn)	2024/05/08	115	80 - 120	104	80 - 120	<0.0001	mg/L				
9381058	. Titanium (Ti)	2024/05/08	109	80 - 120	101	80 - 120	<0.0005	mg/L				
9381058	. Tungsten (W)	2024/05/08	112	80 - 120	105	80 - 120	<0.0001	mg/L				
9381058	. Uranium (U)	2024/05/08	102	80 - 120	99	80 - 120	<0.00001	mg/L				
9381058	. Vanadium (V)	2024/05/08	107	80 - 120	100	80 - 120	<0.00005	mg/L				
9381058	. Zinc (Zn)	2024/05/08	107	80 - 120	98	80 - 120	<0.0005	mg/L				
9381058	. Zirconium (Zr)	2024/05/08	116	80 - 120	105	80 - 120	<0.0001	mg/L				
9381072	Dissolved Aluminum (Al)	2024/05/09	102	80 - 120	99	80 - 120	<0.0005	mg/L	1.0	20		
9381072	Dissolved Antimony (Sb)	2024/05/09	111	80 - 120	104	80 - 120	<0.0001	mg/L	2.1	20		
9381072	Dissolved Arsenic (As)	2024/05/09	NC	80 - 120	101	80 - 120	<0.0001	mg/L	1.0	20		
9381072	Dissolved Barium (Ba)	2024/05/09	103	80 - 120	97	80 - 120	<0.0002	mg/L	0.58	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9381072	Dissolved Beryllium (Be)	2024/05/09	110	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9381072	Dissolved Bismuth (Bi)	2024/05/09	96	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9381072	Dissolved Boron (B)	2024/05/09	106	80 - 120	97	80 - 120	<0.001	mg/L	0.48	20		
9381072	Dissolved Cadmium (Cd)	2024/05/09	109	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
9381072	Dissolved Calcium (Ca)	2024/05/09	NC	80 - 120	98	80 - 120	<0.02	mg/L	0.025	20		
9381072	Dissolved Cesium (Cs)	2024/05/09	100	80 - 120	98	80 - 120	<0.00002	mg/L	NC	N/A		
9381072	Dissolved Chromium (Cr)	2024/05/09	102	80 - 120	99	80 - 120	<0.0005	mg/L	NC	20		
9381072	Dissolved Cobalt (Co)	2024/05/09	101	80 - 120	98	80 - 120	<0.00005	mg/L	3.6	20		
9381072	Dissolved Copper (Cu)	2024/05/09	102	80 - 120	99	80 - 120	<0.0001	mg/L	0.34	20		
9381072	Dissolved Iron (Fe)	2024/05/09	105	80 - 120	102	80 - 120	<0.005	mg/L	0.37	20		
9381072	Dissolved Lead (Pb)	2024/05/09	104	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9381072	Dissolved Lithium (Li)	2024/05/09	105	80 - 120	103	80 - 120	<0.0005	mg/L	NC	20		
9381072	Dissolved Magnesium (Mg)	2024/05/09	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.44	20		
9381072	Dissolved Manganese (Mn)	2024/05/09	103	80 - 120	99	80 - 120	<0.0002	mg/L	0.13	20		
9381072	Dissolved Molybdenum (Mo)	2024/05/09	107	80 - 120	100	80 - 120	<0.00005	mg/L	5.1	20		
9381072	Dissolved Nickel (Ni)	2024/05/09	101	80 - 120	100	80 - 120	<0.0001	mg/L	0.56	20		
9381072	Dissolved Phosphorus (P)	2024/05/09	114	80 - 120	98	80 - 120	<0.005	mg/L	NC	20		
9381072	Dissolved Potassium (K)	2024/05/09	107	80 - 120	101	80 - 120	<0.02	mg/L	0.60	20		
9381072	Dissolved Rubidium (Rb)	2024/05/09	100	80 - 120	99	80 - 120	<0.00002	mg/L	NC	N/A		
9381072	Dissolved Selenium (Se)	2024/05/09	114	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9381072	Dissolved Silicon (Si)	2024/05/09	99	80 - 120	95	80 - 120	<0.005	mg/L	0.24	20		
9381072	Dissolved Silver (Ag)	2024/05/09	106	80 - 120	102	80 - 120	<0.00001	mg/L	NC	20		
9381072	Dissolved Sodium (Na)	2024/05/09	103	80 - 120	99	80 - 120	<0.01	mg/L	4.0	20		
9381072	Dissolved Strontium (Sr)	2024/05/09	103	80 - 120	99	80 - 120	<0.0001	mg/L	2.0	20		
9381072	Dissolved Tellurium (Te)	2024/05/09	111	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9381072	Dissolved Thallium (Tl)	2024/05/09	108	80 - 120	103	80 - 120	<0.000005	mg/L	NC	20		
9381072	Dissolved Thorium (Th)	2024/05/09	95	80 - 120	101	80 - 120	<0.0002	mg/L				
9381072	Dissolved Tin (Sn)	2024/05/09	110	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9381072	Dissolved Titanium (Ti)	2024/05/09	100	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9381072	Dissolved Tungsten (W)	2024/05/09	112	80 - 120	104	80 - 120	<0.0001	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9381072	Dissolved Uranium (U)	2024/05/09	107	80 - 120	102	80 - 120	<0.00001	mg/L	0	20		
9381072	Dissolved Vanadium (V)	2024/05/09	105	80 - 120	100	80 - 120	<0.00005	mg/L	3.6	20		
9381072	Dissolved Zinc (Zn)	2024/05/09	110	80 - 120	100	80 - 120	<0.0005	mg/L	2.6	20		
9381072	Dissolved Zirconium (Zr)	2024/05/09	109	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9382495	Acidity	2024/05/09	95	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9384617	Free Cyanide (CN)	2024/05/09	93	80 - 120	100	80 - 120	<2.0	ug/L	NC	20		
9385193	Dissolved Chloride (Cl-)	2024/05/10	99	80 - 120	97	80 - 120	<1.0	mg/L	1.5	20		
9385228	Dissolved Sulphate (SO4)	2024/05/10	95	75 - 125	97	80 - 120	<1.0	mg/L	0.81	20		
9385365	Alkalinity (Total as CaCO3)	2024/05/12			99	85 - 115	<1.0	mg/L	1.4	20		
9385736	Dissolved Aluminum (Al)	2024/05/10	103	80 - 120	99	80 - 120	<0.0005	mg/L	2.5	20		
9385736	Dissolved Antimony (Sb)	2024/05/10	114	80 - 120	103	80 - 120	<0.0001	mg/L	2.2	20		
9385736	Dissolved Arsenic (As)	2024/05/10	112	80 - 120	101	80 - 120	<0.0001	mg/L	1.1	20		
9385736	Dissolved Barium (Ba)	2024/05/10	102	80 - 120	98	80 - 120	<0.0002	mg/L	0.73	20		
9385736	Dissolved Beryllium (Be)	2024/05/10	113	80 - 120	103	80 - 120	<0.00005	mg/L	NC	20		
9385736	Dissolved Bismuth (Bi)	2024/05/10	98	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9385736	Dissolved Boron (B)	2024/05/10	111	80 - 120	105	80 - 120	<0.001	mg/L	0.52	20		
9385736	Dissolved Cadmium (Cd)	2024/05/10	110	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
9385736	Dissolved Calcium (Ca)	2024/05/10	NC	80 - 120	101	80 - 120	<0.02	mg/L	0.77	20		
9385736	Dissolved Cesium (Cs)	2024/05/10	101	80 - 120	99	80 - 120	<0.00002	mg/L	NC	N/A		
9385736	Dissolved Chromium (Cr)	2024/05/10	103	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
9385736	Dissolved Cobalt (Co)	2024/05/10	100	80 - 120	97	80 - 120	<0.00005	mg/L	1.3	20		
9385736	Dissolved Copper (Cu)	2024/05/10	102	80 - 120	99	80 - 120	<0.0001	mg/L	0.57	20		
9385736	Dissolved Iron (Fe)	2024/05/10	105	80 - 120	101	80 - 120	<0.005	mg/L	0.68	20		
9385736	Dissolved Lead (Pb)	2024/05/10	104	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
9385736	Dissolved Lithium (Li)	2024/05/10	110	80 - 120	100	80 - 120	<0.0005	mg/L	2.0	20		
9385736	Dissolved Magnesium (Mg)	2024/05/10	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.66	20		
9385736	Dissolved Manganese (Mn)	2024/05/10	104	80 - 120	99	80 - 120	<0.0002	mg/L	1.2	20		
9385736	Dissolved Molybdenum (Mo)	2024/05/10	111	80 - 120	100	80 - 120	<0.00005	mg/L	1.2	20		
9385736	Dissolved Nickel (Ni)	2024/05/10	102	80 - 120	100	80 - 120	<0.0001	mg/L	3.9	20		
9385736	Dissolved Phosphorus (P)	2024/05/10	116	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9385736	Dissolved Potassium (K)	2024/05/10	108	80 - 120	101	80 - 120	<0.02	mg/L	0.92	20		
9385736	Dissolved Rubidium (Rb)	2024/05/10	101	80 - 120	97	80 - 120	<0.00002	mg/L	NC	N/A		
9385736	Dissolved Selenium (Se)	2024/05/10	115	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
9385736	Dissolved Silicon (Si)	2024/05/10	101	80 - 120	99	80 - 120	<0.005	mg/L	2.2	20		
9385736	Dissolved Silver (Ag)	2024/05/10	105	80 - 120	101	80 - 120	<0.00001	mg/L	NC	20		
9385736	Dissolved Sodium (Na)	2024/05/10	NC	80 - 120	101	80 - 120	<0.01	mg/L	0.53	20		
9385736	Dissolved Strontium (Sr)	2024/05/10	NC	80 - 120	98	80 - 120	<0.0001	mg/L	1.8	20		
9385736	Dissolved Tellurium (Te)	2024/05/10	113	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9385736	Dissolved Thallium (Tl)	2024/05/10	108	80 - 120	102	80 - 120	<0.000005	mg/L	NC	20		
9385736	Dissolved Thorium (Th)	2024/05/10	95	80 - 120	100	80 - 120	<0.0002	mg/L				
9385736	Dissolved Tin (Sn)	2024/05/10	112	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9385736	Dissolved Titanium (Ti)	2024/05/10	105	80 - 120	101	80 - 120	<0.0005	mg/L	NC	20		
9385736	Dissolved Tungsten (W)	2024/05/10	117	80 - 120	107	80 - 120	<0.0001	mg/L	0.077	20		
9385736	Dissolved Uranium (U)	2024/05/10	107	80 - 120	98	80 - 120	<0.00001	mg/L	2.7	20		
9385736	Dissolved Vanadium (V)	2024/05/10	107	80 - 120	99	80 - 120	<0.00005	mg/L	19	20		
9385736	Dissolved Zinc (Zn)	2024/05/10	107	80 - 120	99	80 - 120	<0.0005	mg/L	1.7	20		
9385736	Dissolved Zirconium (Zr)	2024/05/10	113	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9387145	Total Phosphorus (P)	2024/05/10	96	80 - 120	98	80 - 120	<0.0010	mg/L	2.3	20	91	80 - 120
9387622	Strong Acid Dissoc. Cyanide (CN)	2024/05/08	101	80 - 120	104	80 - 120	<0.00050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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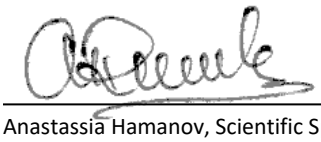
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4D2249
Report Date: 2024/05/13

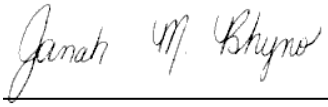
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

VALIDATION SIGNATURE PAGE

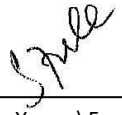
The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Janah Rhyno, Scientific Specialist



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 902973

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/05
Report #: R8178829
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4F9239
Received: 2024/05/28, 15:36

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	2	N/A	2024/06/03	ATL SOP-00205	SM 24 2310B m
Alkalinity	2	N/A	2024/05/29	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2024/05/29	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	1	N/A	2024/06/03		EPA 8260C m
Chloride by Automated Colourimetry	2	N/A	2024/06/03	CAM SOP-00463	SM 24 4500-Cl E m
Colour	2	N/A	2024/05/29	CAM SOP-00412	SM 24 2120C m
Conductivity	2	N/A	2024/05/29	CAM SOP-00414	SM 24 2510 m
Dissolved Organic Carbon (DOC) (3)	2	N/A	2024/05/29	CAM SOP-00446	SM 24 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2024/05/30	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	1	2024/05/29	2024/05/29	CAM SOP-00316	CCME PHC-CWS m
Fluoride	2	2024/05/28	2024/05/29	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2024/06/04	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	2	2024/06/04	2024/06/04	CAM SOP-00453	EPA 7470 m
Mercury (low level)	1	2024/05/30	2024/05/30	CAM SOP-00453	EPA 7470 m
Mercury (low level)	1	2024/06/03	2024/06/03	CAM SOP-00453	EPA 7470 m
Dissolved Metals by ICPMS (low level)	2	N/A	2024/06/04	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	2	N/A	2024/05/30	CAM SOP-00447	EPA 6020B m
Cyanide (Free) (2)	2	N/A	2024/05/31	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2024/06/04	2024/06/04	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	2	2024/06/03	2024/06/04	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	2	N/A	2024/06/04	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (5)	2	N/A	2024/05/29	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (6)	2	2024/05/28	2024/05/29	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (7)	2	N/A	2024/05/28		Field pH Meter
Sulphate by Automated Turbidimetry	2	N/A	2024/06/03	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	2	2024/05/29	2024/05/30	CAM SOP-00428	SM 24 2540C m
Field Temperature (7)	2	N/A	2024/05/28		Field Thermometer
Total Kjeldahl Nitrogen in Water	2	2024/05/29	2024/05/30	CAM SOP-00938	OMOE E3516 m
Total Organic Carbon (TOC) (8)	2	N/A	2024/05/30	CAM SOP-00446	SM 24 5310B m
Low Level Total Suspended Solids	2	2024/05/30	2024/06/04	CAM SOP-00428	SM 24 2540D m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 902973

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/05
Report #: R8178829
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4F9239
Received: 2024/05/28, 15:36

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Turbidity	2	N/A	2024/05/29	CAM SOP-00417	SM 24 2130 B
Un-ionized Ammonia (as N) (9)	2	2024/05/28	2024/06/04	Calculation	Calculation
Volatile Organic Compounds and F1 PHCs	1	N/A	2024/05/31	CAM SOP-00230	EPA 8260C m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(6) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(7) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.
(8) Total Organic Carbon (TOC) present in the sample should be considered as non-purgeable TOC.
(9) Un-ionized ammonia is calculated using the total ammonia result and field data provided by the client for pH and temperature.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C4F9239
Report Date: 2024/06/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZHA048		ZHA049			ZHA049		
Sampling Date		2024/05/25 14:23		2024/05/25 14:53			2024/05/25 14:53		
COC Number		902973		902973			902973		
	UNITS	MW23-OB-21	RDL	MW27-BR-23	RDL	QC Batch	MW27-BR-23 Lab-Dup	RDL	QC Batch
Calculated Parameters									
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	280	1.0	420	1.0	9418089			
Carb. Alkalinity (calc. as CaCO3)	mg/L	3.7	1.0	2.8	1.0	9418089			
Hardness (CaCO3)	mg/L	270	1.0	560	1.0	9418090			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	<1.0	1.0	9418089			
Field Measurements									
Field Temperature	Celsius	11.2	N/A	6.7	N/A	ONSITE			
Field Measured pH	pH	7.37		6.13		ONSITE			
Inorganics									
Acidity	mg/L	<5.0	5.0	45	5.0	9429374			
Total Ammonia-N	mg/L	0.12	0.050	0.065	0.050	9421349			
Colour	TCU	6	2	9	2	9422197			
Conductivity	mS/cm	0.538	0.001	1.21	0.001	9419498	1.22	0.001	9419498
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	<2.0 (1)	2.0	9427796			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	<0.00050	0.00050	9437077			
Total Dissolved Solids	mg/L	290	10	775	10	9420972			
Fluoride (F-)	mg/L	0.13	0.10	<0.10	0.10	9419496	<0.10	0.10	9419496
Total Kjeldahl Nitrogen (TKN)	mg/L	0.21	0.10	0.38	0.10	9420299			
Dissolved Organic Carbon	mg/L	4.1	0.40	31	0.40	9420288			
Total Organic Carbon (TOC)	mg/L	4.8	0.40	55	0.40	9420212			
pH	pH	8.14		7.85		9419494	7.86		9419494
Total Phosphorus (P)	mg/L	0.029	0.0010	0.039	0.0010	9433617			
Total Suspended Solids	mg/L	26	1	560	5	9424924			
Dissolved Sulphate (SO4)	mg/L	6.2	1.0	32	1.0	9419325			
Turbidity	NTU	5.0	0.1	8.6	0.1	9419223			
Alkalinity (Total as CaCO3)	mg/L	280	1.0	420	1.0	9419490	430	1.0	9419490
Dissolved Chloride (Cl-)	mg/L	3.6	1.0	120	1.0	9419317			
Nitrite (N)	mg/L	<0.010	0.010	<0.010	0.010	9419504	<0.010	0.010	9419504

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4F9239
Report Date: 2024/06/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZHA048		ZHA049			ZHA049		
Sampling Date		2024/05/25 14:23		2024/05/25 14:53			2024/05/25 14:53		
COC Number		902973		902973			902973		
	UNITS	**MW23-OB-21**	**RDL**	**MW27-BR-23**	**RDL**	**QC Batch**	**MW27-BR-23 Lab-Dup**	**RDL**	**QC Batch**
Nitrate (N)	mg/L	<0.10	0.10	<0.10	0.10	9419504	<0.10	0.10	9419504
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	<0.10	0.10	9419504	<0.10	0.10	9419504
Un-ionized Ammonia (as N)	mg/L	0.0006	0.0004	<0.0004	0.0004	9419072			

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QC Batch = Quality Control Batch
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Bureau Veritas Job #: C4F9239
Report Date: 2024/06/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHA048			ZHA048			ZHA049		
Sampling Date		2024/05/25 14:23			2024/05/25 14:23			2024/05/25 14:53		
COC Number		902973			902973			902973		
	UNITS	MW23-OB-21	RDL	QC Batch	MW23-OB-21 Lab-Dup	RDL	QC Batch	MW27-BR-23	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0192	0.0005	9433149	0.0201	0.0005	9433149	0.0422	0.0005	9433149
. Aluminum (Al)	mg/L	0.495	0.0005	9423740				0.0435	0.0025	9423740
Dissolved Antimony (Sb)	mg/L	0.0002	0.0001	9433149	0.0002	0.0001	9433149	0.0015	0.0001	9433149
. Antimony (Sb)	mg/L	0.0004	0.0001	9423740				0.0013	0.0005	9423740
Dissolved Arsenic (As)	mg/L	0.0016	0.0001	9433149	0.0016	0.0001	9433149	0.0143	0.0001	9433149
. Arsenic (As)	mg/L	0.0050	0.0001	9423740				0.0136	0.0005	9423740
Dissolved Barium (Ba)	mg/L	0.0281	0.0002	9433149	0.0282	0.0002	9433149	0.108	0.0002	9433149
. Barium (Ba)	mg/L	0.0407	0.0002	9423740				0.109	0.001	9423740
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9433149	<0.00005	0.00005	9433149	<0.00005	0.00005	9433149
. Beryllium (Be)	mg/L	0.00007	0.00005	9423740				<0.00025	0.00025	9423740
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9433149	<0.0001	0.0001	9433149	<0.0001	0.0001	9433149
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9423740				<0.0005	0.0005	9423740
Dissolved Boron (B)	mg/L	0.008	0.001	9433149	0.008	0.001	9433149	0.009	0.001	9433149
. Boron (B)	mg/L	0.011	0.001	9423740				0.011	0.005	9423740
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9433149	<0.00001	0.00001	9433149	0.00002	0.00001	9433149
. Cadmium (Cd)	mg/L	0.000019	0.000005	9423740				<0.000025	0.000025	9423740
Dissolved Calcium (Ca)	mg/L	81.0	0.1	9433149	83.1	0.1	9433149	173	0.1	9433149
. Calcium (Ca)	mg/L	86.2	0.1	9423740				183	0.1	9423740
Dissolved Cesium (Cs)	mg/L	0.00003	0.00002	9433149	0.00003	0.00002	9433149	0.00004	0.00002	9433149
. Cesium (Cs)	mg/L	0.00007	0.00002	9423740				<0.0001	0.0001	9423740
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9433149	<0.0005	0.0005	9433149	<0.0005	0.0005	9433149
. Chromium (Cr)	mg/L	0.0024	0.0005	9423740				<0.0025	0.0025	9423740
Dissolved Cobalt (Co)	mg/L	0.00060	0.00005	9433149	0.00059	0.00005	9433149	0.556	0.0005	9433149
. Cobalt (Co)	mg/L	0.00129	0.00005	9423740				0.515	0.00025	9423740
Dissolved Copper (Cu)	mg/L	0.0004	0.0001	9433149	0.0004	0.0001	9433149	0.0057	0.0001	9433149
. Copper (Cu)	mg/L	0.0029	0.0001	9423740				0.0117	0.0005	9423740
Dissolved Iron (Fe)	mg/L	0.906	0.005	9433149	0.908	0.005	9433149	0.890	0.005	9433149
. Iron (Fe)	mg/L	6.80	0.005	9423740				1.41	0.025	9423740
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9433149	<0.00005	0.00005	9433149	0.00033	0.00005	9433149
. Lead (Pb)	mg/L	0.00092	0.00005	9423740				0.00043	0.00025	9423740

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHA048			ZHA048			ZHA049		
Sampling Date		2024/05/25 14:23			2024/05/25 14:23			2024/05/25 14:53		
COC Number		902973			902973			902973		
	UNITS	MW23-OB-21	RDL	QC Batch	MW23-OB-21 Lab-Dup	RDL	QC Batch	MW27-BR-23	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0020	0.0005	9433149	0.0020	0.0005	9433149	0.0051	0.0005	9433149
. Lithium (Li)	mg/L	0.0027	0.0005	9423740				0.0051	0.0025	9423740
Dissolved Magnesium (Mg)	mg/L	17.6	0.005	9433149	17.5	0.005	9433149	31.5	0.005	9433149
. Magnesium (Mg)	mg/L	17.5	0.005	9423740				29.8	0.025	9423740
Dissolved Manganese (Mn)	mg/L	0.484	0.0002	9433149	0.482	0.0002	9433149	20.1	0.01	9433149
. Manganese (Mn)	mg/L	0.522	0.0002	9423740				19.9	0.01	9423740
Mercury (Hg)	ug/L	<0.01	0.01	9429696	<0.01	0.01	9429696	<0.01	0.01	9423399
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9432195				<0.01	0.01	9432195
Dissolved Molybdenum (Mo)	mg/L	0.00087	0.00005	9433149	0.00085	0.00005	9433149	0.0335	0.00005	9433149
. Molybdenum (Mo)	mg/L	0.00101	0.00005	9423740				0.0291	0.00025	9423740
Dissolved Nickel (Ni)	mg/L	0.0010	0.0001	9433149	0.0010	0.0001	9433149	0.147	0.0005	9433149
. Nickel (Ni)	mg/L	0.0035	0.0001	9423740				0.137	0.0005	9423740
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9433149	<0.005	0.005	9433149	0.023	0.005	9433149
. Phosphorus (P)	mg/L	0.078	0.005	9423740				0.031	0.025	9423740
Dissolved Potassium (K)	mg/L	0.74	0.02	9433149	0.74	0.02	9433149	1.96	0.02	9433149
. Potassium (K)	mg/L	0.89	0.02	9423740				1.8	0.1	9423740
Dissolved Rubidium (Rb)	mg/L	0.00119	0.00002	9433149	0.00118	0.00002	9433149	0.00121	0.00002	9433149
. Rubidium (Rb)	mg/L	0.00169	0.00002	9423740				0.0011	0.0001	9423740
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9433149	<0.0002	0.0002	9433149	<0.0002	0.0002	9433149
. Selenium (Se)	mg/L	0.00008	0.00005	9423740				<0.00025	0.00025	9423740
Dissolved Silicon (Si)	mg/L	5.36	0.025	9433149	5.39	0.025	9433149	5.03	0.025	9433149
. Silicon (Si)	mg/L	6.72	0.025	9423740				5.45	0.025	9423740
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9433149	<0.00001	0.00001	9433149	0.00002	0.00001	9433149
. Silver (Ag)	mg/L	<0.00001	0.00001	9423740				<0.00005	0.00005	9423740
Dissolved Sodium (Na)	mg/L	5.97	0.01	9433149	5.96	0.01	9433149	9.89	0.01	9433149
. Sodium (Na)	mg/L	8.07	0.01	9423740				9.36	0.05	9423740
Dissolved Strontium (Sr)	mg/L	0.173	0.0001	9433149	0.173	0.0001	9433149	0.347	0.0001	9433149
. Strontium (Sr)	mg/L	0.185	0.0001	9423740				0.328	0.0005	9423740
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9433149	<0.0001	0.0001	9433149	<0.0001	0.0001	9433149
. Tellurium (Te)	mg/L	<0.0001	0.0001	9423740				<0.0005	0.0005	9423740
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9433149	<0.000005	0.000005	9433149	<0.000005	0.000005	9433149

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Bureau Veritas Job #: C4F9239
Report Date: 2024/06/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHA048			ZHA048			ZHA049		
Sampling Date		2024/05/25 14:23			2024/05/25 14:23			2024/05/25 14:53		
COC Number		902973			902973			902973		
	UNITS	MW23-OB-21	RDL	QC Batch	MW23-OB-21 Lab-Dup	RDL	QC Batch	MW27-BR-23	RDL	QC Batch
. Thallium (Tl)	mg/L	0.000020	0.000005	9423740				<0.000025	0.000025	9423740
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9433149	<0.0001	0.0001	9433149	0.0003	0.0001	9433149
. Tin (Sn)	mg/L	0.0003	0.0001	9423740				<0.0005	0.0005	9423740
Dissolved Titanium (Ti)	mg/L	0.0010	0.0005	9433149	0.0009	0.0005	9433149	0.0019	0.0005	9433149
. Titanium (Ti)	mg/L	0.0098	0.0005	9423740				<0.0025	0.0025	9423740
Dissolved Tungsten (W)	mg/L	0.0009	0.0001	9433149	0.0008	0.0001	9433149	0.109	0.0005	9433149
. Tungsten (W)	mg/L	0.0025	0.0001	9423740				0.107	0.0005	9423740
Dissolved Uranium (U)	mg/L	0.00065	0.00001	9433149	0.00063	0.00001	9433149	0.00541	0.00001	9433149
. Uranium (U)	mg/L	0.00069	0.00001	9423740				0.00487	0.00005	9423740
Dissolved Vanadium (V)	mg/L	0.00017	0.00005	9433149	0.00017	0.00005	9433149	0.00088	0.00005	9433149
. Vanadium (V)	mg/L	0.00161	0.00005	9423740				0.00093	0.00025	9423740
Dissolved Zinc (Zn)	mg/L	0.0160	0.0005	9433149	0.0160	0.0005	9433149	0.0323	0.0005	9433149
. Zinc (Zn)	mg/L	0.563	0.0005	9423740				0.0323	0.0025	9423740
Dissolved Zirconium (Zr)	mg/L	0.0006	0.0001	9433149	0.0006	0.0001	9433149	0.0011	0.0001	9433149
. Zirconium (Zr)	mg/L	0.0015	0.0001	9423740				0.0010	0.0005	9423740

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VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		ZHA048		
Sampling Date		2024/05/25 14:23		
COC Number		902973		
	UNITS	MW23-OB-21	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	9418438
Volatile Organics				
Acetone (2-Propanone)	ug/L	<10	10	9422925
Benzene	ug/L	<0.17	0.17	9422925
Bromodichloromethane	ug/L	<0.50	0.50	9422925
Bromoform	ug/L	<1.0	1.0	9422925
Bromomethane	ug/L	<0.50	0.50	9422925
Carbon Tetrachloride	ug/L	<0.20	0.20	9422925
Chlorobenzene	ug/L	<0.20	0.20	9422925
Chloroform	ug/L	<0.20	0.20	9422925
Dibromochloromethane	ug/L	<0.50	0.50	9422925
1,2-Dichlorobenzene	ug/L	<0.50	0.50	9422925
1,3-Dichlorobenzene	ug/L	<0.50	0.50	9422925
1,4-Dichlorobenzene	ug/L	<0.50	0.50	9422925
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	9422925
1,1-Dichloroethane	ug/L	<0.20	0.20	9422925
1,2-Dichloroethane	ug/L	<0.50	0.50	9422925
1,1-Dichloroethylene	ug/L	<0.20	0.20	9422925
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	9422925
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	9422925
1,2-Dichloropropane	ug/L	<0.20	0.20	9422925
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	9422925
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	9422925
Ethylbenzene	ug/L	<0.20	0.20	9422925
Ethylene Dibromide	ug/L	<0.20	0.20	9422925
Hexane	ug/L	<1.0	1.0	9422925
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	9422925
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	9422925
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	9422925
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	9422925
Styrene	ug/L	<0.50	0.50	9422925

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VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		ZHA048		
Sampling Date		2024/05/25 14:23		
COC Number		902973		
	UNITS	MW23-OB-21	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	9422925
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	9422925
Tetrachloroethylene	ug/L	<0.20	0.20	9422925
Toluene	ug/L	<0.20	0.20	9422925
1,1,1-Trichloroethane	ug/L	<0.20	0.20	9422925
1,1,2-Trichloroethane	ug/L	<0.50	0.50	9422925
Trichloroethylene	ug/L	<0.20	0.20	9422925
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	9422925
Vinyl Chloride	ug/L	<0.20	0.20	9422925
p+m-Xylene	ug/L	<0.20	0.20	9422925
o-Xylene	ug/L	<0.20	0.20	9422925
Total Xylenes	ug/L	<0.20	0.20	9422925
F1 (C6-C10)	ug/L	<25	25	9422925
F1 (C6-C10) - BTEX	ug/L	<25	25	9422925
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	87		9422925
D4-1,2-Dichloroethane	%	115		9422925
D8-Toluene	%	91		9422925

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		ZHA048			ZHA049		
Sampling Date		2024/05/25 14:23			2024/05/25 14:53		
COC Number		902973			902973		
	UNITS	MW23-OB-21	RDL	QC Batch	MW27-BR-23	RDL	QC Batch
BTEX & F1 Hydrocarbons							
Benzene	ug/L				<0.20	0.20	9421816
Toluene	ug/L				<0.20	0.20	9421816
Ethylbenzene	ug/L				<0.20	0.20	9421816
o-Xylene	ug/L				<0.20	0.20	9421816
p+m-Xylene	ug/L				<0.40	0.40	9421816
Total Xylenes	ug/L				<0.40	0.40	9421816
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	9419909			
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	9419909			
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	9419909			
Reached Baseline at C50	ug/L	Yes		9419909			
Surrogate Recovery (%)							
1,4-Difluorobenzene	%				99		9421816
4-Bromofluorobenzene	%				92		9421816
D10-o-Xylene	%				91		9421816
D4-1,2-Dichloroethane	%				103		9421816
o-Terphenyl	%	105		9419909			

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QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4F9239
Report Date: 2024/06/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: ZHA048
Sample ID: MW23-OB-21
Matrix: Water

Collected: 2024/05/25
Shipped:
Received: 2024/05/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9429374	N/A	2024/06/03	Brent Boudreau
Alkalinity	AT	9419490	N/A	2024/05/29	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9418089	N/A	2024/05/29	Automated Statchk
1,3-Dichloropropene Sum	CALC	9418438	N/A	2024/06/03	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9419317	N/A	2024/06/03	Alina Dobreanu
Colour	SPEC	9422197	N/A	2024/05/29	Gyulshen Idriz
Conductivity	AT	9419498	N/A	2024/05/29	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9420288	N/A	2024/05/29	Gyulshen Idriz
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9419909	2024/05/29	2024/05/29	Ksenia Trofimova
Fluoride	ISE	9419496	2024/05/28	2024/05/29	Nachiketa Gohil
Hardness (calculated as CaCO3)		9418090	N/A	2024/06/04	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9432195	2024/06/04	2024/06/04	Jaswinder Kaur
Mercury (low level)	CV/AA	9429696	2024/06/03	2024/06/03	Gagandeep Rai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9433149	N/A	2024/06/04	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9423740	N/A	2024/05/30	Nan Raykha
Cyanide (Free)	SPEC	9427796	N/A	2024/05/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9437077	2024/06/04	2024/06/04	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9433617	2024/06/03	2024/06/04	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9421349	N/A	2024/06/04	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9419504	N/A	2024/05/29	Jinal Chavda
pH	AT	9419494	2024/05/28	2024/05/29	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/05/28	Sugar Ray Salvan
Sulphate by Automated Turbidimetry	SKAL	9419325	N/A	2024/06/03	Alina Dobreanu
Total Dissolved Solids	BAL	9420972	2024/05/29	2024/05/30	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2024/05/28	Sugar Ray Salvan
Total Kjeldahl Nitrogen in Water	SKAL	9420299	2024/05/29	2024/05/30	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	9420212	N/A	2024/05/30	Gyulshen Idriz
Low Level Total Suspended Solids	BAL	9424924	2024/05/30	2024/06/04	Tina Teng
Turbidity	AT	9419223	N/A	2024/05/29	Kien Tran
Un-ionized Ammonia (as N)	CALC	9419072	2024/06/04	2024/06/04	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9422925	N/A	2024/05/31	Xueming Jiang

Bureau Veritas ID: ZHA048 Dup
Sample ID: MW23-OB-21
Matrix: Water

Collected: 2024/05/25
Shipped:
Received: 2024/05/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (low level)	CV/AA	9429696	2024/06/03	2024/06/03	Gagandeep Rai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9433149	N/A	2024/06/04	Prempal Bhatti

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Bureau Veritas Job #: C4F9239
Report Date: 2024/06/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: ZHA049
Sample ID: MW27-BR-23
Matrix: Water

Collected: 2024/05/25
Shipped:
Received: 2024/05/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9429374	N/A	2024/06/03	Brent Boudreau
Alkalinity	AT	9419490	N/A	2024/05/29	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9418089	N/A	2024/05/29	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9419317	N/A	2024/06/03	Alina Dobreanu
Colour	SPEC	9422197	N/A	2024/05/29	Gyulshen Idriz
Conductivity	AT	9419498	N/A	2024/05/29	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9420288	N/A	2024/05/29	Gyulshen Idriz
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9421816	N/A	2024/05/30	Georgeta Rusu
Fluoride	ISE	9419496	2024/05/28	2024/05/29	Nachiketa Gohil
Hardness (calculated as CaCO3)		9418090	N/A	2024/06/04	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9432195	2024/06/04	2024/06/04	Jaswinder Kaur
Mercury (low level)	CV/AA	9423399	2024/05/30	2024/05/30	Thuy Linh Nguyen
Dissolved Metals by ICPMS (low level)	ICP1/MS	9433149	N/A	2024/06/04	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9423740	N/A	2024/05/30	Nan Raykha
Cyanide (Free)	SPEC	9427796	N/A	2024/05/31	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9437077	2024/06/04	2024/06/04	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9433617	2024/06/03	2024/06/04	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9421349	N/A	2024/06/04	Massarat Jan
Nitrate & Nitrite as Nitrogen in Water	LACH	9419504	N/A	2024/05/29	Jinal Chavda
pH	AT	9419494	2024/05/28	2024/05/29	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/05/28	Sugar Ray Salvan
Sulphate by Automated Turbidimetry	SKAL	9419325	N/A	2024/06/03	Alina Dobreanu
Total Dissolved Solids	BAL	9420972	2024/05/29	2024/05/30	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2024/05/28	Sugar Ray Salvan
Total Kjeldahl Nitrogen in Water	SKAL	9420299	2024/05/29	2024/05/30	Rajni Tyagi
Total Organic Carbon (TOC)	TOCV/NDIR	9420212	N/A	2024/05/30	Gyulshen Idriz
Low Level Total Suspended Solids	BAL	9424924	2024/05/30	2024/06/04	Tina Teng
Turbidity	AT	9419223	N/A	2024/05/29	Kien Tran
Un-ionized Ammonia (as N)	CALC	9419072	2024/06/04	2024/06/04	Automated Statchk

Bureau Veritas ID: ZHA049 Dup
Sample ID: MW27-BR-23
Matrix: Water

Collected: 2024/05/25
Shipped:
Received: 2024/05/28

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9419490	N/A	2024/05/29	Nachiketa Gohil
Conductivity	AT	9419498	N/A	2024/05/29	Nachiketa Gohil
Fluoride	ISE	9419496	2024/05/28	2024/05/29	Nachiketa Gohil
Nitrate & Nitrite as Nitrogen in Water	LACH	9419504	N/A	2024/05/29	Jinal Chavda
pH	AT	9419494	2024/05/28	2024/05/29	Nachiketa Gohil

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.0°C

Sample ZHA048 [MW23-OB-21] : Acidity sample contained headspace.

Sample ZHA049 [MW27-BR-23] : Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Acidity sample contained headspace.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9419909	o-Terphenyl	2024/05/29	104	60 - 130	106	60 - 130	100	%				
9421816	1,4-Difluorobenzene	2024/05/30	93	70 - 130	95	70 - 130	100	%				
9421816	4-Bromofluorobenzene	2024/05/30	97	70 - 130	92	70 - 130	91	%				
9421816	D10-o-Xylene	2024/05/30	93	70 - 130	90	70 - 130	93	%				
9421816	D4-1,2-Dichloroethane	2024/05/30	91	70 - 130	92	70 - 130	97	%				
9422925	4-Bromofluorobenzene	2024/05/31	94	70 - 130	96	70 - 130	87	%				
9422925	D4-1,2-Dichloroethane	2024/05/31	109	70 - 130	106	70 - 130	112	%				
9422925	D8-Toluene	2024/05/31	103	70 - 130	104	70 - 130	92	%				
9419223	Turbidity	2024/05/29			100	80 - 120	<0.1	NTU	6.2	20		
9419317	Dissolved Chloride (Cl-)	2024/06/03	NC	80 - 120	98	80 - 120	<1.0	mg/L	0.89	20		
9419325	Dissolved Sulphate (SO4)	2024/06/03	93	75 - 125	90	80 - 120	<1.0	mg/L	0	20		
9419490	Alkalinity (Total as CaCO3)	2024/05/29			99	85 - 115	<1.0	mg/L	1.1	20		
9419494	pH	2024/05/29			102	98 - 103			0.10	N/A		
9419496	Fluoride (F-)	2024/05/29	95	80 - 120	104	80 - 120	<0.10	mg/L	NC	20		
9419498	Conductivity	2024/05/29			103	85 - 115	<0.001	mS/cm	0.26	10		
9419504	Nitrate (N)	2024/05/29	97	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
9419504	Nitrite (N)	2024/05/29	99	80 - 120	101	80 - 120	<0.010	mg/L	NC	20		
9419909	F2 (C10-C16 Hydrocarbons)	2024/05/29	106	60 - 140	107	60 - 140	<100	ug/L	NC	30		
9419909	F3 (C16-C34 Hydrocarbons)	2024/05/29	109	60 - 140	115	60 - 140	<200	ug/L	NC	30		
9419909	F4 (C34-C50 Hydrocarbons)	2024/05/29	98	60 - 140	105	60 - 140	<200	ug/L	NC	30		
9420212	Total Organic Carbon (TOC)	2024/05/30	91	80 - 120	93	80 - 120	<0.40	mg/L	0.46	20		
9420288	Dissolved Organic Carbon	2024/05/29	94	80 - 120	96	80 - 120	<0.40	mg/L	2.3	20		
9420299	Total Kjeldahl Nitrogen (TKN)	2024/05/30	98	80 - 120	99	80 - 120	<0.10	mg/L	12	20	99	80 - 120
9420972	Total Dissolved Solids	2024/05/30			102	80 - 120	<10	mg/L	3.4	20		
9421349	Total Ammonia-N	2024/06/04	101	75 - 125	102	80 - 120	<0.050	mg/L	NC	20		
9421816	Benzene	2024/05/30	76	50 - 140	78	50 - 140	<0.20	ug/L	NC	30		
9421816	Ethylbenzene	2024/05/30	89	50 - 140	87	50 - 140	<0.20	ug/L	NC	30		
9421816	o-Xylene	2024/05/30	84	50 - 140	84	50 - 140	<0.20	ug/L	0.37	30		
9421816	p+m-Xylene	2024/05/30	84	50 - 140	84	50 - 140	<0.40	ug/L	1.9	30		
9421816	Toluene	2024/05/30	78	50 - 140	81	50 - 140	<0.20	ug/L	NC	30		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9421816	Total Xylenes	2024/05/30					<0.40	ug/L	0	30		
9422197	Colour	2024/05/29			100	80 - 120	<2	TCU	NC	25		
9422925	1,1,1,2-Tetrachloroethane	2024/05/31	101	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
9422925	1,1,1-Trichloroethane	2024/05/31	100	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
9422925	1,1,2,2-Tetrachloroethane	2024/05/31	116	70 - 130	108	70 - 130	<0.50	ug/L	NC	30		
9422925	1,1,2-Trichloroethane	2024/05/31	108	70 - 130	103	70 - 130	<0.50	ug/L	NC	30		
9422925	1,1-Dichloroethane	2024/05/31	108	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
9422925	1,1-Dichloroethylene	2024/05/31	103	70 - 130	108	70 - 130	<0.20	ug/L	NC	30		
9422925	1,2-Dichlorobenzene	2024/05/31	94	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
9422925	1,2-Dichloroethane	2024/05/31	102	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
9422925	1,2-Dichloropropane	2024/05/31	103	70 - 130	103	70 - 130	<0.20	ug/L	NC	30		
9422925	1,3-Dichlorobenzene	2024/05/31	97	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
9422925	1,4-Dichlorobenzene	2024/05/31	106	70 - 130	109	70 - 130	<0.50	ug/L	NC	30		
9422925	Acetone (2-Propanone)	2024/05/31	113	60 - 140	104	60 - 140	<10	ug/L	NC	30		
9422925	Benzene	2024/05/31	93	70 - 130	96	70 - 130	<0.17	ug/L	NC	30		
9422925	Bromodichloromethane	2024/05/31	110	70 - 130	108	70 - 130	<0.50	ug/L	NC	30		
9422925	Bromoform	2024/05/31	97	70 - 130	90	70 - 130	<1.0	ug/L	NC	30		
9422925	Bromomethane	2024/05/31	106	60 - 140	108	60 - 140	<0.50	ug/L	NC	30		
9422925	Carbon Tetrachloride	2024/05/31	96	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
9422925	Chlorobenzene	2024/05/31	98	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
9422925	Chloroform	2024/05/31	107	70 - 130	95	70 - 130	<0.20	ug/L	NC	30		
9422925	cis-1,2-Dichloroethylene	2024/05/31	103	70 - 130	105	70 - 130	<0.50	ug/L	NC	30		
9422925	cis-1,3-Dichloropropene	2024/05/31	100	70 - 130	99	70 - 130	<0.30	ug/L	NC	30		
9422925	Dibromochloromethane	2024/05/31	99	70 - 130	95	70 - 130	<0.50	ug/L	NC	30		
9422925	Dichlorodifluoromethane (FREON 12)	2024/05/31	100	60 - 140	107	60 - 140	<1.0	ug/L	NC	30		
9422925	Ethylbenzene	2024/05/31	82	70 - 130	86	70 - 130	<0.20	ug/L	NC	30		
9422925	Ethylene Dibromide	2024/05/31	105	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
9422925	F1 (C6-C10) - BTEX	2024/05/31					<25	ug/L	NC	30		
9422925	F1 (C6-C10)	2024/05/31	88	60 - 140	101	60 - 140	<25	ug/L	NC	30		
9422925	Hexane	2024/05/31	94	70 - 130	102	70 - 130	<1.0	ug/L	NC	30		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9422925	Methyl Ethyl Ketone (2-Butanone)	2024/05/31	115	60 - 140	107	60 - 140	<10	ug/L	NC	30		
9422925	Methyl Isobutyl Ketone	2024/05/31	102	70 - 130	97	70 - 130	<5.0	ug/L	NC	30		
9422925	Methyl t-butyl ether (MTBE)	2024/05/31	100	70 - 130	97	70 - 130	<0.50	ug/L	NC	30		
9422925	Methylene Chloride(Dichloromethane)	2024/05/31	109	70 - 130	107	70 - 130	<2.0	ug/L	NC	30		
9422925	o-Xylene	2024/05/31	75	70 - 130	80	70 - 130	<0.20	ug/L	NC	30		
9422925	p+m-Xylene	2024/05/31	84	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
9422925	Styrene	2024/05/31	89	70 - 130	94	70 - 130	<0.50	ug/L	NC	30		
9422925	Tetrachloroethylene	2024/05/31	92	70 - 130	94	70 - 130	<0.20	ug/L	NC	30		
9422925	Toluene	2024/05/31	89	70 - 130	92	70 - 130	<0.20	ug/L	NC	30		
9422925	Total Xylenes	2024/05/31					<0.20	ug/L	NC	30		
9422925	trans-1,2-Dichloroethylene	2024/05/31	98	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
9422925	trans-1,3-Dichloropropene	2024/05/31	107	70 - 130	104	70 - 130	<0.40	ug/L	NC	30		
9422925	Trichloroethylene	2024/05/31	95	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
9422925	Trichlorofluoromethane (FREON 11)	2024/05/31	98	70 - 130	101	70 - 130	<0.50	ug/L	NC	30		
9422925	Vinyl Chloride	2024/05/31	101	70 - 130	107	70 - 130	<0.20	ug/L	NC	30		
9423399	Mercury (Hg)	2024/05/30	95	75 - 125	96	80 - 120	<0.01	ug/L	NC	20		
9423740	. Aluminum (Al)	2024/05/30	103	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
9423740	. Antimony (Sb)	2024/05/30	111	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9423740	. Arsenic (As)	2024/05/30	107	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9423740	. Barium (Ba)	2024/05/30	104	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9423740	. Beryllium (Be)	2024/05/30	111	80 - 120	102	80 - 120	<0.00005	mg/L	NC	20		
9423740	. Bismuth (Bi)	2024/05/30	37 (1)	80 - 120	94	80 - 120	<0.0001	mg/L	NC	20		
9423740	. Boron (B)	2024/05/30	101	80 - 120	97	80 - 120	<0.001	mg/L	NC	20		
9423740	. Cadmium (Cd)	2024/05/30	108	80 - 120	96	80 - 120	<0.000005	mg/L	NC	20		
9423740	. Calcium (Ca)	2024/05/30	107	80 - 120	99	80 - 120	<0.02	mg/L	NC	20		
9423740	. Cesium (Cs)	2024/05/30	103	80 - 120	99	80 - 120	<0.00002	mg/L	NC	20		
9423740	. Chromium (Cr)	2024/05/30	100	80 - 120	92	80 - 120	<0.0005	mg/L	NC	20		
9423740	. Cobalt (Co)	2024/05/30	99	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9423740	. Copper (Cu)	2024/05/30	110	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9423740	. Iron (Fe)	2024/05/30	101	80 - 120	97	80 - 120	<0.005	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9423740	. Lead (Pb)	2024/05/30	98	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
9423740	. Lithium (Li)	2024/05/30	109	80 - 120	101	80 - 120	<0.0005	mg/L	NC	20		
9423740	. Magnesium (Mg)	2024/05/30	103	80 - 120	98	80 - 120	<0.005	mg/L	NC	20		
9423740	. Manganese (Mn)	2024/05/30	99	80 - 120	95	80 - 120	<0.0002	mg/L	NC	20		
9423740	. Molybdenum (Mo)	2024/05/30	103	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9423740	. Nickel (Ni)	2024/05/30	97	80 - 120	93	80 - 120	<0.0001	mg/L	NC	20		
9423740	. Phosphorus (P)	2024/05/30	115	80 - 120	101	80 - 120	<0.005	mg/L	NC	20		
9423740	. Potassium (K)	2024/05/30	108	80 - 120	101	80 - 120	<0.02	mg/L	NC	20		
9423740	. Rubidium (Rb)	2024/05/30	99	80 - 120	97	80 - 120	<0.00002	mg/L	NC	20		
9423740	. Selenium (Se)	2024/05/30	112	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9423740	. Silicon (Si)	2024/05/30	105	80 - 120	98	80 - 120	<0.005	mg/L	NC	20		
9423740	. Silver (Ag)	2024/05/30	100	80 - 120	95	80 - 120	<0.00001	mg/L	NC	20		
9423740	. Sodium (Na)	2024/05/30	102	80 - 120	99	80 - 120	<0.01	mg/L	NC	20		
9423740	. Strontium (Sr)	2024/05/30	99	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9423740	. Tellurium (Te)	2024/05/30	115	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9423740	. Thallium (Tl)	2024/05/30	102	80 - 120	97	80 - 120	<0.000005	mg/L	NC	20		
9423740	. Tin (Sn)	2024/05/30	105	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9423740	. Titanium (Ti)	2024/05/30	103	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9423740	. Tungsten (W)	2024/05/30	97	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9423740	. Uranium (U)	2024/05/30	99	80 - 120	95	80 - 120	<0.00001	mg/L	NC	20		
9423740	. Vanadium (V)	2024/05/30	99	80 - 120	94	80 - 120	<0.00005	mg/L	NC	20		
9423740	. Zinc (Zn)	2024/05/30	111	80 - 120	94	80 - 120	<0.0005	mg/L	NC	20		
9423740	. Zirconium (Zr)	2024/05/30	110	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9424924	Total Suspended Solids	2024/06/04			95	80 - 120	<1	mg/L	NC	20		
9427796	Free Cyanide (CN)	2024/05/31	91	80 - 120	96	80 - 120	<2.0	ug/L				
9429374	Acidity	2024/06/03	94	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9429696	Mercury (Hg)	2024/06/03	94	75 - 125	92	80 - 120	<0.01	ug/L	NC	20		
9432195	Dissolved Mercury (Hg)	2024/06/04	92	75 - 125	91	80 - 120	<0.01	ug/L	NC	20		
9433149	Dissolved Aluminum (Al)	2024/06/04	97	80 - 120	98	80 - 120	<0.0005	mg/L	4.5	20		
9433149	Dissolved Antimony (Sb)	2024/06/04	108	80 - 120	102	80 - 120	<0.0001	mg/L	1.2	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9433149	Dissolved Arsenic (As)	2024/06/04	105	80 - 120	98	80 - 120	<0.0001	mg/L	1.0	20		
9433149	Dissolved Barium (Ba)	2024/06/04	97	80 - 120	95	80 - 120	<0.0002	mg/L	0.39	20		
9433149	Dissolved Beryllium (Be)	2024/06/04	100	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9433149	Dissolved Bismuth (Bi)	2024/06/04	93	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9433149	Dissolved Boron (B)	2024/06/04	96	80 - 120	95	80 - 120	<0.001	mg/L	0.36	20		
9433149	Dissolved Cadmium (Cd)	2024/06/04	104	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9433149	Dissolved Calcium (Ca)	2024/06/04	NC	80 - 120	103	80 - 120	<0.02	mg/L	2.5	20		
9433149	Dissolved Cesium (Cs)	2024/06/04	96	80 - 120	96	80 - 120	<0.00002	mg/L	NC	N/A		
9433149	Dissolved Chromium (Cr)	2024/06/04	102	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9433149	Dissolved Cobalt (Co)	2024/06/04	100	80 - 120	98	80 - 120	<0.00005	mg/L	1.2	20		
9433149	Dissolved Copper (Cu)	2024/06/04	100	80 - 120	99	80 - 120	<0.0001	mg/L	0.77	20		
9433149	Dissolved Iron (Fe)	2024/06/04	104	80 - 120	101	80 - 120	<0.005	mg/L	0.18	20		
9433149	Dissolved Lead (Pb)	2024/06/04	97	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9433149	Dissolved Lithium (Li)	2024/06/04	104	80 - 120	102	80 - 120	<0.0005	mg/L	0.70	20		
9433149	Dissolved Magnesium (Mg)	2024/06/04	NC	80 - 120	99	80 - 120	<0.005	mg/L	0.25	20		
9433149	Dissolved Manganese (Mn)	2024/06/04	NC	80 - 120	97	80 - 120	<0.0002	mg/L	0.39	20		
9433149	Dissolved Molybdenum (Mo)	2024/06/04	110	80 - 120	101	80 - 120	<0.00005	mg/L	2.0	20		
9433149	Dissolved Nickel (Ni)	2024/06/04	98	80 - 120	99	80 - 120	<0.0001	mg/L	3.8	20		
9433149	Dissolved Phosphorus (P)	2024/06/04	109	80 - 120	97	80 - 120	<0.005	mg/L	NC	20		
9433149	Dissolved Potassium (K)	2024/06/04	104	80 - 120	98	80 - 120	<0.02	mg/L	0.16	20		
9433149	Dissolved Rubidium (Rb)	2024/06/04	98	80 - 120	96	80 - 120	<0.00002	mg/L	NC	N/A		
9433149	Dissolved Selenium (Se)	2024/06/04	103	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9433149	Dissolved Silicon (Si)	2024/06/04	NC	80 - 120	99	80 - 120	<0.005	mg/L	0.55	20		
9433149	Dissolved Silver (Ag)	2024/06/04	99	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
9433149	Dissolved Sodium (Na)	2024/06/04	NC	80 - 120	100	80 - 120	<0.01	mg/L	0.13	20		
9433149	Dissolved Strontium (Sr)	2024/06/04	NC	80 - 120	96	80 - 120	<0.0001	mg/L	0.032	20		
9433149	Dissolved Tellurium (Te)	2024/06/04	103	80 - 120	93	80 - 120	<0.0001	mg/L	NC	20		
9433149	Dissolved Thallium (Tl)	2024/06/04	98	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9433149	Dissolved Tin (Sn)	2024/06/04	109	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9433149	Dissolved Titanium (Ti)	2024/06/04	100	80 - 120	97	80 - 120	<0.0005	mg/L	11	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9433149	Dissolved Tungsten (W)	2024/06/04	104	80 - 120	101	80 - 120	<0.0001	mg/L	3.4	20		
9433149	Dissolved Uranium (U)	2024/06/04	100	80 - 120	98	80 - 120	<0.00001	mg/L	3.5	20		
9433149	Dissolved Vanadium (V)	2024/06/04	105	80 - 120	99	80 - 120	<0.00005	mg/L	0.60	20		
9433149	Dissolved Zinc (Zn)	2024/06/04	98	80 - 120	98	80 - 120	<0.0005	mg/L	0.14	20		
9433149	Dissolved Zirconium (Zr)	2024/06/04	112	80 - 120	101	80 - 120	<0.0001	mg/L	0.34	20		
9433617	Total Phosphorus (P)	2024/06/04	90	80 - 120	92	80 - 120	<0.0010	mg/L	2.7	20	87	80 - 120
9437077	Strong Acid Dissoc. Cyanide (CN)	2024/06/04	98	80 - 120	102	80 - 120	<0.00050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) The recovery in the matrix spike was not calculated (NC) due to background interference.

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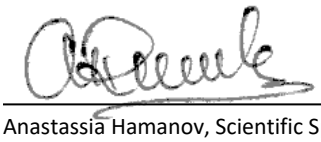
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4F9239
Report Date: 2024/06/05

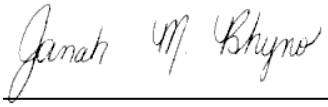
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Janah Rhyno, Scientific Specialist



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist



Automated Statchk

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 905395

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/14
Report #: R8192122
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G3628
Received: 2024/05/31, 10:25

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	8	N/A	2024/06/05	ATL SOP-00205	SM 24 2310B m
Alkalinity	8	N/A	2024/06/03	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2024/06/03	CAM SOP-00102	APHA 4500-CO2 D
Carbonate, Bicarbonate and Hydroxide	7	N/A	2024/06/04	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	3	N/A	2024/06/05		EPA 8260C m
Chloride by Automated Colourimetry	8	N/A	2024/06/05	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	8	N/A	2024/06/03	CAM SOP-00414	SM 24 2510 m
Dissolved Organic Carbon (DOC) (3)	3	N/A	2024/06/03	CAM SOP-00446	SM 24 5310 B m
Petroleum Hydrocarbons F2-F4 in Water (4)	3	2024/06/03	2024/06/03	CAM SOP-00316	CCME PHC-CWS m
Fluoride	8	2024/06/01	2024/06/03	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	8	N/A	2024/06/07	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	1	2024/06/06	2024/06/06	CAM SOP-00453	EPA 7470A m
Mercury in Water by CVAA	2	2024/06/07	2024/06/07	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	8	2024/06/06	2024/06/07	CAM SOP-00453	EPA 7470 m
Mercury (low level)	5	2024/06/06	2024/06/07	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	8	2024/06/05	2024/06/07	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	8	N/A	2024/06/07	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	8	N/A	2024/06/06	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	8	2024/06/05	2024/06/06	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	4	N/A	2024/06/06	CAL SOP-00266	EPA 9016d R0 m
Cyanide (Free) (2)	4	N/A	2024/06/07	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	7	2024/06/10	2024/06/11	CAL SOP-00270	SM 24 4500-CN m
Cyanide, Strong Acid Dissociable (SAD) (2)	1	2024/06/07	2024/06/11	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	8	2024/06/06	2024/06/07	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	8	N/A	2024/06/07	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (5)	8	N/A	2024/06/03	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (6)	8	2024/06/01	2024/06/03	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (7)	7	N/A	2024/05/31		Field pH Meter
Sulphate by Automated Turbidimetry	8	N/A	2024/06/05	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	8	2024/06/05	2024/06/06	CAM SOP-00428	SM 24 2540C m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 905395

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/14
Report #: R8192122
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G3628
Received: 2024/05/31, 10:25

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Field Temperature (7)	7	N/A	2024/05/31		Field Thermometer
Total Kjeldahl Nitrogen in Water	8	2024/06/05	2024/06/06	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	1	2024/06/05	2024/06/06	CAM SOP-00428	SM 24 2540D m
Low Level Total Suspended Solids	5	2024/06/05	2024/06/05	CAM SOP-00428	SM 24 2540D m
Low Level Total Suspended Solids	2	2024/06/05	2024/06/06	CAM SOP-00428	SM 24 2540D m
Turbidity	8	N/A	2024/06/01	CAM SOP-00417	SM 24 2130 B
Volatile Organic Compounds and F1 PHCs	3	N/A	2024/06/04	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.
(4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 905395

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/14
Report #: R8192122
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G3628

Received: 2024/05/31, 10:25

reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(6) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(7) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C4G3628
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZHY391			ZHY391		
Sampling Date		2024/05/29 11:51			2024/05/29 11:51		
COC Number		905395			905395		
	UNITS	MWS-14-07-OB	RDL	QC Batch	MWS-14-07-OB Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	300	1.0	9426779			
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.6	1.0	9426779			
Hardness (CaCO3)	mg/L	300	1.0	9427626			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9426779			
Field Measurements							
Field Temperature	Celsius	7.9	N/A	ONSITE			
Field Measured pH	pH	6.95		ONSITE			
Inorganics							
Acidity	mg/L	13	5.0	9434364			
Total Ammonia-N	mg/L	<0.050	0.050	9437967	<0.050	0.050	9437967
Conductivity	mS/cm	0.548	0.001	9428646			
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9441249			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9448672	<0.00050	0.00050	9448672
Total Dissolved Solids	mg/L	295	10	9435551	285	10	9435551
Fluoride (F-)	mg/L	<0.10	0.10	9428647			
Total Kjeldahl Nitrogen (TKN)	mg/L	0.16	0.10	9435170			
Dissolved Organic Carbon	mg/L	2.5	0.40	9428433			
pH	pH	7.77		9428648			
Total Phosphorus (P)	mg/L	0.0025	0.0010	9445764			
Total Suspended Solids	mg/L	8	1	9434807			
Dissolved Sulphate (SO4)	mg/L	6.7	1.0	9428645			
Turbidity	NTU	5.8	0.1	9428636			
Alkalinity (Total as CaCO3)	mg/L	300	1.0	9428639			
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9428640			
Nitrite (N)	mg/L	<0.010	0.010	9428635			
Nitrate (N)	mg/L	<0.10	0.10	9428635			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G3628
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZHY391			ZHY391		
Sampling Date		2024/05/29 11:51			2024/05/29 11:51		
COC Number		905395			905395		
	UNITS	**MWS-14-07-OB**	**RDL**	**QC Batch**	**MWS-14-07-OB Lab-Dup**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9428635			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C4G3628
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZHY392			ZHY393			ZHY394		
Sampling Date		2024/05/29 14:09			2024/05/29 15:03			2024/05/29 15:24		
COC Number		905395			905395			905395		
	UNITS	MWS-14-07-BR	RDL	QC Batch	G7-OB2-14	RDL	QC Batch	G7-OB1-14	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	320	1.0	9426779	170	1.0	9426779	160	1.0	9428157
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.7	1.0	9426779	1.1	1.0	9426779	1.4	1.0	9428157
Hardness (CaCO3)	mg/L	260	1.0	9427626	170	1.0	9427626	160	1.0	9427626
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9426779	<1.0	1.0	9426779	<1.0	1.0	9428157
Field Measurements										
Field Temperature	Celsius	14.3	N/A	ONSITE	13.4	N/A	ONSITE	9.9	N/A	ONSITE
Field Measured pH	pH	7.14		ONSITE	7.46		ONSITE	7.55		ONSITE
Inorganics										
Acidity	mg/L	14	5.0	9434364	<5.0	5.0	9434364	<5.0	5.0	9434364
Total Ammonia-N	mg/L	0.078	0.050	9437967	0.074	0.050	9437967	<0.050	0.050	9437967
Conductivity	mS/cm	0.592	0.001	9428646	0.307	0.001	9428646	0.302	0.001	9428646
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9442599	2.5 (1)	2.0	9441249	<2.0 (1)	2.0	9441249
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9448671	<0.00050 (2)	0.00050	9448671	<0.00050	0.00050	9448671
Total Dissolved Solids	mg/L	360	10	9435551	155	10	9435551	175	10	9435252
Fluoride (F-)	mg/L	<0.10	0.10	9428647	0.12	0.10	9428647	0.11	0.10	9428647
Total Kjeldahl Nitrogen (TKN)	mg/L	0.17	0.10	9435141	0.24	0.10	9435141	0.13	0.10	9435141
Dissolved Organic Carbon	mg/L				10	0.40	9428433	5.2	0.40	9428433
pH	pH	7.76		9428648	7.83		9428648	7.94		9428648
Total Phosphorus (P)	mg/L	0.0043	0.0010	9445764	0.29	0.0020	9445764	0.078	0.0010	9445764
Total Suspended Solids	mg/L	6	1	9436327	4100	5	9434807	1800	5	9435735
Dissolved Sulphate (SO4)	mg/L	11	1.0	9428645	1.3	1.0	9428645	<1.0	1.0	9428645
Turbidity	NTU	4.9	0.1	9428636	140	0.1	9428636	310	0.1	9428636
Alkalinity (Total as CaCO3)	mg/L	320	1.0	9428639	170	1.0	9428639	170	1.0	9428639
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9428640	<1.0	1.0	9428640	<1.0	1.0	9428640
Nitrite (N)	mg/L	<0.010	0.010	9428635	<0.010	0.010	9428635	<0.010	0.010	9428635
Nitrate (N)	mg/L	<0.10	0.10	9428635	<0.10	0.10	9428635	<0.10	0.10	9428635

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.

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Bureau Veritas Job #: C4G3628
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZHY392			ZHY393			ZHY394		
Sampling Date		2024/05/29 14:09			2024/05/29 15:03			2024/05/29 15:24		
COC Number		905395			905395			905395		
	UNITS	**MWS-14-07-BR**	**RDL**	**QC Batch**	**G7-OB2-14**	**RDL**	**QC Batch**	**G7-OB1-14**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9428635	<0.10	0.10	9428635	<0.10	0.10	9428635

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4G3628
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZHY395			ZHY396			ZHY397		
Sampling Date		2024/05/29 12:40			2024/05/29 14:28			2024/05/29 14:58		
COC Number		905395			905395			905395		
	UNITS	MW02-OB-18	RDL	QC Batch	MW3-OB-13	RDL	QC Batch	MW3-BR-13	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	240	1.0	9426779	410	1.0	9426779	400	1.0	9426779
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9426779	2.7	1.0	9426779	1.5	1.0	9426779
Hardness (CaCO3)	mg/L	2100	1.0	9427626	380	1.0	9427626	420	1.0	9427626
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9426779	<1.0	1.0	9426779	<1.0	1.0	9426779
Field Measurements										
Field Temperature	Celsius	10.6	N/A	ONSITE	7.6	N/A	ONSITE	11.3	N/A	ONSITE
Field Measured pH	pH	6.96		ONSITE	7.35		ONSITE	6.96		ONSITE
Inorganics										
Acidity	mg/L	34	5.0	9434364	15	5.0	9434364	46	5.0	9434364
Total Ammonia-N	mg/L	1.1	0.050	9437967	0.35	0.050	9437967	0.68	0.050	9437967
Conductivity	mS/cm	3.10	0.001	9428646	0.731	0.001	9428646	0.772	0.001	9428646
Free Cyanide (CN)	ug/L	2.2 (1)	2.0	9441249	<2.0 (1)	2.0	9442599	<2.0 (1)	2.0	9442599
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.272	0.010	9448671	<0.00050	0.00050	9448671	<0.00050	0.00050	9448671
Total Dissolved Solids	mg/L	2980	10	9435551	410	10	9435538	430	10	9435551
Fluoride (F-)	mg/L	0.19	0.10	9428647	0.40	0.10	9428647	0.28	0.10	9428647
Total Kjeldahl Nitrogen (TKN)	mg/L	1.7	0.20	9435141	0.49	0.10	9435141	0.87	0.10	9435141
pH	pH	7.48		9428648	7.85		9428648	7.60		9428648
Total Phosphorus (P)	mg/L	9.1 (2)	0.10	9445764	0.22	0.0010	9445764	0.095	0.0010	9445764
Total Suspended Solids	mg/L	4900	5	9434807	2000	20	9436641	44	3	9434807
Dissolved Sulphate (SO4)	mg/L	1900	10	9428645	7.0	1.0	9428645	19	1.0	9428645
Turbidity	NTU	170	0.1	9428636	100	0.1	9428636	100	0.1	9428636
Alkalinity (Total as CaCO3)	mg/L	240	1.0	9428639	410	1.0	9428639	400	1.0	9428639
Dissolved Chloride (Cl-)	mg/L	2.8	1.0	9428640	<1.0	1.0	9428640	4.2	1.0	9428640
Nitrite (N)	mg/L	<0.010	0.010	9428635	<0.010	0.010	9428635	<0.010	0.010	9428635
Nitrate (N)	mg/L	<0.10	0.10	9428635	<0.10	0.10	9428635	<0.10	0.10	9428635
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9428635	<0.10	0.10	9428635	<0.10	0.10	9428635

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZHY398			ZHY398		
Sampling Date		2024/05/29 08:00			2024/05/29 08:00		
COC Number		905395			905395		
	UNITS	Duplicate 1	RDL	QC Batch	Duplicate 1 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	300	1.0	9426779			
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.5	1.0	9426779			
Hardness (CaCO3)	mg/L	300	1.0	9427626			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9426779			
Inorganics							
Acidity	mg/L	14	5.0	9434364			
Total Ammonia-N	mg/L	<0.050	0.050	9437967			
Conductivity	mS/cm	0.548	0.001	9428646			
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9442599			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9448671			
Total Dissolved Solids	mg/L	280	10	9435551			
Fluoride (F-)	mg/L	<0.10	0.10	9428647			
Total Kjeldahl Nitrogen (TKN)	mg/L	<0.10	0.10	9435141			
pH	pH	7.72		9428648			
Total Phosphorus (P)	mg/L	<0.0010	0.0010	9445764			
Total Suspended Solids	mg/L	3	1	9434807			
Dissolved Sulphate (SO4)	mg/L	6.9	1.0	9428645			
Turbidity	NTU	0.9	0.1	9428636	0.8	0.1	9428636
Alkalinity (Total as CaCO3)	mg/L	300	1.0	9428639			
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9428640			
Nitrite (N)	mg/L	<0.010	0.010	9428635	<0.010	0.010	9428635
Nitrate (N)	mg/L	<0.10	0.10	9428635	<0.10	0.10	9428635
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9428635	<0.10	0.10	9428635

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY391			ZHY391		
Sampling Date		2024/05/29 11:51			2024/05/29 11:51		
COC Number		905395			905395		
	UNITS	MWS-14-07-OB	RDL	QC Batch	MWS-14-07-OB Lab-Dup	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	0.0012	0.0005	9439471	0.0012	0.0005	9439471
. Aluminum (Al)	mg/L	0.0149	0.0005	9437576	0.0145	0.0005	9437576
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471
. Antimony (Sb)	mg/L	<0.0001	0.0001	9437576	<0.0001	0.0001	9437576
Dissolved Arsenic (As)	mg/L	0.0013	0.0001	9439471	0.0014	0.0001	9439471
. Arsenic (As)	mg/L	0.0020	0.0001	9437576	0.0020	0.0001	9437576
Dissolved Barium (Ba)	mg/L	0.0165	0.0002	9439471	0.0164	0.0002	9439471
. Barium (Ba)	mg/L	0.0162	0.0002	9437576	0.0165	0.0002	9437576
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9439471	<0.00005	0.00005	9439471
. Beryllium (Be)	mg/L	<0.00005	0.00005	9437576	<0.00005	0.00005	9437576
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9437576	<0.0001	0.0001	9437576
Dissolved Boron (B)	mg/L	0.005	0.001	9439471	0.005	0.001	9439471
. Boron (B)	mg/L	0.004	0.001	9437576	0.004	0.001	9437576
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9439471	<0.00001	0.00001	9439471
. Cadmium (Cd)	mg/L	0.000014	0.000005	9437576	0.000013	0.000005	9437576
Dissolved Calcium (Ca)	mg/L	90.2	0.1	9439471	90.3	0.1	9439471
. Calcium (Ca)	mg/L	88.9	0.1	9437576	88.5	0.1	9437576
Dissolved Cesium (Cs)	mg/L	0.00005	0.00002	9439471	0.00005	0.00002	9439471
. Cesium (Cs)	mg/L	0.00005	0.00002	9437576	0.00005	0.00002	9437576
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9439471	<0.0005	0.0005	9439471
. Chromium (Cr)	mg/L	<0.0005	0.0005	9437576	<0.0005	0.0005	9437576
Dissolved Cobalt (Co)	mg/L	0.00013	0.00005	9439471	0.00012	0.00005	9439471
. Cobalt (Co)	mg/L	0.00028	0.00005	9437576	0.00029	0.00005	9437576
Dissolved Copper (Cu)	mg/L	0.0012	0.0001	9439471	0.0012	0.0001	9439471
. Copper (Cu)	mg/L	0.0027	0.0001	9437576	0.0027	0.0001	9437576
Dissolved Iron (Fe)	mg/L	0.028	0.005	9439471	0.027	0.005	9439471
. Iron (Fe)	mg/L	0.074	0.005	9437576	0.074	0.005	9437576
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9439471	<0.00005	0.00005	9439471

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY391			ZHY391		
Sampling Date		2024/05/29 11:51			2024/05/29 11:51		
COC Number		905395			905395		
	UNITS	MWS-14-07-OB	RDL	QC Batch	MWS-14-07-OB Lab-Dup	RDL	QC Batch
. Lead (Pb)	mg/L	0.00006	0.00005	9437576	0.00007	0.00005	9437576
Dissolved Lithium (Li)	mg/L	0.0015	0.0005	9439471	0.0015	0.0005	9439471
. Lithium (Li)	mg/L	0.0015	0.0005	9437576	0.0016	0.0005	9437576
Dissolved Magnesium (Mg)	mg/L	18.6	0.005	9439471	18.8	0.005	9439471
. Magnesium (Mg)	mg/L	18.8	0.005	9437576	18.7	0.005	9437576
Dissolved Manganese (Mn)	mg/L	0.0082	0.0002	9439471	0.0080	0.0002	9439471
. Manganese (Mn)	mg/L	0.0423	0.0002	9437576	0.0427	0.0002	9437576
Mercury (Hg)	ug/L	<0.01	0.01	9437768			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9437770			
Dissolved Molybdenum (Mo)	mg/L	0.00041	0.00005	9439471	0.00044	0.00005	9439471
. Molybdenum (Mo)	mg/L	0.00037	0.00005	9437576	0.00039	0.00005	9437576
Dissolved Nickel (Ni)	mg/L	0.0023	0.0001	9439471	0.0022	0.0001	9439471
. Nickel (Ni)	mg/L	0.0025	0.0001	9437576	0.0025	0.0001	9437576
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9439471	<0.005	0.005	9439471
. Phosphorus (P)	mg/L	<0.005	0.005	9437576	<0.005	0.005	9437576
Dissolved Potassium (K)	mg/L	1.04	0.02	9439471	1.04	0.02	9439471
. Potassium (K)	mg/L	1.04	0.02	9437576	1.04	0.02	9437576
Dissolved Rubidium (Rb)	mg/L	0.00259	0.00002	9439471	0.00254	0.00002	9439471
. Rubidium (Rb)	mg/L	0.00256	0.00002	9437576	0.00257	0.00002	9437576
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9439471	<0.0002	0.0002	9439471
. Selenium (Se)	mg/L	0.00009	0.00005	9437576	0.00009	0.00005	9437576
Dissolved Silicon (Si)	mg/L	4.96	0.025	9439471	4.99	0.005	9439471
. Silicon (Si)	mg/L	4.79	0.025	9437576	4.65	0.025	9437576
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9439471	<0.00001	0.00001	9439471
. Silver (Ag)	mg/L	<0.00001	0.00001	9437576	<0.00001	0.00001	9437576
Dissolved Sodium (Na)	mg/L	2.55	0.01	9439471	2.54	0.01	9439471
. Sodium (Na)	mg/L	2.46	0.01	9437576	2.47	0.01	9437576
Dissolved Strontium (Sr)	mg/L	0.0757	0.0001	9439471	0.0749	0.0001	9439471
. Strontium (Sr)	mg/L	0.0749	0.0001	9437576	0.0752	0.0001	9437576
Dissolved Sulphur (S)	mg/L	2.1	0.5	9435666			

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY391			ZHY391		
Sampling Date		2024/05/29 11:51			2024/05/29 11:51		
COC Number		905395			905395		
	UNITS	MWS-14-07-OB	RDL	QC Batch	MWS-14-07-OB Lab-Dup	RDL	QC Batch
Total Sulphur (S)	mg/L	2.2	0.5	9434441			
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471
. Tellurium (Te)	mg/L	<0.0001	0.0001	9437576	<0.0001	0.0001	9437576
Dissolved Thallium (Tl)	mg/L	0.000005	0.000005	9439471	0.000005	0.000005	9439471
. Thallium (Tl)	mg/L	0.000007	0.000005	9437576	0.000006	0.000005	9437576
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9439471	<0.0002	0.0002	9439471
. Thorium (Th)	mg/L	<0.0002	0.0002	9437576	<0.0002	0.0002	9437576
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471
. Tin (Sn)	mg/L	<0.0001	0.0001	9437576	<0.0001	0.0001	9437576
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9439471	<0.0005	0.0005	9439471
. Titanium (Ti)	mg/L	0.0012	0.0005	9437576	0.0012	0.0005	9437576
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471
. Tungsten (W)	mg/L	<0.0001	0.0001	9437576	<0.0001	0.0001	9437576
Dissolved Uranium (U)	mg/L	0.00041	0.00001	9439471	0.00041	0.00001	9439471
. Uranium (U)	mg/L	0.00038	0.00001	9437576	0.00038	0.00001	9437576
Dissolved Vanadium (V)	mg/L	0.00011	0.00005	9439471	0.00009	0.00005	9439471
. Vanadium (V)	mg/L	0.00014	0.00005	9437576	0.00014	0.00005	9437576
Dissolved Zinc (Zn)	mg/L	0.0019	0.0005	9439471	0.0016	0.0005	9439471
. Zinc (Zn)	mg/L	0.0019	0.0005	9437576	0.0019	0.0005	9437576
Dissolved Zirconium (Zr)	mg/L	0.0002	0.0001	9439471	0.0002	0.0001	9439471
. Zirconium (Zr)	mg/L	0.0002	0.0001	9437576	0.0002	0.0001	9437576

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY392			ZHY393			ZHY394		
Sampling Date		2024/05/29 14:09			2024/05/29 15:03			2024/05/29 15:24		
COC Number		905395			905395			905395		
	UNITS	MWS-14-07-BR	RDL	QC Batch	G7-OB2-14	RDL	QC Batch	G7-OB1-14	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0026	0.0005	9439471	0.0111	0.0005	9439471	0.0069	0.0005	9439471
. Aluminum (Al)	mg/L	0.0097	0.0005	9437576	2.60	0.025	9437576	0.407	0.0025	9437576
Dissolved Antimony (Sb)	mg/L	0.0002	0.0001	9439471	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471
. Antimony (Sb)	mg/L	0.0003	0.0001	9437576	<0.0005	0.0005	9437576	<0.0005	0.0005	9437576
Dissolved Arsenic (As)	mg/L	0.0015	0.0001	9439471	0.0015	0.0001	9439471	0.0010	0.0001	9439471
. Arsenic (As)	mg/L	0.0025	0.0001	9437576	0.0029	0.0005	9437576	0.0010	0.0005	9437576
Dissolved Barium (Ba)	mg/L	0.0193	0.0002	9439471	0.0136	0.0002	9439471	0.0089	0.0002	9439471
. Barium (Ba)	mg/L	0.0198	0.0002	9437576	0.041	0.001	9437576	0.012	0.001	9437576
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9439471	<0.00005	0.00005	9439471	<0.00005	0.00005	9439471
. Beryllium (Be)	mg/L	<0.00005	0.00005	9437576	<0.00025	0.00025	9437576	<0.00025	0.00025	9437576
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9437576	<0.0005	0.0005	9437576	<0.0005	0.0005	9437576
Dissolved Boron (B)	mg/L	0.021	0.001	9439471	0.005	0.001	9439471	0.006	0.001	9439471
. Boron (B)	mg/L	0.025	0.001	9437576	0.022	0.005	9437576	0.006	0.005	9437576
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9439471	<0.00001	0.00001	9439471	<0.00001	0.00001	9439471
. Cadmium (Cd)	mg/L	0.000008	0.000005	9437576	0.000102	0.000025	9437576	<0.000025	0.000025	9437576
Dissolved Calcium (Ca)	mg/L	77.6	0.1	9439471	53.5	0.1	9439471	49.1	0.1	9439471
. Calcium (Ca)	mg/L	74.5	0.1	9437576	311	1	9437576	66.6	0.1	9437576
Dissolved Cesium (Cs)	mg/L	0.00010	0.00002	9439471	<0.00002	0.00002	9439471	<0.00002	0.00002	9439471
. Cesium (Cs)	mg/L	0.00010	0.00002	9437576	0.0003	0.0001	9437576	<0.0001	0.0001	9437576
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9439471	0.0008	0.0005	9439471	<0.0005	0.0005	9439471
. Chromium (Cr)	mg/L	<0.0005	0.0005	9437576	0.0100	0.0025	9437576	<0.0025	0.0025	9437576
Dissolved Cobalt (Co)	mg/L	0.00050	0.00005	9439471	<0.00005	0.00005	9439471	<0.00005	0.00005	9439471
. Cobalt (Co)	mg/L	0.00061	0.00005	9437576	0.00424	0.00025	9437576	0.00045	0.00025	9437576
Dissolved Copper (Cu)	mg/L	0.0009	0.0001	9439471	0.0001	0.0001	9439471	0.0005	0.0001	9439471
. Copper (Cu)	mg/L	0.0029	0.0001	9437576	0.0118	0.0005	9437576	0.0009	0.0005	9437576
Dissolved Iron (Fe)	mg/L	0.606	0.005	9439471	0.696	0.005	9439471	0.624	0.005	9439471
. Iron (Fe)	mg/L	0.870	0.005	9437576	6.62	0.025	9437576	1.38	0.025	9437576
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9439471	<0.00005	0.00005	9439471	<0.00005	0.00005	9439471
. Lead (Pb)	mg/L	0.00014	0.00005	9437576	0.00645	0.00025	9437576	0.00059	0.00025	9437576

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G3628
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY392			ZHY393			ZHY394		
Sampling Date		2024/05/29 14:09			2024/05/29 15:03			2024/05/29 15:24		
COC Number		905395			905395			905395		
	UNITS	MWS-14-07-BR	RDL	QC Batch	G7-OB2-14	RDL	QC Batch	G7-OB1-14	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0025	0.0005	9439471	0.0009	0.0005	9439471	0.0009	0.0005	9439471
. Lithium (Li)	mg/L	0.0028	0.0005	9437576	0.0058	0.0025	9437576	<0.0025	0.0025	9437576
Dissolved Magnesium (Mg)	mg/L	16.9	0.005	9439471	9.88	0.005	9439471	8.50	0.005	9439471
. Magnesium (Mg)	mg/L	16.8	0.005	9437576	86.5	0.025	9437576	12.3	0.025	9437576
Dissolved Manganese (Mn)	mg/L	0.125	0.0002	9439471	0.0363	0.0002	9439471	0.0607	0.0002	9439471
. Manganese (Mn)	mg/L	0.155	0.0002	9437576	0.419	0.001	9437576	0.098	0.001	9437576
Mercury (Hg)	mg/L				<0.0015	0.0015	9442088			
Mercury (Hg)	ug/L	<0.01	0.01	9437768				<0.01	0.01	9437768
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9437770	<0.01	0.01	9437770	<0.01	0.01	9437770
Dissolved Molybdenum (Mo)	mg/L	0.00248	0.00005	9439471	0.00012	0.00005	9439471	0.00021	0.00005	9439471
. Molybdenum (Mo)	mg/L	0.00294	0.00005	9437576	<0.00025	0.00025	9437576	<0.00025	0.00025	9437576
Dissolved Nickel (Ni)	mg/L	0.0025	0.0001	9439471	0.0006	0.0001	9439471	0.0004	0.0001	9439471
. Nickel (Ni)	mg/L	0.0026	0.0001	9437576	0.0077	0.0005	9437576	0.0010	0.0005	9437576
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9439471	<0.005	0.005	9439471	0.015	0.005	9439471
. Phosphorus (P)	mg/L	0.005	0.005	9437576	0.981	0.025	9437576	0.071	0.025	9437576
Dissolved Potassium (K)	mg/L	1.55	0.02	9439471	0.71	0.02	9439471	0.65	0.02	9439471
. Potassium (K)	mg/L	1.78	0.02	9437576	1.1	0.1	9437576	0.7	0.1	9437576
Dissolved Rubidium (Rb)	mg/L	0.00267	0.00002	9439471	0.00169	0.00002	9439471	0.00101	0.00002	9439471
. Rubidium (Rb)	mg/L	0.00271	0.00002	9437576	0.0068	0.0001	9437576	0.0019	0.0001	9437576
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9439471	<0.0002	0.0002	9439471	<0.0002	0.0002	9439471
. Selenium (Se)	mg/L	0.00006	0.00005	9437576	<0.00025	0.00025	9437576	<0.00025	0.00025	9437576
Dissolved Silicon (Si)	mg/L	5.44	0.025	9439471	4.90	0.005	9439471	4.74	0.005	9439471
. Silicon (Si)	mg/L	5.38	0.025	9437576	8.16	0.025	9437576	5.29	0.025	9437576
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9439471	<0.00001	0.00001	9439471	<0.00001	0.00001	9439471
. Silver (Ag)	mg/L	<0.00001	0.00001	9437576	<0.00005	0.00005	9437576	<0.00005	0.00005	9437576
Dissolved Sodium (Na)	mg/L	40.2	0.01	9439471	1.80	0.01	9439471	1.91	0.01	9439471
. Sodium (Na)	mg/L	50.3	0.01	9437576	2.04	0.05	9437576	1.83	0.05	9437576
Dissolved Strontium (Sr)	mg/L	0.101	0.0001	9439471	0.0543	0.0001	9439471	0.0486	0.0001	9439471
. Strontium (Sr)	mg/L	0.102	0.0001	9437576	0.183	0.0005	9437576	0.0582	0.0005	9437576
Dissolved Sulphur (S)	mg/L	4.1	0.5	9435666	<0.5	0.5	9435666	<0.5	0.5	9435666
Total Sulphur (S)	mg/L	4.7	0.5	9434441	0.5	0.5	9434441	<0.5	0.5	9434441

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY392			ZHY393			ZHY394		
Sampling Date		2024/05/29 14:09			2024/05/29 15:03			2024/05/29 15:24		
COC Number		905395			905395			905395		
	UNITS	MWS-14-07-BR	RDL	QC Batch	G7-OB2-14	RDL	QC Batch	G7-OB1-14	RDL	QC Batch
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471
. Tellurium (Te)	mg/L	<0.0001	0.0001	9437576	<0.0005	0.0005	9437576	<0.0005	0.0005	9437576
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9439471	<0.000005	0.000005	9439471	<0.000005	0.000005	9439471
. Thallium (Tl)	mg/L	<0.000005	0.000005	9437576	0.000100	0.000025	9437576	<0.000025	0.000025	9437576
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9439471	<0.0002	0.0002	9439471	<0.0002	0.0002	9439471
. Thorium (Th)	mg/L	<0.0002	0.0002	9437576	0.002	0.001	9437576	<0.001	0.001	9437576
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471
. Tin (Sn)	mg/L	0.0002	0.0001	9437576	<0.0005	0.0005	9437576	<0.0005	0.0005	9437576
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9439471	0.0021	0.0005	9439471	0.0006	0.0005	9439471
. Titanium (Ti)	mg/L	0.0006	0.0005	9437576	0.106	0.0025	9437576	0.0252	0.0025	9437576
Dissolved Tungsten (W)	mg/L	0.0019	0.0001	9439471	<0.0001	0.0001	9439471	<0.0001	0.0001	9439471
. Tungsten (W)	mg/L	0.0023	0.0001	9437576	<0.0005	0.0005	9437576	<0.0005	0.0005	9437576
Dissolved Uranium (U)	mg/L	0.00130	0.00001	9439471	0.00004	0.00001	9439471	<0.00001	0.00001	9439471
. Uranium (U)	mg/L	0.00140	0.00001	9437576	0.00148	0.00005	9437576	0.00007	0.00005	9437576
Dissolved Vanadium (V)	mg/L	0.00016	0.00005	9439471	0.00258	0.00005	9439471	0.00045	0.00005	9439471
. Vanadium (V)	mg/L	0.00027	0.00005	9437576	0.0137	0.00025	9437576	0.00170	0.00025	9437576
Dissolved Zinc (Zn)	mg/L	0.0057	0.0005	9439471	<0.0005	0.0005	9439471	0.0024	0.0005	9439471
. Zinc (Zn)	mg/L	0.0069	0.0005	9437576	0.0193	0.0025	9437576	0.0042	0.0025	9437576
Dissolved Zirconium (Zr)	mg/L	0.0007	0.0001	9439471	0.0035	0.0001	9439471	0.0009	0.0001	9439471
. Zirconium (Zr)	mg/L	0.0008	0.0001	9437576	0.0063	0.0005	9437576	0.0015	0.0005	9437576

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QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY394			ZHY395			ZHY396		
Sampling Date		2024/05/29 15:24			2024/05/29 12:40			2024/05/29 14:28		
COC Number		905395			905395			905395		
	UNITS	G7-OB1-14 Lab-Dup	RDL	QC Batch	MW02-OB-18	RDL	QC Batch	MW3-OB-13	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L				<0.0025	0.0025	9439471	0.0011	0.0005	9439471
. Aluminum (Al)	mg/L				9.95	0.05	9437576	0.758	0.0025	9437576
Dissolved Antimony (Sb)	mg/L				0.0007	0.0005	9439471	0.0002	0.0001	9439471
. Antimony (Sb)	mg/L				0.001	0.001	9437576	<0.0005	0.0005	9437576
Dissolved Arsenic (As)	mg/L				20.8	0.05	9439471	0.0029	0.0001	9439471
. Arsenic (As)	mg/L				28.4	0.05	9437576	0.0033	0.0005	9437576
Dissolved Barium (Ba)	mg/L				0.011	0.001	9439471	0.0743	0.0002	9439471
. Barium (Ba)	mg/L				0.049	0.002	9437576	0.080	0.001	9437576
Dissolved Beryllium (Be)	mg/L				<0.00025	0.00025	9439471	<0.00005	0.00005	9439471
. Beryllium (Be)	mg/L				0.0014	0.0005	9437576	<0.00025	0.00025	9437576
Dissolved Bismuth (Bi)	mg/L				<0.0005	0.0005	9439471	<0.0001	0.0001	9439471
. Bismuth (Bi)	mg/L				<0.001	0.001	9437576	<0.0005	0.0005	9437576
Dissolved Boron (B)	mg/L				2.08	0.005	9439471	0.033	0.001	9439471
. Boron (B)	mg/L				2.29	0.01	9437576	0.036	0.005	9437576
Dissolved Cadmium (Cd)	mg/L				<0.00005	0.00005	9439471	<0.00001	0.00001	9439471
. Cadmium (Cd)	mg/L				0.00130	0.00005	9437576	<0.000025	0.000025	9437576
Dissolved Calcium (Ca)	mg/L				493	0.2	9439471	92.2	0.1	9439471
. Calcium (Ca)	mg/L				800	2	9437576	129	0.1	9437576
Dissolved Cesium (Cs)	mg/L				<0.0001	0.0001	9439471	<0.00002	0.00002	9439471
. Cesium (Cs)	mg/L				0.0004	0.0002	9437576	<0.0001	0.0001	9437576
Dissolved Chromium (Cr)	mg/L				<0.0025	0.0025	9439471	<0.0005	0.0005	9439471
. Chromium (Cr)	mg/L				0.059	0.005	9437576	0.0028	0.0025	9437576
Dissolved Cobalt (Co)	mg/L				0.00608	0.00025	9439471	0.00048	0.00005	9439471
. Cobalt (Co)	mg/L				0.0247	0.0005	9437576	0.00131	0.00025	9437576
Dissolved Copper (Cu)	mg/L				<0.0005	0.0005	9439471	0.0006	0.0001	9439471
. Copper (Cu)	mg/L				0.069	0.001	9437576	0.0026	0.0005	9437576
Dissolved Iron (Fe)	mg/L				1.49	0.025	9439471	0.055	0.005	9439471
. Iron (Fe)	mg/L				154	0.5	9437576	1.49	0.025	9437576
Dissolved Lead (Pb)	mg/L				<0.00025	0.00025	9439471	0.00005	0.00005	9439471

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY394			ZHY395			ZHY396		
Sampling Date		2024/05/29 15:24			2024/05/29 12:40			2024/05/29 14:28		
COC Number		905395			905395			905395		
	UNITS	G7-OB1-14 Lab-Dup	RDL	QC Batch	MW02-OB-18	RDL	QC Batch	MW3-OB-13	RDL	QC Batch
. Lead (Pb)	mg/L				0.0957	0.0005	9437576	0.00129	0.00025	9437576
Dissolved Lithium (Li)	mg/L				0.118	0.0025	9439471	0.0164	0.0005	9439471
. Lithium (Li)	mg/L				0.132	0.005	9437576	0.0177	0.0025	9437576
Dissolved Magnesium (Mg)	mg/L				219	0.05	9439471	35.5	0.005	9439471
. Magnesium (Mg)	mg/L				300	0.05	9437576	41.8	0.025	9437576
Dissolved Manganese (Mn)	mg/L				0.698	0.001	9439471	0.0737	0.0002	9439471
. Manganese (Mn)	mg/L				6.32	0.002	9437576	0.151	0.001	9437576
Mercury (Hg)	mg/L				<0.0015	0.0015	9437766	<0.00010	0.00010	9440772
Dissolved Mercury (Hg)	ug/L				<0.01	0.01	9437770	<0.01	0.01	9437770
Dissolved Molybdenum (Mo)	mg/L				0.0169	0.00025	9439471	0.00167	0.00005	9439471
. Molybdenum (Mo)	mg/L				0.0051	0.0005	9437576	0.00090	0.00025	9437576
Dissolved Nickel (Ni)	mg/L				0.0066	0.0005	9439471	0.0013	0.0001	9439471
. Nickel (Ni)	mg/L				0.056	0.001	9437576	0.0029	0.0005	9437576
Dissolved Phosphorus (P)	mg/L				<0.025	0.025	9439471	0.005	0.005	9439471
. Phosphorus (P)	mg/L				3.71	0.05	9437576	0.134	0.025	9437576
Dissolved Potassium (K)	mg/L				23.0	0.1	9439471	4.19	0.02	9439471
. Potassium (K)	mg/L				25.7	0.2	9437576	3.8	0.1	9437576
Dissolved Rubidium (Rb)	mg/L				0.0069	0.0001	9439471	0.00201	0.00002	9439471
. Rubidium (Rb)	mg/L				0.0123	0.0002	9437576	0.0033	0.0001	9437576
Dissolved Selenium (Se)	mg/L				<0.001	0.001	9439471	<0.0002	0.0002	9439471
. Selenium (Se)	mg/L				<0.0005	0.0005	9437576	<0.00025	0.00025	9437576
Dissolved Silicon (Si)	mg/L				7.31	0.025	9439471	9.75	0.025	9439471
. Silicon (Si)	mg/L				19.5	0.05	9437576	10.7	0.025	9437576
Dissolved Silver (Ag)	mg/L				<0.00005	0.00005	9439471	<0.00001	0.00001	9439471
. Silver (Ag)	mg/L				<0.0001	0.0001	9437576	<0.00005	0.00005	9437576
Dissolved Sodium (Na)	mg/L				64.6	0.05	9439471	19.2	0.01	9439471
. Sodium (Na)	mg/L				61.8	0.1	9437576	18.6	0.05	9437576
Dissolved Strontium (Sr)	mg/L				1.30	0.0005	9439471	0.524	0.0001	9439471
. Strontium (Sr)	mg/L				2.05	0.001	9437576	0.529	0.0005	9437576
Dissolved Sulphur (S)	mg/L	<0.5	0.5	9435666	660	5	9435666	3.0	0.5	9435666

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY394			ZHY395			ZHY396		
Sampling Date		2024/05/29 15:24			2024/05/29 12:40			2024/05/29 14:28		
COC Number		905395			905395			905395		
	UNITS	G7-OB1-14 Lab-Dup	RDL	QC Batch	MW02-OB-18	RDL	QC Batch	MW3-OB-13	RDL	QC Batch
Total Sulphur (S)	mg/L				700	5	9434441	2.3	0.5	9434441
Dissolved Tellurium (Te)	mg/L				<0.0005	0.0005	9439471	<0.0001	0.0001	9439471
. Tellurium (Te)	mg/L				<0.001	0.001	9437576	<0.0005	0.0005	9437576
Dissolved Thallium (Tl)	mg/L				<0.000025	0.000025	9439471	<0.000005	0.000005	9439471
. Thallium (Tl)	mg/L				0.00013	0.00005	9437576	0.000027	0.000025	9437576
Dissolved Thorium (Th)	mg/L				<0.001	0.001	9439471	<0.0002	0.0002	9439471
. Thorium (Th)	mg/L				0.002	0.002	9437576	<0.001	0.001	9437576
Dissolved Tin (Sn)	mg/L				<0.0005	0.0005	9439471	<0.0001	0.0001	9439471
. Tin (Sn)	mg/L				<0.001	0.001	9437576	<0.0005	0.0005	9437576
Dissolved Titanium (Ti)	mg/L				<0.0025	0.0025	9439471	0.0006	0.0005	9439471
. Titanium (Ti)	mg/L				0.026	0.005	9437576	0.0448	0.0025	9437576
Dissolved Tungsten (W)	mg/L				0.0007	0.0005	9439471	<0.0001	0.0001	9439471
. Tungsten (W)	mg/L				<0.001	0.001	9437576	<0.0005	0.0005	9437576
Dissolved Uranium (U)	mg/L				0.00723	0.00005	9439471	0.00091	0.00001	9439471
. Uranium (U)	mg/L				0.0072	0.0001	9437576	0.00090	0.00005	9437576
Dissolved Vanadium (V)	mg/L				<0.00025	0.00025	9439471	0.00007	0.00005	9439471
. Vanadium (V)	mg/L				0.0245	0.0005	9437576	0.00241	0.00025	9437576
Dissolved Zinc (Zn)	mg/L				<0.0025	0.0025	9439471	0.0031	0.0005	9439471
. Zinc (Zn)	mg/L				0.392	0.005	9437576	0.0077	0.0025	9437576
Dissolved Zirconium (Zr)	mg/L				<0.0005	0.0005	9439471	0.0001	0.0001	9439471
. Zirconium (Zr)	mg/L				0.003	0.001	9437576	0.0012	0.0005	9437576

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY397		ZHY398			ZHY398		
Sampling Date		2024/05/29 14:58		2024/05/29 08:00			2024/05/29 08:00		
COC Number		905395		905395			905395		
	UNITS	MW3-BR-13	RDL	Duplicate 1	RDL	QC Batch	Duplicate 1 Lab-Dup	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0039	0.0005	0.0025	0.0005	9439471			
. Aluminum (Al)	mg/L	0.249	0.0025	0.0039	0.0005	9437576			
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9439471			
. Antimony (Sb)	mg/L	<0.0005	0.0005	<0.0001	0.0001	9437576			
Dissolved Arsenic (As)	mg/L	0.0289	0.0001	0.0014	0.0001	9439471			
. Arsenic (As)	mg/L	0.0267	0.0005	0.0013	0.0001	9437576			
Dissolved Barium (Ba)	mg/L	0.286	0.0002	0.0166	0.0002	9439471			
. Barium (Ba)	mg/L	0.280	0.001	0.0159	0.0002	9437576			
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9439471			
. Beryllium (Be)	mg/L	<0.00025	0.00025	<0.00005	0.00005	9437576			
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9439471			
. Bismuth (Bi)	mg/L	<0.0005	0.0005	<0.0001	0.0001	9437576			
Dissolved Boron (B)	mg/L	0.020	0.001	0.004	0.001	9439471			
. Boron (B)	mg/L	0.022	0.005	0.004	0.001	9437576			
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9439471			
. Cadmium (Cd)	mg/L	<0.000025	0.000025	0.000010	0.000005	9437576			
Dissolved Calcium (Ca)	mg/L	128	0.1	91.1	0.1	9439471			
. Calcium (Ca)	mg/L	130	0.1	89.5	0.1	9437576			
Dissolved Cesium (Cs)	mg/L	0.00090	0.00002	0.00005	0.00002	9439471			
. Cesium (Cs)	mg/L	0.0010	0.0001	0.00005	0.00002	9437576			
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9439471			
. Chromium (Cr)	mg/L	<0.0025	0.0025	<0.0005	0.0005	9437576			
Dissolved Cobalt (Co)	mg/L	0.00056	0.00005	0.00012	0.00005	9439471			
. Cobalt (Co)	mg/L	0.00082	0.00025	0.00011	0.00005	9437576			
Dissolved Copper (Cu)	mg/L	0.0003	0.0001	0.0010	0.0001	9439471			
. Copper (Cu)	mg/L	0.0006	0.0005	0.0022	0.0001	9437576			
Dissolved Iron (Fe)	mg/L	12.0	0.025	0.022	0.005	9439471			
. Iron (Fe)	mg/L	11.9	0.025	0.019	0.005	9437576			
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9439471			

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY397		ZHY398			ZHY398		
Sampling Date		2024/05/29 14:58		2024/05/29 08:00			2024/05/29 08:00		
COC Number		905395		905395			905395		
	UNITS	MW3-BR-13	RDL	Duplicate 1	RDL	QC Batch	Duplicate 1 Lab-Dup	RDL	QC Batch
. Lead (Pb)	mg/L	0.00166	0.00025	<0.00005	0.00005	9437576			
Dissolved Lithium (Li)	mg/L	0.0095	0.0005	0.0015	0.0005	9439471			
. Lithium (Li)	mg/L	0.0097	0.0025	0.0015	0.0005	9437576			
Dissolved Magnesium (Mg)	mg/L	24.5	0.005	18.4	0.005	9439471			
. Magnesium (Mg)	mg/L	26.7	0.025	18.4	0.005	9437576			
Dissolved Manganese (Mn)	mg/L	0.325	0.0002	0.0075	0.0002	9439471			
. Manganese (Mn)	mg/L	0.327	0.001	0.0127	0.0002	9437576			
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9437768	<0.01	0.01	9437768
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9437770			
Dissolved Molybdenum (Mo)	mg/L	0.00040	0.00005	0.00039	0.00005	9439471			
. Molybdenum (Mo)	mg/L	0.00040	0.00025	0.00035	0.00005	9437576			
Dissolved Nickel (Ni)	mg/L	0.0004	0.0001	0.0021	0.0001	9439471			
. Nickel (Ni)	mg/L	0.0011	0.0005	0.0022	0.0001	9437576			
Dissolved Phosphorus (P)	mg/L	0.058	0.005	<0.005	0.005	9439471			
. Phosphorus (P)	mg/L	0.093	0.025	<0.005	0.005	9437576			
Dissolved Potassium (K)	mg/L	2.49	0.02	1.03	0.02	9439471			
. Potassium (K)	mg/L	2.4	0.1	1.00	0.02	9437576			
Dissolved Rubidium (Rb)	mg/L	0.00164	0.00002	0.00252	0.00002	9439471			
. Rubidium (Rb)	mg/L	0.0018	0.0001	0.00265	0.00002	9437576			
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9439471			
. Selenium (Se)	mg/L	<0.00025	0.00025	0.00009	0.00005	9437576			
Dissolved Silicon (Si)	mg/L	11.0	0.025	4.95	0.005	9439471			
. Silicon (Si)	mg/L	10.9	0.025	4.97	0.005	9437576			
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9439471			
. Silver (Ag)	mg/L	<0.00005	0.00005	<0.00001	0.00001	9437576			
Dissolved Sodium (Na)	mg/L	9.07	0.01	2.44	0.01	9439471			
. Sodium (Na)	mg/L	8.86	0.05	2.05	0.01	9437576			
Dissolved Strontium (Sr)	mg/L	0.430	0.0001	0.0746	0.0001	9439471			
. Strontium (Sr)	mg/L	0.424	0.0005	0.0760	0.0001	9437576			
Dissolved Sulphur (S)	mg/L	5.6	0.5	2.1	0.5	9435666			

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZHY397		ZHY398			ZHY398		
Sampling Date		2024/05/29 14:58		2024/05/29 08:00			2024/05/29 08:00		
COC Number		905395		905395			905395		
	UNITS	MW3-BR-13	RDL	Duplicate 1	RDL	QC Batch	Duplicate 1 Lab-Dup	RDL	QC Batch
Total Sulphur (S)	mg/L	5.6	0.5	2.2	0.5	9434441			
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9439471			
. Tellurium (Te)	mg/L	<0.0005	0.0005	<0.0001	0.0001	9437576			
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	0.000005	0.000005	9439471			
. Thallium (Tl)	mg/L	<0.000025	0.000025	0.000005	0.000005	9437576			
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9439471			
. Thorium (Th)	mg/L	<0.001	0.001	<0.0002	0.0002	9437576			
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9439471			
. Tin (Sn)	mg/L	<0.0005	0.0005	<0.0001	0.0001	9437576			
Dissolved Titanium (Ti)	mg/L	0.0011	0.0005	<0.0005	0.0005	9439471			
. Titanium (Ti)	mg/L	0.0111	0.0025	<0.0005	0.0005	9437576			
Dissolved Tungsten (W)	mg/L	0.0024	0.0001	<0.0001	0.0001	9439471			
. Tungsten (W)	mg/L	0.0024	0.0005	<0.0001	0.0001	9437576			
Dissolved Uranium (U)	mg/L	0.00024	0.00001	0.00040	0.00001	9439471			
. Uranium (U)	mg/L	0.00031	0.00005	0.00037	0.00001	9437576			
Dissolved Vanadium (V)	mg/L	0.00063	0.00005	0.00011	0.00005	9439471			
. Vanadium (V)	mg/L	0.00122	0.00025	0.00011	0.00005	9437576			
Dissolved Zinc (Zn)	mg/L	0.0018	0.0005	0.0014	0.0005	9439471			
. Zinc (Zn)	mg/L	0.0063	0.0025	0.0014	0.0005	9437576			
Dissolved Zirconium (Zr)	mg/L	0.0057	0.0001	0.0002	0.0001	9439471			
. Zirconium (Zr)	mg/L	0.0051	0.0005	0.0002	0.0001	9437576			

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VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		ZHY391	ZHY393	ZHY394		
Sampling Date		2024/05/29 11:51	2024/05/29 15:03	2024/05/29 15:24		
COC Number		905395	905395	905395		
	UNITS	MWS-14-07-OB	G7-OB2-14	G7-OB1-14	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	0.50	9427785
Volatile Organics						
Benzene	ug/L	<0.17	<0.17	<0.17	0.17	9430080
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	9430080
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	9430080
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	9430080
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	9430080
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	9430080
F1 (C6-C10)	ug/L	<25	<25	<25	25	9430080
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	25	9430080
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	101	104	101		9430080
D4-1,2-Dichloroethane	%	98	98	98		9430080
D8-Toluene	%	97	96	97		9430080

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		ZHY391	ZHY393	ZHY394		
Sampling Date		2024/05/29 11:51	2024/05/29 15:03	2024/05/29 15:24		
COC Number		905395	905395	905395		
	UNITS	MWS-14-07-OB	G7-OB2-14	G7-OB1-14	RDL	QC Batch
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	9429396
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	9429396
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	9429396
Reached Baseline at C50	ug/L	Yes	Yes	Yes		9429396
Surrogate Recovery (%)						
o-Terphenyl	%	97	98	98		9429396

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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TEST SUMMARY

Bureau Veritas ID: ZHY391
Sample ID: MWS-14-07-OB
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9434364	N/A	2024/06/05	Brent Boudreau
Alkalinity	AT	9428639	N/A	2024/06/03	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9426779	N/A	2024/06/04	Automated Statchk
1,3-Dichloropropene Sum	CALC	9427785	N/A	2024/06/05	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9428640	N/A	2024/06/05	Alina Dobreanu
Conductivity	AT	9428646	N/A	2024/06/03	Surinder Rai
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9428433	N/A	2024/06/03	Gyulshen Idriz
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9429396	2024/06/03	2024/06/03	Agnieszka Brzuzy-Snopko
Fluoride	ISE	9428647	2024/06/01	2024/06/03	Surinder Rai
Hardness (calculated as CaCO3)		9427626	N/A	2024/06/07	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9437770	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9437768	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9435666	2024/06/05	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9439471	N/A	2024/06/07	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9437576	N/A	2024/06/06	Nan Raykha
Total Metals Analysis by ICP	ICP	9434441	2024/06/05	2024/06/06	Suban Kanapathippllai
Cyanide (Free)	SPEC	9441249	N/A	2024/06/06	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9448672	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9445764	2024/06/06	2024/06/07	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9437967	N/A	2024/06/07	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9428635	N/A	2024/06/03	Chandra Nandlal
pH	AT	9428648	2024/06/01	2024/06/03	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Sulphate by Automated Turbidimetry	SKAL	9428645	N/A	2024/06/05	Alina Dobreanu
Total Dissolved Solids	BAL	9435551	2024/06/05	2024/06/06	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Total Kjeldahl Nitrogen in Water	SKAL	9435170	2024/06/05	2024/06/06	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9434807	2024/06/05	2024/06/05	Darshan Patel
Turbidity	AT	9428636	N/A	2024/06/01	Kien Tran
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9430080	N/A	2024/06/04	Denis Reid

Bureau Veritas ID: ZHY391 Dup
Sample ID: MWS-14-07-OB
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS (low level)	ICP1/MS	9439471	N/A	2024/06/07	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9437576	N/A	2024/06/06	Nan Raykha
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9448672	2024/06/11	2024/06/11	Ye Hyun KIM
Total Ammonia-N	LACH/NH4	9437967	N/A	2024/06/07	Yogesh Patel
Total Dissolved Solids	BAL	9435551	2024/06/05	2024/06/06	Darshan Patel

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TEST SUMMARY

Bureau Veritas ID: ZHY392
Sample ID: MWS-14-07-BR
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9434364	N/A	2024/06/05	Brent Boudreau
Alkalinity	AT	9428639	N/A	2024/06/03	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9426779	N/A	2024/06/04	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9428640	N/A	2024/06/05	Alina Dobreanu
Conductivity	AT	9428646	N/A	2024/06/03	Surinder Rai
Fluoride	ISE	9428647	2024/06/01	2024/06/03	Surinder Rai
Hardness (calculated as CaCO3)		9427626	N/A	2024/06/07	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9437770	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9437768	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9435666	2024/06/05	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9439471	N/A	2024/06/07	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9437576	N/A	2024/06/06	Nan Raykha
Total Metals Analysis by ICP	ICP	9434441	2024/06/05	2024/06/06	Suban Kanapathippllai
Cyanide (Free)	SPEC	9442599	N/A	2024/06/07	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9448671	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9445764	2024/06/06	2024/06/07	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9437967	N/A	2024/06/07	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9428635	N/A	2024/06/03	Chandra Nandlal
pH	AT	9428648	2024/06/01	2024/06/03	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Sulphate by Automated Turbidimetry	SKAL	9428645	N/A	2024/06/05	Alina Dobreanu
Total Dissolved Solids	BAL	9435551	2024/06/05	2024/06/06	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Total Kjeldahl Nitrogen in Water	SKAL	9435141	2024/06/05	2024/06/06	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9436327	2024/06/05	2024/06/06	Tina Teng
Turbidity	AT	9428636	N/A	2024/06/01	Kien Tran

Bureau Veritas ID: ZHY393
Sample ID: G7-OB2-14
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9434364	N/A	2024/06/05	Brent Boudreau
Alkalinity	AT	9428639	N/A	2024/06/03	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9426779	N/A	2024/06/04	Automated Statchk
1,3-Dichloropropene Sum	CALC	9427785	N/A	2024/06/05	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9428640	N/A	2024/06/05	Alina Dobreanu
Conductivity	AT	9428646	N/A	2024/06/03	Surinder Rai
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9428433	N/A	2024/06/03	Gyulshen Idriz
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9429396	2024/06/03	2024/06/03	Agnieszka Brzuzy-Snopko
Fluoride	ISE	9428647	2024/06/01	2024/06/03	Surinder Rai
Hardness (calculated as CaCO3)		9427626	N/A	2024/06/07	Automated Statchk
Mercury in Water by CVAA	CV/AA	9442088	2024/06/07	2024/06/07	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9437770	2024/06/06	2024/06/07	Gagandeep Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G3628
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZHY393
Sample ID: G7-OB2-14
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	9435666	2024/06/05	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9439471	N/A	2024/06/07	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9437576	N/A	2024/06/06	Nan Raykha
Total Metals Analysis by ICP	ICP	9434441	2024/06/05	2024/06/06	Suban Kanapathippllai
Cyanide (Free)	SPEC	9441249	N/A	2024/06/06	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9448671	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9445764	2024/06/06	2024/06/07	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9437967	N/A	2024/06/07	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9428635	N/A	2024/06/03	Chandra Nandlal
pH	AT	9428648	2024/06/01	2024/06/03	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Sulphate by Automated Turbidimetry	SKAL	9428645	N/A	2024/06/05	Alina Dobreanu
Total Dissolved Solids	BAL	9435551	2024/06/05	2024/06/06	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Total Kjeldahl Nitrogen in Water	SKAL	9435141	2024/06/05	2024/06/06	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9434807	2024/06/05	2024/06/05	Darshan Patel
Turbidity	AT	9428636	N/A	2024/06/01	Kien Tran
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9430080	N/A	2024/06/04	Denis Reid

Bureau Veritas ID: ZHY394
Sample ID: G7-OB1-14
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9434364	N/A	2024/06/05	Brent Boudreau
Alkalinity	AT	9428639	N/A	2024/06/03	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9428157	N/A	2024/06/03	Automated Statchk
1,3-Dichloropropene Sum	CALC	9427785	N/A	2024/06/05	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9428640	N/A	2024/06/05	Alina Dobreanu
Conductivity	AT	9428646	N/A	2024/06/03	Surinder Rai
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9428433	N/A	2024/06/03	Gyulshen Idriz
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9429396	2024/06/03	2024/06/03	Agnieszka Brzuzy-Snopko
Fluoride	ISE	9428647	2024/06/01	2024/06/03	Surinder Rai
Hardness (calculated as CaCO3)		9427626	N/A	2024/06/07	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9437770	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9437768	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9435666	2024/06/05	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9439471	N/A	2024/06/07	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9437576	N/A	2024/06/06	Nan Raykha
Total Metals Analysis by ICP	ICP	9434441	2024/06/05	2024/06/06	Suban Kanapathippllai
Cyanide (Free)	SPEC	9441249	N/A	2024/06/06	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9448671	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9445764	2024/06/06	2024/06/07	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9437967	N/A	2024/06/07	Yogesh Patel

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G3628
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZHY394
Sample ID: G7-OB1-14
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	9428635	N/A	2024/06/03	Chandra Nandlal
pH	AT	9428648	2024/06/01	2024/06/03	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Sulphate by Automated Turbidimetry	SKAL	9428645	N/A	2024/06/05	Alina Dobreanu
Total Dissolved Solids	BAL	9435252	2024/06/05	2024/06/06	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Total Kjeldahl Nitrogen in Water	SKAL	9435141	2024/06/05	2024/06/06	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9435735	2024/06/05	2024/06/06	Madhav Somani
Turbidity	AT	9428636	N/A	2024/06/01	Kien Tran
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9430080	N/A	2024/06/04	Denis Reid

Bureau Veritas ID: ZHY394 Dup
Sample ID: G7-OB1-14
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	9435666	2024/06/05	2024/06/07	Suban Kanapathippllai

Bureau Veritas ID: ZHY395
Sample ID: MW02-OB-18
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9434364	N/A	2024/06/05	Brent Boudreau
Alkalinity	AT	9428639	N/A	2024/06/03	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9426779	N/A	2024/06/04	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9428640	N/A	2024/06/05	Alina Dobreanu
Conductivity	AT	9428646	N/A	2024/06/03	Surinder Rai
Fluoride	ISE	9428647	2024/06/01	2024/06/03	Surinder Rai
Hardness (calculated as CaCO3)		9427626	N/A	2024/06/07	Automated Statchk
Mercury in Water by CVAA	CV/AA	9437766	2024/06/06	2024/06/06	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9437770	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9435666	2024/06/05	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9439471	N/A	2024/06/07	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9437576	N/A	2024/06/06	Nan Raykha
Total Metals Analysis by ICP	ICP	9434441	2024/06/05	2024/06/06	Suban Kanapathippllai
Cyanide (Free)	SPEC	9441249	N/A	2024/06/06	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9448671	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9445764	2024/06/06	2024/06/07	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9437967	N/A	2024/06/07	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9428635	N/A	2024/06/03	Chandra Nandlal
pH	AT	9428648	2024/06/01	2024/06/03	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Sulphate by Automated Turbidimetry	SKAL	9428645	N/A	2024/06/05	Alina Dobreanu

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZHY395
Sample ID: MW02-OB-18
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	9435551	2024/06/05	2024/06/06	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Total Kjeldahl Nitrogen in Water	SKAL	9435141	2024/06/05	2024/06/06	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9434807	2024/06/05	2024/06/05	Darshan Patel
Turbidity	AT	9428636	N/A	2024/06/01	Kien Tran

Bureau Veritas ID: ZHY396
Sample ID: MW3-OB-13
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9434364	N/A	2024/06/05	Brent Boudreau
Alkalinity	AT	9428639	N/A	2024/06/03	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9426779	N/A	2024/06/04	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9428640	N/A	2024/06/05	Alina Dobreanu
Conductivity	AT	9428646	N/A	2024/06/03	Surinder Rai
Fluoride	ISE	9428647	2024/06/01	2024/06/03	Surinder Rai
Hardness (calculated as CaCO3)		9427626	N/A	2024/06/07	Automated Statchk
Mercury in Water by CVAA	CV/AA	9440772	2024/06/07	2024/06/07	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9437770	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9435666	2024/06/05	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9439471	N/A	2024/06/07	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9437576	N/A	2024/06/06	Nan Raykha
Total Metals Analysis by ICP	ICP	9434441	2024/06/05	2024/06/06	Suban Kanapathippllai
Cyanide (Free)	SPEC	9442599	N/A	2024/06/07	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9448671	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9445764	2024/06/06	2024/06/07	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9437967	N/A	2024/06/07	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9428635	N/A	2024/06/03	Chandra Nandlal
pH	AT	9428648	2024/06/01	2024/06/03	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Sulphate by Automated Turbidimetry	SKAL	9428645	N/A	2024/06/05	Alina Dobreanu
Total Dissolved Solids	BAL	9435538	2024/06/05	2024/06/06	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Total Kjeldahl Nitrogen in Water	SKAL	9435141	2024/06/05	2024/06/06	Rajni Tyagi
Total Suspended Solids	BAL	9436641	2024/06/05	2024/06/06	Tina Teng
Turbidity	AT	9428636	N/A	2024/06/01	Kien Tran

Bureau Veritas ID: ZHY397
Sample ID: MW3-BR-13
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9434364	N/A	2024/06/05	Brent Boudreau

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZHY397
Sample ID: MW3-BR-13
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9428639	N/A	2024/06/03	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9426779	N/A	2024/06/04	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9428640	N/A	2024/06/05	Alina Dobreanu
Conductivity	AT	9428646	N/A	2024/06/03	Surinder Rai
Fluoride	ISE	9428647	2024/06/01	2024/06/03	Surinder Rai
Hardness (calculated as CaCO3)		9427626	N/A	2024/06/07	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9437770	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9437768	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9435666	2024/06/05	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9439471	N/A	2024/06/07	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9437576	N/A	2024/06/06	Nan Raykha
Total Metals Analysis by ICP	ICP	9434441	2024/06/05	2024/06/06	Suban Kanapathippllai
Cyanide (Free)	SPEC	9442599	N/A	2024/06/07	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9448671	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9445764	2024/06/06	2024/06/07	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9437967	N/A	2024/06/07	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9428635	N/A	2024/06/03	Chandra Nandlal
pH	AT	9428648	2024/06/01	2024/06/03	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Sulphate by Automated Turbidimetry	SKAL	9428645	N/A	2024/06/05	Alina Dobreanu
Total Dissolved Solids	BAL	9435551	2024/06/05	2024/06/06	Darshan Patel
Field Measured pH	PH	ONSITE	N/A	2024/05/31	Sugar Ray Salvan
Total Kjeldahl Nitrogen in Water	SKAL	9435141	2024/06/05	2024/06/06	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9434807	2024/06/05	2024/06/05	Darshan Patel
Turbidity	AT	9428636	N/A	2024/06/01	Kien Tran

Bureau Veritas ID: ZHY398
Sample ID: Duplicate 1
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9434364	N/A	2024/06/05	Brent Boudreau
Alkalinity	AT	9428639	N/A	2024/06/03	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9426779	N/A	2024/06/04	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9428640	N/A	2024/06/05	Alina Dobreanu
Conductivity	AT	9428646	N/A	2024/06/03	Surinder Rai
Fluoride	ISE	9428647	2024/06/01	2024/06/03	Surinder Rai
Hardness (calculated as CaCO3)		9427626	N/A	2024/06/07	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9437770	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9437768	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9435666	2024/06/05	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9439471	N/A	2024/06/07	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9437576	N/A	2024/06/06	Nan Raykha
Total Metals Analysis by ICP	ICP	9434441	2024/06/05	2024/06/06	Suban Kanapathippllai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G3628
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZHY398
Sample ID: Duplicate 1
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Cyanide (Free)	SPEC	9442599	N/A	2024/06/07	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9448671	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9445764	2024/06/06	2024/06/07	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9437967	N/A	2024/06/07	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9428635	N/A	2024/06/03	Chandra Nandlal
pH	AT	9428648	2024/06/01	2024/06/03	Surinder Rai
Sulphate by Automated Turbidimetry	SKAL	9428645	N/A	2024/06/05	Alina Dobreanu
Total Dissolved Solids	BAL	9435551	2024/06/05	2024/06/06	Darshan Patel
Total Kjeldahl Nitrogen in Water	SKAL	9435141	2024/06/05	2024/06/06	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9434807	2024/06/05	2024/06/05	Darshan Patel
Turbidity	AT	9428636	N/A	2024/06/01	Kien Tran

Bureau Veritas ID: ZHY398 Dup
Sample ID: Duplicate 1
Matrix: Water

Collected: 2024/05/29
Shipped:
Received: 2024/05/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (low level)	CV/AA	9437768	2024/06/06	2024/06/07	Gagandeep Rai
Nitrate & Nitrite as Nitrogen in Water	LACH	9428635	N/A	2024/06/03	Chandra Nandlal
Turbidity	AT	9428636	N/A	2024/06/01	Kien Tran

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.3°C
Package 2	0.3°C
Package 3	0.7°C
Package 4	0.7°C
Package 5	0.3°C

Sample ZHY392 [MWS-14-07-BR] : Acidity sample contained headspace.

Sample ZHY393 [G7-OB2-14] : Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
Mercury Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample ZHY394 [G7-OB1-14] : Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZHY395 [MW02-OB-18] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.
Mercury Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample ZHY396 [MW3-OB-13] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZHY397 [MW3-BR-13] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZHY398 [Duplicate 1] : Acidity sample contained headspace.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9429396	o-Terphenyl	2024/06/03	98	60 - 130	98	60 - 130	97	%				
9430080	4-Bromofluorobenzene	2024/06/04	103	70 - 130	104	70 - 130	103	%				
9430080	D4-1,2-Dichloroethane	2024/06/04	100	70 - 130	101	70 - 130	98	%				
9430080	D8-Toluene	2024/06/04	97	70 - 130	97	70 - 130	96	%				
9428433	Dissolved Organic Carbon	2024/06/03	93	80 - 120	95	80 - 120	<0.40	mg/L	3.4	20		
9428635	Nitrate (N)	2024/06/03	87	80 - 120	90	80 - 120	<0.10	mg/L	NC	20		
9428635	Nitrite (N)	2024/06/03	95	80 - 120	98	80 - 120	<0.010	mg/L	NC	20		
9428636	Turbidity	2024/06/01			99	80 - 120	<0.1	NTU	20	20		
9428639	Alkalinity (Total as CaCO3)	2024/06/03			98	85 - 115	<1.0	mg/L	2.0	20		
9428640	Dissolved Chloride (Cl-)	2024/06/05	102	80 - 120	98	80 - 120	<1.0	mg/L	4.2	20		
9428645	Dissolved Sulphate (SO4)	2024/06/05	NC	75 - 125	101	80 - 120	<1.0	mg/L	1.0	20		
9428646	Conductivity	2024/06/03			103	85 - 115	<0.001	mS/cm	0.15	10		
9428647	Fluoride (F-)	2024/06/03	90	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
9428648	pH	2024/06/03			102	98 - 103			0.17	N/A		
9429396	F2 (C10-C16 Hydrocarbons)	2024/06/03	100	60 - 140	102	60 - 140	<100	ug/L	NC	30		
9429396	F3 (C16-C34 Hydrocarbons)	2024/06/03	105	60 - 140	108	60 - 140	<200	ug/L	NC	30		
9429396	F4 (C34-C50 Hydrocarbons)	2024/06/03	95	60 - 140	99	60 - 140	<200	ug/L	NC	30		
9430080	Benzene	2024/06/04	89	70 - 130	92	70 - 130	<0.17	ug/L	NC	30		
9430080	Ethylbenzene	2024/06/04	87	70 - 130	90	70 - 130	<0.20	ug/L	NC	30		
9430080	F1 (C6-C10) - BTEX	2024/06/04					<25	ug/L	NC	30		
9430080	F1 (C6-C10)	2024/06/04	82	60 - 140	85	60 - 140	<25	ug/L	NC	30		
9430080	o-Xylene	2024/06/04	86	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
9430080	p+m-Xylene	2024/06/04	86	70 - 130	89	70 - 130	<0.20	ug/L	NC	30		
9430080	Toluene	2024/06/04	85	70 - 130	88	70 - 130	<0.20	ug/L	NC	30		
9430080	Total Xylenes	2024/06/04					<0.20	ug/L	NC	30		
9434364	Acidity	2024/06/05	89	80 - 120	105	80 - 120	<5.0	mg/L	NC	25		
9434441	Total Sulphur (S)	2024/06/06	NC	80 - 120	101	80 - 120	<0.5	mg/L				
9434807	Total Suspended Solids	2024/06/05			98	80 - 120	<1	mg/L	7.7	20		
9435141	Total Kjeldahl Nitrogen (TKN)	2024/06/06	NC	80 - 120	93	80 - 120	<0.10	mg/L	0.22	20	92	80 - 120
9435170	Total Kjeldahl Nitrogen (TKN)	2024/06/06	NC	80 - 120	100	80 - 120	<0.10	mg/L	1.5	20	96	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9435252	Total Dissolved Solids	2024/06/06			102	80 - 120	<10	mg/L	18	20		
9435538	Total Dissolved Solids	2024/06/06			95	80 - 120	<10	mg/L	1.2	20		
9435551	Total Dissolved Solids	2024/06/06			100	80 - 120	<10	mg/L	3.4	20		
9435666	Dissolved Sulphur (S)	2024/06/07	103	80 - 120	103	80 - 120	<0.5	mg/L	NC	20		
9435735	Total Suspended Solids	2024/06/06			100	80 - 120	<1	mg/L	0	20		
9436327	Total Suspended Solids	2024/06/06			99	80 - 120	<1	mg/L	0	20		
9436641	Total Suspended Solids	2024/06/06			95	80 - 120	<10	mg/L	2.9	20		
9437576	. Aluminum (Al)	2024/06/06	104	80 - 120	101	80 - 120	<0.0005	mg/L	2.6	20		
9437576	. Antimony (Sb)	2024/06/06	108	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9437576	. Arsenic (As)	2024/06/06	106	80 - 120	99	80 - 120	<0.0001	mg/L	0.81	20		
9437576	. Barium (Ba)	2024/06/06	99	80 - 120	95	80 - 120	<0.0002	mg/L	2.0	20		
9437576	. Beryllium (Be)	2024/06/06	102	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
9437576	. Bismuth (Bi)	2024/06/06	88	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9437576	. Boron (B)	2024/06/06	102	80 - 120	98	80 - 120	<0.001	mg/L	1.7	20		
9437576	. Cadmium (Cd)	2024/06/06	103	80 - 120	97	80 - 120	<0.000005	mg/L	7.4	20		
9437576	. Calcium (Ca)	2024/06/06	NC	80 - 120	101	80 - 120	<0.02	mg/L	0.41	20		
9437576	. Cesium (Cs)	2024/06/06	94	80 - 120	94	80 - 120	<0.00002	mg/L	1.9	20		
9437576	. Chromium (Cr)	2024/06/06	99	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9437576	. Cobalt (Co)	2024/06/06	100	80 - 120	99	80 - 120	<0.00005	mg/L	1.1	20		
9437576	. Copper (Cu)	2024/06/06	102	80 - 120	101	80 - 120	<0.0001	mg/L	0.44	20		
9437576	. Iron (Fe)	2024/06/06	103	80 - 120	101	80 - 120	<0.005	mg/L	0.53	20		
9437576	. Lead (Pb)	2024/06/06	95	80 - 120	98	80 - 120	<0.00005	mg/L	7.9	20		
9437576	. Lithium (Li)	2024/06/06	105	80 - 120	102	80 - 120	<0.0005	mg/L	2.1	20		
9437576	. Magnesium (Mg)	2024/06/06	NC	80 - 120	102	80 - 120	<0.005	mg/L	0.24	20		
9437576	. Manganese (Mn)	2024/06/06	100	80 - 120	97	80 - 120	<0.0002	mg/L	0.92	20		
9437576	. Molybdenum (Mo)	2024/06/06	109	80 - 120	98	80 - 120	<0.00005	mg/L	4.2	20		
9437576	. Nickel (Ni)	2024/06/06	94	80 - 120	96	80 - 120	<0.0001	mg/L	0.28	20		
9437576	. Phosphorus (P)	2024/06/06	115	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		
9437576	. Potassium (K)	2024/06/06	109	80 - 120	102	80 - 120	<0.02	mg/L	0.22	20		
9437576	. Rubidium (Rb)	2024/06/06	99	80 - 120	98	80 - 120	<0.00002	mg/L	0.43	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9437576	. Selenium (Se)	2024/06/06	108	80 - 120	100	80 - 120	<0.00005	mg/L	5.6	20		
9437576	. Silicon (Si)	2024/06/06	NC	80 - 120	99	80 - 120	<0.005	mg/L	3.0	20		
9437576	. Silver (Ag)	2024/06/06	99	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9437576	. Sodium (Na)	2024/06/06	102	80 - 120	100	80 - 120	<0.01	mg/L	0.23	20		
9437576	. Strontium (Sr)	2024/06/06	NC	80 - 120	97	80 - 120	<0.0001	mg/L	0.35	20		
9437576	. Tellurium (Te)	2024/06/06	104	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9437576	. Thallium (Tl)	2024/06/06	96	80 - 120	100	80 - 120	<0.000005	mg/L	15	20		
9437576	. Thorium (Th)	2024/06/06	96	80 - 120	95	80 - 120	<0.0002	mg/L	NC	20		
9437576	. Tin (Sn)	2024/06/06	107	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9437576	. Titanium (Ti)	2024/06/06	102	80 - 120	99	80 - 120	<0.0005	mg/L	0.25	20		
9437576	. Tungsten (W)	2024/06/06	104	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9437576	. Uranium (U)	2024/06/06	97	80 - 120	97	80 - 120	<0.00001	mg/L	0	20		
9437576	. Vanadium (V)	2024/06/06	102	80 - 120	97	80 - 120	<0.00005	mg/L	0.70	20		
9437576	. Zinc (Zn)	2024/06/06	97	80 - 120	98	80 - 120	<0.0005	mg/L	1.0	20		
9437576	. Zirconium (Zr)	2024/06/06	109	80 - 120	98	80 - 120	<0.0001	mg/L	3.2	20		
9437766	Mercury (Hg)	2024/06/06	88	75 - 125	100	80 - 120	<0.00010	mg/L	NC	20		
9437768	Mercury (Hg)	2024/06/07	97	75 - 125	99	80 - 120	<0.01	ug/L	NC	20		
9437770	Dissolved Mercury (Hg)	2024/06/07	102	75 - 125	100	80 - 120	<0.01	ug/L	NC	20		
9437967	Total Ammonia-N	2024/06/07	92	75 - 125	106	80 - 120	<0.050	mg/L	NC	20		
9439471	Dissolved Aluminum (Al)	2024/06/07	101	80 - 120	99	80 - 120	<0.0005	mg/L	3.1	20		
9439471	Dissolved Antimony (Sb)	2024/06/07	108	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9439471	Dissolved Arsenic (As)	2024/06/07	104	80 - 120	99	80 - 120	<0.0001	mg/L	5.6	20		
9439471	Dissolved Barium (Ba)	2024/06/07	101	80 - 120	99	80 - 120	<0.0002	mg/L	0.27	20		
9439471	Dissolved Beryllium (Be)	2024/06/07	105	80 - 120	102	80 - 120	<0.00005	mg/L	NC	20		
9439471	Dissolved Bismuth (Bi)	2024/06/07	94	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9439471	Dissolved Boron (B)	2024/06/07	102	80 - 120	102	80 - 120	<0.001	mg/L	3.3	20		
9439471	Dissolved Cadmium (Cd)	2024/06/07	103	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9439471	Dissolved Calcium (Ca)	2024/06/07	NC	80 - 120	102	80 - 120	<0.02	mg/L	0.076	20		
9439471	Dissolved Cesium (Cs)	2024/06/07	99	80 - 120	100	80 - 120	<0.00002	mg/L	NC	N/A		
9439471	Dissolved Chromium (Cr)	2024/06/07	100	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9439471	Dissolved Cobalt (Co)	2024/06/07	96	80 - 120	96	80 - 120	<0.00005	mg/L	13	20		
9439471	Dissolved Copper (Cu)	2024/06/07	101	80 - 120	98	80 - 120	<0.0001	mg/L	1.7	20		
9439471	Dissolved Iron (Fe)	2024/06/07	103	80 - 120	102	80 - 120	<0.005	mg/L	3.2	20		
9439471	Dissolved Lead (Pb)	2024/06/07	97	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9439471	Dissolved Lithium (Li)	2024/06/07	106	80 - 120	105	80 - 120	<0.0005	mg/L	1.2	20		
9439471	Dissolved Magnesium (Mg)	2024/06/07	NC	80 - 120	101	80 - 120	<0.005	mg/L	0.79	20		
9439471	Dissolved Manganese (Mn)	2024/06/07	100	80 - 120	98	80 - 120	<0.0002	mg/L	2.8	20		
9439471	Dissolved Molybdenum (Mo)	2024/06/07	110	80 - 120	100	80 - 120	<0.00005	mg/L	7.1	20		
9439471	Dissolved Nickel (Ni)	2024/06/07	97	80 - 120	99	80 - 120	<0.0001	mg/L	5.0	20		
9439471	Dissolved Phosphorus (P)	2024/06/07	112	80 - 120	101	80 - 120	<0.005	mg/L	NC	20		
9439471	Dissolved Potassium (K)	2024/06/07	105	80 - 120	99	80 - 120	<0.02	mg/L	0.32	20		
9439471	Dissolved Rubidium (Rb)	2024/06/07	99	80 - 120	98	80 - 120	<0.00002	mg/L	1.9	N/A		
9439471	Dissolved Selenium (Se)	2024/06/07	103	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20		
9439471	Dissolved Silicon (Si)	2024/06/07	NC	80 - 120	101	80 - 120	<0.005	mg/L	0.74	20		
9439471	Dissolved Silver (Ag)	2024/06/07	103	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
9439471	Dissolved Sodium (Na)	2024/06/07	NC	80 - 120	102	80 - 120	<0.01	mg/L	0.35	20		
9439471	Dissolved Strontium (Sr)	2024/06/07	NC	80 - 120	96	80 - 120	<0.0001	mg/L	1.1	20		
9439471	Dissolved Tellurium (Te)	2024/06/07	103	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9439471	Dissolved Thallium (Tl)	2024/06/07	103	80 - 120	103	80 - 120	<0.000005	mg/L	0	20		
9439471	Dissolved Thorium (Th)	2024/06/07	100	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9439471	Dissolved Tin (Sn)	2024/06/07	106	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9439471	Dissolved Titanium (Ti)	2024/06/07	101	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
9439471	Dissolved Tungsten (W)	2024/06/07	103	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9439471	Dissolved Uranium (U)	2024/06/07	101	80 - 120	101	80 - 120	<0.00001	mg/L	0.24	20		
9439471	Dissolved Vanadium (V)	2024/06/07	103	80 - 120	100	80 - 120	<0.00005	mg/L	12	20		
9439471	Dissolved Zinc (Zn)	2024/06/07	95	80 - 120	99	80 - 120	<0.0005	mg/L	19	20		
9439471	Dissolved Zirconium (Zr)	2024/06/07	111	80 - 120	101	80 - 120	<0.0001	mg/L	7.4	20		
9440772	Mercury (Hg)	2024/06/07	84	75 - 125	92	80 - 120	<0.00010	mg/L	NC	20		
9441249	Free Cyanide (CN)	2024/06/06	90	80 - 120	84	80 - 120	<2.0	ug/L				
9442088	Mercury (Hg)	2024/06/07	83	75 - 125	86	80 - 120	<0.00010	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9442599	Free Cyanide (CN)	2024/06/07	84	80 - 120	93	80 - 120	<2.0	ug/L				
9445764	Total Phosphorus (P)	2024/06/07	103	80 - 120	92	80 - 120	<0.0010	mg/L			87	80 - 120
9448671	Strong Acid Dissoc. Cyanide (CN)	2024/06/11	93	80 - 120	97	80 - 120	<0.00050	mg/L				
9448672	Strong Acid Dissoc. Cyanide (CN)	2024/06/11	91	80 - 120	99	80 - 120	<0.00050	mg/L	NC	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Bureau Veritas Job #: C4G3628
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

Janah Rhyno, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 905905

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/12
Report #: R8187854
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G7181
Received: 2024/06/03, 09:23

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	4	N/A	2024/06/10	ATL SOP-00205	SM 24 2310B m
Alkalinity	1	N/A	2024/06/06	CAM SOP-00448	SM 24 2320 B m
Alkalinity	3	N/A	2024/06/07	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	4	N/A	2024/06/07	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	4	N/A	2024/06/10	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	1	N/A	2024/06/06	CAM SOP-00414	SM 24 2510 m
Conductivity	3	N/A	2024/06/07	CAM SOP-00414	SM 24 2510 m
Dissolved Organic Carbon (DOC) (3)	1	N/A	2024/06/06	CAM SOP-00446	SM 24 5310 B m
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2024/06/06	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (4)	2	2024/06/06	2024/06/06	CAM SOP-00316	CCME PHC-CWS m
Fluoride	1	2024/06/05	2024/06/06	CAM SOP-00449	SM 24 4500-F C m
Fluoride	2	2024/06/05	2024/06/07	CAM SOP-00449	SM 24 4500-F C m
Fluoride	1	2024/06/07	2024/06/07	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2024/06/11	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	4	2024/06/06	2024/06/07	CAM SOP-00453	EPA 7470 m
Mercury (low level)	4	2024/06/06	2024/06/07	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	4	2024/06/06	2024/06/07	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	2	N/A	2024/06/10	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	2	N/A	2024/06/11	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	4	N/A	2024/06/10	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	4	2024/06/07	2024/06/10	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	4	N/A	2024/06/11	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	4	2024/06/11	2024/06/11	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	4	2024/06/11	2024/06/11	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	4	N/A	2024/06/10	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (5)	3	N/A	2024/06/05	CAM SOP-00440	SM 24 4500-NO3I/NO2B
Nitrate & Nitrite as Nitrogen in Water (5)	1	N/A	2024/06/06	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (6)	1	2024/06/05	2024/06/06	CAM SOP-00413	SM 24th - 4500H+ B
pH (6)	2	2024/06/05	2024/06/07	CAM SOP-00413	SM 24th - 4500H+ B
pH (6)	1	2024/06/07	2024/06/07	CAM SOP-00413	SM 24th - 4500H+ B

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 905905

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/12
Report #: R8187854
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G7181
Received: 2024/06/03, 09:23

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Field Measured pH (7)	4	N/A	2024/06/04		Field pH Meter
Sulphate by Automated Turbidimetry	4	N/A	2024/06/10	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	4	2024/06/06	2024/06/07	CAM SOP-00428	SM 24 2540C m
Field Temperature (7)	4	N/A	2024/06/04		Field Thermometer
Total Kjeldahl Nitrogen in Water	4	2024/06/06	2024/06/07	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	4	2024/06/06	2024/06/07	CAM SOP-00428	SM 24 2540D m
Turbidity	4	N/A	2024/06/05	CAM SOP-00417	SM 24 2130 B

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9

(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8

(3) Dissolved Organic Carbon (DOC) present in the sample should be considered as non-purgeable DOC.

(4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

(5) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(6) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(7) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 905905

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/12
Report #: R8187854
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G7181
Received: 2024/06/03, 09:23

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

Bureau Veritas Job #: C4G7181
Report Date: 2024/06/12

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZIS037			ZIS037			ZIS038		
Sampling Date		2024/05/30 10:42			2024/05/30 10:42			2024/05/30 11:54		
COC Number		905905			905905			905905		
	UNITS	BH23-01	RDL	QC Batch	BH23-01 Lab-Dup	RDL	QC Batch	MW15-OB-14	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	190	1.0	9434753				230	1.0	9434753
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.0	1.0	9434753				2.3	1.0	9434753
Hardness (CaCO3)	mg/L	210	1.0	9434754				260	1.0	9434754
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9434753				<1.0	1.0	9434753
Field Measurements										
Field Temperature	Celsius	8.1	N/A	ONSITE				9.9	N/A	ONSITE
Field Measured pH	pH	6.87		ONSITE				7.62		ONSITE
Inorganics										
Acidity	mg/L	9.0	5.0	9444000				5.6	5.0	9444000
Total Ammonia-N	mg/L	<0.050	0.050	9440647	<0.050	0.050	9440647	<0.050	0.050	9440647
Conductivity	mS/cm	0.381	0.001	9440639	0.380	0.001	9440639	0.443	N/A	9436876
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9448614				<2.0 (1)	2.0	9448614
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9449839				<0.00050	0.00050	9449839
Total Dissolved Solids	mg/L	190	10	9438683				205	10	9438683
Fluoride (F-)	mg/L	<0.10	0.10	9440648	<0.10	0.10	9440648	<0.10	0.10	9436880
Total Kjeldahl Nitrogen (TKN)	mg/L	0.19	0.10	9438861				0.13	0.10	9438861
Dissolved Organic Carbon	mg/L							3.9	0.40	9435807
pH	pH	7.75		9440634	7.78		9440634	8.02		9436878
Total Phosphorus (P)	mg/L	0.0013	0.0010	9449838				0.025	0.0010	9449838
Total Suspended Solids	mg/L	28	1	9438418				120	1	9438418
Dissolved Sulphate (SO4)	mg/L	4.9	1.0	9436896				9.9	1.0	9436896
Turbidity	NTU	27	0.1	9435813				55	0.1	9435813
Alkalinity (Total as CaCO3)	mg/L	200	1.0	9440607	200	1.0	9440607	230	1.0	9436879
Dissolved Chloride (Cl-)	mg/L	1.2	1.0	9436898				1.2	1.0	9436898
Nitrite (N)	mg/L	<0.010	0.010	9436298	<0.010	0.010	9436298	<0.010	0.010	9435752
Nitrate (N)	mg/L	0.69	0.10	9436298	0.70	0.10	9436298	<0.10	0.10	9435752

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G7181
Report Date: 2024/06/12

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZIS037			ZIS037			ZIS038		
Sampling Date		2024/05/30 10:42			2024/05/30 10:42			2024/05/30 11:54		
COC Number		905905			905905			905905		
	UNITS	**BH23-01**	**RDL**	**QC Batch**	**BH23-01 Lab-Dup**	**RDL**	**QC Batch**	**MW15-OB-14**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	0.69	0.10	9436298	0.70	0.10	9436298	<0.10	0.10	9435752

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C4G7181
Report Date: 2024/06/12

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZIS038			ZIS039			ZIS039		
Sampling Date		2024/05/30 11:54			2024/05/30 12:13			2024/05/30 12:13		
COC Number		905905			905905			905905		
	UNITS	MW15-OB-14 Lab-Dup	RDL	QC Batch	MW15-BR-14	RDL	QC Batch	MW15-BR-14 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				190	1.0	9434753			
Carb. Alkalinity (calc. as CaCO3)	mg/L				2.2	1.0	9434753			
Hardness (CaCO3)	mg/L				200	1.0	9434754			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	9434753			
Field Measurements										
Field Temperature	Celsius				12.4	N/A	ONSITE			
Field Measured pH	pH				7.69		ONSITE			
Inorganics										
Acidity	mg/L	6.0	5.0	9444000	5.4	5.0	9444000			
Total Ammonia-N	mg/L				<0.050	0.050	9440647			
Conductivity	mS/cm	0.442	N/A	9436876	0.364	N/A	9436876			
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	9448614			
Strong Acid Dissoc. Cyanide (CN)	mg/L				<0.00050	0.00050	9449839			
Total Dissolved Solids	mg/L				215	10	9438683	190	10	9438683
Fluoride (F-)	mg/L	<0.10	0.10	9436880	0.16	0.10	9436880			
Total Kjeldahl Nitrogen (TKN)	mg/L				<0.10	0.10	9438861			
pH	pH	8.07		9436878	8.10		9436878			
Total Phosphorus (P)	mg/L				0.0019	0.0010	9449838			
Total Suspended Solids	mg/L	130	1	9438418	5	1	9438418			
Dissolved Sulphate (SO4)	mg/L	9.4	1.0	9436896	12	1.0	9436896			
Turbidity	NTU				1.4	0.1	9435813			
Alkalinity (Total as CaCO3)	mg/L	230	1.0	9436879	190	1.0	9436879			
Dissolved Chloride (Cl-)	mg/L	1.2	1.0	9436898	<1.0	1.0	9436898			
Nitrite (N)	mg/L				<0.010	0.010	9435752			
Nitrate (N)	mg/L				<0.10	0.10	9435752			
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	9435752			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Bureau Veritas Job #: C4G7181
Report Date: 2024/06/12

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZIS040		
Sampling Date		2024/05/30 14:33		
COC Number		905905		
	UNITS	Pond M1 Drainage	RDL	QC Batch
Calculated Parameters				
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	150	1.0	9434753
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.5	1.0	9434753
Hardness (CaCO3)	mg/L	150	1.0	9434754
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9434753
Field Measurements				
Field Temperature	Celsius	12.5	N/A	ONSITE
Field Measured pH	pH	7.71		ONSITE
Inorganics				
Acidity	mg/L	<5.0	5.0	9444000
Total Ammonia-N	mg/L	<0.050	0.050	9440647
Conductivity	mS/cm	0.294	N/A	9436876
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9448614
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9449839
Total Dissolved Solids	mg/L	135	10	9438683
Fluoride (F-)	mg/L	0.30	0.10	9436880
Total Kjeldahl Nitrogen (TKN)	mg/L	0.10	0.10	9438861
pH	pH	8.03		9436878
Total Phosphorus (P)	mg/L	0.0046	0.0010	9449838
Total Suspended Solids	mg/L	10	1	9438418
Dissolved Sulphate (SO4)	mg/L	2.2	1.0	9436896
Turbidity	NTU	2.7	0.1	9435813
Alkalinity (Total as CaCO3)	mg/L	150	1.0	9436879
Dissolved Chloride (Cl-)	mg/L	7.1	1.0	9436898
Nitrite (N)	mg/L	<0.010	0.010	9435752
Nitrate (N)	mg/L	<0.10	0.10	9435752
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9435752

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZIS037		ZIS038			ZIS038		
Sampling Date		2024/05/30 10:42		2024/05/30 11:54			2024/05/30 11:54		
COC Number		905905		905905			905905		
	UNITS	BH23-01	RDL	MW15-OB-14	RDL	QC Batch	MW15-OB-14 Lab-Dup	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0085	0.0005	0.0018	0.0005	9444906			
. Aluminum (Al)	mg/L	0.0330	0.0005	0.185	0.0005	9444896			
Dissolved Antimony (Sb)	mg/L	0.0001	0.0001	<0.0001	0.0001	9444906			
. Antimony (Sb)	mg/L	0.0001	0.0001	<0.0001	0.0001	9444896			
Dissolved Arsenic (As)	mg/L	0.0009	0.0001	0.0009	0.0001	9444906			
. Arsenic (As)	mg/L	0.0019	0.0001	0.0012	0.0001	9444896			
Dissolved Barium (Ba)	mg/L	0.0144	0.0002	0.0279	0.0002	9444906			
. Barium (Ba)	mg/L	0.0177	0.0002	0.0265	0.0002	9444896			
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9444906			
. Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9444896			
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444906			
. Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444896			
Dissolved Boron (B)	mg/L	0.004	0.001	0.006	0.001	9444906			
. Boron (B)	mg/L	0.004	0.001	0.007	0.001	9444896			
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9444906			
. Cadmium (Cd)	mg/L	0.000016	0.000005	0.000025	0.000005	9444896			
Dissolved Calcium (Ca)	mg/L	64.4	0.1	77.3	0.1	9444906			
. Calcium (Ca)	mg/L	63.5	0.1	80.0	0.1	9444896			
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	<0.00002	0.00002	9444906			
. Cesium (Cs)	mg/L	0.00003	0.00002	0.00003	0.00002	9444896			
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9444906			
. Chromium (Cr)	mg/L	0.0018	0.0005	0.0008	0.0005	9444896			
Dissolved Cobalt (Co)	mg/L	0.00030	0.00005	0.00046	0.00005	9444906			
. Cobalt (Co)	mg/L	0.00058	0.00005	0.00053	0.00005	9444896			
Dissolved Copper (Cu)	mg/L	0.0025	0.0001	0.0003	0.0001	9444906			
. Copper (Cu)	mg/L	0.0044	0.0001	0.0032	0.0001	9444896			
Dissolved Iron (Fe)	mg/L	0.716	0.005	0.010	0.005	9444906			
. Iron (Fe)	mg/L	5.89	0.005	0.303	0.005	9444896			
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9444906			

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZIS037		ZIS038			ZIS038		
Sampling Date		2024/05/30 10:42		2024/05/30 11:54			2024/05/30 11:54		
COC Number		905905		905905			905905		
	UNITS	BH23-01	RDL	MW15-OB-14	RDL	QC Batch	MW15-OB-14 Lab-Dup	RDL	QC Batch
. Lead (Pb)	mg/L	0.00010	0.00005	0.00021	0.00005	9444896			
Dissolved Lithium (Li)	mg/L	0.0007	0.0005	0.0013	0.0005	9444906			
. Lithium (Li)	mg/L	0.0007	0.0005	0.0017	0.0005	9444896			
Dissolved Magnesium (Mg)	mg/L	12.4	0.005	15.5	0.005	9444906			
. Magnesium (Mg)	mg/L	12.3	0.005	16.8	0.005	9444896			
Dissolved Manganese (Mn)	mg/L	0.0158	0.0002	0.0363	0.0002	9444906			
. Manganese (Mn)	mg/L	0.0301	0.0002	0.0347	0.0002	9444896			
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9438819			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9438784			
Dissolved Molybdenum (Mo)	mg/L	0.00037	0.00005	0.00047	0.00005	9444906			
. Molybdenum (Mo)	mg/L	0.00029	0.00005	0.00042	0.00005	9444896			
Dissolved Nickel (Ni)	mg/L	0.0047	0.0001	0.0004	0.0001	9444906			
. Nickel (Ni)	mg/L	0.0087	0.0001	0.0010	0.0001	9444896			
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	<0.005	0.005	9444906			
. Phosphorus (P)	mg/L	<0.005	0.005	0.033	0.005	9444896			
Dissolved Potassium (K)	mg/L	1.28	0.02	1.81	0.02	9444906			
. Potassium (K)	mg/L	1.37	0.02	1.77	0.02	9444896			
Dissolved Rubidium (Rb)	mg/L	0.00201	0.00002	0.00250	0.00002	9444906			
. Rubidium (Rb)	mg/L	0.00227	0.00002	0.00278	0.00002	9444896			
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9444906			
. Selenium (Se)	mg/L	0.00006	0.00005	<0.00005	0.00005	9444896			
Dissolved Silicon (Si)	mg/L	4.71	0.005	4.77	0.025	9444906			
. Silicon (Si)	mg/L	4.70	0.005	4.74	0.025	9444896			
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9444906			
. Silver (Ag)	mg/L	0.00003	0.00001	<0.00001	0.00001	9444896			
Dissolved Sodium (Na)	mg/L	1.29	0.01	1.94	0.01	9444906			
. Sodium (Na)	mg/L	1.40	0.01	1.91	0.01	9444896			
Dissolved Strontium (Sr)	mg/L	0.0614	0.0001	0.0690	0.0001	9444906			
. Strontium (Sr)	mg/L	0.0635	0.0001	0.0721	0.0001	9444896			
Dissolved Sulphur (S)	mg/L	1.5	0.5	3.2	0.5	9438687			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZIS037		ZIS038			ZIS038		
Sampling Date		2024/05/30 10:42		2024/05/30 11:54			2024/05/30 11:54		
COC Number		905905		905905			905905		
	UNITS	BH23-01	RDL	MW15-OB-14	RDL	QC Batch	MW15-OB-14 Lab-Dup	RDL	QC Batch
Total Sulphur (S)	mg/L	1.6	0.5	3.3	0.5	9440781	3.4	0.5	9440781
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444906			
. Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444896			
Dissolved Thallium (Tl)	mg/L	0.000013	0.000005	0.000007	0.000005	9444906			
. Thallium (Tl)	mg/L	0.000020	0.000005	0.000017	0.000005	9444896			
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9444906			
. Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9444896			
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444906			
. Tin (Sn)	mg/L	0.0002	0.0001	<0.0001	0.0001	9444896			
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9444906			
. Titanium (Ti)	mg/L	0.0014	0.0005	0.0128	0.0005	9444896			
Dissolved Tungsten (W)	mg/L	0.0001	0.0001	0.0004	0.0001	9444906			
. Tungsten (W)	mg/L	0.0007	0.0001	0.0002	0.0001	9444896			
Dissolved Uranium (U)	mg/L	0.00037	0.00001	0.00061	0.00001	9444906			
. Uranium (U)	mg/L	0.00045	0.00001	0.00063	0.00001	9444896			
Dissolved Vanadium (V)	mg/L	0.00014	0.00005	0.00024	0.00005	9444906			
. Vanadium (V)	mg/L	0.00038	0.00005	0.00101	0.00005	9444896			
Dissolved Zinc (Zn)	mg/L	0.0478	0.0005	0.0013	0.0005	9444906			
. Zinc (Zn)	mg/L	0.170	0.0005	0.0113	0.0005	9444896			
Dissolved Zirconium (Zr)	mg/L	0.0003	0.0001	<0.0001	0.0001	9444906			
. Zirconium (Zr)	mg/L	0.0004	0.0001	0.0002	0.0001	9444896			

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZIS039		ZIS040		
Sampling Date		2024/05/30 12:13		2024/05/30 14:33		
COC Number		905905		905905		
	UNITS	MW15-BR-14	RDL	Pond M1 Drainage	RDL	QC Batch
Metals						
Dissolved Aluminum (Al)	mg/L	0.0024	0.0005	0.0034	0.0005	9444906
. Aluminum (Al)	mg/L	0.0172	0.0005	0.0319	0.0005	9444896
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444906
. Antimony (Sb)	mg/L	0.0001	0.0001	0.0001	0.0001	9444896
Dissolved Arsenic (As)	mg/L	0.0005	0.0001	0.0062	0.0001	9444906
. Arsenic (As)	mg/L	0.0010	0.0001	0.0140	0.0001	9444896
Dissolved Barium (Ba)	mg/L	0.0139	0.0002	0.0116	0.0002	9444906
. Barium (Ba)	mg/L	0.0138	0.0002	0.0120	0.0002	9444896
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9444906
. Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9444896
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444906
. Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444896
Dissolved Boron (B)	mg/L	0.010	0.001	0.004	0.001	9444906
. Boron (B)	mg/L	0.009	0.001	0.003	0.001	9444896
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9444906
. Cadmium (Cd)	mg/L	0.000008	0.000005	<0.000005	0.000005	9444896
Dissolved Calcium (Ca)	mg/L	59.5	0.1	46.9	0.1	9444906
. Calcium (Ca)	mg/L	54.7	0.1	49.8	0.02	9444896
Dissolved Cesium (Cs)	mg/L	0.00005	0.00002	0.00003	0.00002	9444906
. Cesium (Cs)	mg/L	0.00005	0.00002	0.00003	0.00002	9444896
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9444906
. Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9444896
Dissolved Cobalt (Co)	mg/L	0.00013	0.00005	0.00241	0.00005	9444906
. Cobalt (Co)	mg/L	0.00018	0.00005	0.00271	0.00005	9444896
Dissolved Copper (Cu)	mg/L	0.0003	0.0001	0.0009	0.0001	9444906
. Copper (Cu)	mg/L	0.0002	0.0001	0.0011	0.0001	9444896
Dissolved Iron (Fe)	mg/L	0.071	0.005	0.313	0.005	9444906
. Iron (Fe)	mg/L	0.339	0.005	0.919	0.005	9444896
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9444906
. Lead (Pb)	mg/L	0.00008	0.00005	0.00008	0.00005	9444896

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZIS039		ZIS040		
Sampling Date		2024/05/30 12:13		2024/05/30 14:33		
COC Number		905905		905905		
	UNITS	MW15-BR-14	RDL	Pond M1 Drainage	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0009	0.0005	0.0006	0.0005	9444906
. Lithium (Li)	mg/L	0.0010	0.0005	0.0006	0.0005	9444896
Dissolved Magnesium (Mg)	mg/L	12.3	0.005	7.75	0.005	9444906
. Magnesium (Mg)	mg/L	11.7	0.005	7.43	0.005	9444896
Dissolved Manganese (Mn)	mg/L	0.0603	0.0002	0.344	0.0002	9444906
. Manganese (Mn)	mg/L	0.0675	0.0002	0.344	0.0002	9444896
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9438819
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9438784
Dissolved Molybdenum (Mo)	mg/L	0.00068	0.00005	0.00211	0.00005	9444906
. Molybdenum (Mo)	mg/L	0.00066	0.00005	0.00215	0.00005	9444896
Dissolved Nickel (Ni)	mg/L	0.0002	0.0001	0.0010	0.0001	9444906
. Nickel (Ni)	mg/L	0.0002	0.0001	0.0011	0.0001	9444896
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	<0.005	0.005	9444906
. Phosphorus (P)	mg/L	<0.005	0.005	0.009	0.005	9444896
Dissolved Potassium (K)	mg/L	1.82	0.02	1.48	0.02	9444906
. Potassium (K)	mg/L	1.71	0.02	1.40	0.02	9444896
Dissolved Rubidium (Rb)	mg/L	0.00291	0.00002	0.00089	0.00002	9444906
. Rubidium (Rb)	mg/L	0.00283	0.00002	0.00092	0.00002	9444896
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9444906
. Selenium (Se)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9444896
Dissolved Silicon (Si)	mg/L	7.10	0.025	3.19	0.005	9444906
. Silicon (Si)	mg/L	6.50	0.025	3.08	0.005	9444896
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9444906
. Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9444896
Dissolved Sodium (Na)	mg/L	3.42	0.01	3.50	0.01	9444906
. Sodium (Na)	mg/L	3.24	0.01	3.34	0.01	9444896
Dissolved Strontium (Sr)	mg/L	0.160	0.0001	0.0660	0.0001	9444906
. Strontium (Sr)	mg/L	0.155	0.0001	0.0650	0.0001	9444896
Dissolved Sulphur (S)	mg/L	4.2	0.5	<0.5	0.5	9438687
Total Sulphur (S)	mg/L	4.5	0.5	1.6	0.5	9440781
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444906

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZIS039		ZIS040		
Sampling Date		2024/05/30 12:13		2024/05/30 14:33		
COC Number		905905		905905		
	UNITS	MW15-BR-14	RDL	Pond M1 Drainage	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444896
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	<0.000005	0.000005	9444906
. Thallium (Tl)	mg/L	0.000005	0.000005	0.000005	0.000005	9444896
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9444906
. Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9444896
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444906
. Tin (Sn)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444896
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9444906
. Titanium (Ti)	mg/L	0.0012	0.0005	0.0016	0.0005	9444896
Dissolved Tungsten (W)	mg/L	0.0006	0.0001	<0.0001	0.0001	9444906
. Tungsten (W)	mg/L	0.0006	0.0001	<0.0001	0.0001	9444896
Dissolved Uranium (U)	mg/L	0.00029	0.00001	0.00058	0.00001	9444906
. Uranium (U)	mg/L	0.00029	0.00001	0.00059	0.00001	9444896
Dissolved Vanadium (V)	mg/L	0.00013	0.00005	0.00007	0.00005	9444906
. Vanadium (V)	mg/L	0.00029	0.00005	0.00029	0.00005	9444896
Dissolved Zinc (Zn)	mg/L	0.0021	0.0005	0.0021	0.0005	9444906
. Zinc (Zn)	mg/L	0.0033	0.0005	0.0017	0.0005	9444896
Dissolved Zirconium (Zr)	mg/L	0.0001	0.0001	0.0001	0.0001	9444906
. Zirconium (Zr)	mg/L	0.0003	0.0001	0.0002	0.0001	9444896

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QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		ZIS038	ZIS040			ZIS040		
Sampling Date		2024/05/30 11:54	2024/05/30 14:33			2024/05/30 14:33		
COC Number		905905	905905			905905		
	UNITS	MW15-OB-14	Pond M1 Drainage	RDL	QC Batch	Pond M1 Drainage Lab-Dup	RDL	QC Batch
BTEX & F1 Hydrocarbons								
Benzene	ug/L	<0.20	<0.20	0.20	9437517			
Toluene	ug/L	<0.20	<0.20	0.20	9437517			
Ethylbenzene	ug/L	<0.20	<0.20	0.20	9437517			
o-Xylene	ug/L	<0.20	<0.20	0.20	9437517			
p+m-Xylene	ug/L	<0.40	<0.40	0.40	9437517			
Total Xylenes	ug/L	<0.40	<0.40	0.40	9437517			
F1 (C6-C10)	ug/L	<25	<25	25	9437517			
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	9437517			
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	9437269	<100	100	9437269
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	9437269	<200	200	9437269
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	9437269	<200	200	9437269
Reached Baseline at C50	ug/L	Yes	Yes		9437269	Yes		9437269
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	105	108		9437517			
4-Bromofluorobenzene	%	83	86		9437517			
D10-o-Xylene	%	95	95		9437517			
D4-1,2-Dichloroethane	%	94	94		9437517			
o-Terphenyl	%	98	97		9437269	99		9437269

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G7181
Report Date: 2024/06/12

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZIS037
Sample ID: BH23-01
Matrix: Water

Collected: 2024/05/30
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9440607	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9436898	N/A	2024/06/10	Massarat Jan
Conductivity	AT	9440639	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9440648	2024/06/07	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/11	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9438819	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9444906	N/A	2024/06/11	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9444896	N/A	2024/06/10	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9448614	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9449839	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9449838	2024/06/11	2024/06/11	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9436298	N/A	2024/06/06	Jinal Chavda
pH	AT	9440634	2024/06/07	2024/06/07	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/04	Arshdeep Kaur
Sulphate by Automated Turbidimetry	SKAL	9436896	N/A	2024/06/10	Massarat Jan
Total Dissolved Solids	BAL	9438683	2024/06/06	2024/06/07	Madhav Somani
Field Measured pH	PH	ONSITE	N/A	2024/06/04	Arshdeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9438861	2024/06/06	2024/06/07	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9438418	2024/06/06	2024/06/07	Razieh Tabesh
Turbidity	AT	9435813	N/A	2024/06/05	Gurparteek KAUR

Bureau Veritas ID: ZIS037 Dup
Sample ID: BH23-01
Matrix: Water

Collected: 2024/05/30
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9440607	N/A	2024/06/07	Nachiketa Gohil
Conductivity	AT	9440639	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9440648	2024/06/07	2024/06/07	Nachiketa Gohil
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9436298	N/A	2024/06/06	Jinal Chavda
pH	AT	9440634	2024/06/07	2024/06/07	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G7181
Report Date: 2024/06/12

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZIS038
Sample ID: MW15-OB-14
Matrix: Water

Collected: 2024/05/30
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9436879	N/A	2024/06/06	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9436898	N/A	2024/06/10	Massarat Jan
Conductivity	AT	9436876	N/A	2024/06/06	Nachiketa Gohil
Dissolved Organic Carbon (DOC)	TOCV/NDIR	9435807	N/A	2024/06/06	Gyulshen Idriz
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9437517	N/A	2024/06/06	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9437269	2024/06/06	2024/06/06	Anna Stuglik-Rolland
Fluoride	ISE	9436880	2024/06/05	2024/06/06	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/11	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9438819	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9444906	N/A	2024/06/10	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9444896	N/A	2024/06/10	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9448614	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9449839	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9449838	2024/06/11	2024/06/11	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9435752	N/A	2024/06/05	Chandra Nandlal
pH	AT	9436878	2024/06/05	2024/06/06	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/04	Arshdeep Kaur
Sulphate by Automated Turbidimetry	SKAL	9436896	N/A	2024/06/10	Massarat Jan
Total Dissolved Solids	BAL	9438683	2024/06/06	2024/06/07	Madhav Somani
Field Measured pH	PH	ONSITE	N/A	2024/06/04	Arshdeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9438861	2024/06/06	2024/06/07	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9438418	2024/06/06	2024/06/07	Razieh Tabesh
Turbidity	AT	9435813	N/A	2024/06/05	Gurparteek KAUR

Bureau Veritas ID: ZIS038 Dup
Sample ID: MW15-OB-14
Matrix: Water

Collected: 2024/05/30
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9436879	N/A	2024/06/06	Nachiketa Gohil
Chloride by Automated Colourimetry	SKAL	9436898	N/A	2024/06/10	Massarat Jan
Conductivity	AT	9436876	N/A	2024/06/06	Nachiketa Gohil
Fluoride	ISE	9436880	2024/06/05	2024/06/06	Nachiketa Gohil
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
pH	AT	9436878	2024/06/05	2024/06/06	Nachiketa Gohil
Sulphate by Automated Turbidimetry	SKAL	9436896	N/A	2024/06/10	Massarat Jan
Low Level Total Suspended Solids	BAL	9438418	2024/06/06	2024/06/07	Razieh Tabesh

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G7181
Report Date: 2024/06/12

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZIS039
Sample ID: MW15-BR-14
Matrix: Water

Collected: 2024/05/30
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9436879	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9436898	N/A	2024/06/10	Massarat Jan
Conductivity	AT	9436876	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9436880	2024/06/05	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/11	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9438819	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9444906	N/A	2024/06/10	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9444896	N/A	2024/06/10	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9448614	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9449839	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9449838	2024/06/11	2024/06/11	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9435752	N/A	2024/06/05	Chandra Nandlal
pH	AT	9436878	2024/06/05	2024/06/07	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/04	Arshdeep Kaur
Sulphate by Automated Turbidimetry	SKAL	9436896	N/A	2024/06/10	Massarat Jan
Total Dissolved Solids	BAL	9438683	2024/06/06	2024/06/07	Madhav Somani
Field Measured pH	PH	ONSITE	N/A	2024/06/04	Arshdeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9438861	2024/06/06	2024/06/07	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9438418	2024/06/06	2024/06/07	Razieh Tabesh
Turbidity	AT	9435813	N/A	2024/06/05	Gurparteek KAUR

Bureau Veritas ID: ZIS039 Dup
Sample ID: MW15-BR-14
Matrix: Water

Collected: 2024/05/30
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Dissolved Solids	BAL	9438683	2024/06/06	2024/06/07	Madhav Somani

Bureau Veritas ID: ZIS040
Sample ID: Pond M1 Drainage
Matrix: Water

Collected: 2024/05/30
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9436879	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9436898	N/A	2024/06/10	Massarat Jan
Conductivity	AT	9436876	N/A	2024/06/07	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G7181
Report Date: 2024/06/12

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZIS040
Sample ID: Pond M1 Drainage
Matrix: Water

Collected: 2024/05/30
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9437517	N/A	2024/06/06	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9437269	2024/06/06	2024/06/06	Anna Stuglik-Rolland
Fluoride	ISE	9436880	2024/06/05	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/11	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9438819	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9444906	N/A	2024/06/11	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9444896	N/A	2024/06/10	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9448614	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9449839	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9449838	2024/06/11	2024/06/11	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9435752	N/A	2024/06/05	Chandra Nandlal
pH	AT	9436878	2024/06/05	2024/06/07	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/04	Arshdeep Kaur
Sulphate by Automated Turbidimetry	SKAL	9436896	N/A	2024/06/10	Massarat Jan
Total Dissolved Solids	BAL	9438683	2024/06/06	2024/06/07	Madhav Somani
Field Measured pH	PH	ONSITE	N/A	2024/06/04	Arshdeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9438861	2024/06/06	2024/06/07	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9438418	2024/06/06	2024/06/07	Razieh Tabesh
Turbidity	AT	9435813	N/A	2024/06/05	Gurparteek KAUR

Bureau Veritas ID: ZIS040 Dup
Sample ID: Pond M1 Drainage
Matrix: Water

Collected: 2024/05/30
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9437269	2024/06/06	2024/06/06	Anna Stuglik-Rolland

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	15.0°C
Package 2	16.0°C
Package 3	16.0°C

Sample received past hold time for Turbidity analysis, proceeded with client consent.

Sample ZIS037 [BH23-01] : Acidty sample contained headspace.

Sample ZIS040 [Pond M1 Drainage] : Acidity sample contained headspace.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9437269	o-Terphenyl	2024/06/06	100	60 - 130	100	60 - 130	99	%				
9437517	1,4-Difluorobenzene	2024/06/06	94	70 - 130	97	70 - 130	106	%				
9437517	4-Bromofluorobenzene	2024/06/06	92	70 - 130	92	70 - 130	79	%				
9437517	D10-o-Xylene	2024/06/06	95	70 - 130	86	70 - 130	93	%				
9437517	D4-1,2-Dichloroethane	2024/06/06	90	70 - 130	93	70 - 130	97	%				
9435752	Nitrate (N)	2024/06/05	129 (1)	80 - 120	106	80 - 120	<0.10	mg/L	0.15	20		
9435752	Nitrite (N)	2024/06/05	0 (1)	80 - 120	107	80 - 120	<0.010	mg/L	NC	20		
9435807	Dissolved Organic Carbon	2024/06/06	89	80 - 120	93	80 - 120	<0.40	mg/L	1.6	20		
9435813	Turbidity	2024/06/05			99	80 - 120	<0.1	NTU	NC	20		
9436298	Nitrate (N)	2024/06/06	102	80 - 120	105	80 - 120	<0.10	mg/L	1.2	20		
9436298	Nitrite (N)	2024/06/06	107	80 - 120	106	80 - 120	<0.010	mg/L	NC	20		
9436876	Conductivity	2024/06/06			100	85 - 115	0.000500	mS/cm	0.25	10		
9436878	pH	2024/06/06			102	98 - 103			0.61	N/A		
9436879	Alkalinity (Total as CaCO3)	2024/06/06			100	85 - 115	<1.0	mg/L	0.56	20		
9436880	Fluoride (F-)	2024/06/06	97	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
9436896	Dissolved Sulphate (SO4)	2024/06/10	99	75 - 125	98	80 - 120	<1.0	mg/L	4.4	20		
9436898	Dissolved Chloride (Cl-)	2024/06/10	99	80 - 120	94	80 - 120	<1.0	mg/L	0.94	20		
9437269	F2 (C10-C16 Hydrocarbons)	2024/06/06	97	60 - 140	95	60 - 140	<100	ug/L	NC	30		
9437269	F3 (C16-C34 Hydrocarbons)	2024/06/06	99	60 - 140	98	60 - 140	<200	ug/L	NC	30		
9437269	F4 (C34-C50 Hydrocarbons)	2024/06/06	94	60 - 140	93	60 - 140	<200	ug/L	NC	30		
9437517	Benzene	2024/06/06	82	50 - 140	86	50 - 140	<0.20	ug/L	NC	30		
9437517	Ethylbenzene	2024/06/06	94	50 - 140	98	50 - 140	<0.20	ug/L	NC	30		
9437517	F1 (C6-C10) - BTEX	2024/06/06					<25	ug/L	NC	30		
9437517	F1 (C6-C10)	2024/06/06	98	60 - 140	99	60 - 140	<25	ug/L	NC	30		
9437517	o-Xylene	2024/06/06	88	50 - 140	90	50 - 140	<0.20	ug/L	NC	30		
9437517	p+m-Xylene	2024/06/06	88	50 - 140	90	50 - 140	<0.40	ug/L	NC	30		
9437517	Toluene	2024/06/06	84	50 - 140	88	50 - 140	<0.20	ug/L	NC	30		
9437517	Total Xylenes	2024/06/06					<0.40	ug/L	NC	30		
9438418	Total Suspended Solids	2024/06/07			97	80 - 120	<1	mg/L	9.5	20		
9438683	Total Dissolved Solids	2024/06/07			97	80 - 120	<10	mg/L	12	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9438687	Dissolved Sulphur (S)	2024/06/07	NC	80 - 120	101	80 - 120	<0.5	mg/L	8.7	20		
9438784	Dissolved Mercury (Hg)	2024/06/07	97	75 - 125	99	80 - 120	<0.01	ug/L	NC	20		
9438819	Mercury (Hg)	2024/06/07	96	75 - 125	97	80 - 120	<0.01	ug/L	NC	20		
9438861	Total Kjeldahl Nitrogen (TKN)	2024/06/07	94	80 - 120	98	80 - 120	<0.10	mg/L	6.5	20	97	80 - 120
9440607	Alkalinity (Total as CaCO3)	2024/06/07			97	85 - 115	<1.0	mg/L	0.60	20		
9440634	pH	2024/06/07			102	98 - 103			0.34	N/A		
9440639	Conductivity	2024/06/07			101	85 - 115	<0.001	mS/cm	0.29	10		
9440647	Total Ammonia-N	2024/06/10	94	75 - 125	108	80 - 120	<0.050	mg/L	NC	20		
9440648	Fluoride (F-)	2024/06/07	89	80 - 120	94	80 - 120	<0.10	mg/L	NC	20		
9440781	Total Sulphur (S)	2024/06/10	110	80 - 120	106	80 - 120	<0.5	mg/L	3.4	20		
9444000	Acidity	2024/06/10	88	80 - 120	103	80 - 120	<5.0	mg/L	6.9	25		
9444896	. Aluminum (Al)	2024/06/10	NC	80 - 120	92	80 - 120	<0.0005	mg/L	0.66	20		
9444896	. Antimony (Sb)	2024/06/10	110	80 - 120	102	80 - 120	<0.0001	mg/L				
9444896	. Arsenic (As)	2024/06/10	100	80 - 120	97	80 - 120	<0.0001	mg/L				
9444896	. Barium (Ba)	2024/06/10	98	80 - 120	98	80 - 120	<0.0002	mg/L				
9444896	. Beryllium (Be)	2024/06/10	98	80 - 120	94	80 - 120	<0.00005	mg/L				
9444896	. Bismuth (Bi)	2024/06/10	89	80 - 120	95	80 - 120	<0.0001	mg/L				
9444896	. Boron (B)	2024/06/10	92	80 - 120	90	80 - 120	<0.001	mg/L				
9444896	. Cadmium (Cd)	2024/06/10	101	80 - 120	94	80 - 120	<0.000005	mg/L				
9444896	. Calcium (Ca)	2024/06/10	NC	80 - 120	95	80 - 120	<0.02	mg/L				
9444896	. Cesium (Cs)	2024/06/10	98	80 - 120	99	80 - 120	<0.00002	mg/L				
9444896	. Chromium (Cr)	2024/06/10	97	80 - 120	96	80 - 120	<0.0005	mg/L				
9444896	. Cobalt (Co)	2024/06/10	95	80 - 120	96	80 - 120	<0.00005	mg/L				
9444896	. Copper (Cu)	2024/06/10	101	80 - 120	97	80 - 120	<0.0001	mg/L				
9444896	. Iron (Fe)	2024/06/10	98	80 - 120	98	80 - 120	<0.005	mg/L				
9444896	. Lead (Pb)	2024/06/10	95	80 - 120	95	80 - 120	<0.00005	mg/L				
9444896	. Lithium (Li)	2024/06/10	102	80 - 120	100	80 - 120	<0.0005	mg/L				
9444896	. Magnesium (Mg)	2024/06/10	NC	80 - 120	97	80 - 120	<0.005	mg/L				
9444896	. Manganese (Mn)	2024/06/10	97	80 - 120	96	80 - 120	<0.0002	mg/L				
9444896	. Molybdenum (Mo)	2024/06/10	106	80 - 120	98	80 - 120	<0.00005	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9444896	. Nickel (Ni)	2024/06/10	94	80 - 120	96	80 - 120	<0.0001	mg/L				
9444896	. Phosphorus (P)	2024/06/10	106	80 - 120	96	80 - 120	<0.005	mg/L				
9444896	. Potassium (K)	2024/06/10	100	80 - 120	97	80 - 120	<0.02	mg/L				
9444896	. Rubidium (Rb)	2024/06/10	93	80 - 120	94	80 - 120	<0.00002	mg/L				
9444896	. Selenium (Se)	2024/06/10	99	80 - 120	95	80 - 120	<0.00005	mg/L				
9444896	. Silicon (Si)	2024/06/10	99	80 - 120	95	80 - 120	<0.005	mg/L				
9444896	. Silver (Ag)	2024/06/10	101	80 - 120	95	80 - 120	<0.00001	mg/L				
9444896	. Sodium (Na)	2024/06/10	NC	80 - 120	97	80 - 120	<0.01	mg/L				
9444896	. Strontium (Sr)	2024/06/10	NC	80 - 120	97	80 - 120	<0.0001	mg/L				
9444896	. Tellurium (Te)	2024/06/10	102	80 - 120	94	80 - 120	<0.0001	mg/L				
9444896	. Thallium (Tl)	2024/06/10	99	80 - 120	96	80 - 120	<0.000005	mg/L				
9444896	. Thorium (Th)	2024/06/10	97	80 - 120	96	80 - 120	<0.0002	mg/L				
9444896	. Tin (Sn)	2024/06/10	104	80 - 120	97	80 - 120	<0.0001	mg/L				
9444896	. Titanium (Ti)	2024/06/10	98	80 - 120	95	80 - 120	<0.0005	mg/L				
9444896	. Tungsten (W)	2024/06/10	102	80 - 120	100	80 - 120	<0.0001	mg/L				
9444896	. Uranium (U)	2024/06/10	97	80 - 120	96	80 - 120	<0.00001	mg/L				
9444896	. Vanadium (V)	2024/06/10	99	80 - 120	97	80 - 120	<0.00005	mg/L				
9444896	. Zinc (Zn)	2024/06/10	96	80 - 120	95	80 - 120	<0.0005	mg/L				
9444896	. Zirconium (Zr)	2024/06/10	109	80 - 120	101	80 - 120	<0.0001	mg/L				
9444906	Dissolved Aluminum (Al)	2024/06/11	117	80 - 120	102	80 - 120	<0.0005	mg/L	5.9	20		
9444906	Dissolved Antimony (Sb)	2024/06/11	109	80 - 120	105	80 - 120	<0.0001	mg/L	0.29	20		
9444906	Dissolved Arsenic (As)	2024/06/11	102	80 - 120	101	80 - 120	<0.0001	mg/L	0.017	20		
9444906	Dissolved Barium (Ba)	2024/06/11	108	80 - 120	101	80 - 120	<0.0002	mg/L	1.6	20		
9444906	Dissolved Beryllium (Be)	2024/06/11	97	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9444906	Dissolved Bismuth (Bi)	2024/06/11	87	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9444906	Dissolved Boron (B)	2024/06/11	98	80 - 120	94	80 - 120	<0.001	mg/L	1.3	20		
9444906	Dissolved Cadmium (Cd)	2024/06/11	99	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9444906	Dissolved Calcium (Ca)	2024/06/11	126 (2)	80 - 120	104	80 - 120	<0.02	mg/L	1.5	20		
9444906	Dissolved Cesium (Cs)	2024/06/11	106	80 - 120	103	80 - 120	<0.00002	mg/L	NC	N/A		
9444906	Dissolved Chromium (Cr)	2024/06/11	103	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9444906	Dissolved Cobalt (Co)	2024/06/11	98	80 - 120	98	80 - 120	<0.00005	mg/L	2.3	20		
9444906	Dissolved Copper (Cu)	2024/06/11	111	80 - 120	101	80 - 120	<0.0001	mg/L	1.4	20		
9444906	Dissolved Iron (Fe)	2024/06/11	105	80 - 120	102	80 - 120	<0.005	mg/L	0.99	20		
9444906	Dissolved Lead (Pb)	2024/06/11	92	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9444906	Dissolved Lithium (Li)	2024/06/11	104	80 - 120	101	80 - 120	<0.0005	mg/L	0.35	20		
9444906	Dissolved Magnesium (Mg)	2024/06/11	NC	80 - 120	103	80 - 120	<0.005	mg/L	1.8	20		
9444906	Dissolved Manganese (Mn)	2024/06/11	105	80 - 120	100	80 - 120	<0.0002	mg/L	0.63	20		
9444906	Dissolved Molybdenum (Mo)	2024/06/11	113	80 - 120	101	80 - 120	<0.00005	mg/L	2.3	20		
9444906	Dissolved Nickel (Ni)	2024/06/11	93	80 - 120	97	80 - 120	<0.0001	mg/L	5.4	20		
9444906	Dissolved Phosphorus (P)	2024/06/11	128 (2)	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		
9444906	Dissolved Potassium (K)	2024/06/11	145 (2)	80 - 120	105	80 - 120	<0.02	mg/L	3.9	20		
9444906	Dissolved Rubidium (Rb)	2024/06/11	101	80 - 120	100	80 - 120	<0.00002	mg/L	1.2	N/A		
9444906	Dissolved Selenium (Se)	2024/06/11	100	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20		
9444906	Dissolved Silicon (Si)	2024/06/11	118	80 - 120	102	80 - 120	<0.005	mg/L	3.6	20		
9444906	Dissolved Silver (Ag)	2024/06/11	82	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9444906	Dissolved Sodium (Na)	2024/06/11	NC	80 - 120	103	80 - 120	<0.01	mg/L	1.5	20		
9444906	Dissolved Strontium (Sr)	2024/06/11	101	80 - 120	100	80 - 120	<0.0001	mg/L	0.086	20		
9444906	Dissolved Tellurium (Te)	2024/06/11	105	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9444906	Dissolved Thallium (Tl)	2024/06/11	92	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9444906	Dissolved Thorium (Th)	2024/06/11	97	80 - 120	96	80 - 120	<0.0002	mg/L	NC	20		
9444906	Dissolved Tin (Sn)	2024/06/11	111	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9444906	Dissolved Titanium (Ti)	2024/06/11	111	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		
9444906	Dissolved Tungsten (W)	2024/06/11	103	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9444906	Dissolved Uranium (U)	2024/06/11	96	80 - 120	97	80 - 120	<0.00001	mg/L	3.1	20		
9444906	Dissolved Vanadium (V)	2024/06/11	111	80 - 120	100	80 - 120	<0.00005	mg/L	1.3	20		
9444906	Dissolved Zinc (Zn)	2024/06/11	92	80 - 120	99	80 - 120	<0.0005	mg/L	1.1	20		
9444906	Dissolved Zirconium (Zr)	2024/06/11	122 (2)	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9448614	Free Cyanide (CN)	2024/06/11	86	80 - 120	94	80 - 120	<2.0	ug/L	18	20		
9449838	Total Phosphorus (P)	2024/06/11	NC	80 - 120	95	80 - 120	<0.0010	mg/L			91	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9449839	Strong Acid Dissoc. Cyanide (CN)	2024/06/11	106	80 - 120	106	80 - 120	<0.00050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) Matrix Spike exceeds acceptance limits, probable matrix interference

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Janah Rhyno, Scientific Specialist

Sandy Yuan, M.Sc., QP, Scientific Specialist

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 906857

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/13
Report #: R8190093
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G7292
Received: 2024/06/03, 14:30

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	2	N/A	2024/06/10	ATL SOP-00205	SM 24 2310B m
Alkalinity	2	N/A	2024/06/07	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2024/06/07	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	2	N/A	2024/06/10	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	2	N/A	2024/06/07	CAM SOP-00414	SM 24 2510 m
Fluoride	2	2024/06/05	2024/06/07	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2024/06/11	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2024/06/07	2024/06/07	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	2	2024/06/06	2024/06/07	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	2	2024/06/06	2024/06/07	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	2	N/A	2024/06/11	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	2	N/A	2024/06/10	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	2	2024/06/07	2024/06/10	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	2	N/A	2024/06/11	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2024/06/11	2024/06/11	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	2	2024/06/10	2024/06/10	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	2	N/A	2024/06/10	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	2	N/A	2024/06/05	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	2	2024/06/05	2024/06/07	CAM SOP-00413	SM 24th - 4500H+ B
Sulphate by Automated Turbidimetry	2	N/A	2024/06/10	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	2	2024/06/06	2024/06/07	CAM SOP-00428	SM 24 2540C m
Total Kjeldahl Nitrogen in Water	1	2024/06/06	2024/06/10	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	1	2024/06/06	2024/06/07	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	1	2024/06/06	2024/06/07	CAM SOP-00428	SM 24 2540D m
Low Level Total Suspended Solids	1	2024/06/06	2024/06/07	CAM SOP-00428	SM 24 2540D m
Turbidity	2	N/A	2024/06/05	CAM SOP-00417	SM 24 2130 B

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 906857

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/13
Report #: R8190093
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G7292
Received: 2024/06/03, 14:30

compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G7292
Report Date: 2024/06/13

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZIS869			ZIS870		
Sampling Date		2024/06/02 13:45			2024/06/02 14:32		
COC Number		906857			906857		
	UNITS	MW24-BR-21	RDL	QC Batch	MW24-OB-21	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	180	1.0	9434753	180	1.0	9434753
Carb. Alkalinity (calc. as CaCO3)	mg/L	4.4	1.0	9434753	1.9	1.0	9434753
Hardness (CaCO3)	mg/L	110	1.0	9434754	170	1.0	9434754
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9434753	<1.0	1.0	9434753
Inorganics							
Acidity	mg/L	<5.0	5.0	9444000	<5.0	5.0	9444000
Total Ammonia-N	mg/L	0.21	0.050	9440647	0.055	0.050	9440647
Conductivity	mS/cm	0.414	N/A	9436876	0.326	N/A	9436876
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9448614	<2.0 (1)	2.0	9448614
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9449839	<0.00050	0.00050	9449839
Total Dissolved Solids	mg/L	230	10	9438518	190	10	9438683
Fluoride (F-)	mg/L	0.50	0.10	9436880	0.37	0.10	9436880
Total Kjeldahl Nitrogen (TKN)	mg/L	0.22	0.10	9438861	0.53	0.50	9438861
pH	pH	8.42		9436878	8.06		9436878
Total Phosphorus (P)	mg/L	0.076	0.010	9447520	2.4	0.10	9447520
Total Suspended Solids	mg/L	310	5	9438418	32000	50	9439503
Dissolved Sulphate (SO4)	mg/L	36	1.0	9436896	3.7	1.0	9436896
Turbidity	NTU	28	0.1	9435813	150	0.1	9435813
Alkalinity (Total as CaCO3)	mg/L	180	1.0	9436879	180	1.0	9436879
Dissolved Chloride (Cl-)	mg/L	2.3	1.0	9436898	<1.0	1.0	9436898
Nitrite (N)	mg/L	0.152	0.010	9435752	<0.010	0.010	9435752
Nitrate (N)	mg/L	<0.10	0.10	9435752	<0.10	0.10	9435752
Nitrate + Nitrite (N)	mg/L	0.21	0.10	9435752	<0.10	0.10	9435752

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZIS869		ZIS870		
Sampling Date		2024/06/02 13:45		2024/06/02 14:32		
COC Number		906857		906857		
	UNITS	MW24-BR-21	RDL	MW24-OB-21	RDL	QC Batch
Metals						
Dissolved Aluminum (Al)	mg/L	0.0117	0.0005	0.0142	0.0005	9444906
. Aluminum (Al)	mg/L	1.78	0.0005	0.0733	0.0025	9444896
Dissolved Antimony (Sb)	mg/L	0.0002	0.0001	<0.0001	0.0001	9444906
. Antimony (Sb)	mg/L	0.0002	0.0001	<0.0005	0.0005	9444896
Dissolved Arsenic (As)	mg/L	0.0020	0.0001	0.0004	0.0001	9444906
. Arsenic (As)	mg/L	0.0111	0.0001	0.0011	0.0005	9444896
Dissolved Barium (Ba)	mg/L	0.0126	0.0002	0.0288	0.0002	9444906
. Barium (Ba)	mg/L	0.0494	0.0002	0.217	0.001	9444896
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9444906
. Beryllium (Be)	mg/L	0.00007	0.00005	<0.00025	0.00025	9444896
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444906
. Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0005	0.0005	9444896
Dissolved Boron (B)	mg/L	0.049	0.001	0.013	0.001	9444906
. Boron (B)	mg/L	0.048	0.001	0.017	0.005	9444896
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9444906
. Cadmium (Cd)	mg/L	0.000030	0.000005	0.000142	0.000025	9444896
Dissolved Calcium (Ca)	mg/L	25.2	0.02	47.9	0.02	9444906
. Calcium (Ca)	mg/L	40.2	0.02	1110	1	9444896
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	<0.00002	0.00002	9444906
. Cesium (Cs)	mg/L	0.00028	0.00002	<0.0001	0.0001	9444896
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9444906
. Chromium (Cr)	mg/L	0.0067	0.0005	<0.0025	0.0025	9444896
Dissolved Cobalt (Co)	mg/L	0.00008	0.00005	<0.00005	0.00005	9444906
. Cobalt (Co)	mg/L	0.00160	0.00005	0.00453	0.00025	9444896
Dissolved Copper (Cu)	mg/L	0.0007	0.0001	0.0005	0.0001	9444906
. Copper (Cu)	mg/L	0.0084	0.0001	<0.0005	0.0005	9444896
Dissolved Iron (Fe)	mg/L	0.008	0.005	1.57	0.005	9444906
. Iron (Fe)	mg/L	12.6	0.025	2.24	0.025	9444896
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9444906
. Lead (Pb)	mg/L	0.00143	0.00005	<0.00025	0.00025	9444896
Dissolved Lithium (Li)	mg/L	0.0094	0.0005	0.0031	0.0005	9444906

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZIS869		ZIS870		
Sampling Date		2024/06/02 13:45		2024/06/02 14:32		
COC Number		906857		906857		
	UNITS	MW24-BR-21	RDL	MW24-OB-21	RDL	QC Batch
. Lithium (Li)	mg/L	0.0112	0.0005	0.0060	0.0025	9444896
Dissolved Magnesium (Mg)	mg/L	12.3	0.005	13.2	0.005	9444906
. Magnesium (Mg)	mg/L	14.0	0.005	22.3	0.025	9444896
Dissolved Manganese (Mn)	mg/L	0.181	0.0002	0.0806	0.0002	9444906
. Manganese (Mn)	mg/L	0.498	0.0002	1.80	0.001	9444896
Mercury (Hg)	mg/L	<0.00010	0.00010	<0.0015	0.0015	9442088
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9438784
Dissolved Molybdenum (Mo)	mg/L	0.0216	0.00005	0.00058	0.00005	9444906
. Molybdenum (Mo)	mg/L	0.0136	0.00005	0.00067	0.00025	9444896
Dissolved Nickel (Ni)	mg/L	0.0006	0.0001	0.0003	0.0001	9444906
. Nickel (Ni)	mg/L	0.0049	0.0001	0.0083	0.0005	9444896
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	<0.005	0.005	9444906
. Phosphorus (P)	mg/L	0.101	0.005	<0.025	0.025	9444896
Dissolved Potassium (K)	mg/L	4.63	0.02	1.56	0.02	9444906
. Potassium (K)	mg/L	5.17	0.02	3.8	0.1	9444896
Dissolved Rubidium (Rb)	mg/L	0.00458	0.00002	0.00129	0.00002	9444906
. Rubidium (Rb)	mg/L	0.00873	0.00002	0.0102	0.0001	9444896
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9444906
. Selenium (Se)	mg/L	0.00013	0.00005	<0.00025	0.00025	9444896
Dissolved Silicon (Si)	mg/L	2.64	0.005	4.83	0.025	9444906
. Silicon (Si)	mg/L	5.72	0.025	6.35	0.025	9444896
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9444906
. Silver (Ag)	mg/L	0.00024	0.00001	<0.00005	0.00005	9444896
Dissolved Sodium (Na)	mg/L	52.5	0.01	4.96	0.01	9444906
. Sodium (Na)	mg/L	49.0	0.01	4.94	0.05	9444896
Dissolved Strontium (Sr)	mg/L	0.153	0.0001	0.159	0.0001	9444906
. Strontium (Sr)	mg/L	0.196	0.0001	0.854	0.0005	9444896
Dissolved Sulphur (S)	mg/L	12	0.5	0.8	0.5	9438687
Total Sulphur (S)	mg/L	2.2	0.5	89	5	9440781
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444906
. Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0005	0.0005	9444896
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	<0.000005	0.000005	9444906

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZIS869		ZIS870		
Sampling Date		2024/06/02 13:45		2024/06/02 14:32		
COC Number		906857		906857		
	UNITS	MW24-BR-21	RDL	MW24-OB-21	RDL	QC Batch
. Thallium (Tl)	mg/L	0.000043	0.000005	0.000108	0.000025	9444896
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9444906
. Thorium (Th)	mg/L	0.0004	0.0002	<0.001	0.001	9444896
Dissolved Tin (Sn)	mg/L	0.0001	0.0001	<0.0001	0.0001	9444906
. Tin (Sn)	mg/L	0.0006	0.0001	<0.0005	0.0005	9444896
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	0.0014	0.0005	9444906
. Titanium (Ti)	mg/L	0.0976	0.0005	<0.0025	0.0025	9444896
Dissolved Tungsten (W)	mg/L	0.0277	0.0001	0.0003	0.0001	9444906
. Tungsten (W)	mg/L	0.0130	0.0001	<0.0005	0.0005	9444896
Dissolved Uranium (U)	mg/L	0.00631	0.00001	0.00004	0.00001	9444906
. Uranium (U)	mg/L	0.00561	0.00001	0.00316	0.00005	9444896
Dissolved Vanadium (V)	mg/L	<0.00005	0.00005	0.00012	0.00005	9444906
. Vanadium (V)	mg/L	0.00497	0.00005	<0.00025	0.00025	9444896
Dissolved Zinc (Zn)	mg/L	0.0071	0.0005	0.0078	0.0005	9444906
. Zinc (Zn)	mg/L	1.17	0.0005	1.31	0.0025	9444896
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9444906
. Zirconium (Zr)	mg/L	0.0003	0.0001	<0.0005	0.0005	9444896

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G7292
Report Date: 2024/06/13

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZIS869
Sample ID: MW24-BR-21
Matrix: Water

Collected: 2024/06/02
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9436879	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9436898	N/A	2024/06/10	Massarat Jan
Conductivity	AT	9436876	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9436880	2024/06/05	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	9442088	2024/06/07	2024/06/07	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9444906	N/A	2024/06/11	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9444896	N/A	2024/06/10	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9448614	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9449839	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9447520	2024/06/10	2024/06/10	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9435752	N/A	2024/06/05	Chandra Nandlal
pH	AT	9436878	2024/06/05	2024/06/07	Nachiketa Gohil
Sulphate by Automated Turbidimetry	SKAL	9436896	N/A	2024/06/10	Massarat Jan
Total Dissolved Solids	BAL	9438518	2024/06/06	2024/06/07	Madhav Somani
Total Kjeldahl Nitrogen in Water	SKAL	9438861	2024/06/06	2024/06/07	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9438418	2024/06/06	2024/06/07	Razieh Tabesh
Turbidity	AT	9435813	N/A	2024/06/05	Gurparteek KAUR

Bureau Veritas ID: ZIS870
Sample ID: MW24-OB-21
Matrix: Water

Collected: 2024/06/02
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9436879	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9436898	N/A	2024/06/10	Massarat Jan
Conductivity	AT	9436876	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9436880	2024/06/05	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/11	Automated Statchk
Mercury in Water by CVAA	CV/AA	9442088	2024/06/07	2024/06/07	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9444906	N/A	2024/06/11	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9444896	N/A	2024/06/10	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9448614	N/A	2024/06/11	Amy Phan

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G7292
Report Date: 2024/06/13

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZIS870
Sample ID: MW24-OB-21
Matrix: Water

Collected: 2024/06/02
Shipped:
Received: 2024/06/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9449839	2024/06/11	2024/06/11	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9447520	2024/06/10	2024/06/10	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9435752	N/A	2024/06/05	Chandra Nandlal
pH	AT	9436878	2024/06/05	2024/06/07	Nachiketa Gohil
Sulphate by Automated Turbidimetry	SKAL	9436896	N/A	2024/06/10	Massarat Jan
Total Dissolved Solids	BAL	9438683	2024/06/06	2024/06/07	Madhav Somani
Total Kjeldahl Nitrogen in Water	SKAL	9438861	2024/06/06	2024/06/10	Rajni Tyagi
Total Suspended Solids	BAL	9439503	2024/06/06	2024/06/07	Razieh Tabesh
Turbidity	AT	9435813	N/A	2024/06/05	Gurparteek KAUR

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	8.0°C

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZIS869 [MW24-BR-21] : Acidity sample contained headspace.

Sample ZIS870 [MW24-OB-21] : Mercury Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9435752	Nitrate (N)	2024/06/05	129 (1)	80 - 120	106	80 - 120	<0.10	mg/L	0.15	20		
9435752	Nitrite (N)	2024/06/05	0 (1)	80 - 120	107	80 - 120	<0.010	mg/L	NC	20		
9435813	Turbidity	2024/06/05			99	80 - 120	<0.1	NTU	NC	20		
9436876	Conductivity	2024/06/06			100	85 - 115	0.000500	mS/cm	0.25	10		
9436878	pH	2024/06/06			102	98 - 103			0.61	N/A		
9436879	Alkalinity (Total as CaCO3)	2024/06/06			100	85 - 115	<1.0	mg/L	0.56	20		
9436880	Fluoride (F-)	2024/06/06	97	80 - 120	98	80 - 120	<0.10	mg/L	NC	20		
9436896	Dissolved Sulphate (SO4)	2024/06/10	99	75 - 125	98	80 - 120	<1.0	mg/L	4.4	20		
9436898	Dissolved Chloride (Cl-)	2024/06/10	99	80 - 120	94	80 - 120	<1.0	mg/L	0.94	20		
9438418	Total Suspended Solids	2024/06/07			97	80 - 120	<1	mg/L	9.5	20		
9438518	Total Dissolved Solids	2024/06/07			102	80 - 120	<10	mg/L	1.5	20		
9438683	Total Dissolved Solids	2024/06/07			97	80 - 120	<10	mg/L	12	20		
9438687	Dissolved Sulphur (S)	2024/06/07	NC	80 - 120	101	80 - 120	<0.5	mg/L	8.7	20		
9438784	Dissolved Mercury (Hg)	2024/06/07	97	75 - 125	99	80 - 120	<0.01	ug/L	NC	20		
9438861	Total Kjeldahl Nitrogen (TKN)	2024/06/07	94	80 - 120	98	80 - 120	<0.10	mg/L	6.5	20	97	80 - 120
9439503	Total Suspended Solids	2024/06/07			95	80 - 120	<10	mg/L	NC	20		
9440647	Total Ammonia-N	2024/06/10	94	75 - 125	108	80 - 120	<0.050	mg/L	NC	20		
9440781	Total Sulphur (S)	2024/06/10	110	80 - 120	106	80 - 120	<0.5	mg/L	3.4	20		
9442088	Mercury (Hg)	2024/06/07	83	75 - 125	86	80 - 120	<0.00010	mg/L	NC	20		
9444000	Acidity	2024/06/10	88	80 - 120	103	80 - 120	<5.0	mg/L	6.9	25		
9444896	. Aluminum (Al)	2024/06/10	NC	80 - 120	92	80 - 120	<0.0005	mg/L	0.66	20		
9444896	. Antimony (Sb)	2024/06/10	110	80 - 120	102	80 - 120	<0.0001	mg/L				
9444896	. Arsenic (As)	2024/06/10	100	80 - 120	97	80 - 120	<0.0001	mg/L				
9444896	. Barium (Ba)	2024/06/10	98	80 - 120	98	80 - 120	<0.0002	mg/L				
9444896	. Beryllium (Be)	2024/06/10	98	80 - 120	94	80 - 120	<0.00005	mg/L				
9444896	. Bismuth (Bi)	2024/06/10	89	80 - 120	95	80 - 120	<0.0001	mg/L				
9444896	. Boron (B)	2024/06/10	92	80 - 120	90	80 - 120	<0.001	mg/L				
9444896	. Cadmium (Cd)	2024/06/10	101	80 - 120	94	80 - 120	<0.000005	mg/L				
9444896	. Calcium (Ca)	2024/06/10	NC	80 - 120	95	80 - 120	<0.02	mg/L				
9444896	. Cesium (Cs)	2024/06/10	98	80 - 120	99	80 - 120	<0.00002	mg/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9444896	. Chromium (Cr)	2024/06/10	97	80 - 120	96	80 - 120	<0.0005	mg/L				
9444896	. Cobalt (Co)	2024/06/10	95	80 - 120	96	80 - 120	<0.00005	mg/L				
9444896	. Copper (Cu)	2024/06/10	101	80 - 120	97	80 - 120	<0.0001	mg/L				
9444896	. Iron (Fe)	2024/06/10	98	80 - 120	98	80 - 120	<0.005	mg/L				
9444896	. Lead (Pb)	2024/06/10	95	80 - 120	95	80 - 120	<0.00005	mg/L				
9444896	. Lithium (Li)	2024/06/10	102	80 - 120	100	80 - 120	<0.0005	mg/L				
9444896	. Magnesium (Mg)	2024/06/10	NC	80 - 120	97	80 - 120	<0.005	mg/L				
9444896	. Manganese (Mn)	2024/06/10	97	80 - 120	96	80 - 120	<0.0002	mg/L				
9444896	. Molybdenum (Mo)	2024/06/10	106	80 - 120	98	80 - 120	<0.00005	mg/L				
9444896	. Nickel (Ni)	2024/06/10	94	80 - 120	96	80 - 120	<0.0001	mg/L				
9444896	. Phosphorus (P)	2024/06/10	106	80 - 120	96	80 - 120	<0.005	mg/L				
9444896	. Potassium (K)	2024/06/10	100	80 - 120	97	80 - 120	<0.02	mg/L				
9444896	. Rubidium (Rb)	2024/06/10	93	80 - 120	94	80 - 120	<0.00002	mg/L				
9444896	. Selenium (Se)	2024/06/10	99	80 - 120	95	80 - 120	<0.00005	mg/L				
9444896	. Silicon (Si)	2024/06/10	99	80 - 120	95	80 - 120	<0.005	mg/L				
9444896	. Silver (Ag)	2024/06/10	101	80 - 120	95	80 - 120	<0.00001	mg/L				
9444896	. Sodium (Na)	2024/06/10	NC	80 - 120	97	80 - 120	<0.01	mg/L				
9444896	. Strontium (Sr)	2024/06/10	NC	80 - 120	97	80 - 120	<0.0001	mg/L				
9444896	. Tellurium (Te)	2024/06/10	102	80 - 120	94	80 - 120	<0.0001	mg/L				
9444896	. Thallium (Tl)	2024/06/10	99	80 - 120	96	80 - 120	<0.000005	mg/L				
9444896	. Thorium (Th)	2024/06/10	97	80 - 120	96	80 - 120	<0.0002	mg/L				
9444896	. Tin (Sn)	2024/06/10	104	80 - 120	97	80 - 120	<0.0001	mg/L				
9444896	. Titanium (Ti)	2024/06/10	98	80 - 120	95	80 - 120	<0.0005	mg/L				
9444896	. Tungsten (W)	2024/06/10	102	80 - 120	100	80 - 120	<0.0001	mg/L				
9444896	. Uranium (U)	2024/06/10	97	80 - 120	96	80 - 120	<0.00001	mg/L				
9444896	. Vanadium (V)	2024/06/10	99	80 - 120	97	80 - 120	<0.00005	mg/L				
9444896	. Zinc (Zn)	2024/06/10	96	80 - 120	95	80 - 120	<0.0005	mg/L				
9444896	. Zirconium (Zr)	2024/06/10	109	80 - 120	101	80 - 120	<0.0001	mg/L				
9444906	Dissolved Aluminum (Al)	2024/06/11	117	80 - 120	102	80 - 120	<0.0005	mg/L	5.9	20		
9444906	Dissolved Antimony (Sb)	2024/06/11	109	80 - 120	105	80 - 120	<0.0001	mg/L	0.29	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9444906	Dissolved Arsenic (As)	2024/06/11	102	80 - 120	101	80 - 120	<0.0001	mg/L	0.017	20		
9444906	Dissolved Barium (Ba)	2024/06/11	108	80 - 120	101	80 - 120	<0.0002	mg/L	1.6	20		
9444906	Dissolved Beryllium (Be)	2024/06/11	97	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9444906	Dissolved Bismuth (Bi)	2024/06/11	87	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9444906	Dissolved Boron (B)	2024/06/11	98	80 - 120	94	80 - 120	<0.001	mg/L	1.3	20		
9444906	Dissolved Cadmium (Cd)	2024/06/11	99	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9444906	Dissolved Calcium (Ca)	2024/06/11	126 (2)	80 - 120	104	80 - 120	<0.02	mg/L	1.5	20		
9444906	Dissolved Cesium (Cs)	2024/06/11	106	80 - 120	103	80 - 120	<0.00002	mg/L	NC	N/A		
9444906	Dissolved Chromium (Cr)	2024/06/11	103	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9444906	Dissolved Cobalt (Co)	2024/06/11	98	80 - 120	98	80 - 120	<0.00005	mg/L	2.3	20		
9444906	Dissolved Copper (Cu)	2024/06/11	111	80 - 120	101	80 - 120	<0.0001	mg/L	1.4	20		
9444906	Dissolved Iron (Fe)	2024/06/11	105	80 - 120	102	80 - 120	<0.005	mg/L	0.99	20		
9444906	Dissolved Lead (Pb)	2024/06/11	92	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9444906	Dissolved Lithium (Li)	2024/06/11	104	80 - 120	101	80 - 120	<0.0005	mg/L	0.35	20		
9444906	Dissolved Magnesium (Mg)	2024/06/11	NC	80 - 120	103	80 - 120	<0.005	mg/L	1.8	20		
9444906	Dissolved Manganese (Mn)	2024/06/11	105	80 - 120	100	80 - 120	<0.0002	mg/L	0.63	20		
9444906	Dissolved Molybdenum (Mo)	2024/06/11	113	80 - 120	101	80 - 120	<0.00005	mg/L	2.3	20		
9444906	Dissolved Nickel (Ni)	2024/06/11	93	80 - 120	97	80 - 120	<0.0001	mg/L	5.4	20		
9444906	Dissolved Phosphorus (P)	2024/06/11	128 (2)	80 - 120	102	80 - 120	<0.005	mg/L	NC	20		
9444906	Dissolved Potassium (K)	2024/06/11	145 (2)	80 - 120	105	80 - 120	<0.02	mg/L	3.9	20		
9444906	Dissolved Rubidium (Rb)	2024/06/11	101	80 - 120	100	80 - 120	<0.00002	mg/L	1.2	N/A		
9444906	Dissolved Selenium (Se)	2024/06/11	100	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20		
9444906	Dissolved Silicon (Si)	2024/06/11	118	80 - 120	102	80 - 120	<0.005	mg/L	3.6	20		
9444906	Dissolved Silver (Ag)	2024/06/11	82	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9444906	Dissolved Sodium (Na)	2024/06/11	NC	80 - 120	103	80 - 120	<0.01	mg/L	1.5	20		
9444906	Dissolved Strontium (Sr)	2024/06/11	101	80 - 120	100	80 - 120	<0.0001	mg/L	0.086	20		
9444906	Dissolved Tellurium (Te)	2024/06/11	105	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9444906	Dissolved Thallium (Tl)	2024/06/11	92	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9444906	Dissolved Thorium (Th)	2024/06/11	97	80 - 120	96	80 - 120	<0.0002	mg/L	NC	20		
9444906	Dissolved Tin (Sn)	2024/06/11	111	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9444906	Dissolved Titanium (Ti)	2024/06/11	111	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		
9444906	Dissolved Tungsten (W)	2024/06/11	103	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9444906	Dissolved Uranium (U)	2024/06/11	96	80 - 120	97	80 - 120	<0.00001	mg/L	3.1	20		
9444906	Dissolved Vanadium (V)	2024/06/11	111	80 - 120	100	80 - 120	<0.00005	mg/L	1.3	20		
9444906	Dissolved Zinc (Zn)	2024/06/11	92	80 - 120	99	80 - 120	<0.0005	mg/L	1.1	20		
9444906	Dissolved Zirconium (Zr)	2024/06/11	122 (2)	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9447520	Total Phosphorus (P)	2024/06/10	100	80 - 120	97	80 - 120	<0.0010	mg/L	11	20	90	80 - 120
9448614	Free Cyanide (CN)	2024/06/11	86	80 - 120	94	80 - 120	<2.0	ug/L	18	20		
9449839	Strong Acid Dissoc. Cyanide (CN)	2024/06/11	106	80 - 120	106	80 - 120	<0.00050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) Matrix Spike exceeds acceptance limits, probable matrix interference

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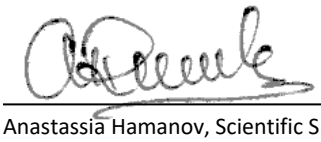
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G7292
Report Date: 2024/06/13

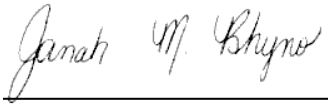
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Janah Rhyno, Scientific Specialist



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist



Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 907533

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/19
Report #: R8197913
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G9053
Received: 2024/06/04, 14:17

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	8	N/A	2024/06/10	ATL SOP-00205	SM 24 2310B m
Alkalinity	1	N/A	2024/06/14	CAM SOP-00448	SM 24 2320 B m
Alkalinity	7	N/A	2024/06/07	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	8	N/A	2024/06/07	CAM SOP-00102	APHA 4500-CO2 D
1,3-Dichloropropene Sum	1	N/A	2024/06/10		EPA 8260C m
Chloride by Automated Colourimetry	7	N/A	2024/06/11	CAM SOP-00463	SM 24 4500-Cl E m
Chloride by Automated Colourimetry	1	N/A	2024/06/17	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	8	N/A	2024/06/07	CAM SOP-00414	SM 24 2510 m
Petroleum Hydrocarbons F2-F4 in Water (3)	1	2024/06/06	2024/06/07	CAM SOP-00316	CCME PHC-CWS m
Fluoride	8	2024/06/06	2024/06/07	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	8	N/A	2024/06/13	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	2	2024/06/10	2024/06/10	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	2	2024/06/10	2024/06/10	CAM SOP-00453	EPA 7470 m
Dissolved Mercury (low level)	6	2024/06/06	2024/06/07	CAM SOP-00453	EPA 7470 m
Mercury (low level)	1	2024/06/10	2024/06/10	CAM SOP-00453	EPA 7470 m
Mercury (low level)	5	2024/06/06	2024/06/07	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	5	2024/06/06	2024/06/07	CAM SOP-00408	EPA 6010D m
Dissolved Metals Analysis by ICP	3	2024/06/08	2024/06/11	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	6	N/A	2024/06/12	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	1	N/A	2024/06/13	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	1	N/A	2024/06/18	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	8	N/A	2024/06/12	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	8	2024/06/07	2024/06/10	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	8	N/A	2024/06/11	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	8	2024/06/13	2024/06/13	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	1	2024/06/11	2024/06/12	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total (2)	7	2024/06/12	2024/06/12	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	8	N/A	2024/06/10	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (4)	7	N/A	2024/06/10	CAM SOP-00440	SM 24 4500-NO3I/NO2B
Nitrate & Nitrite as Nitrogen in Water (4)	1	N/A	2024/06/07	CAM SOP-00440	SM 24 4500-NO3I/NO2B

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 907533

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/19
Report #: R8197913
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G9053
Received: 2024/06/04, 14:17

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
pH (5)	8	2024/06/06	2024/06/07	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (6)	7	N/A	2024/06/05		Field pH Meter
Sulphate by Automated Turbidimetry	7	N/A	2024/06/11	CAM SOP-00464	SM 24 4500-SO42- E m
Sulphate by Automated Turbidimetry	1	N/A	2024/06/17	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	8	2024/06/07	2024/06/10	CAM SOP-00428	SM 24 2540C m
Field Temperature (6)	7	N/A	2024/06/05		Field Thermometer
Total Kjeldahl Nitrogen in Water	8	2024/06/07	2024/06/10	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	1	2024/06/07	2024/06/10	CAM SOP-00428	SM 24 2540D m
Low Level Total Suspended Solids	7	2024/06/07	2024/06/11	CAM SOP-00428	SM 24 2540D m
Turbidity	8	N/A	2024/06/06	CAM SOP-00417	SM 24 2130 B
Volatile Organic Compounds and F1 PHCs	1	N/A	2024/06/08	CAM SOP-00230	EPA 8260C m

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.
(4) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(5) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(6) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 907533

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/19
Report #: R8197913
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4G9053
Received: 2024/06/04, 14:17

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZJC447			ZJC448			ZJC449		
Sampling Date		2024/06/03 12:15			2024/06/03 13:47			2024/06/03 14:15		
COC Number		907533			907533			907533		
	UNITS	BH14-15	RDL	QC Batch	MW25-BR-21	RDL	QC Batch	MW25-OB-21	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	360	1.0	9434753	240	1.0	9434753	220	1.0	9434753
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.7	1.0	9434753	3.2	1.0	9434753	2.4	1.0	9434753
Hardness (CaCO3)	mg/L	310	1.0	9434754	200	1.0	9434754	210	1.0	9434754
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9434753	<1.0	1.0	9434753	<1.0	1.0	9434753
Field Measurements										
Field Temperature	Celsius	7.7	N/A	ONSITE	6.9	N/A	ONSITE	8.3	N/A	ONSITE
Field Measured pH	pH	7.02		ONSITE	7.93		ONSITE	7.51		ONSITE
Inorganics										
Acidity	mg/L	19	5.0	9444000	5.0	5.0	9444000	5.0	5.0	9444000
Total Ammonia-N	mg/L	0.37	0.050	9440647	0.16	0.050	9440647	<0.050	0.050	9440647
Conductivity	mS/cm	0.669	N/A	9439070	0.425	N/A	9439070	0.410	N/A	9439070
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9454525	<2.0 (1)	2.0	9454525	<2.0 (1)	2.0	9454525
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9454490	<0.00050	0.00050	9454490	<0.00050	0.00050	9454490
Total Dissolved Solids	mg/L	380	10	9440595	215	10	9440595	220	10	9440595
Fluoride (F-)	mg/L	0.39	0.10	9439074	0.21	0.10	9439074	0.15	0.10	9439074
Total Kjeldahl Nitrogen (TKN)	mg/L	0.61	0.10	9441000	0.25	0.10	9441000	<0.10	0.10	9441000
pH	pH	7.91		9439076	8.16		9439076	8.07		9439076
Total Phosphorus (P)	mg/L	0.41	0.0050	9454167	0.011	0.0010	9451524	0.043	0.0010	9454167
Total Suspended Solids	mg/L	670	5	9440706	23	1	9440706	2800	5	9440706
Dissolved Sulphate (SO4)	mg/L	15	1.0	9438895	<1.0	1.0	9438895	2.2	1.0	9438983
Turbidity	NTU	190	0.1	9438907	50	0.1	9438907	94	0.1	9438907
Alkalinity (Total as CaCO3)	mg/L	360	1.0	9439062	240	1.0	9439062	220	1.0	9439062
Dissolved Chloride (Cl-)	mg/L	4.0	1.0	9438892	<1.0	1.0	9438892	<1.0	1.0	9438956
Nitrite (N)	mg/L	<0.010	0.010	9443430	<0.010	0.010	9443430	<0.010	0.010	9438836
Nitrate (N)	mg/L	<0.10	0.10	9443430	<0.10	0.10	9443430	<0.10	0.10	9438836
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9443430	<0.10	0.10	9443430	<0.10	0.10	9438836

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZJC449			ZJC450			ZJC450		
Sampling Date		2024/06/03 14:15			2024/06/03 10:10			2024/06/03 10:10		
COC Number		907533			907533			907533		
	UNITS	MW25-OB-21 Lab-Dup	RDL	QC Batch	MW18-BR-21	RDL	QC Batch	MW18-BR-21 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L				170	1.0	9434753			
Carb. Alkalinity (calc. as CaCO3)	mg/L				3.7	1.0	9434753			
Hardness (CaCO3)	mg/L				91	1.0	9434754			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L				<1.0	1.0	9434753			
Field Measurements										
Field Temperature	Celsius				12.2	N/A	ONSITE			
Field Measured pH	pH				8.49		ONSITE			
Inorganics										
Acidity	mg/L				<5.0	5.0	9444000			
Total Ammonia-N	mg/L				<0.050	0.050	9440647			
Conductivity	mS/cm	0.412	N/A	9439070	0.349	N/A	9439070			
Free Cyanide (CN)	ug/L				<2.0 (1)	2.0	9454525			
Strong Acid Dissoc. Cyanide (CN)	mg/L				0.00343	0.00050	9454490			
Total Dissolved Solids	mg/L				185	10	9440595	175	10	9440595
Fluoride (F-)	mg/L	0.14	0.10	9439074	0.13	0.10	9439074			
Total Kjeldahl Nitrogen (TKN)	mg/L				0.20	0.10	9441000			
pH	pH	8.10		9439076	8.37		9439076			
Total Phosphorus (P)	mg/L				0.074	0.0010	9454167			
Total Suspended Solids	mg/L				73	2	9441111			
Dissolved Sulphate (SO4)	mg/L				18	1.0	9457664	18	1.0	9457664
Turbidity	NTU				20	0.1	9438907			
Alkalinity (Total as CaCO3)	mg/L	230	1.0	9439062	170	1.0	9456538	170	1.0	9456538
Dissolved Chloride (Cl-)	mg/L				2.3	1.0	9457667	2.3	1.0	9457667
Nitrite (N)	mg/L				<0.010	0.010	9443430			
Nitrate (N)	mg/L				<0.10	0.10	9443430			
Nitrate + Nitrite (N)	mg/L				<0.10	0.10	9443430			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZJC451			ZJC452		ZJC453		
Sampling Date		2024/06/03 11:44			2024/06/03 12:14		2024/06/03 14:57		
COC Number		907533			907533		907533		
	UNITS	MW19-BR-21	RDL	QC Batch	MW19-OB-21	RDL	MW21-BR-21	RDL	QC Batch
Calculated Parameters									
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	250	1.0	9434753	380	1.0	130	1.0	9434753
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.8	1.0	9434753	1.6	1.0	<1.0	1.0	9434753
Hardness (CaCO3)	mg/L	390	1.0	9434754	910	1.0	200	1.0	9434754
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9434753	<1.0	1.0	<1.0	1.0	9434753
Field Measurements									
Field Temperature	Celsius	9.7	N/A	ONSITE	8.3	N/A	8.1	N/A	ONSITE
Field Measured pH	pH	7.88		ONSITE	7.05		6.83		ONSITE
Inorganics									
Acidity	mg/L	15	5.0	9444000	47	5.0	18	5.0	9444000
Total Ammonia-N	mg/L	0.85	0.050	9440647	0.37	0.050	0.28	0.050	9440647
Conductivity	mS/cm	0.962	N/A	9439070	3.40	N/A	0.551	N/A	9439070
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9454525	<2.0 (1)	2.0	<2.0 (1)	2.0	9454525
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00068	0.00050	9454490	0.00774	0.00050	<0.00050	0.00050	9454490
Total Dissolved Solids	mg/L	605	10	9440595	2270	10	280	10	9440595
Fluoride (F-)	mg/L	0.23	0.10	9439074	<0.10	0.10	<0.10	0.10	9439074
Total Kjeldahl Nitrogen (TKN)	mg/L	1.1	0.10	9441000	0.75	0.10	0.51	0.10	9441000
pH	pH	7.88		9439076	7.64		7.46		9439076
Total Phosphorus (P)	mg/L	0.040	0.0010	9454167	0.30	0.0050	0.0058	0.0010	9454167
Total Suspended Solids	mg/L	45	1	9440706	710	2	67	1	9440706
Dissolved Sulphate (SO4)	mg/L	25	1.0	9438895	410	2.0	50	1.0	9440945
Turbidity	NTU	120	0.1	9438907	85	0.1	150	0.1	9438907
Alkalinity (Total as CaCO3)	mg/L	250	1.0	9439062	390	1.0	130	1.0	9439062
Dissolved Chloride (Cl-)	mg/L	140	1.0	9438892	650	8.0	54	1.0	9440931
Nitrite (N)	mg/L	<0.010	0.010	9443430	<0.010	0.010	<0.010	0.010	9443430
Nitrate (N)	mg/L	<0.10	0.10	9443430	<0.10	0.10	1.95	0.10	9443430
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9443430	<0.10	0.10	1.95	0.10	9443430

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZJC454			ZJC454		
Sampling Date		2024/06/03 08:00			2024/06/03 08:00		
COC Number		907533			907533		
	UNITS	Duplicate 2	RDL	QC Batch	Duplicate 2 Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	250	1.0	9434753			
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.3	1.0	9434753			
Hardness (CaCO3)	mg/L	400	1.0	9434754			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9434753			
Inorganics							
Acidity	mg/L	11.0.	5.0	9444000			
Total Ammonia-N	mg/L	0.87	0.050	9440647			
Conductivity	mS/cm	0.944	N/A	9439070			
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9454525			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9454490			
Total Dissolved Solids	mg/L	585	10	9440595			
Fluoride (F-)	mg/L	0.21	0.10	9439074			
Total Kjeldahl Nitrogen (TKN)	mg/L	1.1	0.10	9441000			
pH	pH	7.98		9439076			
Total Phosphorus (P)	mg/L	0.026	0.0010	9454167			
Total Suspended Solids	mg/L	40	1	9440706			
Dissolved Sulphate (SO4)	mg/L	26	1.0	9440945	26	1.0	9440945
Turbidity	NTU	44	0.1	9438907			
Alkalinity (Total as CaCO3)	mg/L	250	1.0	9439062			
Dissolved Chloride (Cl-)	mg/L	130	1.0	9440931	130	1.0	9440931
Nitrite (N)	mg/L	<0.010	0.010	9443430			
Nitrate (N)	mg/L	<0.10	0.10	9443430			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9443430			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC447			ZJC447			ZJC448		
Sampling Date		2024/06/03 12:15			2024/06/03 12:15			2024/06/03 13:47		
COC Number		907533			907533			907533		
	UNITS	BH14-15	RDL	QC Batch	BH14-15 Lab-Dup	RDL	QC Batch	MW25-BR-21	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.106	0.0005	9448001	0.103	0.0005	9448001	0.0007	0.0005	9448001
. Aluminum (Al)	mg/L	1.65	0.0005	9447981				0.0280	0.0005	9447981
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9448001	<0.0001	0.0001	9448001	<0.0001	0.0001	9448001
. Antimony (Sb)	mg/L	<0.0001	0.0001	9447981				<0.0001	0.0001	9447981
Dissolved Arsenic (As)	mg/L	0.0064	0.0001	9448001	0.0063	0.0001	9448001	0.0003	0.0001	9448001
. Arsenic (As)	mg/L	0.0120	0.0001	9447981				0.0007	0.0001	9447981
Dissolved Barium (Ba)	mg/L	0.0567	0.0002	9448001	0.0557	0.0002	9448001	0.0401	0.0002	9448001
. Barium (Ba)	mg/L	0.0714	0.0002	9447981				0.0411	0.0002	9447981
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9448001	<0.00005	0.00005	9448001	<0.00005	0.00005	9448001
. Beryllium (Be)	mg/L	0.00011	0.00005	9447981				<0.00005	0.00005	9447981
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9448001	<0.0001	0.0001	9448001	<0.0001	0.0001	9448001
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9447981				<0.0001	0.0001	9447981
Dissolved Boron (B)	mg/L	0.053	0.001	9448001	0.053	0.001	9448001	0.027	0.001	9448001
. Boron (B)	mg/L	0.055	0.001	9447981				0.027	0.001	9447981
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9448001	<0.00001	0.00001	9448001	<0.00001	0.00001	9448001
. Cadmium (Cd)	mg/L	0.000043	0.000005	9447981				<0.000005	0.000005	9447981
Dissolved Calcium (Ca)	mg/L	81.1	0.1	9448001	81.5	0.1	9448001	53.8	0.1	9448001
. Calcium (Ca)	mg/L	141	0.1	9447981				54.9	0.1	9447981
Dissolved Cesium (Cs)	mg/L	0.00002	0.00002	9448001	0.00002	0.00002	9448001	<0.00002	0.00002	9448001
. Cesium (Cs)	mg/L	0.00019	0.00002	9447981				<0.00002	0.00002	9447981
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9448001	<0.0005	0.0005	9448001	<0.0005	0.0005	9448001
. Chromium (Cr)	mg/L	0.0055	0.0005	9447981				<0.0005	0.0005	9447981
Dissolved Cobalt (Co)	mg/L	0.00044	0.00005	9448001	0.00043	0.00005	9448001	<0.00005	0.00005	9448001
. Cobalt (Co)	mg/L	0.00256	0.00005	9447981				<0.00005	0.00005	9447981
Dissolved Copper (Cu)	mg/L	0.0008	0.0001	9448001	0.0008	0.0001	9448001	0.0004	0.0001	9448001
. Copper (Cu)	mg/L	0.0060	0.0001	9447981				0.0002	0.0001	9447981
Dissolved Iron (Fe)	mg/L	3.54	0.005	9448001	3.50	0.005	9448001	5.34	0.005	9448001
. Iron (Fe)	mg/L	7.98	0.005	9447981				6.99	0.005	9447981
Dissolved Lead (Pb)	mg/L	0.00016	0.00005	9448001	0.00015	0.00005	9448001	<0.00005	0.00005	9448001
. Lead (Pb)	mg/L	0.00315	0.00005	9447981				0.00011	0.00005	9447981

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC447			ZJC447			ZJC448		
Sampling Date		2024/06/03 12:15			2024/06/03 12:15			2024/06/03 13:47		
COC Number		907533			907533			907533		
	UNITS	BH14-15	RDL	QC Batch	BH14-15 Lab-Dup	RDL	QC Batch	MW25-BR-21	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0104	0.0005	9448001	0.0103	0.0005	9448001	0.0051	0.0005	9448001
. Lithium (Li)	mg/L	0.0131	0.0005	9447981				0.0051	0.0005	9447981
Dissolved Magnesium (Mg)	mg/L	27.2	0.005	9448001	26.9	0.005	9448001	16.5	0.005	9448001
. Magnesium (Mg)	mg/L	43.6	0.025	9447981				17.2	0.005	9447981
Dissolved Manganese (Mn)	mg/L	0.0961	0.0002	9448001	0.0957	0.0002	9448001	0.380	0.0002	9448001
. Manganese (Mn)	mg/L	0.218	0.0002	9447981				0.399	0.0002	9447981
Mercury (Hg)	mg/L	<0.00010	0.00010	9444387						
Mercury (Hg)	ug/L							<0.01	0.01	9438819
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9438784				<0.01	0.01	9438784
Dissolved Molybdenum (Mo)	mg/L	0.00046	0.00005	9448001	0.00045	0.00005	9448001	0.00106	0.00005	9448001
. Molybdenum (Mo)	mg/L	0.00029	0.00005	9447981				0.00099	0.00005	9447981
Dissolved Nickel (Ni)	mg/L	0.0006	0.0001	9448001	0.0006	0.0001	9448001	<0.0001	0.0001	9448001
. Nickel (Ni)	mg/L	0.0054	0.0001	9447981				0.0001	0.0001	9447981
Dissolved Phosphorus (P)	mg/L	0.081	0.005	9448001	0.079	0.005	9448001	0.007	0.005	9448001
. Phosphorus (P)	mg/L	0.377	0.005	9447981				0.018	0.005	9447981
Dissolved Potassium (K)	mg/L	3.01	0.02	9448001	2.97	0.02	9448001	2.81	0.02	9448001
. Potassium (K)	mg/L	3.41	0.02	9447981				2.92	0.02	9447981
Dissolved Rubidium (Rb)	mg/L	0.00166	0.00002	9448001	0.00164	0.00002	9448001	0.00350	0.00002	9448001
. Rubidium (Rb)	mg/L	0.00435	0.00002	9447981				0.00368	0.00002	9447981
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9448001	<0.0002	0.0002	9448001	<0.0002	0.0002	9448001
. Selenium (Se)	mg/L	<0.00005	0.00005	9447981				0.00027	0.00005	9447981
Dissolved Silicon (Si)	mg/L	9.37	0.025	9448001	9.43	0.025	9448001	4.35	0.005	9448001
. Silicon (Si)	mg/L	11.2	0.025	9447981				4.64	0.005	9447981
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9448001	<0.00001	0.00001	9448001	<0.00001	0.00001	9448001
. Silver (Ag)	mg/L	<0.00001	0.00001	9447981				<0.00001	0.00001	9447981
Dissolved Sodium (Na)	mg/L	27.0	0.01	9448001	26.6	0.01	9448001	9.53	0.01	9448001
. Sodium (Na)	mg/L	28.0	0.01	9447981				9.94	0.01	9447981
Dissolved Strontium (Sr)	mg/L	0.260	0.0001	9448001	0.261	0.0001	9448001	0.547	0.0001	9448001
. Strontium (Sr)	mg/L	0.300	0.0001	9447981				0.556	0.0001	9447981
Dissolved Sulphur (S)	mg/L	3.1	0.5	9438687				<0.5	0.5	9438687
Total Sulphur (S)	mg/L	4.0	0.5	9440781				<0.5	0.5	9440781

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC447			ZJC447			ZJC448		
Sampling Date		2024/06/03 12:15			2024/06/03 12:15			2024/06/03 13:47		
COC Number		907533			907533			907533		
	UNITS	BH14-15	RDL	QC Batch	BH14-15 Lab-Dup	RDL	QC Batch	MW25-BR-21	RDL	QC Batch
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9448001	<0.0001	0.0001	9448001	<0.0001	0.0001	9448001
. Tellurium (Te)	mg/L	<0.0001	0.0001	9447981				<0.0001	0.0001	9447981
Dissolved Thallium (Tl)	mg/L	0.000005	0.000005	9448001	<0.000005	0.000005	9448001	<0.000005	0.000005	9448001
. Thallium (Tl)	mg/L	0.000031	0.000005	9447981				0.000005	0.000005	9447981
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9448001	<0.0002	0.0002	9448001	<0.0002	0.0002	9448001
. Thorium (Th)	mg/L	0.0004	0.0002	9447981				<0.0002	0.0002	9447981
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9448001	<0.0001	0.0001	9448001	<0.0001	0.0001	9448001
. Tin (Sn)	mg/L	<0.0001	0.0001	9447981				0.0001	0.0001	9447981
Dissolved Titanium (Ti)	mg/L	0.0079	0.0005	9448001	0.0073	0.0005	9448001	<0.0005	0.0005	9448001
. Titanium (Ti)	mg/L	0.0711	0.0005	9447981				0.0018	0.0005	9447981
Dissolved Tungsten (W)	mg/L	0.0019	0.0001	9448001	0.0019	0.0001	9448001	0.0032	0.0001	9448001
. Tungsten (W)	mg/L	0.0008	0.0001	9447981				0.0027	0.0001	9447981
Dissolved Uranium (U)	mg/L	0.00014	0.00001	9448001	0.00014	0.00001	9448001	0.00005	0.00001	9448001
. Uranium (U)	mg/L	0.00046	0.00001	9447981				0.00014	0.00001	9447981
Dissolved Vanadium (V)	mg/L	0.00050	0.00005	9448001	0.00049	0.00005	9448001	<0.00005	0.00005	9448001
. Vanadium (V)	mg/L	0.00542	0.00005	9447981				0.00009	0.00005	9447981
Dissolved Zinc (Zn)	mg/L	0.0031	0.0005	9448001	0.0032	0.0005	9448001	0.0101	0.0005	9448001
. Zinc (Zn)	mg/L	0.0121	0.0005	9447981				0.456	0.0005	9447981
Dissolved Zirconium (Zr)	mg/L	0.0006	0.0001	9448001	0.0006	0.0001	9448001	<0.0001	0.0001	9448001
. Zirconium (Zr)	mg/L	0.0015	0.0001	9447981				<0.0001	0.0001	9447981

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC449			ZJC450			ZJC450		
Sampling Date		2024/06/03 14:15			2024/06/03 10:10			2024/06/03 10:10		
COC Number		907533			907533			907533		
	UNITS	MW25-OB-21	RDL	QC Batch	MW18-BR-21	RDL	QC Batch	MW18-BR-21 Lab-Dup	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0006	0.0005	9448001	0.0033	0.0005	9462423	0.0033	0.0005	9462423
. Aluminum (Al)	mg/L	0.303	0.0005	9447981	0.940	0.0005	9447981			
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9448001	0.0001	0.0001	9462423	0.0001	0.0001	9462423
. Antimony (Sb)	mg/L	<0.0001	0.0001	9447981	0.0004	0.0001	9447981			
Dissolved Arsenic (As)	mg/L	0.0005	0.0001	9448001	0.0746	0.0001	9462423	0.0734	0.0001	9462423
. Arsenic (As)	mg/L	0.0021	0.0001	9447981	0.0911	0.0001	9447981			
Dissolved Barium (Ba)	mg/L	0.0239	0.0002	9448001	0.0333	0.0002	9462423	0.0336	0.0002	9462423
. Barium (Ba)	mg/L	0.0327	0.0002	9447981	0.0529	0.0002	9447981			
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9448001	<0.00005	0.00005	9462423	<0.00005	0.00005	9462423
. Beryllium (Be)	mg/L	<0.00005	0.00005	9447981	<0.00005	0.00005	9447981			
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9448001	<0.0001	0.0001	9462423	<0.0001	0.0001	9462423
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9447981	<0.0001	0.0001	9447981			
Dissolved Boron (B)	mg/L	0.008	0.001	9448001	0.009	0.001	9462423	0.009	0.001	9462423
. Boron (B)	mg/L	0.009	0.001	9447981	0.011	0.001	9447981			
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9448001	<0.00001	0.00001	9462423	<0.00001	0.00001	9462423
. Cadmium (Cd)	mg/L	0.000015	0.000005	9447981	0.000102	0.000005	9447981			
Dissolved Calcium (Ca)	mg/L	60.7	0.1	9448001	30.0	0.1	9462423	29.4	0.1	9462423
. Calcium (Ca)	mg/L	85.9	0.1	9447981	40.4	0.1	9447981			
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9448001	0.00004	0.00002	9462423	0.00003	0.00002	9462423
. Cesium (Cs)	mg/L	0.00006	0.00002	9447981	0.00075	0.00002	9447981			
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9448001	<0.0005	0.0005	9462423	<0.0005	0.0005	9462423
. Chromium (Cr)	mg/L	0.0012	0.0005	9447981	0.0023	0.0005	9447981			
Dissolved Cobalt (Co)	mg/L	0.00015	0.00005	9448001	0.00017	0.00005	9462423	0.00017	0.00005	9462423
. Cobalt (Co)	mg/L	0.00062	0.00005	9447981	0.00706	0.00005	9447981			
Dissolved Copper (Cu)	mg/L	0.0006	0.0001	9448001	0.0003	0.0001	9462423	0.0003	0.0001	9462423
. Copper (Cu)	mg/L	0.0017	0.0001	9447981	0.0100	0.0001	9447981			
Dissolved Iron (Fe)	mg/L	1.58	0.005	9448001	0.134	0.005	9462423	0.132	0.005	9462423
. Iron (Fe)	mg/L	6.96	0.005	9447981	2.58	0.005	9447981			
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9448001	0.00020	0.00005	9462423	0.00021	0.00005	9462423
. Lead (Pb)	mg/L	0.00069	0.00005	9447981	0.0155	0.00005	9447981			

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC449			ZJC450			ZJC450		
Sampling Date		2024/06/03 14:15			2024/06/03 10:10			2024/06/03 10:10		
COC Number		907533			907533			907533		
	UNITS	MW25-OB-21	RDL	QC Batch	MW18-BR-21	RDL	QC Batch	MW18-BR-21 Lab-Dup	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0013	0.0005	9448001	0.0060	0.0005	9462423	0.0060	0.0005	9462423
. Lithium (Li)	mg/L	0.0019	0.0005	9447981	0.0076	0.0005	9447981			
Dissolved Magnesium (Mg)	mg/L	13.9	0.005	9448001	3.96	0.005	9462423	3.91	0.005	9462423
. Magnesium (Mg)	mg/L	21.9	0.005	9447981	5.44	0.005	9447981			
Dissolved Manganese (Mn)	mg/L	0.115	0.0002	9448001	0.0834	0.0002	9462423	0.0820	0.0002	9462423
. Manganese (Mn)	mg/L	0.160	0.0002	9447981	0.150	0.0002	9447981			
Mercury (Hg)	ug/L	<0.01	0.01	9438819	<0.01	0.01	9438819			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9444495	<0.01	0.01	9438784			
Dissolved Molybdenum (Mo)	mg/L	0.00069	0.00005	9448001	0.00872	0.00005	9462423	0.00877	0.00005	9462423
. Molybdenum (Mo)	mg/L	0.00029	0.00005	9447981	0.00717	0.00005	9447981			
Dissolved Nickel (Ni)	mg/L	0.0003	0.0001	9448001	0.0004	0.0001	9462423	0.0004	0.0001	9462423
. Nickel (Ni)	mg/L	0.0011	0.0001	9447981	0.0098	0.0001	9447981			
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9448001	<0.005	0.005	9462423	<0.005	0.005	9462423
. Phosphorus (P)	mg/L	0.116	0.005	9447981	0.040	0.005	9447981			
Dissolved Potassium (K)	mg/L	1.24	0.02	9448001	4.21	0.02	9462423	4.09	0.02	9462423
. Potassium (K)	mg/L	1.34	0.02	9447981	4.55	0.02	9447981			
Dissolved Rubidium (Rb)	mg/L	0.00194	0.00002	9448001	0.00164	0.00002	9462423	0.00153	0.00002	9462423
. Rubidium (Rb)	mg/L	0.00262	0.00002	9447981	0.00203	0.00002	9447981			
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9448001	<0.0002	0.0002	9462423	<0.0002	0.0002	9462423
. Selenium (Se)	mg/L	0.00005	0.00005	9447981	0.00016	0.00005	9447981			
Dissolved Silicon (Si)	mg/L	4.88	0.025	9448001	7.73	0.025	9462423	7.58	0.025	9462423
. Silicon (Si)	mg/L	5.95	0.025	9447981	8.96	0.025	9447981			
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9448001	<0.00001	0.00001	9462423	<0.00001	0.00001	9462423
. Silver (Ag)	mg/L	<0.00001	0.00001	9447981	<0.00001	0.00001	9447981			
Dissolved Sodium (Na)	mg/L	3.65	0.01	9448001	17.5	0.01	9462423	17.1	0.01	9462423
. Sodium (Na)	mg/L	3.86	0.01	9447981	16.9	0.01	9447981			
Dissolved Strontium (Sr)	mg/L	0.0588	0.0001	9448001	1.19	0.0001	9462423	1.17	0.0001	9462423
. Strontium (Sr)	mg/L	0.0738	0.0001	9447981	1.36	0.0001	9447981			
Dissolved Sulphur (S)	mg/L	1.0	0.5	9438687	6.2	0.5	9438687			
Total Sulphur (S)	mg/L	1.1	0.5	9440781	6.7	0.5	9440781			
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9448001	<0.0001	0.0001	9462423	<0.0001	0.0001	9462423

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC449			ZJC450			ZJC450		
Sampling Date		2024/06/03 14:15			2024/06/03 10:10			2024/06/03 10:10		
COC Number		907533			907533			907533		
	UNITS	MW25-OB-21	RDL	QC Batch	MW18-BR-21	RDL	QC Batch	MW18-BR-21 Lab-Dup	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	9447981	<0.0001	0.0001	9447981			
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9448001	<0.000005	0.000005	9462423	<0.000005	0.000005	9462423
. Thallium (Tl)	mg/L	0.000017	0.000005	9447981	0.000021	0.000005	9447981			
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9448001	<0.0002	0.0002	9462423	<0.0002	0.0002	9462423
. Thorium (Th)	mg/L	0.0003	0.0002	9447981	<0.0002	0.0002	9447981			
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9448001	<0.0001	0.0001	9462423	<0.0001	0.0001	9462423
. Tin (Sn)	mg/L	0.0001	0.0001	9447981	0.0005	0.0001	9447981			
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9448001	<0.0005	0.0005	9462423	<0.0005	0.0005	9462423
. Titanium (Ti)	mg/L	0.0226	0.0005	9447981	0.0056	0.0005	9447981			
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	9448001	0.0025	0.0001	9462423	0.0025	0.0001	9462423
. Tungsten (W)	mg/L	<0.0001	0.0001	9447981	0.0043	0.0001	9447981			
Dissolved Uranium (U)	mg/L	0.00013	0.00001	9448001	0.00579	0.00001	9462423	0.00591	0.00001	9462423
. Uranium (U)	mg/L	0.00022	0.00001	9447981	0.0114	0.00001	9447981			
Dissolved Vanadium (V)	mg/L	<0.00005	0.00005	9448001	0.00065	0.00005	9462423	0.00065	0.00005	9462423
. Vanadium (V)	mg/L	0.00118	0.00005	9447981	0.00326	0.00005	9447981			
Dissolved Zinc (Zn)	mg/L	0.156	0.0005	9448001	0.359	0.0005	9462423	0.355	0.0005	9462423
. Zinc (Zn)	mg/L	0.365	0.0005	9447981	4.40	0.0025	9447981			
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	9448001	0.0014	0.0001	9462423	0.0014	0.0001	9462423
. Zirconium (Zr)	mg/L	0.0004	0.0001	9447981	0.0044	0.0001	9447981			

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC451			ZJC452			ZJC453		
Sampling Date		2024/06/03 11:44			2024/06/03 12:14			2024/06/03 14:57		
COC Number		907533			907533			907533		
	UNITS	MW19-BR-21	RDL	QC Batch	MW19-OB-21	RDL	QC Batch	MW21-BR-21	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0614	0.0005	9448001	0.0072	0.0025	9448001	0.0118	0.0005	9448001
. Aluminum (Al)	mg/L	0.417	0.0005	9447981	3.74	0.0025	9447981	0.0642	0.0005	9447981
Dissolved Antimony (Sb)	mg/L	0.0009	0.0001	9448001	<0.0005	0.0005	9448001	0.0012	0.0001	9448001
. Antimony (Sb)	mg/L	0.0001	0.0001	9447981	<0.0005	0.0005	9447981	0.0020	0.0001	9447981
Dissolved Arsenic (As)	mg/L	0.0418	0.0001	9448001	0.611	0.001	9448001	0.0015	0.0001	9448001
. Arsenic (As)	mg/L	0.0397	0.0001	9447981	0.744	0.001	9447981	0.0026	0.0001	9447981
Dissolved Barium (Ba)	mg/L	0.139	0.0002	9448001	0.081	0.001	9448001	0.0059	0.0002	9448001
. Barium (Ba)	mg/L	0.170	0.0002	9447981	0.090	0.001	9447981	0.0083	0.0002	9447981
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9448001	<0.00025	0.00025	9448001	<0.00005	0.00005	9448001
. Beryllium (Be)	mg/L	<0.00005	0.00005	9447981	<0.00025	0.00025	9447981	<0.00005	0.00005	9447981
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9448001	<0.0005	0.0005	9448001	<0.0001	0.0001	9448001
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9447981	<0.0005	0.0005	9447981	<0.0001	0.0001	9447981
Dissolved Boron (B)	mg/L	0.031	0.001	9448001	0.038	0.005	9448001	0.004	0.001	9448001
. Boron (B)	mg/L	0.030	0.001	9447981	0.042	0.005	9447981	0.004	0.001	9447981
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9448001	<0.00005	0.00005	9448001	0.00009	0.00001	9448001
. Cadmium (Cd)	mg/L	0.000008	0.000005	9447981	0.000186	0.000025	9447981	0.000178	0.000005	9447981
Dissolved Calcium (Ca)	mg/L	93.2	0.1	9448001	254	0.2	9448001	62.1	0.1	9448001
. Calcium (Ca)	mg/L	102	0.1	9447981	314	0.2	9447981	65.9	0.1	9447981
Dissolved Cesium (Cs)	mg/L	0.00138	0.00002	9448001	<0.0001	0.0001	9448001	0.00008	0.00002	9448001
. Cesium (Cs)	mg/L	0.00134	0.00002	9447981	0.0003	0.0001	9447981	0.00008	0.00002	9447981
Dissolved Chromium (Cr)	mg/L	0.0010	0.0005	9448001	<0.0025	0.0025	9448001	<0.0005	0.0005	9448001
. Chromium (Cr)	mg/L	0.0021	0.0005	9447981	0.0087	0.0025	9447981	0.0048	0.0005	9447981
Dissolved Cobalt (Co)	mg/L	0.00190	0.00005	9448001	0.0112	0.00025	9448001	0.0183	0.00005	9448001
. Cobalt (Co)	mg/L	0.00148	0.00005	9447981	0.0168	0.00025	9447981	0.0189	0.00005	9447981
Dissolved Copper (Cu)	mg/L	0.0008	0.0001	9448001	0.0012	0.0005	9448001	0.0038	0.0001	9448001
. Copper (Cu)	mg/L	0.0008	0.0001	9447981	0.201	0.0005	9447981	0.0229	0.0001	9447981
Dissolved Iron (Fe)	mg/L	1.18	0.005	9448001	1.93	0.025	9448001	0.868	0.005	9448001
. Iron (Fe)	mg/L	6.07	0.005	9447981	6.72	0.025	9447981	14.9	0.025	9447981
Dissolved Lead (Pb)	mg/L	0.00015	0.00005	9448001	0.00109	0.00025	9448001	<0.00005	0.00005	9448001
. Lead (Pb)	mg/L	0.00062	0.00005	9447981	0.00408	0.00025	9447981	0.00042	0.00005	9447981
Dissolved Lithium (Li)	mg/L	0.0086	0.0005	9448001	0.0052	0.0025	9448001	0.0006	0.0005	9448001

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC451			ZJC452			ZJC453		
Sampling Date		2024/06/03 11:44			2024/06/03 12:14			2024/06/03 14:57		
COC Number		907533			907533			907533		
	UNITS	MW19-BR-21	RDL	QC Batch	MW19-OB-21	RDL	QC Batch	MW21-BR-21	RDL	QC Batch
. Lithium (Li)	mg/L	0.0086	0.0005	9447981	0.0075	0.0025	9447981	0.0006	0.0005	9447981
Dissolved Magnesium (Mg)	mg/L	38.1	0.005	9448001	66.3	0.025	9448001	10.9	0.005	9448001
. Magnesium (Mg)	mg/L	38.9	0.005	9447981	80.6	0.025	9447981	10.6	0.005	9447981
Dissolved Manganese (Mn)	mg/L	0.230	0.0002	9448001	2.84	0.001	9448001	1.42	0.001	9448001
. Manganese (Mn)	mg/L	0.372	0.0002	9447981	3.06	0.001	9447981	1.44	0.001	9447981
Mercury (Hg)	mg/L				0.00028	0.00010	9444387			
Mercury (Hg)	ug/L	<0.01	0.01	9438819				<0.01	0.01	9444518
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9444495	<0.01	0.01	9438784	<0.01	0.01	9438784
Dissolved Molybdenum (Mo)	mg/L	0.00178	0.00005	9448001	0.00097	0.00025	9448001	0.00111	0.00005	9448001
. Molybdenum (Mo)	mg/L	0.00103	0.00005	9447981	0.00076	0.00025	9447981	0.00040	0.00005	9447981
Dissolved Nickel (Ni)	mg/L	0.0125	0.0001	9448001	0.0048	0.0005	9448001	0.0219	0.0001	9448001
. Nickel (Ni)	mg/L	0.0031	0.0001	9447981	0.0122	0.0005	9447981	0.0284	0.0001	9447981
Dissolved Phosphorus (P)	mg/L	0.006	0.005	9448001	<0.025	0.025	9448001	<0.005	0.005	9448001
. Phosphorus (P)	mg/L	0.044	0.005	9447981	0.206	0.025	9447981	<0.005	0.005	9447981
Dissolved Potassium (K)	mg/L	6.31	0.02	9448001	12.4	0.1	9448001	0.38	0.02	9448001
. Potassium (K)	mg/L	5.00	0.02	9447981	13.4	0.1	9447981	0.36	0.02	9447981
Dissolved Rubidium (Rb)	mg/L	0.00593	0.00002	9448001	0.0004	0.0001	9448001	0.00082	0.00002	9448001
. Rubidium (Rb)	mg/L	0.00380	0.00002	9447981	0.0024	0.0001	9447981	0.00083	0.00002	9447981
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9448001	<0.001	0.001	9448001	<0.0002	0.0002	9448001
. Selenium (Se)	mg/L	0.00034	0.00005	9447981	<0.00025	0.00025	9447981	0.00016	0.00005	9447981
Dissolved Silicon (Si)	mg/L	7.02	0.025	9448001	6.88	0.025	9448001	4.45	0.005	9448001
. Silicon (Si)	mg/L	7.58	0.025	9447981	9.39	0.025	9447981	4.98	0.005	9447981
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9448001	<0.00005	0.00005	9448001	<0.00001	0.00001	9448001
. Silver (Ag)	mg/L	<0.00001	0.00001	9447981	0.00007	0.00005	9447981	0.00003	0.00001	9447981
Dissolved Sodium (Na)	mg/L	19.0	0.01	9448001	432	0.1	9448001	8.11	0.01	9448001
. Sodium (Na)	mg/L	13.2	0.01	9447981	440	0.1	9447981	7.79	0.01	9447981
Dissolved Strontium (Sr)	mg/L	1.04	0.0001	9448001	1.11	0.0005	9448001	0.0795	0.0001	9448001
. Strontium (Sr)	mg/L	1.11	0.0001	9447981	1.15	0.0005	9447981	0.0806	0.0001	9447981
Dissolved Sulphur (S)	mg/L	10	0.5	9438687	170	0.5	9443306	12	0.5	9443306
Total Sulphur (S)	mg/L	9.9	0.5	9440781	170	0.5	9440781	13	0.5	9440781
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9448001	<0.0005	0.0005	9448001	<0.0001	0.0001	9448001
. Tellurium (Te)	mg/L	<0.0001	0.0001	9447981	<0.0005	0.0005	9447981	<0.0001	0.0001	9447981

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC451			ZJC452			ZJC453		
Sampling Date		2024/06/03 11:44			2024/06/03 12:14			2024/06/03 14:57		
COC Number		907533			907533			907533		
	UNITS	MW19-BR-21	RDL	QC Batch	MW19-OB-21	RDL	QC Batch	MW21-BR-21	RDL	QC Batch
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9448001	<0.000025	0.000025	9448001	0.000020	0.000005	9448001
. Thallium (Tl)	mg/L	<0.000005	0.000005	9447981	0.000190	0.000025	9447981	0.000024	0.000005	9447981
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9448001	<0.001	0.001	9448001	<0.0002	0.0002	9448001
. Thorium (Th)	mg/L	<0.0002	0.0002	9447981	0.001	0.001	9447981	<0.0002	0.0002	9447981
Dissolved Tin (Sn)	mg/L	0.0007	0.0001	9448001	<0.0005	0.0005	9448001	<0.0001	0.0001	9448001
. Tin (Sn)	mg/L	0.0004	0.0001	9447981	<0.0005	0.0005	9447981	0.0004	0.0001	9447981
Dissolved Titanium (Ti)	mg/L	0.0016	0.0005	9448001	<0.0025	0.0025	9448001	<0.0005	0.0005	9448001
. Titanium (Ti)	mg/L	0.0037	0.0005	9447981	0.117	0.0025	9447981	0.0018	0.0005	9447981
Dissolved Tungsten (W)	mg/L	0.0039	0.0001	9448001	<0.0005	0.0005	9448001	0.0006	0.0001	9448001
. Tungsten (W)	mg/L	0.0053	0.0001	9447981	<0.0005	0.0005	9447981	0.0001	0.0001	9447981
Dissolved Uranium (U)	mg/L	0.00248	0.00001	9448001	0.00045	0.00005	9448001	0.00108	0.00001	9448001
. Uranium (U)	mg/L	0.00047	0.00001	9447981	0.00062	0.00005	9447981	0.00164	0.00001	9447981
Dissolved Vanadium (V)	mg/L	0.00015	0.00005	9448001	0.00042	0.00025	9448001	0.00006	0.00005	9448001
. Vanadium (V)	mg/L	0.00069	0.00005	9447981	0.00691	0.00025	9447981	0.00037	0.00005	9447981
Dissolved Zinc (Zn)	mg/L	0.0757	0.0005	9448001	0.0033	0.0025	9448001	0.187	0.0005	9448001
. Zinc (Zn)	mg/L	0.0854	0.0005	9447981	0.0162	0.0025	9447981	0.394	0.0005	9447981
Dissolved Zirconium (Zr)	mg/L	0.0002	0.0001	9448001	0.0018	0.0005	9448001	0.0004	0.0001	9448001
. Zirconium (Zr)	mg/L	0.0004	0.0001	9447981	0.0054	0.0005	9447981	0.0007	0.0001	9447981

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC454		
Sampling Date		2024/06/03 08:00		
COC Number		907533		
	UNITS	Duplicate 2	RDL	QC Batch
Metals				
Dissolved Aluminum (Al)	mg/L	0.0037	0.0005	9448001
. Aluminum (Al)	mg/L	0.348	0.0005	9447981
Dissolved Antimony (Sb)	mg/L	0.0006	0.0001	9448001
. Antimony (Sb)	mg/L	0.0004	0.0001	9447981
Dissolved Arsenic (As)	mg/L	0.0411	0.0001	9448001
. Arsenic (As)	mg/L	0.0579	0.0001	9447981
Dissolved Barium (Ba)	mg/L	0.145	0.0002	9448001
. Barium (Ba)	mg/L	0.160	0.0002	9447981
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9448001
. Beryllium (Be)	mg/L	<0.00005	0.00005	9447981
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9448001
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9447981
Dissolved Boron (B)	mg/L	0.032	0.001	9448001
. Boron (B)	mg/L	0.032	0.001	9447981
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9448001
. Cadmium (Cd)	mg/L	0.000010	0.000005	9447981
Dissolved Calcium (Ca)	mg/L	95.2	0.1	9448001
. Calcium (Ca)	mg/L	102	0.1	9447981
Dissolved Cesium (Cs)	mg/L	0.00140	0.00002	9448001
. Cesium (Cs)	mg/L	0.00141	0.00002	9447981
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9448001
. Chromium (Cr)	mg/L	0.0021	0.0005	9447981
Dissolved Cobalt (Co)	mg/L	0.00171	0.00005	9448001
. Cobalt (Co)	mg/L	0.00171	0.00005	9447981
Dissolved Copper (Cu)	mg/L	0.0002	0.0001	9448001
. Copper (Cu)	mg/L	0.0012	0.0001	9447981
Dissolved Iron (Fe)	mg/L	1.13	0.005	9448001
. Iron (Fe)	mg/L	3.74	0.005	9447981
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9448001
. Lead (Pb)	mg/L	0.00065	0.00005	9447981
Dissolved Lithium (Li)	mg/L	0.0086	0.0005	9448001

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC454		
Sampling Date		2024/06/03 08:00		
COC Number		907533		
	UNITS	Duplicate 2	RDL	QC Batch
. Lithium (Li)	mg/L	0.0090	0.0005	9447981
Dissolved Magnesium (Mg)	mg/L	39.2	0.005	9448001
. Magnesium (Mg)	mg/L	39.6	0.025	9447981
Dissolved Manganese (Mn)	mg/L	0.240	0.0002	9448001
. Manganese (Mn)	mg/L	0.307	0.0002	9447981
Mercury (Hg)	ug/L	<0.01	0.01	9438819
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9438784
Dissolved Molybdenum (Mo)	mg/L	0.00170	0.00005	9448001
. Molybdenum (Mo)	mg/L	0.00139	0.00005	9447981
Dissolved Nickel (Ni)	mg/L	0.0097	0.0001	9448001
. Nickel (Ni)	mg/L	0.0080	0.0001	9447981
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9448001
. Phosphorus (P)	mg/L	0.035	0.005	9447981
Dissolved Potassium (K)	mg/L	6.47	0.02	9448001
. Potassium (K)	mg/L	6.02	0.02	9447981
Dissolved Rubidium (Rb)	mg/L	0.00573	0.00002	9448001
. Rubidium (Rb)	mg/L	0.00493	0.00002	9447981
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9448001
. Selenium (Se)	mg/L	0.00014	0.00005	9447981
Dissolved Silicon (Si)	mg/L	7.13	0.025	9448001
. Silicon (Si)	mg/L	7.84	0.025	9447981
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9448001
. Silver (Ag)	mg/L	<0.00001	0.00001	9447981
Dissolved Sodium (Na)	mg/L	19.2	0.01	9448001
. Sodium (Na)	mg/L	17.3	0.01	9447981
Dissolved Strontium (Sr)	mg/L	1.05	0.0001	9448001
. Strontium (Sr)	mg/L	1.06	0.0001	9447981
Dissolved Sulphur (S)	mg/L	10	0.5	9443306
Total Sulphur (S)	mg/L	10	0.5	9440781
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9448001
. Tellurium (Te)	mg/L	<0.0001	0.0001	9447981
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9448001

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QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJC454		
Sampling Date		2024/06/03 08:00		
COC Number		907533		
	UNITS	Duplicate 2	RDL	QC Batch
. Thallium (Tl)	mg/L	<0.000005	0.000005	9447981
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9448001
. Thorium (Th)	mg/L	<0.0002	0.0002	9447981
Dissolved Tin (Sn)	mg/L	0.0003	0.0001	9448001
. Tin (Sn)	mg/L	0.0006	0.0001	9447981
Dissolved Titanium (Ti)	mg/L	0.0006	0.0005	9448001
. Titanium (Ti)	mg/L	0.0039	0.0005	9447981
Dissolved Tungsten (W)	mg/L	0.0042	0.0001	9448001
. Tungsten (W)	mg/L	0.0042	0.0001	9447981
Dissolved Uranium (U)	mg/L	0.00211	0.00001	9448001
. Uranium (U)	mg/L	0.00148	0.00001	9447981
Dissolved Vanadium (V)	mg/L	<0.00005	0.00005	9448001
. Vanadium (V)	mg/L	0.00056	0.00005	9447981
Dissolved Zinc (Zn)	mg/L	0.0097	0.0005	9448001
. Zinc (Zn)	mg/L	0.0844	0.0005	9447981
Dissolved Zirconium (Zr)	mg/L	0.0002	0.0001	9448001
. Zirconium (Zr)	mg/L	0.0004	0.0001	9447981

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		ZJC453		
Sampling Date		2024/06/03 14:57		
COC Number		907533		
	UNITS	MW21-BR-21	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	9434800
Volatile Organics				
Acetone (2-Propanone)	ug/L	<10	10	9438122
Benzene	ug/L	<0.17	0.17	9438122
Bromodichloromethane	ug/L	<0.50	0.50	9438122
Bromoform	ug/L	<1.0	1.0	9438122
Bromomethane	ug/L	<0.50	0.50	9438122
Carbon Tetrachloride	ug/L	<0.20	0.20	9438122
Chlorobenzene	ug/L	<0.20	0.20	9438122
Chloroform	ug/L	<0.20	0.20	9438122
Dibromochloromethane	ug/L	<0.50	0.50	9438122
1,2-Dichlorobenzene	ug/L	<0.50	0.50	9438122
1,3-Dichlorobenzene	ug/L	<0.50	0.50	9438122
1,4-Dichlorobenzene	ug/L	<0.50	0.50	9438122
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	9438122
1,1-Dichloroethane	ug/L	<0.20	0.20	9438122
1,2-Dichloroethane	ug/L	<0.50	0.50	9438122
1,1-Dichloroethylene	ug/L	<0.20	0.20	9438122
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	9438122
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	9438122
1,2-Dichloropropane	ug/L	<0.20	0.20	9438122
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	9438122
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	9438122
Ethylbenzene	ug/L	<0.20	0.20	9438122
Ethylene Dibromide	ug/L	<0.20	0.20	9438122
Hexane	ug/L	<1.0	1.0	9438122
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	9438122
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	9438122
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	9438122
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	9438122
Styrene	ug/L	<0.50	0.50	9438122

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		ZJC453		
Sampling Date		2024/06/03 14:57		
COC Number		907533		
	UNITS	MW21-BR-21	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	9438122
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	9438122
Tetrachloroethylene	ug/L	<0.20	0.20	9438122
Toluene	ug/L	<0.20	0.20	9438122
1,1,1-Trichloroethane	ug/L	<0.20	0.20	9438122
1,1,2-Trichloroethane	ug/L	<0.50	0.50	9438122
Trichloroethylene	ug/L	<0.20	0.20	9438122
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	9438122
Vinyl Chloride	ug/L	<0.20	0.20	9438122
p+m-Xylene	ug/L	<0.20	0.20	9438122
o-Xylene	ug/L	<0.20	0.20	9438122
Total Xylenes	ug/L	<0.20	0.20	9438122
F1 (C6-C10)	ug/L	<25	25	9438122
F1 (C6-C10) - BTEX	ug/L	<25	25	9438122
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	97		9438122
D4-1,2-Dichloroethane	%	111		9438122
D8-Toluene	%	96		9438122

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		ZJC453		
Sampling Date		2024/06/03 14:57		
COC Number		907533		
	UNITS	MW21-BR-21	RDL	QC Batch
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	9438923
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	9438923
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	9438923
Reached Baseline at C50	ug/L	Yes		9438923
Surrogate Recovery (%)				
o-Terphenyl	%	98		9438923

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZJC447
Sample ID: BH14-15
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9439062	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9438892	N/A	2024/06/11	Massarat Jan
Conductivity	AT	9439070	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9439074	2024/06/06	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/13	Automated Statchk
Mercury in Water by CVAA	CV/AA	9444387	2024/06/10	2024/06/10	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9447981	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454490	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9454167	2024/06/12	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9443430	N/A	2024/06/10	Chandra Nandlal
pH	AT	9439076	2024/06/06	2024/06/07	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Sulphate by Automated Turbidimetry	SKAL	9438895	N/A	2024/06/11	Massarat Jan
Total Dissolved Solids	BAL	9440595	2024/06/07	2024/06/10	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Total Kjeldahl Nitrogen in Water	SKAL	9441000	2024/06/07	2024/06/10	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9440706	2024/06/07	2024/06/11	Razieh Tabesh
Turbidity	AT	9438907	N/A	2024/06/06	Gurparteek KAUR

Bureau Veritas ID: ZJC447 Dup
Sample ID: BH14-15
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti

Bureau Veritas ID: ZJC448
Sample ID: MW25-BR-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9439062	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9438892	N/A	2024/06/11	Massarat Jan
Conductivity	AT	9439070	N/A	2024/06/07	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZJC448
Sample ID: MW25-BR-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	9439074	2024/06/06	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9438819	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9447981	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454490	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9451524	2024/06/11	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9443430	N/A	2024/06/10	Chandra Nandlal
pH	AT	9439076	2024/06/06	2024/06/07	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Sulphate by Automated Turbidimetry	SKAL	9438895	N/A	2024/06/11	Massarat Jan
Total Dissolved Solids	BAL	9440595	2024/06/07	2024/06/10	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Total Kjeldahl Nitrogen in Water	SKAL	9441000	2024/06/07	2024/06/10	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9440706	2024/06/07	2024/06/11	Razieh Tabesh
Turbidity	AT	9438907	N/A	2024/06/06	Gurparteek KAUR

Bureau Veritas ID: ZJC449
Sample ID: MW25-OB-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9439062	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9438956	N/A	2024/06/11	Alina Dobreanu
Conductivity	AT	9439070	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9439074	2024/06/06	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9444495	2024/06/10	2024/06/10	Gagandeep Rai
Mercury (low level)	CV/AA	9438819	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9447981	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454490	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9454167	2024/06/12	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZJC449
Sample ID: MW25-OB-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	9438836	N/A	2024/06/07	Jinal Chavda
pH	AT	9439076	2024/06/06	2024/06/07	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Sulphate by Automated Turbidimetry	SKAL	9438983	N/A	2024/06/11	Alina Dobreanu
Total Dissolved Solids	BAL	9440595	2024/06/07	2024/06/10	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Total Kjeldahl Nitrogen in Water	SKAL	9441000	2024/06/07	2024/06/10	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9440706	2024/06/07	2024/06/11	Razieh Tabesh
Turbidity	AT	9438907	N/A	2024/06/06	Gurparteek KAUR

Bureau Veritas ID: ZJC449 Dup
Sample ID: MW25-OB-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9439062	N/A	2024/06/07	Nachiketa Gohil
Conductivity	AT	9439070	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9439074	2024/06/06	2024/06/07	Nachiketa Gohil
pH	AT	9439076	2024/06/06	2024/06/07	Nachiketa Gohil

Bureau Veritas ID: ZJC450
Sample ID: MW18-BR-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9456538	N/A	2024/06/14	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9457667	N/A	2024/06/17	Massarat Jan
Conductivity	AT	9439070	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9439074	2024/06/06	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9438819	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9462423	N/A	2024/06/18	Thuy Linh Nguyen
Metals in Water by ICPMS (low level)	ICP1/MS	9447981	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454490	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9454167	2024/06/12	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9443430	N/A	2024/06/10	Chandra Nandlal
pH	AT	9439076	2024/06/06	2024/06/07	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZJC450
Sample ID: MW18-BR-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Sulphate by Automated Turbidimetry	SKAL	9457664	N/A	2024/06/17	Massarat Jan
Total Dissolved Solids	BAL	9440595	2024/06/07	2024/06/10	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Total Kjeldahl Nitrogen in Water	SKAL	9441000	2024/06/07	2024/06/10	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9441111	2024/06/07	2024/06/10	Tina Teng
Turbidity	AT	9438907	N/A	2024/06/06	Gurparteek KAUR

Bureau Veritas ID: ZJC450 Dup
Sample ID: MW18-BR-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9456538	N/A	2024/06/14	Nachiketa Gohil
Chloride by Automated Colourimetry	SKAL	9457667	N/A	2024/06/17	Massarat Jan
Dissolved Metals by ICPMS (low level)	ICP1/MS	9462423	N/A	2024/06/18	Thuy Linh Nguyen
Sulphate by Automated Turbidimetry	SKAL	9457664	N/A	2024/06/17	Massarat Jan
Total Dissolved Solids	BAL	9440595	2024/06/07	2024/06/10	Tina Teng

Bureau Veritas ID: ZJC451
Sample ID: MW19-BR-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9439062	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9438892	N/A	2024/06/11	Massarat Jan
Conductivity	AT	9439070	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9439074	2024/06/06	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9444495	2024/06/10	2024/06/10	Gagandeep Rai
Mercury (low level)	CV/AA	9438819	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9438687	2024/06/06	2024/06/07	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9447981	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454490	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9454167	2024/06/12	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9443430	N/A	2024/06/10	Chandra Nandlal
pH	AT	9439076	2024/06/06	2024/06/07	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZJC451
Sample ID: MW19-BR-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sulphate by Automated Turbidimetry	SKAL	9438895	N/A	2024/06/11	Massarat Jan
Total Dissolved Solids	BAL	9440595	2024/06/07	2024/06/10	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Total Kjeldahl Nitrogen in Water	SKAL	9441000	2024/06/07	2024/06/10	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9440706	2024/06/07	2024/06/11	Razieh Tabesh
Turbidity	AT	9438907	N/A	2024/06/06	Gurparteek KAUR

Bureau Veritas ID: ZJC452
Sample ID: MW19-OB-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9439062	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9440931	N/A	2024/06/11	Alina Dobreanu
Conductivity	AT	9439070	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9439074	2024/06/06	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/13	Automated Statchk
Mercury in Water by CVAA	CV/AA	9444387	2024/06/10	2024/06/10	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9443306	2024/06/08	2024/06/11	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/13	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9447981	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454490	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9454167	2024/06/12	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9443430	N/A	2024/06/10	Chandra Nandlal
pH	AT	9439076	2024/06/06	2024/06/07	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Sulphate by Automated Turbidimetry	SKAL	9440945	N/A	2024/06/11	Alina Dobreanu
Total Dissolved Solids	BAL	9440595	2024/06/07	2024/06/10	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Total Kjeldahl Nitrogen in Water	SKAL	9441000	2024/06/07	2024/06/10	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9440706	2024/06/07	2024/06/11	Razieh Tabesh
Turbidity	AT	9438907	N/A	2024/06/06	Gurparteek KAUR

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZJC453
Sample ID: MW21-BR-21
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9439062	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
1,3-Dichloropropene Sum	CALC	9434800	N/A	2024/06/10	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9440931	N/A	2024/06/11	Alina Dobreanu
Conductivity	AT	9439070	N/A	2024/06/07	Nachiketa Gohil
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9438923	2024/06/06	2024/06/07	Mohammed Abdul Nafay Shoeb
Fluoride	ISE	9439074	2024/06/06	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9444518	2024/06/10	2024/06/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9443306	2024/06/08	2024/06/11	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9447981	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454490	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9454167	2024/06/12	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9443430	N/A	2024/06/10	Chandra Nandlal
pH	AT	9439076	2024/06/06	2024/06/07	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Sulphate by Automated Turbidimetry	SKAL	9440945	N/A	2024/06/11	Alina Dobreanu
Total Dissolved Solids	BAL	9440595	2024/06/07	2024/06/10	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/06/05	Viyushti Patel
Total Kjeldahl Nitrogen in Water	SKAL	9441000	2024/06/07	2024/06/10	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9440706	2024/06/07	2024/06/11	Razieh Tabesh
Turbidity	AT	9438907	N/A	2024/06/06	Gurparteek KAUR
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9438122	N/A	2024/06/08	Cheng-Yu Sha

Bureau Veritas ID: ZJC454
Sample ID: Duplicate 2
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9444000	N/A	2024/06/10	Brent Boudreau
Alkalinity	AT	9439062	N/A	2024/06/07	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9434753	N/A	2024/06/07	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9440931	N/A	2024/06/11	Alina Dobreanu
Conductivity	AT	9439070	N/A	2024/06/07	Nachiketa Gohil
Fluoride	ISE	9439074	2024/06/06	2024/06/07	Nachiketa Gohil
Hardness (calculated as CaCO3)		9434754	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9438784	2024/06/06	2024/06/07	Gagandeep Rai
Mercury (low level)	CV/AA	9438819	2024/06/06	2024/06/07	Gagandeep Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZJC454
Sample ID: Duplicate 2
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	9443306	2024/06/08	2024/06/11	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9447981	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9440781	2024/06/07	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454490	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9454167	2024/06/12	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9440647	N/A	2024/06/10	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9443430	N/A	2024/06/10	Chandra Nandlal
pH	AT	9439076	2024/06/06	2024/06/07	Nachiketa Gohil
Sulphate by Automated Turbidimetry	SKAL	9440945	N/A	2024/06/11	Alina Dobreanu
Total Dissolved Solids	BAL	9440595	2024/06/07	2024/06/10	Tina Teng
Total Kjeldahl Nitrogen in Water	SKAL	9441000	2024/06/07	2024/06/10	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9440706	2024/06/07	2024/06/11	Razieh Tabesh
Turbidity	AT	9438907	N/A	2024/06/06	Gurparteek KAUR

Bureau Veritas ID: ZJC454 Dup
Sample ID: Duplicate 2
Matrix: Water

Collected: 2024/06/03
Shipped:
Received: 2024/06/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	SKAL	9440931	N/A	2024/06/11	Alina Dobreanu
Sulphate by Automated Turbidimetry	SKAL	9440945	N/A	2024/06/11	Alina Dobreanu

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	5.7°C
Package 2	6.3°C
Package 3	6.7°C
Package 4	6.0°C

Sample ZJC447 [BH14-15] : Acidity sample contained headspace.

Sample ZJC448 [MW25-BR-21] : Acidity sample contained headspace.

Sample ZJC449 [MW25-OB-21] : Acidity sample contained headspace.

Sample ZJC450 [MW18-BR-21] : Acidity sample contained headspace.

Sample ZJC451 [MW19-BR-21] : Acidity sample contained headspace.

Sample ZJC452 [MW19-OB-21] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZJC453 [MW21-BR-21] : Acidity sample contained headspace.

Sample ZJC454 [Duplicate 2] : Acidity sample contained headspace.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9438122	4-Bromofluorobenzene	2024/06/07	98	70 - 130	97	70 - 130	97	%				
9438122	D4-1,2-Dichloroethane	2024/06/07	109	70 - 130	100	70 - 130	99	%				
9438122	D8-Toluene	2024/06/07	100	70 - 130	104	70 - 130	98	%				
9438923	o-Terphenyl	2024/06/07	101	60 - 130	100	60 - 130	99	%				
9438122	1,1,1,2-Tetrachloroethane	2024/06/07	98	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
9438122	1,1,1-Trichloroethane	2024/06/07	96	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
9438122	1,1,2,2-Tetrachloroethane	2024/06/07	102	70 - 130	92	70 - 130	<0.50	ug/L	NC	30		
9438122	1,1,2-Trichloroethane	2024/06/07	104	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
9438122	1,1-Dichloroethane	2024/06/07	100	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
9438122	1,1-Dichloroethylene	2024/06/07	99	70 - 130	105	70 - 130	<0.20	ug/L	NC	30		
9438122	1,2-Dichlorobenzene	2024/06/07	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
9438122	1,2-Dichloroethane	2024/06/07	106	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
9438122	1,2-Dichloropropane	2024/06/07	99	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
9438122	1,3-Dichlorobenzene	2024/06/07	93	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
9438122	1,4-Dichlorobenzene	2024/06/07	95	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
9438122	Acetone (2-Propanone)	2024/06/07	115	60 - 140	102	60 - 140	<10	ug/L	NC	30		
9438122	Benzene	2024/06/07	97	70 - 130	98	70 - 130	<0.17	ug/L	NC	30		
9438122	Bromodichloromethane	2024/06/07	99	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
9438122	Bromoform	2024/06/07	100	70 - 130	93	70 - 130	<1.0	ug/L	NC	30		
9438122	Bromomethane	2024/06/07	99	60 - 140	100	60 - 140	<0.50	ug/L	NC	30		
9438122	Carbon Tetrachloride	2024/06/07	94	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
9438122	Chlorobenzene	2024/06/07	97	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
9438122	Chloroform	2024/06/07	100	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
9438122	cis-1,2-Dichloroethylene	2024/06/07	98	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
9438122	cis-1,3-Dichloropropene	2024/06/07	96	70 - 130	94	70 - 130	<0.30	ug/L	NC	30		
9438122	Dibromochloromethane	2024/06/07	99	70 - 130	96	70 - 130	<0.50	ug/L	NC	30		
9438122	Dichlorodifluoromethane (FREON 12)	2024/06/07	90	60 - 140	96	60 - 140	<1.0	ug/L	NC	30		
9438122	Ethylbenzene	2024/06/07	94	70 - 130	100	70 - 130	<0.20	ug/L	NC	30		
9438122	Ethylene Dibromide	2024/06/07	104	70 - 130	99	70 - 130	<0.20	ug/L	NC	30		
9438122	F1 (C6-C10) - BTEX	2024/06/07					<25	ug/L	NC	30		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9438122	F1 (C6-C10)	2024/06/07	96	60 - 140	95	60 - 140	<25	ug/L	NC	30		
9438122	Hexane	2024/06/07	99	70 - 130	108	70 - 130	<1.0	ug/L	NC	30		
9438122	Methyl Ethyl Ketone (2-Butanone)	2024/06/07	112	60 - 140	99	60 - 140	<10	ug/L	NC	30		
9438122	Methyl Isobutyl Ketone	2024/06/07	108	70 - 130	97	70 - 130	<5.0	ug/L	NC	30		
9438122	Methyl t-butyl ether (MTBE)	2024/06/07	101	70 - 130	99	70 - 130	<0.50	ug/L	NC	30		
9438122	Methylene Chloride(Dichloromethane)	2024/06/07	102	70 - 130	99	70 - 130	<2.0	ug/L	NC	30		
9438122	o-Xylene	2024/06/07	93	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
9438122	p+m-Xylene	2024/06/07	91	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
9438122	Styrene	2024/06/07	94	70 - 130	98	70 - 130	<0.50	ug/L	NC	30		
9438122	Tetrachloroethylene	2024/06/07	91	70 - 130	97	70 - 130	<0.20	ug/L	NC	30		
9438122	Toluene	2024/06/07	95	70 - 130	101	70 - 130	<0.20	ug/L	NC	30		
9438122	Total Xylenes	2024/06/07					<0.20	ug/L	NC	30		
9438122	trans-1,2-Dichloroethylene	2024/06/07	97	70 - 130	100	70 - 130	<0.50	ug/L	NC	30		
9438122	trans-1,3-Dichloropropene	2024/06/07	100	70 - 130	99	70 - 130	<0.40	ug/L	NC	30		
9438122	Trichloroethylene	2024/06/07	95	70 - 130	98	70 - 130	<0.20	ug/L	NC	30		
9438122	Trichlorofluoromethane (FREON 11)	2024/06/07	97	70 - 130	102	70 - 130	<0.50	ug/L	NC	30		
9438122	Vinyl Chloride	2024/06/07	97	70 - 130	102	70 - 130	<0.20	ug/L	NC	30		
9438687	Dissolved Sulphur (S)	2024/06/07	NC	80 - 120	101	80 - 120	<0.5	mg/L	8.7	20		
9438784	Dissolved Mercury (Hg)	2024/06/07	97	75 - 125	99	80 - 120	<0.01	ug/L	NC	20		
9438819	Mercury (Hg)	2024/06/07	96	75 - 125	97	80 - 120	<0.01	ug/L	NC	20		
9438836	Nitrate (N)	2024/06/07	99	80 - 120	105	80 - 120	<0.10	mg/L	0.12	20		
9438836	Nitrite (N)	2024/06/07	NC	80 - 120	102	80 - 120	<0.010	mg/L	1.6	20		
9438892	Dissolved Chloride (Cl-)	2024/06/11	NC	80 - 120	92	80 - 120	<1.0	mg/L	0.16	20		
9438895	Dissolved Sulphate (SO4)	2024/06/11	NC	75 - 125	94	80 - 120	<1.0	mg/L	1.0	20		
9438907	Turbidity	2024/06/06			98	80 - 120	<0.1	NTU	6.4	20		
9438923	F2 (C10-C16 Hydrocarbons)	2024/06/07	97	60 - 140	96	60 - 140	<100	ug/L	NC	30		
9438923	F3 (C16-C34 Hydrocarbons)	2024/06/07	101	60 - 140	101	60 - 140	<200	ug/L	17	30		
9438923	F4 (C34-C50 Hydrocarbons)	2024/06/07	94	60 - 140	94	60 - 140	<200	ug/L	NC	30		
9438956	Dissolved Chloride (Cl-)	2024/06/11	NC	80 - 120	96	80 - 120	<1.0	mg/L	1.5	20		
9438983	Dissolved Sulphate (SO4)	2024/06/11	98	75 - 125	94	80 - 120	<1.0	mg/L	1.1	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9439062	Alkalinity (Total as CaCO3)	2024/06/07			98	85 - 115	<1.0	mg/L	1.1	20		
9439070	Conductivity	2024/06/07			100	85 - 115	0.000600	mS/cm	0.51	10		
9439074	Fluoride (F-)	2024/06/07	98	80 - 120	95	80 - 120	<0.10	mg/L	10	20		
9439076	pH	2024/06/07			102	98 - 103			0.36	N/A		
9440595	Total Dissolved Solids	2024/06/10			97	80 - 120	<10	mg/L	5.6	20		
9440647	Total Ammonia-N	2024/06/10	94	75 - 125	108	80 - 120	<0.050	mg/L	NC	20		
9440706	Total Suspended Solids	2024/06/11			96	80 - 120	<1	mg/L	6.5	20		
9440781	Total Sulphur (S)	2024/06/10	110	80 - 120	106	80 - 120	<0.5	mg/L	3.4	20		
9440931	Dissolved Chloride (Cl-)	2024/06/11	NC	80 - 120	97	80 - 120	<1.0	mg/L	0.92	20		
9440945	Dissolved Sulphate (SO4)	2024/06/11	NC	75 - 125	94	80 - 120	<1.0	mg/L	0.30	20		
9441000	Total Kjeldahl Nitrogen (TKN)	2024/06/10	NC	80 - 120	98	80 - 120	<0.10	mg/L	3.5	20	98	80 - 120
9441111	Total Suspended Solids	2024/06/10			96	80 - 120	<1	mg/L	0	20		
9443306	Dissolved Sulphur (S)	2024/06/11	105	80 - 120	109	80 - 120	<0.5	mg/L	NC	20		
9443430	Nitrate (N)	2024/06/10	87	80 - 120	101	80 - 120	<0.10	mg/L	0.14	20		
9443430	Nitrite (N)	2024/06/10	102	80 - 120	104	80 - 120	<0.010	mg/L	0.36	20		
9444000	Acidity	2024/06/10	88	80 - 120	103	80 - 120	<5.0	mg/L	6.9	25		
9444387	Mercury (Hg)	2024/06/10	93	75 - 125	96	80 - 120	<0.00010	mg/L	NC	20		
9444495	Dissolved Mercury (Hg)	2024/06/10	94	75 - 125	95	80 - 120	<0.01	ug/L	NC	20		
9444518	Mercury (Hg)	2024/06/10	96	75 - 125	96	80 - 120	<0.01	ug/L	NC	20		
9447981	. Aluminum (Al)	2024/06/12	96	80 - 120	99	80 - 120	<0.0005	mg/L	2.6	20		
9447981	. Antimony (Sb)	2024/06/12	103	80 - 120	104	80 - 120	<0.0001	mg/L	3.1	20		
9447981	. Arsenic (As)	2024/06/12	99	80 - 120	99	80 - 120	<0.0001	mg/L	0.075	20		
9447981	. Barium (Ba)	2024/06/12	99	80 - 120	99	80 - 120	<0.0002	mg/L	0.76	20		
9447981	. Beryllium (Be)	2024/06/12	97	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9447981	. Bismuth (Bi)	2024/06/12	86	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9447981	. Boron (B)	2024/06/12	96	80 - 120	97	80 - 120	<0.001	mg/L	1.1	20		
9447981	. Cadmium (Cd)	2024/06/12	98	80 - 120	98	80 - 120	<0.000005	mg/L	0	20		
9447981	. Calcium (Ca)	2024/06/12	NC	80 - 120	101	80 - 120	<0.02	mg/L	3.2	20		
9447981	. Cesium (Cs)	2024/06/12	95	80 - 120	98	80 - 120	<0.00002	mg/L	2.6	20		
9447981	. Chromium (Cr)	2024/06/12	96	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9447981	. Cobalt (Co)	2024/06/12	95	80 - 120	98	80 - 120	<0.00005	mg/L	1.3	20		
9447981	. Copper (Cu)	2024/06/12	97	80 - 120	98	80 - 120	<0.0001	mg/L	1.6	20		
9447981	. Iron (Fe)	2024/06/12	99	80 - 120	102	80 - 120	<0.005	mg/L	2.5	20		
9447981	. Lead (Pb)	2024/06/12	92	80 - 120	97	80 - 120	<0.00005	mg/L	2.1	20		
9447981	. Lithium (Li)	2024/06/12	101	80 - 120	103	80 - 120	<0.0005	mg/L	1.7	20		
9447981	. Magnesium (Mg)	2024/06/12	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.37	20		
9447981	. Manganese (Mn)	2024/06/12	NC	80 - 120	97	80 - 120	<0.0002	mg/L	0.81	20		
9447981	. Molybdenum (Mo)	2024/06/12	102	80 - 120	100	80 - 120	<0.00005	mg/L	0.81	20		
9447981	. Nickel (Ni)	2024/06/12	93	80 - 120	98	80 - 120	<0.0001	mg/L	0.029	20		
9447981	. Phosphorus (P)	2024/06/12	103	80 - 120	96	80 - 120	<0.005	mg/L	3.0	20		
9447981	. Potassium (K)	2024/06/12	NC	80 - 120	98	80 - 120	<0.02	mg/L	0.93	20		
9447981	. Rubidium (Rb)	2024/06/12	95	80 - 120	97	80 - 120	<0.00002	mg/L	2.1	20		
9447981	. Selenium (Se)	2024/06/12	98	80 - 120	101	80 - 120	<0.00005	mg/L	4.7	20		
9447981	. Silicon (Si)	2024/06/12	98	80 - 120	103	80 - 120	<0.005	mg/L	2.5	20		
9447981	. Silver (Ag)	2024/06/12	88	80 - 120	101	80 - 120	<0.00001	mg/L	NC	20		
9447981	. Sodium (Na)	2024/06/12	NC	80 - 120	100	80 - 120	<0.01	mg/L	0.68	20		
9447981	. Strontium (Sr)	2024/06/12	NC	80 - 120	99	80 - 120	<0.0001	mg/L	0.033	20		
9447981	. Tellurium (Te)	2024/06/12	97	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9447981	. Thallium (Tl)	2024/06/12	95	80 - 120	99	80 - 120	<0.000005	mg/L	0	20		
9447981	. Thorium (Th)	2024/06/12	96	80 - 120	98	80 - 120	<0.0002	mg/L				
9447981	. Tin (Sn)	2024/06/12	101	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9447981	. Titanium (Ti)	2024/06/12	95	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9447981	. Tungsten (W)	2024/06/12	99	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9447981	. Uranium (U)	2024/06/12	93	80 - 120	96	80 - 120	<0.00001	mg/L	1.6	20		
9447981	. Vanadium (V)	2024/06/12	100	80 - 120	98	80 - 120	<0.00005	mg/L	1.7	20		
9447981	. Zinc (Zn)	2024/06/12	94	80 - 120	97	80 - 120	<0.0005	mg/L	0	20		
9447981	. Zirconium (Zr)	2024/06/12	106	80 - 120	101	80 - 120	<0.0001	mg/L	0.57	20		
9448001	Dissolved Aluminum (Al)	2024/06/12	NC	80 - 120	98	80 - 120	<0.0005	mg/L	3.2	20		
9448001	Dissolved Antimony (Sb)	2024/06/12	105	80 - 120	106	80 - 120	<0.0001	mg/L	NC	20		
9448001	Dissolved Arsenic (As)	2024/06/12	95	80 - 120	99	80 - 120	<0.0001	mg/L	1.5	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9448001	Dissolved Barium (Ba)	2024/06/12	NC	80 - 120	101	80 - 120	<0.0002	mg/L	1.7	20		
9448001	Dissolved Beryllium (Be)	2024/06/12	95	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
9448001	Dissolved Bismuth (Bi)	2024/06/12	84	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9448001	Dissolved Boron (B)	2024/06/12	NC	80 - 120	96	80 - 120	<0.001	mg/L	0.15	20		
9448001	Dissolved Cadmium (Cd)	2024/06/12	99	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9448001	Dissolved Calcium (Ca)	2024/06/12	NC	80 - 120	103	80 - 120	<0.02	mg/L	0.45	20		
9448001	Dissolved Cesium (Cs)	2024/06/12	94	80 - 120	101	80 - 120	<0.00002	mg/L	NC	N/A		
9448001	Dissolved Chromium (Cr)	2024/06/12	92	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9448001	Dissolved Cobalt (Co)	2024/06/12	90	80 - 120	98	80 - 120	<0.00005	mg/L	0.92	20		
9448001	Dissolved Copper (Cu)	2024/06/12	93	80 - 120	100	80 - 120	<0.0001	mg/L	3.6	20		
9448001	Dissolved Iron (Fe)	2024/06/12	NC	80 - 120	101	80 - 120	<0.005	mg/L	1.1	20		
9448001	Dissolved Lead (Pb)	2024/06/12	92	80 - 120	97	80 - 120	<0.00005	mg/L	3.9	20		
9448001	Dissolved Lithium (Li)	2024/06/12	100	80 - 120	101	80 - 120	<0.0005	mg/L	0.92	20		
9448001	Dissolved Magnesium (Mg)	2024/06/12	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.98	20		
9448001	Dissolved Manganese (Mn)	2024/06/12	NC	80 - 120	97	80 - 120	<0.0002	mg/L	0.40	20		
9448001	Dissolved Molybdenum (Mo)	2024/06/12	105	80 - 120	101	80 - 120	<0.00005	mg/L	2.2	20		
9448001	Dissolved Nickel (Ni)	2024/06/12	87	80 - 120	96	80 - 120	<0.0001	mg/L	1.6	20		
9448001	Dissolved Phosphorus (P)	2024/06/12	NC	80 - 120	96	80 - 120	<0.005	mg/L	2.3	20		
9448001	Dissolved Potassium (K)	2024/06/12	NC	80 - 120	101	80 - 120	<0.02	mg/L	1.1	20		
9448001	Dissolved Rubidium (Rb)	2024/06/12	92	80 - 120	97	80 - 120	<0.00002	mg/L	NC	N/A		
9448001	Dissolved Selenium (Se)	2024/06/12	95	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20		
9448001	Dissolved Silicon (Si)	2024/06/12	NC	80 - 120	98	80 - 120	<0.005	mg/L	0.64	20		
9448001	Dissolved Silver (Ag)	2024/06/12	77 (1)	80 - 120	101	80 - 120	<0.00001	mg/L	NC	20		
9448001	Dissolved Sodium (Na)	2024/06/12	NC	80 - 120	101	80 - 120	<0.01	mg/L	1.5	20		
9448001	Dissolved Strontium (Sr)	2024/06/12	NC	80 - 120	97	80 - 120	<0.0001	mg/L	0.24	20		
9448001	Dissolved Tellurium (Te)	2024/06/12	93	80 - 120	94	80 - 120	<0.0001	mg/L	NC	20		
9448001	Dissolved Thallium (Tl)	2024/06/12	94	80 - 120	98	80 - 120	<0.000005	mg/L	0	20		
9448001	Dissolved Thorium (Th)	2024/06/12	98	80 - 120	96	80 - 120	<0.0002	mg/L	NC	20		
9448001	Dissolved Tin (Sn)	2024/06/12	105	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9448001	Dissolved Titanium (Ti)	2024/06/12	93	80 - 120	95	80 - 120	<0.0005	mg/L	7.9	20		

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			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9448001	Dissolved Tungsten (W)	2024/06/12	100	80 - 120	105	80 - 120	<0.0001	mg/L	2.8	20		
9448001	Dissolved Uranium (U)	2024/06/12	95	80 - 120	96	80 - 120	<0.00001	mg/L	5.7	20		
9448001	Dissolved Vanadium (V)	2024/06/12	96	80 - 120	100	80 - 120	<0.00005	mg/L	2.4	20		
9448001	Dissolved Zinc (Zn)	2024/06/12	89	80 - 120	97	80 - 120	<0.0005	mg/L	0.54	20		
9448001	Dissolved Zirconium (Zr)	2024/06/12	108	80 - 120	104	80 - 120	<0.0001	mg/L	3.8	20		
9451524	Total Phosphorus (P)	2024/06/12	86	80 - 120	95	80 - 120	<0.0010	mg/L	15	20	91	80 - 120
9454167	Total Phosphorus (P)	2024/06/12	104	80 - 120	96	80 - 120	<0.0010	mg/L			90	80 - 120
9454490	Strong Acid Dissoc. Cyanide (CN)	2024/06/13	105	80 - 120	110	80 - 120	<0.00050	mg/L				
9454525	Free Cyanide (CN)	2024/06/11	82	80 - 120	92	80 - 120	<2.0	ug/L	NC	20		
9456538	Alkalinity (Total as CaCO3)	2024/06/14			97	85 - 115	<1.0	mg/L	2.3	20		
9457664	Dissolved Sulphate (SO4)	2024/06/17	97	75 - 125	102	80 - 120	<1.0	mg/L	0.34	20		
9457667	Dissolved Chloride (Cl-)	2024/06/17	104	80 - 120	98	80 - 120	<1.0	mg/L	0.66	20		
9462423	Dissolved Aluminum (Al)	2024/06/18	102	80 - 120	101	80 - 120	<0.0005	mg/L	1.9	20		
9462423	Dissolved Antimony (Sb)	2024/06/18	107	80 - 120	99	80 - 120	<0.0001	mg/L	0	20		
9462423	Dissolved Arsenic (As)	2024/06/18	NC	80 - 120	98	80 - 120	<0.0001	mg/L	1.7	20		
9462423	Dissolved Barium (Ba)	2024/06/18	101	80 - 120	98	80 - 120	<0.0002	mg/L	0.62	20		
9462423	Dissolved Beryllium (Be)	2024/06/18	101	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9462423	Dissolved Bismuth (Bi)	2024/06/18	96	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9462423	Dissolved Boron (B)	2024/06/18	96	80 - 120	93	80 - 120	<0.001	mg/L	0.79	20		
9462423	Dissolved Cadmium (Cd)	2024/06/18	104	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9462423	Dissolved Calcium (Ca)	2024/06/18	NC	80 - 120	103	80 - 120	<0.02	mg/L	2.1	20		
9462423	Dissolved Cesium (Cs)	2024/06/18	93	80 - 120	95	80 - 120	<0.00002	mg/L	NC	N/A		
9462423	Dissolved Chromium (Cr)	2024/06/18	96	80 - 120	95	80 - 120	<0.0005	mg/L	NC	20		
9462423	Dissolved Cobalt (Co)	2024/06/18	99	80 - 120	98	80 - 120	<0.00005	mg/L	2.4	20		
9462423	Dissolved Copper (Cu)	2024/06/18	101	80 - 120	98	80 - 120	<0.0001	mg/L	3.8	20		
9462423	Dissolved Iron (Fe)	2024/06/18	101	80 - 120	101	80 - 120	<0.005	mg/L	1.8	20		
9462423	Dissolved Lead (Pb)	2024/06/18	99	80 - 120	96	80 - 120	<0.00005	mg/L	2.9	20		
9462423	Dissolved Lithium (Li)	2024/06/18	101	80 - 120	99	80 - 120	<0.0005	mg/L	0.38	20		
9462423	Dissolved Magnesium (Mg)	2024/06/18	NC	80 - 120	101	80 - 120	<0.005	mg/L	1.4	20		
9462423	Dissolved Manganese (Mn)	2024/06/18	NC	80 - 120	98	80 - 120	<0.0002	mg/L	1.8	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9462423	Dissolved Molybdenum (Mo)	2024/06/18	103	80 - 120	93	80 - 120	<0.00005	mg/L	0.59	20		
9462423	Dissolved Nickel (Ni)	2024/06/18	96	80 - 120	97	80 - 120	<0.0001	mg/L	0.46	20		
9462423	Dissolved Phosphorus (P)	2024/06/18	108	80 - 120	101	80 - 120	<0.005	mg/L	NC	20		
9462423	Dissolved Potassium (K)	2024/06/18	NC	80 - 120	102	80 - 120	<0.02	mg/L	2.9	20		
9462423	Dissolved Rubidium (Rb)	2024/06/18	96	80 - 120	97	80 - 120	<0.00002	mg/L	7.1	N/A		
9462423	Dissolved Selenium (Se)	2024/06/18	102	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9462423	Dissolved Silicon (Si)	2024/06/18	NC	80 - 120	102	80 - 120	<0.005	mg/L	2.0	20		
9462423	Dissolved Silver (Ag)	2024/06/18	76 (1)	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9462423	Dissolved Sodium (Na)	2024/06/18	NC	80 - 120	102	80 - 120	<0.01	mg/L	2.2	20		
9462423	Dissolved Strontium (Sr)	2024/06/18	NC	80 - 120	97	80 - 120	<0.0001	mg/L	1.6	20		
9462423	Dissolved Tellurium (Te)	2024/06/18	100	80 - 120	94	80 - 120	<0.0001	mg/L	NC	20		
9462423	Dissolved Thallium (Tl)	2024/06/18	105	80 - 120	103	80 - 120	<0.000005	mg/L	NC	20		
9462423	Dissolved Thorium (Th)	2024/06/18	106	80 - 120	97	80 - 120	<0.0002	mg/L	NC	20		
9462423	Dissolved Tin (Sn)	2024/06/18	107	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9462423	Dissolved Titanium (Ti)	2024/06/18	103	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		
9462423	Dissolved Tungsten (W)	2024/06/18	108	80 - 120	101	80 - 120	<0.0001	mg/L	2.9	20		
9462423	Dissolved Uranium (U)	2024/06/18	104	80 - 120	97	80 - 120	<0.00001	mg/L	2.1	20		
9462423	Dissolved Vanadium (V)	2024/06/18	98	80 - 120	94	80 - 120	<0.00005	mg/L	0.15	20		
9462423	Dissolved Zinc (Zn)	2024/06/18	NC	80 - 120	97	80 - 120	<0.0005	mg/L	1.2	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9462423	Dissolved Zirconium (Zr)	2024/06/18	110	80 - 120	101	80 - 120	<0.0001	mg/L	1.0	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, probable matrix interference

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4G9053
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Colleen Acker, B.Sc, Scientific Service Specialist

Cristina Carriere, Senior Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 908312

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/06
Report #: R8180064
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4H0803
Received: 2024/06/05, 15:18

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Field Measured pH (1)	6	N/A	2024/06/06		Field pH Meter
Field Temperature (1)	6	N/A	2024/06/06		Field Thermometer

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

==========

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/06

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZJL532	ZJL533	ZJL534	ZJL535	ZJL536	ZJL537	
Sampling Date		2024/06/04 08:00	2024/06/04 10:18	2024/06/04 10:30	2024/06/04 13:17	2024/06/04 14:28	2024/06/04 15:00	
COC Number		908312	908312	908312	908312	908312	908312	
	UNITS	**Duplicate3**	**MW26-OB-21**	**MW26-BR-21**	**MW01_BR-18**	**MW03-BR-18**	**MW03_OB-18**	**QC Batch**
Field Measurements								
Field Temperature	Celsius	0	10.9	8.7	13.7	13.7	13.4	ONSITE
Field Measured pH	pH	0	7.39	8.21	7.20	7.86	7.16	ONSITE

QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZJL532 **Collected:** 2024/06/04
Sample ID: Duplicate3 **Shipped:**
Matrix: Water **Received:** 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur

Bureau Veritas ID: ZJL533 **Collected:** 2024/06/04
Sample ID: MW26-OB-21 **Shipped:**
Matrix: Water **Received:** 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur

Bureau Veritas ID: ZJL534 **Collected:** 2024/06/04
Sample ID: MW26-BR-21 **Shipped:**
Matrix: Water **Received:** 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur

Bureau Veritas ID: ZJL535 **Collected:** 2024/06/04
Sample ID: MW01_BR-18 **Shipped:**
Matrix: Water **Received:** 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur

Bureau Veritas ID: ZJL536 **Collected:** 2024/06/04
Sample ID: MW03-BR-18 **Shipped:**
Matrix: Water **Received:** 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur

Bureau Veritas ID: ZJL537 **Collected:** 2024/06/04
Sample ID: MW03_OB-18 **Shipped:**
Matrix: Water **Received:** 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.3°C
Package 2	4.7°C

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 908312

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/14
Report #: R8191473
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C4H0803
Received: 2024/06/05, 15:18

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	6	N/A	2024/06/12	ATL SOP-00205	SM 24 2310B m
Alkalinity	6	N/A	2024/06/08	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	6	N/A	2024/06/10	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	6	N/A	2024/06/11	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	6	N/A	2024/06/08	CAM SOP-00414	SM 24 2510 m
Fluoride	6	2024/06/07	2024/06/08	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	6	N/A	2024/06/13	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	1	2024/06/11	2024/06/11	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	6	2024/06/10	2024/06/10	CAM SOP-00453	EPA 7470 m
Mercury (low level)	5	2024/06/10	2024/06/10	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	6	2024/06/08	2024/06/11	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	5	N/A	2024/06/12	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	1	N/A	2024/06/13	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	5	N/A	2024/06/12	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2024/06/13	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	6	2024/06/10	2024/06/10	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	6	N/A	2024/06/11	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	6	2024/06/13	2024/06/13	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	6	2024/06/11	2024/06/12	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	6	N/A	2024/06/11	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	6	N/A	2024/06/07	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	6	2024/06/07	2024/06/08	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	5	N/A	2024/06/06		Field pH Meter
Sulphate by Automated Turbidimetry	6	N/A	2024/06/11	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	2	2024/06/10	2024/06/11	CAM SOP-00428	SM 24 2540C m
Total Dissolved Solids	2	2024/06/07	2024/06/10	CAM SOP-00428	SM 24 2540C m
Total Dissolved Solids	2	2024/06/08	2024/06/10	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	5	N/A	2024/06/06		Field Thermometer
Total Kjeldahl Nitrogen in Water	6	2024/06/07	2024/06/10	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	2	2024/06/10	2024/06/11	CAM SOP-00428	SM 24 2540D m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 908312

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/14
Report #: R8191473
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C4H0803
Received: 2024/06/05, 15:18

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Low Level Total Suspended Solids	4	2024/06/11	2024/06/12	CAM SOP-00428	SM 24 2540D m
Turbidity	6	N/A	2024/06/06	CAM SOP-00417	SM 24 2130 B

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZJL532			ZJL533			ZJL533		
Sampling Date		2024/06/04 08:00			2024/06/04 10:18			2024/06/04 10:18		
COC Number		908312			908312			908312		
	UNITS	Duplicate3	RDL	QC Batch	MW26-OB-21	RDL	QC Batch	MW26-OB-21 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	240	1.0	9438087	310	1.0	9438087			
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.3	1.0	9438087	2.1	1.0	9438087			
Hardness (CaCO3)	mg/L	170	1.0	9438090	310	1.0	9438090			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9438087	<1.0	1.0	9438087			
Field Measurements										
Field Temperature	Celsius				10.9	N/A	ONSITE			
Field Measured pH	pH				7.39		ONSITE			
Inorganics										
Acidity	mg/L	<5.0	5.0	9449384	12	5.0	9449384			
Total Ammonia-N	mg/L	0.30	0.050	9444363	<0.050	0.050	9444363			
Conductivity	mS/cm	0.430	N/A	9441238	0.582	N/A	9441238	0.584	N/A	9441238
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9454525	<2.0 (1)	2.0	9454525			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9454822	<0.00050	0.00050	9454820			
Total Dissolved Solids	mg/L	265	10	9443177	305	10	9441050			
Fluoride (F-)	mg/L	0.49	0.10	9441241	0.28	0.10	9441241	0.26	0.10	9441241
Total Kjeldahl Nitrogen (TKN)	mg/L	0.49	0.10	9441885	0.10	0.10	9441885			
pH	pH	8.01		9441232	7.86		9441232	7.84		9441232
Total Phosphorus (P)	mg/L	0.062	0.0010	9451524	0.038	0.0010	9451524			
Total Suspended Solids	mg/L	66	2	9444410	130	1	9444292			
Dissolved Sulphate (SO4)	mg/L	<1.0	1.0	9440945	4.3	1.0	9440945			
Turbidity	NTU	68	0.1	9439532	80	0.1	9439532	80	0.1	9439532
Alkalinity (Total as CaCO3)	mg/L	240	1.0	9441236	310	1.0	9441236	320	1.0	9441236
Dissolved Chloride (Cl-)	mg/L	2.0	1.0	9440931	1.5	1.0	9440931			
Nitrite (N)	mg/L	<0.010	0.010	9440731	<0.010	0.010	9440731			
Nitrate (N)	mg/L	<0.10	0.10	9440731	<0.10	0.10	9440731			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9440731	<0.10	0.10	9440731			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZJL534			ZJL535			ZJL536		
Sampling Date		2024/06/04 10:30			2024/06/04 13:17			2024/06/04 14:28		
COC Number		908312			908312			908312		
	UNITS	MW26-BR-21	RDL	QC Batch	MW01_BR-18	RDL	QC Batch	MW03-BR-18	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	230	1.0	9438087	490	1.0	9438087	330	1.0	9438087
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.7	1.0	9438087	2.0	1.0	9438087	3.8	1.0	9438087
Hardness (CaCO3)	mg/L	170	1.0	9438090	1300	1.0	9438090	290	1.0	9438090
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9438087	<1.0	1.0	9438087	<1.0	1.0	9438087
Field Measurements										
Field Temperature	Celsius	8.7	N/A	ONSITE	13.7	N/A	ONSITE	13.7	N/A	ONSITE
Field Measured pH	pH	8.21		ONSITE	7.20		ONSITE	7.86		ONSITE
Inorganics										
Acidity	mg/L	<5.0	5.0	9449384	40	5.0	9449384	15	5.0	9449384
Total Ammonia-N	mg/L	0.29	0.050	9444366	0.12	0.050	9444366	0.46	0.050	9444366
Conductivity	mS/cm	0.414	N/A	9441238	2.49	N/A	9441238	0.591	N/A	9441238
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9454525	<2.0 (1)	2.0	9454525	<2.0 (1)	2.0	9454525
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9454820	0.00240	0.00050	9454820	0.0403	0.00050	9454822
Total Dissolved Solids	mg/L	215	10	9444394	1930	10	9441050	330	10	9443177
Fluoride (F-)	mg/L	0.50	0.10	9441241	0.28	0.10	9441241	0.27	0.10	9441241
Total Kjeldahl Nitrogen (TKN)	mg/L	0.47	0.10	9441885	0.92	0.10	9441885	0.68	0.10	9441885
pH	pH	8.11		9441232	7.65		9441232	8.08		9441232
Total Phosphorus (P)	mg/L	0.058	0.0010	9451524	3.3	0.050	9451524	0.080	0.0010	9451524
Total Suspended Solids	mg/L	150	3	9444292	630	5	9444292	38	1	9444410
Dissolved Sulphate (SO4)	mg/L	<1.0	1.0	9440945	1100	5.0	9440945	<1.0	1.0	9440945
Turbidity	NTU	180	0.1	9439532	230	0.1	9439532	48	0.1	9439532
Alkalinity (Total as CaCO3)	mg/L	230	1.0	9441236	490	1.0	9441236	330	1.0	9441236
Dissolved Chloride (Cl-)	mg/L	1.8	1.0	9440931	1.9	1.0	9440931	<1.0	1.0	9440931
Nitrite (N)	mg/L	<0.010	0.010	9440731	<0.010	0.010	9440731	<0.010	0.010	9440731
Nitrate (N)	mg/L	<0.10	0.10	9440731	1.19	0.10	9440731	<0.10	0.10	9440731
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9440731	1.19	0.10	9440731	<0.10	0.10	9440731

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZJL537		
Sampling Date		2024/06/04 15:00		
COC Number		908312		
	UNITS	MW03_OB-18	RDL	QC Batch
Calculated Parameters				
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	360	1.0	9438087
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.6	1.0	9438087
Hardness (CaCO3)	mg/L	370	1.0	9438090
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9438087
Field Measurements				
Field Temperature	Celsius	13.4	N/A	ONSITE
Field Measured pH	pH	7.16		ONSITE
Inorganics				
Acidity	mg/L	15	5.0	9449384
Total Ammonia-N	mg/L	<0.050	0.050	9444363
Conductivity	mS/cm	0.693	N/A	9441238
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9454525
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9454822
Total Dissolved Solids	mg/L	365	10	9444394
Fluoride (F-)	mg/L	0.36	0.10	9441241
Total Kjeldahl Nitrogen (TKN)	mg/L	0.14	0.10	9441885
pH	pH	7.88		9441232
Total Phosphorus (P)	mg/L	0.33	0.0050	9451524
Total Suspended Solids	mg/L	310	2	9444292
Dissolved Sulphate (SO4)	mg/L	21	1.0	9440945
Turbidity	NTU	110	0.1	9439532
Alkalinity (Total as CaCO3)	mg/L	360	1.0	9441236
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9440931
Nitrite (N)	mg/L	<0.010	0.010	9440731
Nitrate (N)	mg/L	<0.10	0.10	9440731
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9440731

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJL532			ZJL532			ZJL533		
Sampling Date		2024/06/04 08:00			2024/06/04 08:00			2024/06/04 10:18		
COC Number		908312			908312			908312		
	UNITS	Duplicate3	RDL	QC Batch	Duplicate3 Lab-Dup	RDL	QC Batch	MW26-OB-21	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0010	0.0005	9448001				0.0009	0.0005	9448001
. Aluminum (Al)	mg/L	0.372	0.0005	9450249	0.388	0.0005	9450249	0.333	0.0005	9450249
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9448001				<0.0001	0.0001	9448001
. Antimony (Sb)	mg/L	<0.0001	0.0001	9450249	<0.0001	0.0001	9450249	<0.0001	0.0001	9450249
Dissolved Arsenic (As)	mg/L	0.0011	0.0001	9448001				0.0008	0.0001	9448001
. Arsenic (As)	mg/L	0.0015	0.0001	9450249	0.0015	0.0001	9450249	0.0013	0.0001	9450249
Dissolved Barium (Ba)	mg/L	0.0447	0.0002	9448001				0.0226	0.0002	9448001
. Barium (Ba)	mg/L	0.0473	0.0002	9450249	0.0478	0.0002	9450249	0.0261	0.0002	9450249
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9448001				<0.00005	0.00005	9448001
. Beryllium (Be)	mg/L	<0.00005	0.00005	9450249	<0.00005	0.00005	9450249	<0.00005	0.00005	9450249
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9448001				<0.0001	0.0001	9448001
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9450249	<0.0001	0.0001	9450249	<0.0001	0.0001	9450249
Dissolved Boron (B)	mg/L	0.056	0.001	9448001				0.011	0.001	9448001
. Boron (B)	mg/L	0.054	0.001	9450249	0.055	0.001	9450249	0.012	0.001	9450249
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9448001				<0.00001	0.00001	9448001
. Cadmium (Cd)	mg/L	<0.000005	0.000005	9450249	<0.000005	0.000005	9450249	0.000010	0.000005	9450249
Dissolved Calcium (Ca)	mg/L	34.0	0.02	9448001				89.3	0.1	9448001
. Calcium (Ca)	mg/L	40.2	0.02	9450249	41.0	0.02	9450249	100	0.1	9450249
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9448001				<0.00002	0.00002	9448001
. Cesium (Cs)	mg/L	0.00005	0.00002	9450249	0.00005	0.00002	9450249	0.00004	0.00002	9450249
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9448001				<0.0005	0.0005	9448001
. Chromium (Cr)	mg/L	0.0017	0.0005	9450249	0.0017	0.0005	9450249	0.0010	0.0005	9450249
Dissolved Cobalt (Co)	mg/L	0.00024	0.00005	9448001				0.00094	0.00005	9448001
. Cobalt (Co)	mg/L	0.00070	0.00005	9450249	0.00070	0.00005	9450249	0.00140	0.00005	9450249
Dissolved Copper (Cu)	mg/L	<0.0001	0.0001	9448001				0.0003	0.0001	9448001
. Copper (Cu)	mg/L	0.0027	0.0001	9450249	0.0027	0.0001	9450249	0.0012	0.0001	9450249
Dissolved Iron (Fe)	mg/L	0.553	0.005	9448001				0.051	0.005	9448001
. Iron (Fe)	mg/L	1.37	0.005	9450249	1.36	0.005	9450249	0.536	0.005	9450249
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9448001				<0.00005	0.00005	9448001
. Lead (Pb)	mg/L	0.00027	0.00005	9450249	0.00027	0.00005	9450249	0.00039	0.00005	9450249

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJL532			ZJL532			ZJL533		
Sampling Date		2024/06/04 08:00			2024/06/04 08:00			2024/06/04 10:18		
COC Number		908312			908312			908312		
	UNITS	Duplicate3	RDL	QC Batch	Duplicate3 Lab-Dup	RDL	QC Batch	MW26-OB-21	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0087	0.0005	9448001				0.0054	0.0005	9448001
. Lithium (Li)	mg/L	0.0092	0.0005	9450249	0.0094	0.0005	9450249	0.0062	0.0005	9450249
Dissolved Magnesium (Mg)	mg/L	20.3	0.005	9448001				22.1	0.005	9448001
. Magnesium (Mg)	mg/L	21.6	0.005	9450249	21.3	0.005	9450249	25.3	0.005	9450249
Dissolved Manganese (Mn)	mg/L	0.0247	0.0002	9448001				0.260	0.0002	9448001
. Manganese (Mn)	mg/L	0.0447	0.0002	9450249	0.0444	0.0002	9450249	0.308	0.0002	9450249
Mercury (Hg)	ug/L	0.04	0.01	9444518				<0.01	0.01	9444518
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9444495				<0.01	0.01	9444495
Dissolved Molybdenum (Mo)	mg/L	0.0263	0.00005	9448001				0.00144	0.00005	9448001
. Molybdenum (Mo)	mg/L	0.0278	0.00005	9450249	0.0279	0.00005	9450249	0.00103	0.00005	9450249
Dissolved Nickel (Ni)	mg/L	0.0002	0.0001	9448001				0.0006	0.0001	9448001
. Nickel (Ni)	mg/L	0.0015	0.0001	9450249	0.0015	0.0001	9450249	0.0014	0.0001	9450249
Dissolved Phosphorus (P)	mg/L	0.028	0.005	9448001				<0.005	0.005	9448001
. Phosphorus (P)	mg/L	0.052	0.005	9450249	0.054	0.005	9450249	0.049	0.005	9450249
Dissolved Potassium (K)	mg/L	3.58	0.02	9448001				1.96	0.02	9448001
. Potassium (K)	mg/L	3.64	0.02	9450249	3.63	0.02	9450249	2.07	0.02	9450249
Dissolved Rubidium (Rb)	mg/L	0.00128	0.00002	9448001				0.00097	0.00002	9448001
. Rubidium (Rb)	mg/L	0.00199	0.00002	9450249	0.00200	0.00002	9450249	0.00163	0.00002	9450249
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9448001				<0.0002	0.0002	9448001
. Selenium (Se)	mg/L	0.00005	0.00005	9450249	0.00006	0.00005	9450249	<0.00005	0.00005	9450249
Dissolved Silicon (Si)	mg/L	5.06	0.025	9448001				6.57	0.025	9448001
. Silicon (Si)	mg/L	5.49	0.025	9450249	5.48	0.025	9450249	7.20	0.025	9450249
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9448001				<0.00001	0.00001	9448001
. Silver (Ag)	mg/L	<0.00001	0.00001	9450249	<0.00001	0.00001	9450249	0.00001	0.00001	9450249
Dissolved Sodium (Na)	mg/L	27.3	0.01	9448001				5.04	0.01	9448001
. Sodium (Na)	mg/L	26.8	0.01	9450249	26.7	0.01	9450249	5.23	0.01	9450249
Dissolved Strontium (Sr)	mg/L	0.260	0.0001	9448001				0.151	0.0001	9448001
. Strontium (Sr)	mg/L	0.262	0.0001	9450249	0.258	0.0001	9450249	0.163	0.0001	9450249
Dissolved Sulphur (S)	mg/L	<0.5	0.5	9443306	<0.5	0.5	9443306	1.8	0.5	9443306
Total Sulphur (S)	mg/L	<0.5	0.5	9444180				1.7	0.5	9444180
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9448001				<0.0001	0.0001	9448001

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJL532			ZJL532			ZJL533		
Sampling Date		2024/06/04 08:00			2024/06/04 08:00			2024/06/04 10:18		
COC Number		908312			908312			908312		
	UNITS	Duplicate3	RDL	QC Batch	Duplicate3 Lab-Dup	RDL	QC Batch	MW26-OB-21	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	9450249	<0.0001	0.0001	9450249	<0.0001	0.0001	9450249
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9448001				0.000010	0.000005	9448001
. Thallium (Tl)	mg/L	0.000008	0.000005	9450249	<0.000005	0.000005	9450249	0.000018	0.000005	9450249
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9448001				<0.0002	0.0002	9448001
. Thorium (Th)	mg/L	<0.0002	0.0002	9450249	<0.0002	0.0002	9450249	<0.0002	0.0002	9450249
Dissolved Tin (Sn)	mg/L	0.0005	0.0001	9448001				<0.0001	0.0001	9448001
. Tin (Sn)	mg/L	0.0008	0.0001	9450249	0.0008	0.0001	9450249	<0.0001	0.0001	9450249
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9448001				<0.0005	0.0005	9448001
. Titanium (Ti)	mg/L	0.0232	0.0005	9450249	0.0235	0.0005	9450249	0.0200	0.0005	9450249
Dissolved Tungsten (W)	mg/L	0.115	0.0005	9448001				0.0002	0.0001	9448001
. Tungsten (W)	mg/L	0.128	0.0005	9450249	0.122	0.0005	9450249	0.0001	0.0001	9450249
Dissolved Uranium (U)	mg/L	0.00008	0.00001	9448001				0.00110	0.00001	9448001
. Uranium (U)	mg/L	0.00014	0.00001	9450249	0.00013	0.00001	9450249	0.00114	0.00001	9450249
Dissolved Vanadium (V)	mg/L	<0.00005	0.00005	9448001				0.00007	0.00005	9448001
. Vanadium (V)	mg/L	0.00112	0.00005	9450249	0.00112	0.00005	9450249	0.00086	0.00005	9450249
Dissolved Zinc (Zn)	mg/L	<0.0005	0.0005	9448001				0.0015	0.0005	9448001
. Zinc (Zn)	mg/L	0.0055	0.0005	9450249	0.0054	0.0005	9450249	0.0040	0.0005	9450249
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	9448001				<0.0001	0.0001	9448001
. Zirconium (Zr)	mg/L	0.0007	0.0001	9450249	0.0008	0.0001	9450249	0.0003	0.0001	9450249

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJL533			ZJL534			ZJL535		
Sampling Date		2024/06/04 10:18			2024/06/04 10:30			2024/06/04 13:17		
COC Number		908312			908312			908312		
	UNITS	MW26-OB-21 Lab-Dup	RDL	QC Batch	MW26-BR-21	RDL	QC Batch	MW01_BR-18	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L				0.0015	0.0005	9448001	0.181	0.0025	9448001
. Aluminum (Al)	mg/L				0.603	0.0005	9450249	0.0974	0.0025	9450249
Dissolved Antimony (Sb)	mg/L				<0.0001	0.0001	9448001	<0.0005	0.0005	9448001
. Antimony (Sb)	mg/L				<0.0001	0.0001	9450249	<0.0005	0.0005	9450249
Dissolved Arsenic (As)	mg/L				0.0012	0.0001	9448001	0.0725	0.0005	9448001
. Arsenic (As)	mg/L				0.0011	0.0001	9450249	0.0511	0.0005	9450249
Dissolved Barium (Ba)	mg/L				0.0452	0.0002	9448001	0.016	0.001	9448001
. Barium (Ba)	mg/L				0.0469	0.0002	9450249	0.063	0.001	9450249
Dissolved Beryllium (Be)	mg/L				<0.00005	0.00005	9448001	<0.00025	0.00025	9448001
. Beryllium (Be)	mg/L				<0.00005	0.00005	9450249	<0.00025	0.00025	9450249
Dissolved Bismuth (Bi)	mg/L				<0.0001	0.0001	9448001	<0.0005	0.0005	9448001
. Bismuth (Bi)	mg/L				<0.0001	0.0001	9450249	<0.0005	0.0005	9450249
Dissolved Boron (B)	mg/L				0.055	0.001	9448001	0.027	0.005	9448001
. Boron (B)	mg/L				0.054	0.001	9450249	0.038	0.005	9450249
Dissolved Cadmium (Cd)	mg/L				<0.00001	0.00001	9448001	<0.00005	0.00005	9448001
. Cadmium (Cd)	mg/L				<0.000005	0.000005	9450249	0.000353	0.000025	9450249
Dissolved Calcium (Ca)	mg/L				33.9	0.02	9448001	254	0.2	9448001
. Calcium (Ca)	mg/L				43.2	0.02	9450249	1100	1	9450249
Dissolved Cesium (Cs)	mg/L				<0.00002	0.00002	9448001	0.0001	0.0001	9448001
. Cesium (Cs)	mg/L				0.00007	0.00002	9450249	0.0003	0.0001	9450249
Dissolved Chromium (Cr)	mg/L				<0.0005	0.0005	9448001	<0.0025	0.0025	9448001
. Chromium (Cr)	mg/L				0.0028	0.0005	9450249	<0.0025	0.0025	9450249
Dissolved Cobalt (Co)	mg/L				0.00026	0.00005	9448001	0.00036	0.00025	9448001
. Cobalt (Co)	mg/L				0.00098	0.00005	9450249	0.00546	0.00025	9450249
Dissolved Copper (Cu)	mg/L				0.0001	0.0001	9448001	0.0017	0.0005	9448001
. Copper (Cu)	mg/L				0.0049	0.0001	9450249	0.0033	0.0005	9450249
Dissolved Iron (Fe)	mg/L				0.503	0.005	9448001	1.28	0.025	9448001
. Iron (Fe)	mg/L				1.98	0.005	9450249	3.13	0.025	9450249
Dissolved Lead (Pb)	mg/L				<0.00005	0.00005	9448001	0.00031	0.00025	9448001
. Lead (Pb)	mg/L				0.00046	0.00005	9450249	<0.00025	0.00025	9450249

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJL533			ZJL534			ZJL535		
Sampling Date		2024/06/04 10:18			2024/06/04 10:30			2024/06/04 13:17		
COC Number		908312			908312			908312		
	UNITS	MW26-OB-21 Lab-Dup	RDL	QC Batch	MW26-BR-21	RDL	QC Batch	MW01_BR-18	RDL	QC Batch
Dissolved Lithium (Li)	mg/L				0.0086	0.0005	9448001	0.0899	0.0025	9448001
. Lithium (Li)	mg/L				0.0095	0.0005	9450249	0.0944	0.0025	9450249
Dissolved Magnesium (Mg)	mg/L				19.5	0.005	9448001	159	0.025	9448001
. Magnesium (Mg)	mg/L				22.7	0.005	9450249	219	0.25	9450249
Dissolved Manganese (Mn)	mg/L				0.0249	0.0002	9448001	0.180	0.001	9448001
. Manganese (Mn)	mg/L				0.0561	0.0002	9450249	2.05	0.001	9450249
Mercury (Hg)	mg/L							<0.0015	0.0015	9446676
Mercury (Hg)	ug/L	<0.01	0.01	9444518	<0.01	0.01	9444518			
Dissolved Mercury (Hg)	ug/L				<0.01	0.01	9444495	<0.01	0.01	9444495
Dissolved Molybdenum (Mo)	mg/L				0.0289	0.00005	9448001	0.00253	0.00025	9448001
. Molybdenum (Mo)	mg/L				0.0288	0.00005	9450249	0.00051	0.00025	9450249
Dissolved Nickel (Ni)	mg/L				0.0002	0.0001	9448001	0.0013	0.0005	9448001
. Nickel (Ni)	mg/L				0.0022	0.0001	9450249	0.0145	0.0005	9450249
Dissolved Phosphorus (P)	mg/L				0.026	0.005	9448001	<0.025	0.025	9448001
. Phosphorus (P)	mg/L				0.071	0.005	9450249	<0.025	0.025	9450249
Dissolved Potassium (K)	mg/L				3.47	0.02	9448001	10.9	0.1	9448001
. Potassium (K)	mg/L				3.60	0.02	9450249	13.5	0.1	9450249
Dissolved Rubidium (Rb)	mg/L				0.00129	0.00002	9448001	0.0128	0.0001	9448001
. Rubidium (Rb)	mg/L				0.00241	0.00002	9450249	0.0208	0.0001	9450249
Dissolved Selenium (Se)	mg/L				<0.0002	0.0002	9448001	<0.001	0.001	9448001
. Selenium (Se)	mg/L				<0.00005	0.00005	9450249	<0.00025	0.00025	9450249
Dissolved Silicon (Si)	mg/L				4.83	0.025	9448001	8.66	0.025	9448001
. Silicon (Si)	mg/L				6.00	0.025	9450249	10.0	0.025	9450249
Dissolved Silver (Ag)	mg/L				<0.00001	0.00001	9448001	<0.00005	0.00005	9448001
. Silver (Ag)	mg/L				<0.00001	0.00001	9450249	<0.00005	0.00005	9450249
Dissolved Sodium (Na)	mg/L				25.6	0.01	9448001	121	0.05	9448001
. Sodium (Na)	mg/L				26.9	0.01	9450249	133	0.05	9450249
Dissolved Strontium (Sr)	mg/L				0.252	0.0001	9448001	1.05	0.0005	9448001
. Strontium (Sr)	mg/L				0.268	0.0001	9450249	1.69	0.0005	9450249
Dissolved Sulphur (S)	mg/L				<0.5	0.5	9443306	370	0.5	9443306
Total Sulphur (S)	mg/L	1.8	0.5	9444180	<0.5	0.5	9444180	380	5	9444180

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJL533			ZJL534			ZJL535		
Sampling Date		2024/06/04 10:18			2024/06/04 10:30			2024/06/04 13:17		
COC Number		908312			908312			908312		
	UNITS	MW26-OB-21 Lab-Dup	RDL	QC Batch	MW26-BR-21	RDL	QC Batch	MW01_BR-18	RDL	QC Batch
Dissolved Tellurium (Te)	mg/L				<0.0001	0.0001	9448001	<0.0005	0.0005	9448001
. Tellurium (Te)	mg/L				<0.0001	0.0001	9450249	<0.0005	0.0005	9450249
Dissolved Thallium (Tl)	mg/L				<0.000005	0.000005	9448001	<0.000025	0.000025	9448001
. Thallium (Tl)	mg/L				0.000008	0.000005	9450249	0.000062	0.000025	9450249
Dissolved Thorium (Th)	mg/L				<0.0002	0.0002	9448001	<0.001	0.001	9448001
. Thorium (Th)	mg/L				<0.0002	0.0002	9450249	<0.001	0.001	9450249
Dissolved Tin (Sn)	mg/L				0.0006	0.0001	9448001	<0.0005	0.0005	9448001
. Tin (Sn)	mg/L				0.0004	0.0001	9450249	<0.0005	0.0005	9450249
Dissolved Titanium (Ti)	mg/L				<0.0005	0.0005	9448001	0.0144	0.0025	9448001
. Titanium (Ti)	mg/L				0.0354	0.0005	9450249	<0.0025	0.0025	9450249
Dissolved Tungsten (W)	mg/L				0.132	0.0005	9448001	0.0012	0.0005	9448001
. Tungsten (W)	mg/L				0.104	0.0005	9450249	<0.0005	0.0005	9450249
Dissolved Uranium (U)	mg/L				0.00010	0.00001	9448001	0.00763	0.00005	9448001
. Uranium (U)	mg/L				0.00014	0.00001	9450249	0.00293	0.00005	9450249
Dissolved Vanadium (V)	mg/L				<0.00005	0.00005	9448001	0.00065	0.00025	9448001
. Vanadium (V)	mg/L				0.00180	0.00005	9450249	<0.00025	0.00025	9450249
Dissolved Zinc (Zn)	mg/L				0.0008	0.0005	9448001	0.0043	0.0025	9448001
. Zinc (Zn)	mg/L				0.0083	0.0005	9450249	0.0206	0.0025	9450249
Dissolved Zirconium (Zr)	mg/L				<0.0001	0.0001	9448001	0.0006	0.0005	9448001
. Zirconium (Zr)	mg/L				0.0009	0.0001	9450249	<0.0005	0.0005	9450249

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJL536	ZJL537		
Sampling Date		2024/06/04 14:28	2024/06/04 15:00		
COC Number		908312	908312		
	UNITS	MW03-BR-18	MW03_OB-18	RDL	QC Batch
Metals					
Dissolved Aluminum (Al)	mg/L	0.0009	0.0009	0.0005	9448001
. Aluminum (Al)	mg/L	0.330	0.595	0.0005	9450249
Dissolved Antimony (Sb)	mg/L	<0.0001	<0.0001	0.0001	9448001
. Antimony (Sb)	mg/L	0.0001	<0.0001	0.0001	9450249
Dissolved Arsenic (As)	mg/L	0.0247	0.0005	0.0001	9448001
. Arsenic (As)	mg/L	0.0273	0.0025	0.0001	9450249
Dissolved Barium (Ba)	mg/L	0.0711	0.0340	0.0002	9448001
. Barium (Ba)	mg/L	0.0734	0.0497	0.0002	9450249
Dissolved Beryllium (Be)	mg/L	<0.00005	<0.00005	0.00005	9448001
. Beryllium (Be)	mg/L	0.00011	<0.00005	0.00005	9450249
Dissolved Bismuth (Bi)	mg/L	<0.0001	<0.0001	0.0001	9448001
. Bismuth (Bi)	mg/L	<0.0001	<0.0001	0.0001	9450249
Dissolved Boron (B)	mg/L	0.036	0.009	0.001	9448001
. Boron (B)	mg/L	0.036	0.011	0.001	9450249
Dissolved Cadmium (Cd)	mg/L	<0.00001	<0.00001	0.00001	9448001
. Cadmium (Cd)	mg/L	<0.000005	0.000028	0.000005	9450249
Dissolved Calcium (Ca)	mg/L	71.0	113	0.1	9448001
. Calcium (Ca)	mg/L	77.0	161	0.1	9450249
Dissolved Cesium (Cs)	mg/L	0.00008	<0.00002	0.00002	9448001
. Cesium (Cs)	mg/L	0.00019	0.00007	0.00002	9450249
Dissolved Chromium (Cr)	mg/L	<0.0005	<0.0005	0.0005	9448001
. Chromium (Cr)	mg/L	0.0015	0.0018	0.0005	9450249
Dissolved Cobalt (Co)	mg/L	<0.00005	<0.00005	0.00005	9448001
. Cobalt (Co)	mg/L	0.00072	0.00061	0.00005	9450249
Dissolved Copper (Cu)	mg/L	<0.0001	0.0003	0.0001	9448001
. Copper (Cu)	mg/L	0.0012	0.0018	0.0001	9450249
Dissolved Iron (Fe)	mg/L	2.14	0.860	0.005	9448001
. Iron (Fe)	mg/L	5.85	8.27	0.005	9450249
Dissolved Lead (Pb)	mg/L	<0.00005	<0.00005	0.00005	9448001
. Lead (Pb)	mg/L	0.00067	0.00113	0.00005	9450249
Dissolved Lithium (Li)	mg/L	0.0089	0.0064	0.0005	9448001

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJL536	ZJL537		
Sampling Date		2024/06/04 14:28	2024/06/04 15:00		
COC Number		908312	908312		
	UNITS	MW03-BR-18	MW03_OB-18	RDL	QC Batch
. Lithium (Li)	mg/L	0.0092	0.0075	0.0005	9450249
Dissolved Magnesium (Mg)	mg/L	26.4	22.1	0.005	9448001
. Magnesium (Mg)	mg/L	27.9	35.6	0.005	9450249
Dissolved Manganese (Mn)	mg/L	0.0516	0.0517	0.0002	9448001
. Manganese (Mn)	mg/L	0.0862	0.120	0.0002	9450249
Mercury (Hg)	ug/L	<0.01	<0.01	0.01	9444518
Dissolved Mercury (Hg)	ug/L	<0.01	<0.01	0.01	9444495
Dissolved Molybdenum (Mo)	mg/L	0.00116	0.00069	0.00005	9448001
. Molybdenum (Mo)	mg/L	0.00099	0.00045	0.00005	9450249
Dissolved Nickel (Ni)	mg/L	<0.0001	<0.0001	0.0001	9448001
. Nickel (Ni)	mg/L	0.0022	0.0013	0.0001	9450249
Dissolved Phosphorus (P)	mg/L	0.056	0.011	0.005	9448001
. Phosphorus (P)	mg/L	0.083	0.361	0.005	9450249
Dissolved Potassium (K)	mg/L	3.34	1.65	0.02	9448001
. Potassium (K)	mg/L	3.48	1.83	0.02	9450249
Dissolved Rubidium (Rb)	mg/L	0.00094	0.00129	0.00002	9448001
. Rubidium (Rb)	mg/L	0.00125	0.00247	0.00002	9450249
Dissolved Selenium (Se)	mg/L	<0.0002	<0.0002	0.0002	9448001
. Selenium (Se)	mg/L	<0.00005	<0.00005	0.00005	9450249
Dissolved Silicon (Si)	mg/L	7.92	6.33	0.025	9448001
. Silicon (Si)	mg/L	8.86	7.62	0.025	9450249
Dissolved Silver (Ag)	mg/L	<0.00001	<0.00001	0.00001	9448001
. Silver (Ag)	mg/L	<0.00001	<0.00001	0.00001	9450249
Dissolved Sodium (Na)	mg/L	12.6	3.65	0.01	9448001
. Sodium (Na)	mg/L	12.9	3.69	0.01	9450249
Dissolved Strontium (Sr)	mg/L	0.547	0.117	0.0001	9448001
. Strontium (Sr)	mg/L	0.555	0.147	0.0001	9450249
Dissolved Sulphur (S)	mg/L	<0.5	7.4	0.5	9443306
Total Sulphur (S)	mg/L	<0.5	7.7	0.5	9444180
Dissolved Tellurium (Te)	mg/L	<0.0001	<0.0001	0.0001	9448001
. Tellurium (Te)	mg/L	<0.0001	<0.0001	0.0001	9450249
Dissolved Thallium (Tl)	mg/L	<0.000005	<0.000005	0.000005	9448001

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZJL536	ZJL537		
Sampling Date		2024/06/04 14:28	2024/06/04 15:00		
COC Number		908312	908312		
	UNITS	MW03-BR-18	MW03_OB-18	RDL	QC Batch
. Thallium (Tl)	mg/L	<0.000005	0.000018	0.000005	9450249
Dissolved Thorium (Th)	mg/L	<0.0002	<0.0002	0.0002	9448001
. Thorium (Th)	mg/L	<0.0002	0.0009	0.0002	9450249
Dissolved Tin (Sn)	mg/L	<0.0001	<0.0001	0.0001	9448001
. Tin (Sn)	mg/L	<0.0001	<0.0001	0.0001	9450249
Dissolved Titanium (Ti)	mg/L	0.0006	<0.0005	0.0005	9448001
. Titanium (Ti)	mg/L	0.0081	0.0373	0.0005	9450249
Dissolved Tungsten (W)	mg/L	0.0005	<0.0001	0.0001	9448001
. Tungsten (W)	mg/L	0.0004	<0.0001	0.0001	9450249
Dissolved Uranium (U)	mg/L	0.00008	0.00001	0.00001	9448001
. Uranium (U)	mg/L	0.00028	0.00013	0.00001	9450249
Dissolved Vanadium (V)	mg/L	<0.00005	<0.00005	0.00005	9448001
. Vanadium (V)	mg/L	0.00178	0.00187	0.00005	9450249
Dissolved Zinc (Zn)	mg/L	0.0009	0.0017	0.0005	9448001
. Zinc (Zn)	mg/L	0.0081	0.0042	0.0005	9450249
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	0.0001	9448001
. Zirconium (Zr)	mg/L	0.0008	0.0010	0.0001	9450249

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: ZJL532
Sample ID: Duplicate3
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9449384	N/A	2024/06/12	Brent Boudreau
Alkalinity	AT	9441236	N/A	2024/06/08	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9438087	N/A	2024/06/10	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9440931	N/A	2024/06/11	Alina Dobreanu
Conductivity	AT	9441238	N/A	2024/06/08	Nachiketa Gohil
Fluoride	ISE	9441241	2024/06/07	2024/06/08	Nachiketa Gohil
Hardness (calculated as CaCO3)		9438090	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9444495	2024/06/10	2024/06/10	Gagandeep Rai
Mercury (low level)	CV/AA	9444518	2024/06/10	2024/06/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9443306	2024/06/08	2024/06/11	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9450249	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9444180	2024/06/10	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454822	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9451524	2024/06/11	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9444363	N/A	2024/06/11	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9440731	N/A	2024/06/07	Jinal Chavda
pH	AT	9441232	2024/06/07	2024/06/08	Nachiketa Gohil
Sulphate by Automated Turbidimetry	SKAL	9440945	N/A	2024/06/11	Alina Dobreanu
Total Dissolved Solids	BAL	9443177	2024/06/08	2024/06/10	Tina Teng
Total Kjeldahl Nitrogen in Water	SKAL	9441885	2024/06/07	2024/06/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9444410	2024/06/10	2024/06/11	Razieh Tabesh
Turbidity	AT	9439532	N/A	2024/06/06	Kien Tran

Bureau Veritas ID: ZJL532 Dup
Sample ID: Duplicate3
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	9443306	2024/06/08	2024/06/11	Suban Kanapathippllai
Metals in Water by ICPMS (low level)	ICP1/MS	9450249	N/A	2024/06/12	Prempal Bhatti

Bureau Veritas ID: ZJL533
Sample ID: MW26-OB-21
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9449384	N/A	2024/06/12	Brent Boudreau
Alkalinity	AT	9441236	N/A	2024/06/08	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9438087	N/A	2024/06/10	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9440931	N/A	2024/06/11	Alina Dobreanu
Conductivity	AT	9441238	N/A	2024/06/08	Nachiketa Gohil
Fluoride	ISE	9441241	2024/06/07	2024/06/08	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: ZJL533
Sample ID: MW26-OB-21
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hardness (calculated as CaCO3)		9438090	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9444495	2024/06/10	2024/06/10	Gagandeep Rai
Mercury (low level)	CV/AA	9444518	2024/06/10	2024/06/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9443306	2024/06/08	2024/06/11	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9450249	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9444180	2024/06/10	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454820	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9451524	2024/06/11	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9444363	N/A	2024/06/11	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9440731	N/A	2024/06/07	Jinal Chavda
pH	AT	9441232	2024/06/07	2024/06/08	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Sulphate by Automated Turbidimetry	SKAL	9440945	N/A	2024/06/11	Alina Dobreanu
Total Dissolved Solids	BAL	9441050	2024/06/07	2024/06/10	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9441885	2024/06/07	2024/06/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9444292	2024/06/11	2024/06/12	Razieh Tabesh
Turbidity	AT	9439532	N/A	2024/06/06	Kien Tran

Bureau Veritas ID: ZJL533 Dup
Sample ID: MW26-OB-21
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9441236	N/A	2024/06/08	Nachiketa Gohil
Conductivity	AT	9441238	N/A	2024/06/08	Nachiketa Gohil
Fluoride	ISE	9441241	2024/06/07	2024/06/08	Nachiketa Gohil
Mercury (low level)	CV/AA	9444518	2024/06/10	2024/06/10	Gagandeep Rai
Total Metals Analysis by ICP	ICP	9444180	2024/06/10	2024/06/10	Suban Kanapathippllai
pH	AT	9441232	2024/06/07	2024/06/08	Nachiketa Gohil
Turbidity	AT	9439532	N/A	2024/06/06	Kien Tran

Bureau Veritas ID: ZJL534
Sample ID: MW26-BR-21
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9449384	N/A	2024/06/12	Brent Boudreau
Alkalinity	AT	9441236	N/A	2024/06/08	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9438087	N/A	2024/06/10	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9440931	N/A	2024/06/11	Alina Dobreanu
Conductivity	AT	9441238	N/A	2024/06/08	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: ZJL534
Sample ID: MW26-BR-21
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Fluoride	ISE	9441241	2024/06/07	2024/06/08	Nachiketa Gohil
Hardness (calculated as CaCO3)		9438090	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9444495	2024/06/10	2024/06/10	Gagandeep Rai
Mercury (low level)	CV/AA	9444518	2024/06/10	2024/06/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9443306	2024/06/08	2024/06/11	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9450249	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9444180	2024/06/10	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454820	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9451524	2024/06/11	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9444366	N/A	2024/06/11	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9440731	N/A	2024/06/07	Jinal Chavda
pH	AT	9441232	2024/06/07	2024/06/08	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Sulphate by Automated Turbidimetry	SKAL	9440945	N/A	2024/06/11	Alina Dobreanu
Total Dissolved Solids	BAL	9444394	2024/06/10	2024/06/11	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9441885	2024/06/07	2024/06/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9444292	2024/06/11	2024/06/12	Razieh Tabesh
Turbidity	AT	9439532	N/A	2024/06/06	Kien Tran

Bureau Veritas ID: ZJL535
Sample ID: MW01_BR-18
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9449384	N/A	2024/06/12	Brent Boudreau
Alkalinity	AT	9441236	N/A	2024/06/08	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9438087	N/A	2024/06/10	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9440931	N/A	2024/06/11	Alina Dobreanu
Conductivity	AT	9441238	N/A	2024/06/08	Nachiketa Gohil
Fluoride	ISE	9441241	2024/06/07	2024/06/08	Nachiketa Gohil
Hardness (calculated as CaCO3)		9438090	N/A	2024/06/13	Automated Statchk
Mercury in Water by CVAA	CV/AA	9446676	2024/06/11	2024/06/11	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9444495	2024/06/10	2024/06/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9443306	2024/06/08	2024/06/11	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/13	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9450249	N/A	2024/06/13	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9444180	2024/06/10	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454820	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9451524	2024/06/11	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9444366	N/A	2024/06/11	Yogesh Patel

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: ZJL535
Sample ID: MW01_BR-18
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	9440731	N/A	2024/06/07	Jinal Chavda
pH	AT	9441232	2024/06/07	2024/06/08	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Sulphate by Automated Turbidimetry	SKAL	9440945	N/A	2024/06/11	Alina Dobreanu
Total Dissolved Solids	BAL	9441050	2024/06/07	2024/06/10	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9441885	2024/06/07	2024/06/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9444292	2024/06/11	2024/06/12	Razieh Tabesh
Turbidity	AT	9439532	N/A	2024/06/06	Kien Tran

Bureau Veritas ID: ZJL536
Sample ID: MW03-BR-18
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9449384	N/A	2024/06/12	Brent Boudreau
Alkalinity	AT	9441236	N/A	2024/06/08	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9438087	N/A	2024/06/10	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9440931	N/A	2024/06/11	Alina Dobreanu
Conductivity	AT	9441238	N/A	2024/06/08	Nachiketa Gohil
Fluoride	ISE	9441241	2024/06/07	2024/06/08	Nachiketa Gohil
Hardness (calculated as CaCO3)		9438090	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9444495	2024/06/10	2024/06/10	Gagandeep Rai
Mercury (low level)	CV/AA	9444518	2024/06/10	2024/06/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9443306	2024/06/08	2024/06/11	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9450249	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9444180	2024/06/10	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454822	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9451524	2024/06/11	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9444366	N/A	2024/06/11	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9440731	N/A	2024/06/07	Jinal Chavda
pH	AT	9441232	2024/06/07	2024/06/08	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Sulphate by Automated Turbidimetry	SKAL	9440945	N/A	2024/06/11	Alina Dobreanu
Total Dissolved Solids	BAL	9443177	2024/06/08	2024/06/10	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9441885	2024/06/07	2024/06/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9444410	2024/06/10	2024/06/11	Razieh Tabesh
Turbidity	AT	9439532	N/A	2024/06/06	Kien Tran

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H0803
Report Date: 2024/06/14

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: ZJL537
Sample ID: MW03_OB-18
Matrix: Water

Collected: 2024/06/04
Shipped:
Received: 2024/06/05

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9449384	N/A	2024/06/12	Brent Boudreau
Alkalinity	AT	9441236	N/A	2024/06/08	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9438087	N/A	2024/06/10	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9440931	N/A	2024/06/11	Alina Dobreanu
Conductivity	AT	9441238	N/A	2024/06/08	Nachiketa Gohil
Fluoride	ISE	9441241	2024/06/07	2024/06/08	Nachiketa Gohil
Hardness (calculated as CaCO3)		9438090	N/A	2024/06/13	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9444495	2024/06/10	2024/06/10	Gagandeep Rai
Mercury (low level)	CV/AA	9444518	2024/06/10	2024/06/10	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9443306	2024/06/08	2024/06/11	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9448001	N/A	2024/06/12	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9450249	N/A	2024/06/12	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9444180	2024/06/10	2024/06/10	Suban Kanapathippllai
Cyanide (Free)	SPEC	9454525	N/A	2024/06/11	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9454822	2024/06/13	2024/06/13	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9451524	2024/06/11	2024/06/12	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9444363	N/A	2024/06/11	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9440731	N/A	2024/06/07	Jinal Chavda
pH	AT	9441232	2024/06/07	2024/06/08	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Sulphate by Automated Turbidimetry	SKAL	9440945	N/A	2024/06/11	Alina Dobreanu
Total Dissolved Solids	BAL	9444394	2024/06/10	2024/06/11	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/06	Arshdeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9441885	2024/06/07	2024/06/10	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9444292	2024/06/11	2024/06/12	Razieh Tabesh
Turbidity	AT	9439532	N/A	2024/06/06	Kien Tran

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.3°C
Package 2	4.7°C

Sample ZJL532 [Duplicate3] : Acidity sample contained headspace.

Sample ZJL533 [MW26-OB-21] : Acidity sample contained headspace.

Sample ZJL534 [MW26-BR-21] : Acidity sample contained headspace.

Sample ZJL535 [MW01_BR-18] : Metal Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Mercury Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Acidity sample contained headspace.

Sample ZJL536 [MW03-BR-18] : Acidity sample contained headspace.

Sample ZJL537 [MW03_OB-18] : Acidity sample contained headspace.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9439532	Turbidity	2024/06/06			98	80 - 120	<0.1	NTU	0.27	20		
9440731	Nitrate (N)	2024/06/07	113	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
9440731	Nitrite (N)	2024/06/07	84	80 - 120	100	80 - 120	<0.010	mg/L	NC	20		
9440931	Dissolved Chloride (Cl-)	2024/06/11	NC	80 - 120	97	80 - 120	<1.0	mg/L	0.92	20		
9440945	Dissolved Sulphate (SO4)	2024/06/11	NC	75 - 125	94	80 - 120	<1.0	mg/L	0.30	20		
9441050	Total Dissolved Solids	2024/06/10			95	80 - 120	<10	mg/L	NC	20		
9441232	pH	2024/06/08			102	98 - 103			0.26	N/A		
9441236	Alkalinity (Total as CaCO3)	2024/06/08			96	85 - 115	<1.0	mg/L	1.3	20		
9441238	Conductivity	2024/06/08			98	85 - 115	0.000400	mS/cm	0.36	10		
9441241	Fluoride (F-)	2024/06/08	94	80 - 120	101	80 - 120	<0.10	mg/L	7.6	20		
9441885	Total Kjeldahl Nitrogen (TKN)	2024/06/10	NC	80 - 120	104	80 - 120	<0.10	mg/L	0.12	20	103	80 - 120
9443177	Total Dissolved Solids	2024/06/10			95	80 - 120	<10	mg/L	0	20		
9443306	Dissolved Sulphur (S)	2024/06/11	105	80 - 120	109	80 - 120	<0.5	mg/L	NC	20		
9444180	Total Sulphur (S)	2024/06/10	105	80 - 120	102	80 - 120	<0.5	mg/L	5.5	20		
9444292	Total Suspended Solids	2024/06/12			95	80 - 120	<1	mg/L	NC	20		
9444363	Total Ammonia-N	2024/06/11	84	75 - 125	92	80 - 120	<0.050	mg/L	0.81	20		
9444366	Total Ammonia-N	2024/06/11	105	75 - 125	95	80 - 120	<0.050	mg/L	0.73	20		
9444394	Total Dissolved Solids	2024/06/11			95	80 - 120	<10	mg/L	0.92	20		
9444410	Total Suspended Solids	2024/06/11			99	80 - 120	<1	mg/L	5.9	20		
9444495	Dissolved Mercury (Hg)	2024/06/10	94	75 - 125	95	80 - 120	<0.01	ug/L	NC	20		
9444518	Mercury (Hg)	2024/06/10	96	75 - 125	96	80 - 120	<0.01	ug/L	NC	20		
9446676	Mercury (Hg)	2024/06/11	94	75 - 125	93	80 - 120	<0.00010	mg/L	NC	20		
9448001	Dissolved Aluminum (Al)	2024/06/12	NC	80 - 120	98	80 - 120	<0.0005	mg/L	3.2	20		
9448001	Dissolved Antimony (Sb)	2024/06/12	105	80 - 120	106	80 - 120	<0.0001	mg/L	NC	20		
9448001	Dissolved Arsenic (As)	2024/06/12	95	80 - 120	99	80 - 120	<0.0001	mg/L	1.5	20		
9448001	Dissolved Barium (Ba)	2024/06/12	NC	80 - 120	101	80 - 120	<0.0002	mg/L	1.7	20		
9448001	Dissolved Beryllium (Be)	2024/06/12	95	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
9448001	Dissolved Bismuth (Bi)	2024/06/12	84	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9448001	Dissolved Boron (B)	2024/06/12	NC	80 - 120	96	80 - 120	<0.001	mg/L	0.15	20		
9448001	Dissolved Cadmium (Cd)	2024/06/12	99	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9448001	Dissolved Calcium (Ca)	2024/06/12	NC	80 - 120	103	80 - 120	<0.02	mg/L	0.45	20		
9448001	Dissolved Cesium (Cs)	2024/06/12	94	80 - 120	101	80 - 120	<0.00002	mg/L	NC	N/A		
9448001	Dissolved Chromium (Cr)	2024/06/12	92	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9448001	Dissolved Cobalt (Co)	2024/06/12	90	80 - 120	98	80 - 120	<0.00005	mg/L	0.92	20		
9448001	Dissolved Copper (Cu)	2024/06/12	93	80 - 120	100	80 - 120	<0.0001	mg/L	3.6	20		
9448001	Dissolved Iron (Fe)	2024/06/12	NC	80 - 120	101	80 - 120	<0.005	mg/L	1.1	20		
9448001	Dissolved Lead (Pb)	2024/06/12	92	80 - 120	97	80 - 120	<0.00005	mg/L	3.9	20		
9448001	Dissolved Lithium (Li)	2024/06/12	100	80 - 120	101	80 - 120	<0.0005	mg/L	0.92	20		
9448001	Dissolved Magnesium (Mg)	2024/06/12	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.98	20		
9448001	Dissolved Manganese (Mn)	2024/06/12	NC	80 - 120	97	80 - 120	<0.0002	mg/L	0.40	20		
9448001	Dissolved Molybdenum (Mo)	2024/06/12	105	80 - 120	101	80 - 120	<0.00005	mg/L	2.2	20		
9448001	Dissolved Nickel (Ni)	2024/06/12	87	80 - 120	96	80 - 120	<0.0001	mg/L	1.6	20		
9448001	Dissolved Phosphorus (P)	2024/06/12	NC	80 - 120	96	80 - 120	<0.005	mg/L	2.3	20		
9448001	Dissolved Potassium (K)	2024/06/12	NC	80 - 120	101	80 - 120	<0.02	mg/L	1.1	20		
9448001	Dissolved Rubidium (Rb)	2024/06/12	92	80 - 120	97	80 - 120	<0.00002	mg/L	NC	N/A		
9448001	Dissolved Selenium (Se)	2024/06/12	95	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20		
9448001	Dissolved Silicon (Si)	2024/06/12	NC	80 - 120	98	80 - 120	<0.005	mg/L	0.64	20		
9448001	Dissolved Silver (Ag)	2024/06/12	77 (1)	80 - 120	101	80 - 120	<0.00001	mg/L	NC	20		
9448001	Dissolved Sodium (Na)	2024/06/12	NC	80 - 120	101	80 - 120	<0.01	mg/L	1.5	20		
9448001	Dissolved Strontium (Sr)	2024/06/12	NC	80 - 120	97	80 - 120	<0.0001	mg/L	0.24	20		
9448001	Dissolved Tellurium (Te)	2024/06/12	93	80 - 120	94	80 - 120	<0.0001	mg/L	NC	20		
9448001	Dissolved Thallium (Tl)	2024/06/12	94	80 - 120	98	80 - 120	<0.000005	mg/L	0	20		
9448001	Dissolved Thorium (Th)	2024/06/12	98	80 - 120	96	80 - 120	<0.0002	mg/L	NC	20		
9448001	Dissolved Tin (Sn)	2024/06/12	105	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9448001	Dissolved Titanium (Ti)	2024/06/12	93	80 - 120	95	80 - 120	<0.0005	mg/L	7.9	20		
9448001	Dissolved Tungsten (W)	2024/06/12	100	80 - 120	105	80 - 120	<0.0001	mg/L	2.8	20		
9448001	Dissolved Uranium (U)	2024/06/12	95	80 - 120	96	80 - 120	<0.00001	mg/L	5.7	20		
9448001	Dissolved Vanadium (V)	2024/06/12	96	80 - 120	100	80 - 120	<0.00005	mg/L	2.4	20		
9448001	Dissolved Zinc (Zn)	2024/06/12	89	80 - 120	97	80 - 120	<0.0005	mg/L	0.54	20		
9448001	Dissolved Zirconium (Zr)	2024/06/12	108	80 - 120	104	80 - 120	<0.0001	mg/L	3.8	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9449384	Acidity	2024/06/12	105	80 - 120					NC	25		
9450249	. Aluminum (Al)	2024/06/12	NC	80 - 120	92	80 - 120	<0.0005	mg/L	4.2	20		
9450249	. Antimony (Sb)	2024/06/12	114	80 - 120	107	80 - 120	<0.0001	mg/L	NC	20		
9450249	. Arsenic (As)	2024/06/12	104	80 - 120	97	80 - 120	<0.0001	mg/L	1.2	20		
9450249	. Barium (Ba)	2024/06/12	103	80 - 120	97	80 - 120	<0.0002	mg/L	1.2	20		
9450249	. Beryllium (Be)	2024/06/12	103	80 - 120	93	80 - 120	<0.00005	mg/L	NC	20		
9450249	. Bismuth (Bi)	2024/06/12	93	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9450249	. Boron (B)	2024/06/12	NC	80 - 120	92	80 - 120	<0.001	mg/L	2.0	20		
9450249	. Cadmium (Cd)	2024/06/12	108	80 - 120	99	80 - 120	<0.000005	mg/L	NC	20		
9450249	. Calcium (Ca)	2024/06/12	NC	80 - 120	97	80 - 120	<0.02	mg/L	2.0	20		
9450249	. Cesium (Cs)	2024/06/12	98	80 - 120	95	80 - 120	<0.00002	mg/L	2.1	20		
9450249	. Chromium (Cr)	2024/06/12	101	80 - 120	95	80 - 120	<0.0005	mg/L	1.0	20		
9450249	. Cobalt (Co)	2024/06/12	100	80 - 120	97	80 - 120	<0.00005	mg/L	0.71	20		
9450249	. Copper (Cu)	2024/06/12	104	80 - 120	95	80 - 120	<0.0001	mg/L	0.41	20		
9450249	. Iron (Fe)	2024/06/12	102	80 - 120	98	80 - 120	<0.005	mg/L	0.98	20		
9450249	. Lead (Pb)	2024/06/12	101	80 - 120	97	80 - 120	<0.00005	mg/L	0.73	20		
9450249	. Lithium (Li)	2024/06/12	107	80 - 120	99	80 - 120	<0.0005	mg/L	2.1	20		
9450249	. Magnesium (Mg)	2024/06/12	NC	80 - 120	94	80 - 120	<0.005	mg/L	1.2	20		
9450249	. Manganese (Mn)	2024/06/12	100	80 - 120	93	80 - 120	<0.0002	mg/L	0.64	20		
9450249	. Molybdenum (Mo)	2024/06/12	115	80 - 120	101	80 - 120	<0.00005	mg/L	0.49	20		
9450249	. Nickel (Ni)	2024/06/12	97	80 - 120	95	80 - 120	<0.0001	mg/L	0.80	20		
9450249	. Phosphorus (P)	2024/06/12	NC	80 - 120	89	80 - 120	<0.005	mg/L	3.8	20		
9450249	. Potassium (K)	2024/06/12	NC	80 - 120	92	80 - 120	<0.02	mg/L	0.30	20		
9450249	. Rubidium (Rb)	2024/06/12	99	80 - 120	96	80 - 120	<0.00002	mg/L	0.70	20		
9450249	. Selenium (Se)	2024/06/12	103	80 - 120	100	80 - 120	<0.00005	mg/L	5.4	20		
9450249	. Silicon (Si)	2024/06/12	NC	80 - 120	92	80 - 120	<0.005	mg/L	0.11	20		
9450249	. Silver (Ag)	2024/06/12	94	80 - 120	102	80 - 120	<0.00001	mg/L	NC	20		
9450249	. Sodium (Na)	2024/06/12	NC	80 - 120	94	80 - 120	<0.01	mg/L	0.32	20		
9450249	. Strontium (Sr)	2024/06/12	NC	80 - 120	97	80 - 120	<0.0001	mg/L	1.6	20		
9450249	. Tellurium (Te)	2024/06/12	101	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9450249	. Thallium (Tl)	2024/06/12	101	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9450249	. Thorium (Th)	2024/06/12	107	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9450249	. Tin (Sn)	2024/06/12	114	80 - 120	101	80 - 120	<0.0001	mg/L	0.76	20		
9450249	. Titanium (Ti)	2024/06/12	98	80 - 120	93	80 - 120	<0.0005	mg/L	1.3	20		
9450249	. Tungsten (W)	2024/06/12	NC	80 - 120	105	80 - 120	<0.0001	mg/L	5.2	20		
9450249	. Uranium (U)	2024/06/12	104	80 - 120	98	80 - 120	<0.00001	mg/L	1.5	20		
9450249	. Vanadium (V)	2024/06/12	105	80 - 120	95	80 - 120	<0.00005	mg/L	0.18	20		
9450249	. Zinc (Zn)	2024/06/12	98	80 - 120	95	80 - 120	<0.0005	mg/L	1.3	20		
9450249	. Zirconium (Zr)	2024/06/12	117	80 - 120	100	80 - 120	<0.0001	mg/L	3.0	20		
9451524	Total Phosphorus (P)	2024/06/12	86	80 - 120	95	80 - 120	<0.0010	mg/L	15	20	91	80 - 120
9454525	Free Cyanide (CN)	2024/06/11	82	80 - 120	92	80 - 120	<2.0	ug/L	NC	20		
9454820	Strong Acid Dissoc. Cyanide (CN)	2024/06/13	93	80 - 120	105	80 - 120	<0.00050	mg/L				
9454822	Strong Acid Dissoc. Cyanide (CN)	2024/06/13	106	80 - 120	108	80 - 120	<0.00050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, probable matrix interference

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VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

Janah Rhyno, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 909058

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/19
Report #: R8198749
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4H5525
Received: 2024/06/07, 16:52

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	4	N/A	2024/06/14	ATL SOP-00205	SM 24 2310B m
Alkalinity	4	N/A	2024/06/13	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	4	N/A	2024/06/13	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	4	N/A	2024/06/13	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	4	N/A	2024/06/13	CAM SOP-00414	SM 24 2510 m
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2024/06/13	CAM SOP-00315	CCME PHC-CWS m
Fluoride	4	2024/06/11	2024/06/13	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	4	N/A	2024/06/17	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	4	2024/06/12	2024/06/13	CAM SOP-00453	EPA 7470 m
Mercury (low level)	4	2024/06/12	2024/06/13	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	4	2024/06/12	2024/06/13	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	3	N/A	2024/06/17	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	1	N/A	2024/06/18	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	3	N/A	2024/06/18	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2024/06/19	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	4	2024/06/12	2024/06/12	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	4	N/A	2024/06/18	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	3	2024/06/14	2024/06/14	CAL SOP-00270	SM 24 4500-CN m
Cyanide, Strong Acid Dissociable (SAD) (2)	1	2024/06/14	2024/06/17	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	4	2024/06/14	2024/06/14	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	4	N/A	2024/06/13	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	4	N/A	2024/06/12	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	4	2024/06/11	2024/06/13	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	3	N/A	2024/06/11		Field pH Meter
Sulphate by Automated Turbidimetry	4	N/A	2024/06/13	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	4	2024/06/11	2024/06/12	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	3	N/A	2024/06/11		Field Thermometer
Total Kjeldahl Nitrogen in Water	4	2024/06/12	2024/06/13	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	4	2024/06/12	2024/06/12	CAM SOP-00428	SM 24 2540D m
Turbidity	4	N/A	2024/06/11	CAM SOP-00417	SM 24 2130 B

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 909058

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/19
Report #: R8198749
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4H5525

Received: 2024/06/07, 16:52

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9

(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8

(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.

(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5525
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZKK841			ZKK841			ZKK842		
Sampling Date		2024/06/05 08:00			2024/06/05 08:00			2024/06/05 11:46		
COC Number		909058			909058			909058		
	UNITS	TRIP BLANK	RDL	QC Batch	TRIP BLANK Lab-Dup	RDL	QC Batch	MW22-OB-21	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9446568				210	1.0	9446568
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9446568				3.1	1.0	9446568
Hardness (CaCO3)	mg/L	<1.0	1.0	9446569				200	1.0	9446569
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9446568				<1.0	1.0	9446568
Field Measurements										
Field Temperature	Celsius							7.6	N/A	ONSITE
Field Measured pH	pH							7.73		ONSITE
Inorganics										
Acidity	mg/L	<5.0	5.0	9455151	<5.0	5.0	9455151	<5.0	5.0	9455151
Total Ammonia-N	mg/L	<0.050	0.050	9450810				0.055	0.050	9450810
Conductivity	mS/cm	0.00110	N/A	9448829				0.398	N/A	9448829
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9463894				<2.0 (2)	2.0	9463894
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9461082				<0.00050	0.00050	9463951
Total Dissolved Solids	mg/L	<10	10	9447430				200	10	9447430
Fluoride (F-)	mg/L	<0.10	0.10	9448831				0.65	0.10	9448831
Total Kjeldahl Nitrogen (TKN)	mg/L	<0.10	0.10	9450210				0.23	0.10	9450210
pH	pH	5.91		9448833				8.19		9448833
Total Phosphorus (P)	mg/L	<0.0010	0.0010	9458176				0.16	0.0010	9458176
Total Suspended Solids	mg/L	<1	1	9449565	<1	1	9449565	380	3	9449565
Dissolved Sulphate (SO4)	mg/L	<1.0	1.0	9450501				<1.0	1.0	9450501
Turbidity	NTU	<0.1	0.1	9448638				24	0.1	9448638
Alkalinity (Total as CaCO3)	mg/L	<1.0	1.0	9448823				220	1.0	9448823

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
Results may have a high bias due to decomposition of hexacyanoferrate and some other metal-cyanide complexes to free cyanide.
(2) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Bureau Veritas Job #: C4H5525
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZKK841			ZKK841			ZKK842		
Sampling Date		2024/06/05 08:00			2024/06/05 08:00			2024/06/05 11:46		
COC Number		909058			909058			909058		
	UNITS	**TRIP BLANK**	**RDL**	**QC Batch**	**TRIP BLANK Lab-Dup**	**RDL**	**QC Batch**	**MW22-OB-21**	**RDL**	**QC Batch**
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9450498				<1.0	1.0	9450498
Nitrite (N)	mg/L	<0.010	0.010	9448589				<0.010	0.010	9448744
Nitrate (N)	mg/L	<0.10	0.10	9448589				<0.10	0.10	9448744
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9448589				<0.10	0.10	9448744

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C4H5525
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZKK843		ZKK844			ZKK844		
Sampling Date		2024/06/05 12:36		2024/06/05 13:19			2024/06/05 13:19		
COC Number		909058		909058			909058		
	UNITS	Pond B2	RDL	DB2-A	RDL	QC Batch	DB2-A Lab-Dup	RDL	QC Batch
Calculated Parameters									
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	160	1.0	170	1.0	9446568			
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.5	1.0	1.4	1.0	9446568			
Hardness (CaCO3)	mg/L	320	1.0	320	1.0	9446569			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	<1.0	1.0	9446568			
Field Measurements									
Field Temperature	Celsius	18.0	N/A	20.2	N/A	ONSITE			
Field Measured pH	pH	8.08		7.54		ONSITE			
Inorganics									
Acidity	mg/L	<5.0	5.0	<5.0	5.0	9455151			
Total Ammonia-N	mg/L	<0.050	0.050	<0.050	0.050	9450810	<0.050	0.050	9450810
Conductivity	mS/cm	0.697	N/A	0.670	N/A	9448829			
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	<2.0 (1)	2.0	9463894			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	0.00091	0.00050	9463951			
Total Dissolved Solids	mg/L	460	10	490	10	9447430			
Fluoride (F-)	mg/L	0.10	0.10	<0.10	0.10	9448831			
Total Kjeldahl Nitrogen (TKN)	mg/L	0.51	0.10	0.75	0.10	9450210			
pH	pH	8.23		7.96		9448833			
Total Phosphorus (P)	mg/L	0.010	0.0010	0.066	0.0010	9458176			
Total Suspended Solids	mg/L	2	1	220	5	9449565			
Dissolved Sulphate (SO4)	mg/L	36	1.0	17	1.0	9450501			
Turbidity	NTU	1.4	0.1	8.5	0.1	9448638			
Alkalinity (Total as CaCO3)	mg/L	160	1.0	170	1.0	9448823			
Dissolved Chloride (Cl-)	mg/L	96	1.0	95	1.0	9450498			
Nitrite (N)	mg/L	<0.010	0.010	<0.010	0.010	9448744			
Nitrate (N)	mg/L	<0.10	0.10	<0.10	0.10	9448744			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5525
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZKK843		ZKK844			ZKK844		
Sampling Date		2024/06/05 12:36		2024/06/05 13:19			2024/06/05 13:19		
COC Number		909058		909058			909058		
	UNITS	Pond B2	RDL	DB2-A	RDL	QC Batch	DB2-A Lab-Dup	RDL	QC Batch
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	<0.10	0.10	9448744			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKK841		ZKK842			ZKK842		
Sampling Date		2024/06/05 08:00		2024/06/05 11:46			2024/06/05 11:46		
COC Number		909058		909058			909058		
	UNITS	TRIP BLANK	RDL	MW22-OB-21	RDL	QC Batch	MW22-OB-21 Lab-Dup	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0005	0.0005	0.0008	0.0005	9455485			
. Aluminum (Al)	mg/L	<0.0005	0.0005	1.61	0.0005	9455473			
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455485			
. Antimony (Sb)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455473			
Dissolved Arsenic (As)	mg/L	<0.0001	0.0001	0.0024	0.0001	9455485			
. Arsenic (As)	mg/L	<0.0001	0.0001	0.0044	0.0001	9455473			
Dissolved Barium (Ba)	mg/L	<0.0002	0.0002	0.0318	0.0002	9455485			
. Barium (Ba)	mg/L	<0.0002	0.0002	0.0460	0.0002	9455473			
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9455485			
. Beryllium (Be)	mg/L	<0.00005	0.00005	0.00007	0.00005	9455473			
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455485			
. Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455473			
Dissolved Boron (B)	mg/L	<0.001	0.001	0.023	0.001	9455485			
. Boron (B)	mg/L	<0.001	0.001	0.028	0.001	9455473			
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9455485			
. Cadmium (Cd)	mg/L	<0.000005	0.000005	0.000032	0.000005	9455473			
Dissolved Calcium (Ca)	mg/L	<0.02	0.02	45.5	0.02	9455485			
. Calcium (Ca)	mg/L	<0.02	0.02	119	0.1	9455473			
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	<0.00002	0.00002	9455485			
. Cesium (Cs)	mg/L	<0.00002	0.00002	0.00014	0.00002	9455473			
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9455485			
. Chromium (Cr)	mg/L	<0.0005	0.0005	0.0065	0.0005	9455473			
Dissolved Cobalt (Co)	mg/L	<0.00005	0.00005	0.00012	0.00005	9455485			
. Cobalt (Co)	mg/L	<0.00005	0.00005	0.00157	0.00005	9455473			
Dissolved Copper (Cu)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455485			
. Copper (Cu)	mg/L	<0.0001	0.0001	0.0027	0.0001	9455473			
Dissolved Iron (Fe)	mg/L	<0.005	0.005	3.22	0.005	9455485			
. Iron (Fe)	mg/L	<0.005	0.005	7.15	0.005	9455473			
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9455485			
. Lead (Pb)	mg/L	<0.00005	0.00005	0.00157	0.00005	9455473			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKK841		ZKK842			ZKK842		
Sampling Date		2024/06/05 08:00		2024/06/05 11:46			2024/06/05 11:46		
COC Number		909058		909058			909058		
	UNITS	TRIP BLANK	RDL	MW22-OB-21	RDL	QC Batch	MW22-OB-21 Lab-Dup	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	<0.0005	0.0005	0.0088	0.0005	9455485			
. Lithium (Li)	mg/L	<0.0005	0.0005	0.0114	0.0005	9455473			
Dissolved Magnesium (Mg)	mg/L	<0.005	0.005	22.1	0.005	9455485			
. Magnesium (Mg)	mg/L	<0.005	0.005	43.7	0.025	9455473			
Dissolved Manganese (Mn)	mg/L	<0.0002	0.0002	0.0664	0.0002	9455485			
. Manganese (Mn)	mg/L	<0.0002	0.0002	0.201	0.0002	9455473			
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9450254			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9450108	<0.01	0.01	9450108
Dissolved Molybdenum (Mo)	mg/L	<0.00005	0.00005	0.0117	0.00005	9455485			
. Molybdenum (Mo)	mg/L	<0.00005	0.00005	0.0106	0.00005	9455473			
Dissolved Nickel (Ni)	mg/L	<0.0001	0.0001	0.0007	0.0001	9455485			
. Nickel (Ni)	mg/L	<0.0001	0.0001	0.0044	0.0001	9455473			
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	<0.005	0.005	9455485			
. Phosphorus (P)	mg/L	<0.005	0.005	0.350	0.005	9455473			
Dissolved Potassium (K)	mg/L	<0.02	0.02	4.66	0.02	9455485			
. Potassium (K)	mg/L	<0.02	0.02	5.31	0.02	9455473			
Dissolved Rubidium (Rb)	mg/L	<0.00002	0.00002	0.00097	0.00002	9455485			
. Rubidium (Rb)	mg/L	<0.00002	0.00002	0.00344	0.00002	9455473			
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9455485			
. Selenium (Se)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9455473			
Dissolved Silicon (Si)	mg/L	<0.005	0.005	5.05	0.025	9455485			
. Silicon (Si)	mg/L	<0.005	0.005	8.04	0.025	9455473			
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9455485			
. Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9455473			
Dissolved Sodium (Na)	mg/L	<0.01	0.01	7.79	0.01	9455485			
. Sodium (Na)	mg/L	<0.01	0.01	8.58	0.01	9455473			
Dissolved Strontium (Sr)	mg/L	<0.0001	0.0001	0.211	0.0001	9455485			
. Strontium (Sr)	mg/L	<0.0001	0.0001	0.244	0.0001	9455473			
Dissolved Sulphur (S)	mg/L	<0.5	0.5	<0.5	0.5	9450054			
Total Sulphur (S)	mg/L	<0.5	0.5	<0.5	0.5	9449829			
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455485			

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5525
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKK841		ZKK842			ZKK842		
Sampling Date		2024/06/05 08:00		2024/06/05 11:46			2024/06/05 11:46		
COC Number		909058		909058			909058		
	UNITS	TRIP BLANK	RDL	MW22-OB-21	RDL	QC Batch	MW22-OB-21 Lab-Dup	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455473			
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	<0.000005	0.000005	9455485			
. Thallium (Tl)	mg/L	<0.000005	0.000005	0.000035	0.000005	9455473			
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9455485			
. Thorium (Th)	mg/L	<0.0002	0.0002	0.0009	0.0002	9455473			
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455485			
. Tin (Sn)	mg/L	<0.0001	0.0001	0.0003	0.0001	9455473			
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9455485			
. Titanium (Ti)	mg/L	<0.0005	0.0005	0.102	0.0025	9455473			
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	0.0003	0.0001	9455485			
. Tungsten (W)	mg/L	<0.0001	0.0001	0.0001	0.0001	9455473			
Dissolved Uranium (U)	mg/L	<0.00001	0.00001	0.00010	0.00001	9455485			
. Uranium (U)	mg/L	0.00001	0.00001	0.00038	0.00001	9455473			
Dissolved Vanadium (V)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9455485			
. Vanadium (V)	mg/L	<0.00005	0.00005	0.00478	0.00005	9455473			
Dissolved Zinc (Zn)	mg/L	<0.0005	0.0005	0.0009	0.0005	9455485			
. Zinc (Zn)	mg/L	<0.0005	0.0005	0.0835	0.0005	9455473			
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455485			
. Zirconium (Zr)	mg/L	<0.0001	0.0001	0.0012	0.0001	9455473			

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKK843		ZKK844		
Sampling Date		2024/06/05 12:36		2024/06/05 13:19		
COC Number		909058		909058		
	UNITS	Pond B2	RDL	DB2-A	RDL	QC Batch
Metals						
Dissolved Aluminum (Al)	mg/L	0.0081	0.0005	0.0051	0.0005	9455485
. Aluminum (Al)	mg/L	0.0198	0.0005	0.185	0.0005	9455473
Dissolved Antimony (Sb)	mg/L	0.0046	0.0001	0.0014	0.0001	9455485
. Antimony (Sb)	mg/L	0.0045	0.0001	0.0013	0.0001	9455473
Dissolved Arsenic (As)	mg/L	0.0552	0.0001	0.123	0.0005	9455485
. Arsenic (As)	mg/L	0.0570	0.0001	0.146	0.0005	9455473
Dissolved Barium (Ba)	mg/L	0.0517	0.0002	0.0327	0.0002	9455485
. Barium (Ba)	mg/L	0.0523	0.0002	0.0356	0.0002	9455473
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9455485
. Beryllium (Be)	mg/L	<0.00005	0.00005	<0.00005	0.00005	9455473
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455485
. Bismuth (Bi)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455473
Dissolved Boron (B)	mg/L	0.008	0.001	0.007	0.001	9455485
. Boron (B)	mg/L	0.008	0.001	0.006	0.001	9455473
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9455485
. Cadmium (Cd)	mg/L	0.000006	0.000005	0.000008	0.000005	9455473
Dissolved Calcium (Ca)	mg/L	90.8	0.1	94.8	0.1	9455485
. Calcium (Ca)	mg/L	92.2	0.1	100	0.1	9455473
Dissolved Cesium (Cs)	mg/L	0.00031	0.00002	0.00020	0.00002	9455485
. Cesium (Cs)	mg/L	0.00034	0.00002	0.00026	0.00002	9455473
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9455485
. Chromium (Cr)	mg/L	<0.0005	0.0005	0.0007	0.0005	9455473
Dissolved Cobalt (Co)	mg/L	0.00053	0.00005	0.00034	0.00005	9455485
. Cobalt (Co)	mg/L	0.00062	0.00005	0.00131	0.00005	9455473
Dissolved Copper (Cu)	mg/L	0.0034	0.0001	0.0034	0.0001	9455485
. Copper (Cu)	mg/L	0.0037	0.0001	0.0010	0.0001	9455473
Dissolved Iron (Fe)	mg/L	0.018	0.005	0.043	0.005	9455485
. Iron (Fe)	mg/L	0.036	0.005	0.513	0.005	9455473
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	0.00016	0.00005	9455485
. Lead (Pb)	mg/L	0.00010	0.00005	0.00029	0.00005	9455473
Dissolved Lithium (Li)	mg/L	0.0038	0.0005	0.0026	0.0005	9455485

RDL = Reportable Detection Limit
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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKK843		ZKK844		
Sampling Date		2024/06/05 12:36		2024/06/05 13:19		
COC Number		909058		909058		
	UNITS	Pond B2	RDL	DB2-A	RDL	QC Batch
. Lithium (Li)	mg/L	0.0037	0.0005	0.0028	0.0005	9455473
Dissolved Magnesium (Mg)	mg/L	21.8	0.005	20.8	0.005	9455485
. Magnesium (Mg)	mg/L	22.3	0.005	22.5	0.005	9455473
Dissolved Manganese (Mn)	mg/L	0.0211	0.0002	0.0068	0.0002	9455485
. Manganese (Mn)	mg/L	0.0275	0.0002	0.107	0.0002	9455473
Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9450254
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9450108
Dissolved Molybdenum (Mo)	mg/L	0.00255	0.00005	0.00140	0.00005	9455485
. Molybdenum (Mo)	mg/L	0.00257	0.00005	0.00138	0.00005	9455473
Dissolved Nickel (Ni)	mg/L	0.0086	0.0001	0.0083	0.0001	9455485
. Nickel (Ni)	mg/L	0.0091	0.0001	0.0096	0.0001	9455473
Dissolved Phosphorus (P)	mg/L	0.008	0.005	0.020	0.005	9455485
. Phosphorus (P)	mg/L	0.011	0.005	0.064	0.005	9455473
Dissolved Potassium (K)	mg/L	7.29	0.02	7.49	0.02	9455485
. Potassium (K)	mg/L	7.50	0.02	7.91	0.02	9455473
Dissolved Rubidium (Rb)	mg/L	0.00659	0.00002	0.00747	0.00002	9455485
. Rubidium (Rb)	mg/L	0.00663	0.00002	0.00778	0.00002	9455473
Dissolved Selenium (Se)	mg/L	0.0002	0.0002	<0.0002	0.0002	9455485
. Selenium (Se)	mg/L	0.00024	0.00005	0.00017	0.00005	9455473
Dissolved Silicon (Si)	mg/L	0.547	0.005	3.22	0.005	9455485
. Silicon (Si)	mg/L	0.494	0.005	3.53	0.005	9455473
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9455485
. Silver (Ag)	mg/L	<0.00001	0.00001	<0.00001	0.00001	9455473
Dissolved Sodium (Na)	mg/L	7.71	0.01	6.32	0.01	9455485
. Sodium (Na)	mg/L	7.94	0.01	6.71	0.01	9455473
Dissolved Strontium (Sr)	mg/L	0.262	0.0001	0.274	0.0001	9455485
. Strontium (Sr)	mg/L	0.249	0.0001	0.264	0.0001	9455473
Dissolved Sulphur (S)	mg/L	12	0.5	5.9	0.5	9450054
Total Sulphur (S)	mg/L	12	0.5	6.0	0.5	9449829
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455485
. Tellurium (Te)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455473
Dissolved Thallium (Tl)	mg/L	0.000018	0.000005	<0.000005	0.000005	9455485

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKK843		ZKK844		
Sampling Date		2024/06/05 12:36		2024/06/05 13:19		
COC Number		909058		909058		
	UNITS	Pond B2	RDL	DB2-A	RDL	QC Batch
. Thallium (Tl)	mg/L	0.000017	0.000005	<0.000005	0.000005	9455473
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9455485
. Thorium (Th)	mg/L	<0.0002	0.0002	<0.0002	0.0002	9455473
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455485
. Tin (Sn)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455473
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	<0.0005	0.0005	9455485
. Titanium (Ti)	mg/L	0.0006	0.0005	0.0063	0.0005	9455473
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455485
. Tungsten (W)	mg/L	<0.0001	0.0001	<0.0001	0.0001	9455473
Dissolved Uranium (U)	mg/L	0.00235	0.00001	0.00091	0.00001	9455485
. Uranium (U)	mg/L	0.00223	0.00001	0.00082	0.00001	9455473
Dissolved Vanadium (V)	mg/L	0.00030	0.00005	0.00021	0.00005	9455485
. Vanadium (V)	mg/L	0.00034	0.00005	0.00060	0.00005	9455473
Dissolved Zinc (Zn)	mg/L	0.0166	0.0005	0.0019	0.0005	9455485
. Zinc (Zn)	mg/L	0.0201	0.0005	0.0018	0.0005	9455473
Dissolved Zirconium (Zr)	mg/L	0.0003	0.0001	0.0002	0.0001	9455485
. Zirconium (Zr)	mg/L	0.0003	0.0001	0.0004	0.0001	9455473

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		ZKK843	ZKK844		
Sampling Date		2024/06/05 12:36	2024/06/05 13:19		
COC Number		909058	909058		
	UNITS	Pond B2	DB2-A	RDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/L	<0.20	<0.20	0.20	9453116
Toluene	ug/L	<0.20	<0.20	0.20	9453116
Ethylbenzene	ug/L	<0.20	<0.20	0.20	9453116
o-Xylene	ug/L	<0.20	<0.20	0.20	9453116
p+m-Xylene	ug/L	<0.40	<0.40	0.40	9453116
Total Xylenes	ug/L	<0.40	<0.40	0.40	9453116
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	101	101		9453116
4-Bromofluorobenzene	%	95	97		9453116
D10-o-Xylene	%	100	102		9453116
D4-1,2-Dichloroethane	%	97	94		9453116

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5525
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: ZKK841
Sample ID: TRIP BLANK
Matrix: Water

Collected: 2024/06/05
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Alkalinity	AT	9448823	N/A	2024/06/13	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9446568	N/A	2024/06/13	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9450498	N/A	2024/06/13	Massarat Jan
Conductivity	AT	9448829	N/A	2024/06/13	Nachiketa Gohil
Fluoride	ISE	9448831	2024/06/11	2024/06/13	Nachiketa Gohil
Hardness (calculated as CaCO3)		9446569	N/A	2024/06/17	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9450108	2024/06/12	2024/06/13	Gagandeep Rai
Mercury (low level)	CV/AA	9450254	2024/06/12	2024/06/13	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9450054	2024/06/12	2024/06/13	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9455485	N/A	2024/06/18	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9455473	N/A	2024/06/19	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9449829	2024/06/12	2024/06/12	Suban Kanapathippllai
Cyanide (Free)	SPEC	9463894	N/A	2024/06/18	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9461082	2024/06/17	2024/06/17	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9458176	2024/06/14	2024/06/14	Yan Lin
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9448589	N/A	2024/06/12	Jinal Chavda
pH	AT	9448833	2024/06/11	2024/06/13	Nachiketa Gohil
Sulphate by Automated Turbidimetry	SKAL	9450501	N/A	2024/06/13	Massarat Jan
Total Dissolved Solids	BAL	9447430	2024/06/11	2024/06/12	Razieh Tabesh
Total Kjeldahl Nitrogen in Water	SKAL	9450210	2024/06/12	2024/06/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9449565	2024/06/12	2024/06/12	Darshan Patel
Turbidity	AT	9448638	N/A	2024/06/11	Kien Tran

Bureau Veritas ID: ZKK841 Dup
Sample ID: TRIP BLANK
Matrix: Water

Collected: 2024/06/05
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Low Level Total Suspended Solids	BAL	9449565	2024/06/12	2024/06/12	Darshan Patel

Bureau Veritas ID: ZKK842
Sample ID: MW22-OB-21
Matrix: Water

Collected: 2024/06/05
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Alkalinity	AT	9448823	N/A	2024/06/13	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9446568	N/A	2024/06/13	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9450498	N/A	2024/06/13	Massarat Jan
Conductivity	AT	9448829	N/A	2024/06/13	Nachiketa Gohil
Fluoride	ISE	9448831	2024/06/11	2024/06/13	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5525
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: ZKK842
Sample ID: MW22-OB-21
Matrix: Water

Collected: 2024/06/05
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hardness (calculated as CaCO3)		9446569	N/A	2024/06/17	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9450108	2024/06/12	2024/06/13	Gagandeep Rai
Mercury (low level)	CV/AA	9450254	2024/06/12	2024/06/13	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9450054	2024/06/12	2024/06/13	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9455485	N/A	2024/06/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9455473	N/A	2024/06/18	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9449829	2024/06/12	2024/06/12	Suban Kanapathippllai
Cyanide (Free)	SPEC	9463894	N/A	2024/06/18	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9463951	2024/06/14	2024/06/14	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9458176	2024/06/14	2024/06/14	Yan Lin
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9448744	N/A	2024/06/12	Jinal Chavda
pH	AT	9448833	2024/06/11	2024/06/13	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9450501	N/A	2024/06/13	Massarat Jan
Total Dissolved Solids	BAL	9447430	2024/06/11	2024/06/12	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9450210	2024/06/12	2024/06/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9449565	2024/06/12	2024/06/12	Darshan Patel
Turbidity	AT	9448638	N/A	2024/06/11	Kien Tran

Bureau Veritas ID: ZKK842 Dup
Sample ID: MW22-OB-21
Matrix: Water

Collected: 2024/06/05
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	9450108	2024/06/12	2024/06/13	Gagandeep Rai

Bureau Veritas ID: ZKK843
Sample ID: Pond B2
Matrix: Water

Collected: 2024/06/05
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Alkalinity	AT	9448823	N/A	2024/06/13	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9446568	N/A	2024/06/13	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9450498	N/A	2024/06/13	Massarat Jan
Conductivity	AT	9448829	N/A	2024/06/13	Nachiketa Gohil
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9453116	N/A	2024/06/13	Lincoln Ramdahin
Fluoride	ISE	9448831	2024/06/11	2024/06/13	Nachiketa Gohil
Hardness (calculated as CaCO3)		9446569	N/A	2024/06/17	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9450108	2024/06/12	2024/06/13	Gagandeep Rai
Mercury (low level)	CV/AA	9450254	2024/06/12	2024/06/13	Gagandeep Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5525
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: ZKK843
Sample ID: Pond B2
Matrix: Water

Collected: 2024/06/05
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	9450054	2024/06/12	2024/06/13	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9455485	N/A	2024/06/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9455473	N/A	2024/06/18	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9449829	2024/06/12	2024/06/12	Suban Kanapathippllai
Cyanide (Free)	SPEC	9463894	N/A	2024/06/18	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9463951	2024/06/14	2024/06/14	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9458176	2024/06/14	2024/06/14	Yan Lin
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9448744	N/A	2024/06/12	Jinal Chavda
pH	AT	9448833	2024/06/11	2024/06/13	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9450501	N/A	2024/06/13	Massarat Jan
Total Dissolved Solids	BAL	9447430	2024/06/11	2024/06/12	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9450210	2024/06/12	2024/06/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9449565	2024/06/12	2024/06/12	Darshan Patel
Turbidity	AT	9448638	N/A	2024/06/11	Kien Tran

Bureau Veritas ID: ZKK844
Sample ID: DB2-A
Matrix: Water

Collected: 2024/06/05
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Alkalinity	AT	9448823	N/A	2024/06/13	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9446568	N/A	2024/06/13	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9450498	N/A	2024/06/13	Massarat Jan
Conductivity	AT	9448829	N/A	2024/06/13	Nachiketa Gohil
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9453116	N/A	2024/06/13	Lincoln Ramdahin
Fluoride	ISE	9448831	2024/06/11	2024/06/13	Nachiketa Gohil
Hardness (calculated as CaCO3)		9446569	N/A	2024/06/17	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9450108	2024/06/12	2024/06/13	Gagandeep Rai
Mercury (low level)	CV/AA	9450254	2024/06/12	2024/06/13	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9450054	2024/06/12	2024/06/13	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9455485	N/A	2024/06/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9455473	N/A	2024/06/18	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9449829	2024/06/12	2024/06/12	Suban Kanapathippllai
Cyanide (Free)	SPEC	9463894	N/A	2024/06/18	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9463951	2024/06/14	2024/06/14	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9458176	2024/06/14	2024/06/14	Yan Lin
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9448744	N/A	2024/06/12	Jinal Chavda

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5525
Report Date: 2024/06/19

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

TEST SUMMARY

Bureau Veritas ID: ZKK844
Sample ID: DB2-A
Matrix: Water

Collected: 2024/06/05
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH	AT	9448833	2024/06/11	2024/06/13	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9450501	N/A	2024/06/13	Massarat Jan
Total Dissolved Solids	BAL	9447430	2024/06/11	2024/06/12	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9450210	2024/06/12	2024/06/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9449565	2024/06/12	2024/06/12	Darshan Patel
Turbidity	AT	9448638	N/A	2024/06/11	Kien Tran

Bureau Veritas ID: ZKK844 Dup
Sample ID: DB2-A
Matrix: Water

Collected: 2024/06/05
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.0°C
Package 2	-1.0°C
Package 3	0.0°C
Package 4	-0.7°C

Sample ZKK842 [MW22-OB-21] : Acidity sample contained headspace.

Sample ZKK843 [Pond B2] : Acidity sample contained headspace.

Sample ZKK844 [DB2-A] : Acidity sample contained headspace.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9453116	1,4-Difluorobenzene	2024/06/13	100	70 - 130	99	70 - 130	104	%				
9453116	4-Bromofluorobenzene	2024/06/13	100	70 - 130	101	70 - 130	93	%				
9453116	D10-o-Xylene	2024/06/13	102	70 - 130	102	70 - 130	100	%				
9453116	D4-1,2-Dichloroethane	2024/06/13	91	70 - 130	99	70 - 130	95	%				
9447430	Total Dissolved Solids	2024/06/12			98	80 - 120	<10	mg/L	0.87	20		
9448589	Nitrate (N)	2024/06/12	NC	80 - 120	101	80 - 120	<0.10	mg/L	0.46	20		
9448589	Nitrite (N)	2024/06/12	101	80 - 120	101	80 - 120	<0.010	mg/L	1.3	20		
9448638	Turbidity	2024/06/11			95	80 - 120	<0.1	NTU	NC	20		
9448744	Nitrate (N)	2024/06/12	94	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
9448744	Nitrite (N)	2024/06/12	102	80 - 120	101	80 - 120	<0.010	mg/L	NC	20		
9448823	Alkalinity (Total as CaCO3)	2024/06/13			98	85 - 115	<1.0	mg/L	0.89	20		
9448829	Conductivity	2024/06/13			103	85 - 115	0.000800	mS/cm	0.35	10		
9448831	Fluoride (F-)	2024/06/13	95	80 - 120	99	80 - 120	<0.10	mg/L	2.8	20		
9448833	pH	2024/06/13			101	98 - 103			0.65	N/A		
9449565	Total Suspended Solids	2024/06/12			95	80 - 120	<1	mg/L	NC	20		
9449829	Total Sulphur (S)	2024/06/12	98	80 - 120	99	80 - 120	<0.5	mg/L				
9450054	Dissolved Sulphur (S)	2024/06/13	NC	80 - 120	98	80 - 120	<0.5	mg/L				
9450108	Dissolved Mercury (Hg)	2024/06/13	95	75 - 125	95	80 - 120	<0.01	ug/L	NC	20		
9450210	Total Kjeldahl Nitrogen (TKN)	2024/06/13	103	80 - 120	100	80 - 120	<0.10	mg/L	0	20	103	80 - 120
9450254	Mercury (Hg)	2024/06/13	97	75 - 125	94	80 - 120	<0.01	ug/L	NC	20		
9450498	Dissolved Chloride (Cl-)	2024/06/13	NC	80 - 120	95	80 - 120	<1.0	mg/L	0.46	20		
9450501	Dissolved Sulphate (SO4)	2024/06/13	NC	75 - 125	99	80 - 120	<1.0	mg/L	0.79	20		
9450810	Total Ammonia-N	2024/06/13	93	75 - 125	99	80 - 120	<0.050	mg/L	NC	20		
9453116	Benzene	2024/06/14	105	50 - 140	95	50 - 140	<0.20	ug/L	0	30		
9453116	Ethylbenzene	2024/06/14	101	50 - 140	98	50 - 140	<0.20	ug/L	3.0	30		
9453116	o-Xylene	2024/06/14	98	50 - 140	96	50 - 140	<0.20	ug/L	0.21	30		
9453116	p+m-Xylene	2024/06/14	94	50 - 140	93	50 - 140	<0.40	ug/L	4.7	30		
9453116	Toluene	2024/06/14	92	50 - 140	90	50 - 140	<0.20	ug/L	0.33	30		
9453116	Total Xylenes	2024/06/14					<0.40	ug/L	2.4	30		
9455151	Acidity	2024/06/14	104	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9455473	. Aluminum (Al)	2024/06/18	110	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9455473	. Antimony (Sb)	2024/06/18	110	80 - 120	103	80 - 120	<0.0001	mg/L	7.3	20		
9455473	. Arsenic (As)	2024/06/18	102	80 - 120	99	80 - 120	<0.0001	mg/L	1.3	20		
9455473	. Barium (Ba)	2024/06/18	104	80 - 120	98	80 - 120	<0.0002	mg/L	0.82	20		
9455473	. Beryllium (Be)	2024/06/18	96	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9455473	. Bismuth (Bi)	2024/06/18	88	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9455473	. Boron (B)	2024/06/18	NC	80 - 120	95	80 - 120	<0.001	mg/L	1.2	20		
9455473	. Cadmium (Cd)	2024/06/18	99	80 - 120	96	80 - 120	<0.000005	mg/L	NC	20		
9455473	. Calcium (Ca)	2024/06/18	NC	80 - 120	101	80 - 120	<0.02	mg/L	3.0	20		
9455473	. Cesium (Cs)	2024/06/18	104	80 - 120	102	80 - 120	<0.00002	mg/L	1.1	20		
9455473	. Chromium (Cr)	2024/06/18	105	80 - 120	101	80 - 120	<0.0005	mg/L	NC	20		
9455473	. Cobalt (Co)	2024/06/18	100	80 - 120	100	80 - 120	<0.00005	mg/L	0.28	20		
9455473	. Copper (Cu)	2024/06/18	110	80 - 120	100	80 - 120	<0.0001	mg/L	0.49	20		
9455473	. Iron (Fe)	2024/06/18	106	80 - 120	103	80 - 120	<0.005	mg/L	0.18	20		
9455473	. Lead (Pb)	2024/06/18	92	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9455473	. Lithium (Li)	2024/06/18	102	80 - 120	102	80 - 120	<0.0005	mg/L	1.0	20		
9455473	. Magnesium (Mg)	2024/06/18	NC	80 - 120	104	80 - 120	<0.005	mg/L	2.1	20		
9455473	. Manganese (Mn)	2024/06/18	104	80 - 120	101	80 - 120	<0.0002	mg/L	2.3	20		
9455473	. Molybdenum (Mo)	2024/06/18	117	80 - 120	101	80 - 120	<0.00005	mg/L	0.59	20		
9455473	. Nickel (Ni)	2024/06/18	95	80 - 120	100	80 - 120	<0.0001	mg/L	1.6	20		
9455473	. Phosphorus (P)	2024/06/18	112	80 - 120	101	80 - 120	<0.005	mg/L	NC	20		
9455473	. Potassium (K)	2024/06/18	NC	80 - 120	104	80 - 120	<0.02	mg/L	2.0	20		
9455473	. Rubidium (Rb)	2024/06/18	98	80 - 120	98	80 - 120	<0.00002	mg/L	1.5	20		
9455473	. Selenium (Se)	2024/06/18	98	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9455473	. Silicon (Si)	2024/06/18	110	80 - 120	99	80 - 120	<0.005	mg/L	2.9	20		
9455473	. Silver (Ag)	2024/06/18	94	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9455473	. Sodium (Na)	2024/06/18	NC	80 - 120	105	80 - 120	<0.01	mg/L	2.1	20		
9455473	. Strontium (Sr)	2024/06/18	NC	80 - 120	99	80 - 120	<0.0001	mg/L	0.19	20		
9455473	. Tellurium (Te)	2024/06/18	98	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9455473	. Thallium (Tl)	2024/06/18	93	80 - 120	96	80 - 120	<0.000005	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9455473	. Thorium (Th)	2024/06/18	98	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9455473	. Tin (Sn)	2024/06/18	109	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9455473	. Titanium (Ti)	2024/06/18	108	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9455473	. Tungsten (W)	2024/06/18	105	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9455473	. Uranium (U)	2024/06/18	97	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9455473	. Vanadium (V)	2024/06/18	110	80 - 120	102	80 - 120	<0.00005	mg/L	2.7	20		
9455473	. Zinc (Zn)	2024/06/18	94	80 - 120	100	80 - 120	<0.0005	mg/L	2.5	20		
9455473	. Zirconium (Zr)	2024/06/18	122 (1)	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9455485	Dissolved Aluminum (Al)	2024/06/17	107	80 - 120	99	80 - 120	<0.0005	mg/L	10	20		
9455485	Dissolved Antimony (Sb)	2024/06/17	109	80 - 120	106	80 - 120	<0.0001	mg/L	2.0	20		
9455485	Dissolved Arsenic (As)	2024/06/17	99	80 - 120	99	80 - 120	<0.0001	mg/L	0.036	20		
9455485	Dissolved Barium (Ba)	2024/06/17	102	80 - 120	98	80 - 120	<0.0002	mg/L	1.4	20		
9455485	Dissolved Beryllium (Be)	2024/06/17	97	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9455485	Dissolved Bismuth (Bi)	2024/06/17	95	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9455485	Dissolved Boron (B)	2024/06/17	NC	80 - 120	96	80 - 120	<0.001	mg/L	1.2	20		
9455485	Dissolved Cadmium (Cd)	2024/06/17	98	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
9455485	Dissolved Calcium (Ca)	2024/06/17	NC	80 - 120	101	80 - 120	<0.02	mg/L	0.43	20		
9455485	Dissolved Cesium (Cs)	2024/06/17	95	80 - 120	96	80 - 120	<0.00002	mg/L	NC	N/A		
9455485	Dissolved Chromium (Cr)	2024/06/17	95	80 - 120	93	80 - 120	<0.0005	mg/L	NC	20		
9455485	Dissolved Cobalt (Co)	2024/06/17	98	80 - 120	97	80 - 120	<0.00005	mg/L	0.61	20		
9455485	Dissolved Copper (Cu)	2024/06/17	106	80 - 120	102	80 - 120	<0.0001	mg/L	1.1	20		
9455485	Dissolved Iron (Fe)	2024/06/17	100	80 - 120	100	80 - 120	<0.005	mg/L	0.92	20		
9455485	Dissolved Lead (Pb)	2024/06/17	94	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
9455485	Dissolved Lithium (Li)	2024/06/17	101	80 - 120	101	80 - 120	<0.0005	mg/L	0.98	20		
9455485	Dissolved Magnesium (Mg)	2024/06/17	NC	80 - 120	100	80 - 120	<0.005	mg/L	1.1	20		
9455485	Dissolved Manganese (Mn)	2024/06/17	99	80 - 120	99	80 - 120	<0.0002	mg/L	2.4	20		
9455485	Dissolved Molybdenum (Mo)	2024/06/17	108	80 - 120	96	80 - 120	<0.00005	mg/L	0.21	20		
9455485	Dissolved Nickel (Ni)	2024/06/17	92	80 - 120	96	80 - 120	<0.0001	mg/L	2.4	20		
9455485	Dissolved Phosphorus (P)	2024/06/17	114	80 - 120	100	80 - 120	<0.005	mg/L	NC	20		
9455485	Dissolved Potassium (K)	2024/06/17	NC	80 - 120	104	80 - 120	<0.02	mg/L	1.2	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9455485	Dissolved Rubidium (Rb)	2024/06/17	94	80 - 120	99	80 - 120	<0.00002	mg/L	1.1	N/A		
9455485	Dissolved Selenium (Se)	2024/06/17	99	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20		
9455485	Dissolved Silicon (Si)	2024/06/17	108	80 - 120	100	80 - 120	<0.005	mg/L	0.89	20		
9455485	Dissolved Silver (Ag)	2024/06/17	71 (1)	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9455485	Dissolved Sodium (Na)	2024/06/17	NC	80 - 120	100	80 - 120	<0.01	mg/L	2.2	20		
9455485	Dissolved Strontium (Sr)	2024/06/17	NC	80 - 120	99	80 - 120	<0.0001	mg/L	2.5	20		
9455485	Dissolved Tellurium (Te)	2024/06/17	98	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9455485	Dissolved Thallium (Tl)	2024/06/17	99	80 - 120	106	80 - 120	<0.000005	mg/L	NC	20		
9455485	Dissolved Thorium (Th)	2024/06/17	95	80 - 120	93	80 - 120	<0.0002	mg/L	NC	20		
9455485	Dissolved Tin (Sn)	2024/06/17	108	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9455485	Dissolved Titanium (Ti)	2024/06/17	105	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		
9455485	Dissolved Tungsten (W)	2024/06/17	105	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9455485	Dissolved Uranium (U)	2024/06/17	100	80 - 120	100	80 - 120	<0.00001	mg/L	6.5	20		
9455485	Dissolved Vanadium (V)	2024/06/17	103	80 - 120	96	80 - 120	<0.00005	mg/L	0.28	20		
9455485	Dissolved Zinc (Zn)	2024/06/17	91	80 - 120	98	80 - 120	<0.0005	mg/L	9.2	20		
9455485	Dissolved Zirconium (Zr)	2024/06/17	116	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9458176	Total Phosphorus (P)	2024/06/14	98	80 - 120	97	80 - 120	<0.0010	mg/L			90	80 - 120
9461082	Strong Acid Dissoc. Cyanide (CN)	2024/06/17	104	80 - 120	106	80 - 120	<0.00050	mg/L	NC	20		
9463894	Free Cyanide (CN)	2024/06/18	92	80 - 120	97	80 - 120	<2.0	ug/L				

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9463951	Strong Acid Dissoc. Cyanide (CN)	2024/06/14	99	80 - 120	107	80 - 120	<0.00050	mg/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, probable matrix interference

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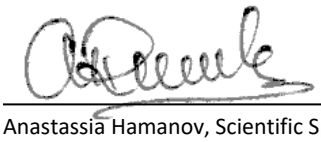
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5525
Report Date: 2024/06/19

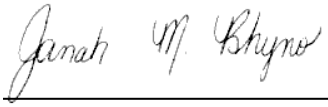
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: JC

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Janah Rhyno, Scientific Specialist



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist



Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 909855

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/20
Report #: R8200332
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4H5675
Received: 2024/06/07, 16:52

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	6	N/A	2024/06/14	ATL SOP-00205	SM 24 2310B m
Alkalinity	5	N/A	2024/06/12	CAM SOP-00448	SM 24 2320 B m
Alkalinity	1	N/A	2024/06/20	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	6	N/A	2024/06/13	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	3	N/A	2024/06/13	CAM SOP-00463	SM 24 4500-Cl E m
Chloride by Automated Colourimetry	2	N/A	2024/06/14	CAM SOP-00463	SM 24 4500-Cl E m
Chloride by Automated Colourimetry	1	N/A	2024/06/20	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	5	N/A	2024/06/12	CAM SOP-00414	SM 24 2510 m
Conductivity	1	N/A	2024/06/20	CAM SOP-00414	SM 24 2510 m
Fluoride	6	2024/06/12	2024/06/12	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	6	N/A	2024/06/17	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	4	2024/06/13	2024/06/13	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	5	2024/06/12	2024/06/13	CAM SOP-00453	EPA 7470 m
Mercury (low level)	2	2024/06/12	2024/06/13	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	6	2024/06/12	2024/06/13	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	5	N/A	2024/06/17	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	1	N/A	2024/06/18	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	3	N/A	2024/06/18	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	3	N/A	2024/06/19	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	6	2024/06/13	2024/06/14	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	6	N/A	2024/06/18	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	6	2024/06/14	2024/06/17	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	3	2024/06/14	2024/06/14	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total (2)	3	2024/06/14	2024/06/15	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	6	N/A	2024/06/13	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	6	N/A	2024/06/12	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	5	2024/06/12	2024/06/12	CAM SOP-00413	SM 24th - 4500H+ B
pH (4)	1	2024/06/20	2024/06/20	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	4	N/A	2024/06/11		Field pH Meter
Sulphate by Automated Turbidimetry	3	N/A	2024/06/13	CAM SOP-00464	SM 24 4500-SO42- E m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 909855

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/20
Report #: R8200332
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4H5675
Received: 2024/06/07, 16:52

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Sulphate by Automated Turbidimetry	2	N/A	2024/06/14	CAM SOP-00464	SM 24 4500-SO42- E m
Sulphate by Automated Turbidimetry	1	N/A	2024/06/20	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	6	2024/06/12	2024/06/13	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	4	N/A	2024/06/11		Field Thermometer
Total Kjeldahl Nitrogen in Water	2	2024/06/12	2024/06/13	CAM SOP-00938	OMOE E3516 m
Total Kjeldahl Nitrogen in Water	4	2024/06/12	2024/06/14	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	5	2024/06/12	2024/06/13	CAM SOP-00428	SM 24 2540D m
Low Level Total Suspended Solids	1	2024/06/12	2024/06/13	CAM SOP-00428	SM 24 2540D m
Turbidity	6	N/A	2024/06/12	CAM SOP-00417	SM 24 2130 B

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5675
Report Date: 2024/06/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZKL344			ZKL344			ZKL345		
Sampling Date		2024/06/06 13:16			2024/06/06 13:16			2024/06/06 14:28		
COC Number		909855			909855			909855		
	UNITS	23-14B	RDL	QC Batch	23-14B Lab-Dup	RDL	QC Batch	MW07-18	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	590	1.0	9446568				620	1.0	9446568
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.8	1.0	9446568				2.2	1.0	9446568
Hardness (CaCO3)	mg/L	1500	1.0	9446569				1300	1.0	9446569
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9446568				<1.0	1.0	9446568
Field Measurements										
Field Temperature	Celsius	14.5	N/A	ONSITE				18.8	N/A	ONSITE
Field Measured pH	pH	6.76		ONSITE				6.77		ONSITE
Inorganics										
Acidity	mg/L	100	5.0	9455151				51	5.0	9455151
Total Ammonia-N	mg/L	0.48	0.050	9450810				0.28	0.050	9450810
Conductivity	mS/cm	2.47	N/A	9450203				2.03	N/A	9450203
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9463958				<2.0 (1)	2.0	9463958
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0910 (2)	0.0025	9463965	0.0922	0.0025	9463965	0.0227	0.00050	9463965
Total Dissolved Solids	mg/L	1970	10	9450386				1510	10	9450386
Fluoride (F-)	mg/L	<0.10	0.10	9450206				0.12	0.10	9450206
Total Kjeldahl Nitrogen (TKN)	mg/L	0.82	0.50	9451113				0.64	0.50	9451113
pH	pH	7.52		9450207				7.58		9450207
Total Phosphorus (P)	mg/L	5.3	0.050	9458176				6.0	0.10	9458176
Total Suspended Solids	mg/L	4600	33	9451345				34000	100	9451345
Dissolved Sulphate (SO4)	mg/L	960	5.0	9451670				620	5.0	9451051
Turbidity	NTU	210	0.1	9450582				220	0.1	9450582
Alkalinity (Total as CaCO3)	mg/L	590	1.0	9450198				620	1.0	9450198
Dissolved Chloride (Cl-)	mg/L	37	1.0	9451660				14	1.0	9451039
Nitrite (N)	mg/L	<0.010	0.010	9450600				0.030	0.010	9450600
Nitrate (N)	mg/L	<0.10	0.10	9450600				<0.10	0.10	9450600
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9450600				<0.10	0.10	9450600

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Detection limits raised due to sample matrix.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5675
Report Date: 2024/06/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZKL346			ZKL347			ZKL347		
Sampling Date		2024/06/06 15:04			2024/06/06 15:32			2024/06/06 15:32		
COC Number		909855			909855			909855		
	UNITS	MW09-18	RDL	QC Batch	MW08-18	RDL	QC Batch	MW08-18 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	390	1.0	9446568	240	1.0	9446568			
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.1	1.0	9446568	<1.0	1.0	9446568			
Hardness (CaCO3)	mg/L	1200	1.0	9446569	740	1.0	9446569			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9446568	<1.0	1.0	9446568			
Field Measurements										
Field Temperature	Celsius	18.2	N/A	ONSITE	16.3	N/A	ONSITE			
Field Measured pH	pH	6.90		ONSITE	7.14		ONSITE			
Inorganics										
Acidity	mg/L	23	5.0	9455151	12	5.0	9455151			
Total Ammonia-N	mg/L	1.8	0.050	9450810	2.1	0.050	9450810			
Conductivity	mS/cm	2.38	N/A	9450203	2.86	N/A	9468025	2.85	N/A	9468025
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9463958	<2.0 (1)	2.0	9463958			
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00344	0.00050	9463965	0.0177	0.00050	9463965			
Total Dissolved Solids	mg/L	980	10	9450386	2240	10	9450386			
Fluoride (F-)	mg/L	0.35	0.10	9450206	0.63	0.10	9450206			
Total Kjeldahl Nitrogen (TKN)	mg/L	4.6	0.20	9451113	2.5	0.10	9451113			
pH	pH	7.77		9450207	7.49		9468035	7.49		9468035
Total Phosphorus (P)	mg/L	1.7	0.010	9458176	4.3	0.020	9458176			
Total Suspended Solids	mg/L	9500	100	9451345	3700	25	9451345			
Dissolved Sulphate (SO4)	mg/L	1100	5.0	9450501	1400	8.0	9467680	1400	8.0	9467680
Turbidity	NTU	120	0.1	9450582	210	0.1	9450582			
Alkalinity (Total as CaCO3)	mg/L	390	1.0	9450198	250	1.0	9468033	250	1.0	9468033
Dissolved Chloride (Cl-)	mg/L	6.3	1.0	9450498	19	1.0	9467690	16	1.0	9467690
Nitrite (N)	mg/L	0.014	0.010	9450600	<0.010	0.010	9450600			
Nitrate (N)	mg/L	<0.10	0.10	9450600	<0.10	0.10	9450600			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9450600	<0.10	0.10	9450600			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZKL348			ZKL349		
Sampling Date		2024/06/06 08:00			2024/06/06 08:00		
COC Number		909855			909855		
	UNITS	Duplicate 5	RDL	QC Batch	Field blank	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	640	1.0	9446568	<1.0	1.0	9446568
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.1	1.0	9446568	<1.0	1.0	9446568
Hardness (CaCO3)	mg/L	1400	1.0	9446569	<1.0	1.0	9446569
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9446568	<1.0	1.0	9446568
Inorganics							
Acidity	mg/L	51	5.0	9455151	<5.0	5.0	9455151
Total Ammonia-N	mg/L	0.25	0.050	9450810	<0.050	0.050	9450810
Conductivity	mS/cm	2.05	N/A	9450203	0.000900	N/A	9450203
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9463958	<2.0 (2)	2.0	9463958
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.0539	0.00050	9463965	0.00089	0.00050	9463965
Total Dissolved Solids	mg/L	1090	10	9450386	<10	10	9450386
Fluoride (F-)	mg/L	0.13	0.10	9450206	<0.10	0.10	9450206
Total Kjeldahl Nitrogen (TKN)	mg/L	0.68	0.50	9451113	<0.10	0.10	9451113
pH	pH	7.54		9450207	6.06		9450207
Total Phosphorus (P)	mg/L	6.3	0.050	9458176	0.0012	0.0010	9458176
Total Suspended Solids	mg/L	30000	100	9451345	<1	1	9450398
Dissolved Sulphate (SO4)	mg/L	620	5.0	9451670	<1.0	1.0	9451051
Turbidity	NTU	170	0.1	9450582	<0.1	0.1	9450582
Alkalinity (Total as CaCO3)	mg/L	640	1.0	9450198	<1.0	1.0	9450198
Dissolved Chloride (Cl-)	mg/L	15	1.0	9451660	<1.0	1.0	9451039
Nitrite (N)	mg/L	<0.010	0.010	9450600	<0.010	0.010	9450600
Nitrate (N)	mg/L	<0.10	0.10	9450600	<0.10	0.10	9450600

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

(2) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
Sample pH <12, preservation incomplete. Due to volatility of analyte, a low bias in the results is likely.

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Bureau Veritas Job #: C4H5675
Report Date: 2024/06/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZKL348			ZKL349		
Sampling Date		2024/06/06 08:00			2024/06/06 08:00		
COC Number		909855			909855		
	UNITS	**Duplicate 5**	**RDL**	**QC Batch**	**Field blank**	**RDL**	**QC Batch**
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9450600	<0.10	0.10	9450600

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKL344			ZKL345			ZKL345		
Sampling Date		2024/06/06 13:16			2024/06/06 14:28			2024/06/06 14:28		
COC Number		909855			909855			909855		
	UNITS	23-14B	RDL	QC Batch	MW07-18	RDL	QC Batch	MW07-18 Lab-Dup	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	<0.0025	0.0025	9455485	2.28	0.0025	9455485			
. Aluminum (Al)	mg/L	3.95	0.005	9455473	0.600	0.005	9455473			
Dissolved Antimony (Sb)	mg/L	<0.0005	0.0005	9455485	0.0015	0.0005	9455485			
. Antimony (Sb)	mg/L	<0.001	0.001	9455473	<0.001	0.001	9455473			
Dissolved Arsenic (As)	mg/L	1.51	0.005	9455485	1.54	0.005	9455485			
. Arsenic (As)	mg/L	2.55	0.005	9455473	0.246	0.001	9455473			
Dissolved Barium (Ba)	mg/L	0.033	0.001	9455485	0.116	0.001	9455485			
. Barium (Ba)	mg/L	0.110	0.002	9455473	0.191	0.002	9455473			
Dissolved Beryllium (Be)	mg/L	<0.00025	0.00025	9455485	<0.00025	0.00025	9455485			
. Beryllium (Be)	mg/L	0.0008	0.0005	9455473	<0.0005	0.0005	9455473			
Dissolved Bismuth (Bi)	mg/L	<0.0005	0.0005	9455485	<0.0005	0.0005	9455485			
. Bismuth (Bi)	mg/L	<0.001	0.001	9455473	<0.001	0.001	9455473			
Dissolved Boron (B)	mg/L	0.009	0.005	9455485	0.013	0.005	9455485			
. Boron (B)	mg/L	0.04	0.01	9455473	0.04	0.01	9455473			
Dissolved Cadmium (Cd)	mg/L	<0.00005	0.00005	9455485	<0.00005	0.00005	9455485			
. Cadmium (Cd)	mg/L	0.00049	0.00005	9455473	0.00051	0.00005	9455473			
Dissolved Calcium (Ca)	mg/L	413	0.2	9455485	388	0.2	9455485			
. Calcium (Ca)	mg/L	1160	1	9455473	1250	1	9455473			
Dissolved Cesium (Cs)	mg/L	<0.0001	0.0001	9455485	0.0005	0.0001	9455485			
. Cesium (Cs)	mg/L	0.0006	0.0002	9455473	0.0006	0.0002	9455473			
Dissolved Chromium (Cr)	mg/L	<0.0025	0.0025	9455485	0.0126	0.0025	9455485			
. Chromium (Cr)	mg/L	0.013	0.005	9455473	<0.005	0.005	9455473			
Dissolved Cobalt (Co)	mg/L	0.0101	0.00025	9455485	0.0109	0.00025	9455485			
. Cobalt (Co)	mg/L	0.0505	0.0005	9455473	0.0332	0.0005	9455473			
Dissolved Copper (Cu)	mg/L	<0.0005	0.0005	9455485	0.0095	0.0005	9455485			
. Copper (Cu)	mg/L	0.037	0.001	9455473	0.008	0.001	9455473			
Dissolved Iron (Fe)	mg/L	19.3	0.025	9455485	22.3	0.025	9455485			
. Iron (Fe)	mg/L	78.1	0.05	9455473	18.0	0.05	9455473			
Dissolved Lead (Pb)	mg/L	<0.00025	0.00025	9455485	0.00359	0.00025	9455485			
. Lead (Pb)	mg/L	0.0082	0.0005	9455473	<0.0005	0.0005	9455473			

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKL344			ZKL345			ZKL345		
Sampling Date		2024/06/06 13:16			2024/06/06 14:28			2024/06/06 14:28		
COC Number		909855			909855			909855		
	UNITS	23-14B	RDL	QC Batch	MW07-18	RDL	QC Batch	MW07-18 Lab-Dup	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0058	0.0025	9455485	0.0119	0.0025	9455485			
. Lithium (Li)	mg/L	0.014	0.005	9455473	0.013	0.005	9455473			
Dissolved Magnesium (Mg)	mg/L	105	0.025	9455485	84.7	0.025	9455485			
. Magnesium (Mg)	mg/L	312	0.05	9455473	228	0.05	9455473			
Dissolved Manganese (Mn)	mg/L	1.97	0.001	9455485	1.60	0.001	9455485			
. Manganese (Mn)	mg/L	5.90	0.002	9455473	4.47	0.002	9455473			
Mercury (Hg)	mg/L				<0.0015	0.0015	9452666			
Mercury (Hg)	ug/L	<0.01	0.01	9450254						
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9450523	<0.01	0.01	9450523			
Dissolved Molybdenum (Mo)	mg/L	0.00108	0.00025	9455485	0.00027	0.00025	9455485			
. Molybdenum (Mo)	mg/L	<0.0005	0.0005	9455473	<0.0005	0.0005	9455473			
Dissolved Nickel (Ni)	mg/L	0.0121	0.0005	9455485	0.0192	0.0005	9455485			
. Nickel (Ni)	mg/L	0.108	0.001	9455473	0.084	0.001	9455473			
Dissolved Phosphorus (P)	mg/L	<0.025	0.025	9455485	0.269	0.025	9455485			
. Phosphorus (P)	mg/L	0.21	0.05	9455473	<0.05	0.05	9455473			
Dissolved Potassium (K)	mg/L	6.5	0.1	9455485	9.5	0.1	9455485			
. Potassium (K)	mg/L	12.6	0.2	9455473	14.8	0.2	9455473			
Dissolved Rubidium (Rb)	mg/L	0.0036	0.0001	9455485	0.0118	0.0001	9455485			
. Rubidium (Rb)	mg/L	0.0258	0.0002	9455473	0.0399	0.0002	9455473			
Dissolved Selenium (Se)	mg/L	<0.001	0.001	9455485	<0.001	0.001	9455485			
. Selenium (Se)	mg/L	<0.0005	0.0005	9455473	<0.0005	0.0005	9455473			
Dissolved Silicon (Si)	mg/L	8.06	0.025	9455485	12.4	0.025	9455485			
. Silicon (Si)	mg/L	13.4	0.05	9455473	10.2	0.05	9455473			
Dissolved Silver (Ag)	mg/L	<0.00005	0.00005	9455485	<0.00005	0.00005	9455485			
. Silver (Ag)	mg/L	<0.0001	0.0001	9455473	<0.0001	0.0001	9455473			
Dissolved Sodium (Na)	mg/L	38.4	0.05	9455485	18.5	0.05	9455485			
. Sodium (Na)	mg/L	46.3	0.1	9455473	18.9	0.1	9455473			
Dissolved Strontium (Sr)	mg/L	0.816	0.0005	9455485	0.930	0.0005	9455485			
. Strontium (Sr)	mg/L	1.60	0.001	9455473	1.59	0.001	9455473			
Dissolved Sulphur (S)	mg/L	320	0.5	9451504	190	0.5	9451504	190	0.5	9451504
Total Sulphur (S)	mg/L	350	5	9452225	210	5	9452225			

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKL344			ZKL345			ZKL345		
Sampling Date		2024/06/06 13:16			2024/06/06 14:28			2024/06/06 14:28		
COC Number		909855			909855			909855		
	UNITS	23-14B	RDL	QC Batch	MW07-18	RDL	QC Batch	MW07-18 Lab-Dup	RDL	QC Batch
Dissolved Tellurium (Te)	mg/L	<0.0005	0.0005	9455485	<0.0005	0.0005	9455485			
. Tellurium (Te)	mg/L	<0.001	0.001	9455473	<0.001	0.001	9455473			
Dissolved Thallium (Tl)	mg/L	<0.000025	0.000025	9455485	0.000042	0.000025	9455485			
. Thallium (Tl)	mg/L	0.00018	0.00005	9455473	0.00021	0.00005	9455473			
Dissolved Thorium (Th)	mg/L	<0.001	0.001	9455485	0.001	0.001	9455485			
. Thorium (Th)	mg/L	<0.002	0.002	9455473	<0.002	0.002	9455473			
Dissolved Tin (Sn)	mg/L	<0.0005	0.0005	9455485	<0.0005	0.0005	9455485			
. Tin (Sn)	mg/L	<0.001	0.001	9455473	<0.001	0.001	9455473			
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	9455485	0.152	0.0025	9455485			
. Titanium (Ti)	mg/L	<0.005	0.005	9455473	<0.005	0.005	9455473			
Dissolved Tungsten (W)	mg/L	<0.0005	0.0005	9455485	0.0015	0.0005	9455485			
. Tungsten (W)	mg/L	<0.001	0.001	9455473	<0.001	0.001	9455473			
Dissolved Uranium (U)	mg/L	0.00173	0.00005	9455485	0.00124	0.00005	9455485			
. Uranium (U)	mg/L	0.0015	0.0001	9455473	0.0004	0.0001	9455473			
Dissolved Vanadium (V)	mg/L	<0.00025	0.00025	9455485	0.00944	0.00025	9455485			
. Vanadium (V)	mg/L	0.0121	0.0005	9455473	<0.0005	0.0005	9455473			
Dissolved Zinc (Zn)	mg/L	0.239	0.0025	9455485	0.0172	0.0025	9455485			
. Zinc (Zn)	mg/L	1.98	0.005	9455473	0.074	0.005	9455473			
Dissolved Zirconium (Zr)	mg/L	<0.0005	0.0005	9455485	0.0022	0.0005	9455485			
. Zirconium (Zr)	mg/L	<0.001	0.001	9455473	<0.001	0.001	9455473			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKL346		ZKL347			ZKL347		
Sampling Date		2024/06/06 15:04		2024/06/06 15:32			2024/06/06 15:32		
COC Number		909855		909855			909855		
	UNITS	MW09-18	RDL	MW08-18	RDL	QC Batch	MW08-18 Lab-Dup	RDL	QC Batch
Metals									
Dissolved Aluminum (Al)	mg/L	0.0123	0.0025	0.025	0.005	9455485			
. Aluminum (Al)	mg/L	0.621	0.0025	6.83	0.005	9455473			
Dissolved Antimony (Sb)	mg/L	<0.0005	0.0005	<0.001	0.001	9455485			
. Antimony (Sb)	mg/L	0.0010	0.0005	<0.001	0.001	9455473			
Dissolved Arsenic (As)	mg/L	0.978	0.001	7.92	0.01	9455485			
. Arsenic (As)	mg/L	0.774	0.001	10.6	0.1	9455473			
Dissolved Barium (Ba)	mg/L	0.033	0.001	0.012	0.002	9455485			
. Barium (Ba)	mg/L	0.030	0.001	0.053	0.002	9455473			
Dissolved Beryllium (Be)	mg/L	<0.00025	0.00025	<0.0005	0.0005	9455485			
. Beryllium (Be)	mg/L	<0.00025	0.00025	<0.0005	0.0005	9455473			
Dissolved Bismuth (Bi)	mg/L	<0.0005	0.0005	<0.001	0.001	9455485			
. Bismuth (Bi)	mg/L	<0.0005	0.0005	<0.001	0.001	9455473			
Dissolved Boron (B)	mg/L	0.017	0.005	0.07	0.01	9455485			
. Boron (B)	mg/L	0.005	0.005	0.10	0.01	9455473			
Dissolved Cadmium (Cd)	mg/L	<0.00005	0.00005	<0.0001	0.0001	9455485			
. Cadmium (Cd)	mg/L	0.000153	0.000025	0.00013	0.00005	9455473			
Dissolved Calcium (Ca)	mg/L	253	0.2	184	0.2	9455485			
. Calcium (Ca)	mg/L	144	0.1	336	0.2	9455473			
Dissolved Cesium (Cs)	mg/L	<0.0001	0.0001	<0.0002	0.0002	9455485			
. Cesium (Cs)	mg/L	0.0001	0.0001	0.0015	0.0002	9455473			
Dissolved Chromium (Cr)	mg/L	<0.0025	0.0025	<0.005	0.005	9455485			
. Chromium (Cr)	mg/L	<0.0025	0.0025	0.050	0.005	9455473			
Dissolved Cobalt (Co)	mg/L	0.00093	0.00025	0.0022	0.0005	9455485			
. Cobalt (Co)	mg/L	0.00125	0.00025	0.0140	0.0005	9455473			
Dissolved Copper (Cu)	mg/L	<0.0005	0.0005	<0.001	0.001	9455485			
. Copper (Cu)	mg/L	0.0065	0.0005	0.017	0.001	9455473			
Dissolved Iron (Fe)	mg/L	7.60	0.025	16.0	0.05	9455485			
. Iron (Fe)	mg/L	5.08	0.025	56.8	0.05	9455473			
Dissolved Lead (Pb)	mg/L	<0.00025	0.00025	<0.0005	0.0005	9455485			
. Lead (Pb)	mg/L	0.00508	0.00025	0.0285	0.0005	9455473			

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKL346		ZKL347			ZKL347		
Sampling Date		2024/06/06 15:04		2024/06/06 15:32			2024/06/06 15:32		
COC Number		909855		909855			909855		
	UNITS	MW09-18	RDL	MW08-18	RDL	QC Batch	MW08-18 Lab-Dup	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.120	0.0025	0.073	0.005	9455485			
. Lithium (Li)	mg/L	0.0649	0.0025	0.125	0.005	9455473			
Dissolved Magnesium (Mg)	mg/L	134	0.025	67.6	0.05	9455485			
. Magnesium (Mg)	mg/L	77.6	0.025	123	0.05	9455473			
Dissolved Manganese (Mn)	mg/L	0.496	0.001	0.449	0.002	9455485			
. Manganese (Mn)	mg/L	0.323	0.001	1.90	0.002	9455473			
Mercury (Hg)	mg/L	<0.00010	0.00010	<0.00010	0.00010	9452666			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	<0.01	0.01	9450523	<0.01	0.01	9450523
Dissolved Molybdenum (Mo)	mg/L	0.00272	0.00025	0.0061	0.0005	9455485			
. Molybdenum (Mo)	mg/L	0.00228	0.00025	0.0060	0.0005	9455473			
Dissolved Nickel (Ni)	mg/L	0.0060	0.0005	0.003	0.001	9455485			
. Nickel (Ni)	mg/L	0.0099	0.0005	0.062	0.001	9455473			
Dissolved Phosphorus (P)	mg/L	0.090	0.025	<0.05	0.05	9455485			
. Phosphorus (P)	mg/L	1.05	0.025	1.03	0.05	9455473			
Dissolved Potassium (K)	mg/L	19.3	0.1	24.3	0.2	9455485			
. Potassium (K)	mg/L	12.8	0.1	33.6	0.2	9455473			
Dissolved Rubidium (Rb)	mg/L	0.0105	0.0001	0.0069	0.0002	9455485			
. Rubidium (Rb)	mg/L	0.0114	0.0001	0.0240	0.0002	9455473			
Dissolved Selenium (Se)	mg/L	<0.001	0.001	<0.002	0.002	9455485			
. Selenium (Se)	mg/L	<0.00025	0.00025	<0.0005	0.0005	9455473			
Dissolved Silicon (Si)	mg/L	11.2	0.025	3.18	0.05	9455485			
. Silicon (Si)	mg/L	9.15	0.025	13.6	0.05	9455473			
Dissolved Silver (Ag)	mg/L	<0.00005	0.00005	<0.0001	0.0001	9455485			
. Silver (Ag)	mg/L	<0.00005	0.00005	<0.0001	0.0001	9455473			
Dissolved Sodium (Na)	mg/L	116	0.05	201	0.1	9455485			
. Sodium (Na)	mg/L	56.9	0.05	320	0.1	9455473			
Dissolved Strontium (Sr)	mg/L	1.89	0.0005	1.53	0.001	9455485			
. Strontium (Sr)	mg/L	0.959	0.0005	2.17	0.001	9455473			
Dissolved Sulphur (S)	mg/L	380	0.5	340	0.5	9451504			
Total Sulphur (S)	mg/L	180	0.5	480	0.5	9452225			
Dissolved Tellurium (Te)	mg/L	<0.0005	0.0005	<0.001	0.001	9455485			

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKL346		ZKL347			ZKL347		
Sampling Date		2024/06/06 15:04		2024/06/06 15:32			2024/06/06 15:32		
COC Number		909855		909855			909855		
	UNITS	MW09-18	RDL	MW08-18	RDL	QC Batch	MW08-18 Lab-Dup	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0005	0.0005	<0.001	0.001	9455473			
Dissolved Thallium (Tl)	mg/L	<0.000025	0.000025	<0.00005	0.00005	9455485			
. Thallium (Tl)	mg/L	0.000098	0.000025	0.00013	0.00005	9455473			
Dissolved Thorium (Th)	mg/L	<0.001	0.001	<0.002	0.002	9455485			
. Thorium (Th)	mg/L	<0.001	0.001	0.003	0.002	9455473			
Dissolved Tin (Sn)	mg/L	<0.0005	0.0005	<0.001	0.001	9455485			
. Tin (Sn)	mg/L	<0.0005	0.0005	<0.001	0.001	9455473			
Dissolved Titanium (Ti)	mg/L	<0.0025	0.0025	<0.005	0.005	9455485			
. Titanium (Ti)	mg/L	0.0243	0.0025	0.281	0.005	9455473			
Dissolved Tungsten (W)	mg/L	0.0006	0.0005	<0.001	0.001	9455485			
. Tungsten (W)	mg/L	<0.0005	0.0005	0.002	0.001	9455473			
Dissolved Uranium (U)	mg/L	0.0173	0.00005	0.0014	0.0001	9455485			
. Uranium (U)	mg/L	0.0107	0.00005	0.0040	0.0001	9455473			
Dissolved Vanadium (V)	mg/L	0.00039	0.00025	<0.0005	0.0005	9455485			
. Vanadium (V)	mg/L	0.00308	0.00025	0.0262	0.0005	9455473			
Dissolved Zinc (Zn)	mg/L	<0.0025	0.0025	<0.005	0.005	9455485			
. Zinc (Zn)	mg/L	0.0304	0.0025	0.076	0.005	9455473			
Dissolved Zirconium (Zr)	mg/L	<0.0005	0.0005	<0.001	0.001	9455485			
. Zirconium (Zr)	mg/L	0.0014	0.0005	0.002	0.001	9455473			

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKL348			ZKL349		
Sampling Date		2024/06/06 08:00			2024/06/06 08:00		
COC Number		909855			909855		
	UNITS	Duplicate 5	RDL	QC Batch	Field blank	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	2.34	0.005	9455485	<0.0005	0.0005	9455485
. Aluminum (Al)	mg/L	0.006	0.005	9455473	<0.0005	0.0005	9455473
Dissolved Antimony (Sb)	mg/L	0.001	0.001	9455485	<0.0001	0.0001	9455485
. Antimony (Sb)	mg/L	0.004	0.001	9455473	<0.0001	0.0001	9455473
Dissolved Arsenic (As)	mg/L	1.65	0.005	9455485	<0.0001	0.0001	9455485
. Arsenic (As)	mg/L	0.044	0.001	9455473	<0.0001	0.0001	9455473
Dissolved Barium (Ba)	mg/L	0.116	0.002	9455485	<0.0002	0.0002	9455485
. Barium (Ba)	mg/L	0.305	0.002	9455473	<0.0002	0.0002	9455473
Dissolved Beryllium (Be)	mg/L	<0.0005	0.0005	9455485	<0.00005	0.00005	9455485
. Beryllium (Be)	mg/L	<0.0005	0.0005	9455473	<0.00005	0.00005	9455473
Dissolved Bismuth (Bi)	mg/L	<0.001	0.001	9455485	<0.0001	0.0001	9455485
. Bismuth (Bi)	mg/L	<0.001	0.001	9455473	<0.0001	0.0001	9455473
Dissolved Boron (B)	mg/L	0.02	0.01	9455485	<0.001	0.001	9455485
. Boron (B)	mg/L	0.01	0.01	9455473	<0.001	0.001	9455473
Dissolved Cadmium (Cd)	mg/L	<0.0001	0.0001	9455485	<0.00001	0.00001	9455485
. Cadmium (Cd)	mg/L	0.00030	0.00005	9455473	<0.000005	0.000005	9455473
Dissolved Calcium (Ca)	mg/L	409	0.2	9455485	<0.02	0.02	9455485
. Calcium (Ca)	mg/L	1290	1	9455473	<0.02	0.02	9455473
Dissolved Cesium (Cs)	mg/L	0.0005	0.0002	9455485	<0.00002	0.00002	9455485
. Cesium (Cs)	mg/L	0.0004	0.0002	9455473	<0.00002	0.00002	9455473
Dissolved Chromium (Cr)	mg/L	0.014	0.005	9455485	<0.0005	0.0005	9455485
. Chromium (Cr)	mg/L	<0.005	0.005	9455473	<0.0005	0.0005	9455473
Dissolved Cobalt (Co)	mg/L	0.0121	0.0005	9455485	<0.00005	0.00005	9455485
. Cobalt (Co)	mg/L	0.0318	0.0005	9455473	<0.00005	0.00005	9455473
Dissolved Copper (Cu)	mg/L	0.012	0.001	9455485	<0.0001	0.0001	9455485
. Copper (Cu)	mg/L	0.003	0.001	9455473	<0.0001	0.0001	9455473
Dissolved Iron (Fe)	mg/L	26.1	0.05	9455485	<0.005	0.005	9455485
. Iron (Fe)	mg/L	0.08	0.05	9455473	<0.005	0.005	9455473
Dissolved Lead (Pb)	mg/L	0.0044	0.0005	9455485	<0.00005	0.00005	9455485
. Lead (Pb)	mg/L	<0.0005	0.0005	9455473	<0.00005	0.00005	9455473
Dissolved Lithium (Li)	mg/L	0.013	0.005	9455485	<0.0005	0.0005	9455485

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKL348			ZKL349		
Sampling Date		2024/06/06 08:00			2024/06/06 08:00		
COC Number		909855			909855		
	UNITS	Duplicate 5	RDL	QC Batch	Field blank	RDL	QC Batch
. Lithium (Li)	mg/L	0.011	0.005	9455473	<0.0005	0.0005	9455473
Dissolved Magnesium (Mg)	mg/L	97.0	0.05	9455485	<0.005	0.005	9455485
. Magnesium (Mg)	mg/L	72.0	0.05	9455473	<0.005	0.005	9455473
Dissolved Manganese (Mn)	mg/L	1.82	0.002	9455485	<0.0002	0.0002	9455485
. Manganese (Mn)	mg/L	4.43	0.002	9455473	<0.0002	0.0002	9455473
Mercury (Hg)	mg/L	<0.0015	0.0015	9452666			
Mercury (Hg)	ug/L				<0.01	0.01	9450254
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9450523			
Dissolved Molybdenum (Mo)	mg/L	<0.0005	0.0005	9455485	<0.00005	0.00005	9455485
. Molybdenum (Mo)	mg/L	0.0007	0.0005	9455473	<0.00005	0.00005	9455473
Dissolved Nickel (Ni)	mg/L	0.021	0.001	9455485	<0.0001	0.0001	9455485
. Nickel (Ni)	mg/L	0.104	0.001	9455473	<0.0001	0.0001	9455473
Dissolved Phosphorus (P)	mg/L	0.35	0.05	9455485	<0.005	0.005	9455485
. Phosphorus (P)	mg/L	<0.05	0.05	9455473	<0.005	0.005	9455473
Dissolved Potassium (K)	mg/L	9.6	0.2	9455485	<0.02	0.02	9455485
. Potassium (K)	mg/L	17.8	0.2	9455473	<0.02	0.02	9455473
Dissolved Rubidium (Rb)	mg/L	0.0127	0.0002	9455485	<0.00002	0.00002	9455485
. Rubidium (Rb)	mg/L	0.0450	0.0002	9455473	<0.00002	0.00002	9455473
Dissolved Selenium (Se)	mg/L	<0.002	0.002	9455485	<0.0002	0.0002	9455485
. Selenium (Se)	mg/L	<0.0005	0.0005	9455473	<0.00005	0.00005	9455473
Dissolved Silicon (Si)	mg/L	13.1	0.05	9455485	<0.005	0.005	9455485
. Silicon (Si)	mg/L	8.33	0.05	9455473	<0.005	0.005	9455473
Dissolved Silver (Ag)	mg/L	<0.0001	0.0001	9455485	<0.00001	0.00001	9455485
. Silver (Ag)	mg/L	<0.0001	0.0001	9455473	<0.00001	0.00001	9455473
Dissolved Sodium (Na)	mg/L	20.5	0.1	9455485	<0.01	0.01	9455485
. Sodium (Na)	mg/L	17.5	0.1	9455473	<0.01	0.01	9455473
Dissolved Strontium (Sr)	mg/L	0.950	0.001	9455485	<0.0001	0.0001	9455485
. Strontium (Sr)	mg/L	1.41	0.001	9455473	<0.0001	0.0001	9455473
Dissolved Sulphur (S)	mg/L	200	0.5	9451504	<0.5	0.5	9451504
Total Sulphur (S)	mg/L	210	5	9452225	<0.5	0.5	9452225
Dissolved Tellurium (Te)	mg/L	<0.001	0.001	9455485	<0.0001	0.0001	9455485
. Tellurium (Te)	mg/L	<0.001	0.001	9455473	<0.0001	0.0001	9455473

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZKL348			ZKL349		
Sampling Date		2024/06/06 08:00			2024/06/06 08:00		
COC Number		909855			909855		
	UNITS	Duplicate 5	RDL	QC Batch	Field blank	RDL	QC Batch
Dissolved Thallium (Tl)	mg/L	<0.00005	0.00005	9455485	<0.000005	0.000005	9455485
. Thallium (Tl)	mg/L	0.00019	0.00005	9455473	<0.000005	0.000005	9455473
Dissolved Thorium (Th)	mg/L	<0.002	0.002	9455485	<0.0002	0.0002	9455485
. Thorium (Th)	mg/L	<0.002	0.002	9455473	<0.0002	0.0002	9455473
Dissolved Tin (Sn)	mg/L	<0.001	0.001	9455485	<0.0001	0.0001	9455485
. Tin (Sn)	mg/L	<0.001	0.001	9455473	<0.0001	0.0001	9455473
Dissolved Titanium (Ti)	mg/L	0.149	0.005	9455485	<0.0005	0.0005	9455485
. Titanium (Ti)	mg/L	<0.005	0.005	9455473	<0.0005	0.0005	9455473
Dissolved Tungsten (W)	mg/L	<0.001	0.001	9455485	<0.0001	0.0001	9455485
. Tungsten (W)	mg/L	<0.001	0.001	9455473	<0.0001	0.0001	9455473
Dissolved Uranium (U)	mg/L	0.0014	0.0001	9455485	<0.00001	0.00001	9455485
. Uranium (U)	mg/L	0.0037	0.0001	9455473	<0.00001	0.00001	9455473
Dissolved Vanadium (V)	mg/L	0.0108	0.0005	9455485	<0.00005	0.00005	9455485
. Vanadium (V)	mg/L	<0.0005	0.0005	9455473	<0.00005	0.00005	9455473
Dissolved Zinc (Zn)	mg/L	0.021	0.005	9455485	<0.0005	0.0005	9455485
. Zinc (Zn)	mg/L	0.022	0.005	9455473	<0.0005	0.0005	9455473
Dissolved Zirconium (Zr)	mg/L	0.002	0.001	9455485	<0.0001	0.0001	9455485
. Zirconium (Zr)	mg/L	<0.001	0.001	9455473	<0.0001	0.0001	9455473

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Bureau Veritas Job #: C4H5675
Report Date: 2024/06/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZKL344
Sample ID: 23-14B
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Alkalinity	AT	9450198	N/A	2024/06/12	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9446568	N/A	2024/06/13	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9451660	N/A	2024/06/14	Alina Dobreanu
Conductivity	AT	9450203	N/A	2024/06/12	Nachiketa Gohil
Fluoride	ISE	9450206	2024/06/12	2024/06/12	Nachiketa Gohil
Hardness (calculated as CaCO3)		9446569	N/A	2024/06/17	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9450523	2024/06/12	2024/06/13	Gagandeep Rai
Mercury (low level)	CV/AA	9450254	2024/06/12	2024/06/13	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9451504	2024/06/12	2024/06/13	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9455485	N/A	2024/06/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9455473	N/A	2024/06/18	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9452225	2024/06/13	2024/06/14	Suban Kanapathippllai
Cyanide (Free)	SPEC	9463958	N/A	2024/06/18	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9463965	2024/06/17	2024/06/17	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9458176	2024/06/14	2024/06/15	Yan Lin
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9450600	N/A	2024/06/12	Chandra Nandlal
pH	AT	9450207	2024/06/12	2024/06/12	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9451670	N/A	2024/06/14	Alina Dobreanu
Total Dissolved Solids	BAL	9450386	2024/06/12	2024/06/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9451113	2024/06/12	2024/06/14	Rajni Tyagi
Total Suspended Solids	BAL	9451345	2024/06/12	2024/06/13	Razieh Tabesh
Turbidity	AT	9450582	N/A	2024/06/12	Gurparteek KAUR

Bureau Veritas ID: ZKL344 Dup
Sample ID: 23-14B
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9463965	2024/06/17	2024/06/17	Ye Hyun KIM

Bureau Veritas ID: ZKL345
Sample ID: MW07-18
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Alkalinity	AT	9450198	N/A	2024/06/12	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9446568	N/A	2024/06/13	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9451039	N/A	2024/06/13	Alina Dobreanu

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5675
Report Date: 2024/06/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZKL345
Sample ID: MW07-18
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	9450203	N/A	2024/06/12	Nachiketa Gohil
Fluoride	ISE	9450206	2024/06/12	2024/06/12	Nachiketa Gohil
Hardness (calculated as CaCO3)		9446569	N/A	2024/06/17	Automated Statchk
Mercury in Water by CVAA	CV/AA	9452666	2024/06/13	2024/06/13	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9450523	2024/06/12	2024/06/13	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9451504	2024/06/12	2024/06/13	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9455485	N/A	2024/06/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9455473	N/A	2024/06/18	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9452225	2024/06/13	2024/06/14	Suban Kanapathippllai
Cyanide (Free)	SPEC	9463958	N/A	2024/06/18	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9463965	2024/06/17	2024/06/17	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9458176	2024/06/14	2024/06/14	Yan Lin
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9450600	N/A	2024/06/12	Chandra Nandlal
pH	AT	9450207	2024/06/12	2024/06/12	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9451051	N/A	2024/06/13	Alina Dobreanu
Total Dissolved Solids	BAL	9450386	2024/06/12	2024/06/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9451113	2024/06/12	2024/06/14	Rajni Tyagi
Total Suspended Solids	BAL	9451345	2024/06/12	2024/06/13	Razieh Tabesh
Turbidity	AT	9450582	N/A	2024/06/12	Gurparteek KAUR

Bureau Veritas ID: ZKL345 Dup
Sample ID: MW07-18
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals Analysis by ICP	ICP	9451504	2024/06/12	2024/06/13	Suban Kanapathippllai

Bureau Veritas ID: ZKL346
Sample ID: MW09-18
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Alkalinity	AT	9450198	N/A	2024/06/12	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9446568	N/A	2024/06/13	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9450498	N/A	2024/06/13	Massarat Jan
Conductivity	AT	9450203	N/A	2024/06/12	Nachiketa Gohil
Fluoride	ISE	9450206	2024/06/12	2024/06/12	Nachiketa Gohil
Hardness (calculated as CaCO3)		9446569	N/A	2024/06/17	Automated Statchk
Mercury in Water by CVAA	CV/AA	9452666	2024/06/13	2024/06/13	Gagandeep Rai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5675
Report Date: 2024/06/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZKL346
Sample ID: MW09-18
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	9450523	2024/06/12	2024/06/13	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9451504	2024/06/12	2024/06/13	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9455485	N/A	2024/06/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9455473	N/A	2024/06/18	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9452225	2024/06/13	2024/06/14	Suban Kanapathippllai
Cyanide (Free)	SPEC	9463958	N/A	2024/06/18	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9463965	2024/06/17	2024/06/17	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9458176	2024/06/14	2024/06/14	Yan Lin
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9450600	N/A	2024/06/12	Chandra Nandlal
pH	AT	9450207	2024/06/12	2024/06/12	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9450501	N/A	2024/06/13	Massarat Jan
Total Dissolved Solids	BAL	9450386	2024/06/12	2024/06/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9451113	2024/06/12	2024/06/14	Rajni Tyagi
Total Suspended Solids	BAL	9451345	2024/06/12	2024/06/13	Razieh Tabesh
Turbidity	AT	9450582	N/A	2024/06/12	Gurparteek KAUR

Bureau Veritas ID: ZKL347
Sample ID: MW08-18
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Alkalinity	AT	9468033	N/A	2024/06/20	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9446568	N/A	2024/06/13	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9467690	N/A	2024/06/20	Massarat Jan
Conductivity	AT	9468025	N/A	2024/06/20	Nachiketa Gohil
Fluoride	ISE	9450206	2024/06/12	2024/06/12	Nachiketa Gohil
Hardness (calculated as CaCO3)		9446569	N/A	2024/06/17	Automated Statchk
Mercury in Water by CVAA	CV/AA	9452666	2024/06/13	2024/06/13	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9450523	2024/06/12	2024/06/13	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9451504	2024/06/12	2024/06/13	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9455485	N/A	2024/06/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9455473	N/A	2024/06/19	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9452225	2024/06/13	2024/06/14	Suban Kanapathippllai
Cyanide (Free)	SPEC	9463958	N/A	2024/06/18	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9463965	2024/06/17	2024/06/17	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9458176	2024/06/14	2024/06/15	Yan Lin
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9450600	N/A	2024/06/12	Chandra Nandlal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5675
Report Date: 2024/06/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZKL347
Sample ID: MW08-18
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH	AT	9468035	2024/06/20	2024/06/20	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9467680	N/A	2024/06/20	Massarat Jan
Total Dissolved Solids	BAL	9450386	2024/06/12	2024/06/13	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/11	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9451113	2024/06/12	2024/06/13	Rajni Tyagi
Total Suspended Solids	BAL	9451345	2024/06/12	2024/06/13	Razieh Tabesh
Turbidity	AT	9450582	N/A	2024/06/12	Gurparteek KAUR

Bureau Veritas ID: ZKL347 Dup
Sample ID: MW08-18
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9468033	N/A	2024/06/20	Nachiketa Gohil
Chloride by Automated Colourimetry	SKAL	9467690	N/A	2024/06/20	Massarat Jan
Conductivity	AT	9468025	N/A	2024/06/20	Nachiketa Gohil
Dissolved Mercury (low level)	CV/AA	9450523	2024/06/12	2024/06/13	Gagandeep Rai
pH	AT	9468035	2024/06/20	2024/06/20	Nachiketa Gohil
Sulphate by Automated Turbidimetry	SKAL	9467680	N/A	2024/06/20	Massarat Jan

Bureau Veritas ID: ZKL348
Sample ID: Duplicate 5
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Alkalinity	AT	9450198	N/A	2024/06/12	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9446568	N/A	2024/06/13	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9451660	N/A	2024/06/14	Alina Dobreanu
Conductivity	AT	9450203	N/A	2024/06/12	Nachiketa Gohil
Fluoride	ISE	9450206	2024/06/12	2024/06/12	Nachiketa Gohil
Hardness (calculated as CaCO3)		9446569	N/A	2024/06/17	Automated Statchk
Mercury in Water by CVAA	CV/AA	9452666	2024/06/13	2024/06/13	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9450523	2024/06/12	2024/06/13	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9451504	2024/06/12	2024/06/13	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9455485	N/A	2024/06/17	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9455473	N/A	2024/06/19	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9452225	2024/06/13	2024/06/14	Suban Kanapathippllai
Cyanide (Free)	SPEC	9463958	N/A	2024/06/18	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9463965	2024/06/17	2024/06/17	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9458176	2024/06/14	2024/06/15	Yan Lin
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5675
Report Date: 2024/06/20

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZKL348
Sample ID: Duplicate 5
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Nitrate & Nitrite as Nitrogen in Water	LACH	9450600	N/A	2024/06/12	Chandra Nandlal
pH	AT	9450207	2024/06/12	2024/06/12	Nachiketa Gohil
Sulphate by Automated Turbidimetry	SKAL	9451670	N/A	2024/06/14	Alina Dobreanu
Total Dissolved Solids	BAL	9450386	2024/06/12	2024/06/13	Razieh Tabesh
Total Kjeldahl Nitrogen in Water	SKAL	9451113	2024/06/12	2024/06/14	Rajni Tyagi
Total Suspended Solids	BAL	9451345	2024/06/12	2024/06/13	Razieh Tabesh
Turbidity	AT	9450582	N/A	2024/06/12	Gurparteek KAUR

Bureau Veritas ID: ZKL349
Sample ID: Field blank
Matrix: Water

Collected: 2024/06/06
Shipped:
Received: 2024/06/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9455151	N/A	2024/06/14	Brent Boudreau
Alkalinity	AT	9450198	N/A	2024/06/12	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9446568	N/A	2024/06/13	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9451039	N/A	2024/06/13	Alina Dobreanu
Conductivity	AT	9450203	N/A	2024/06/12	Nachiketa Gohil
Fluoride	ISE	9450206	2024/06/12	2024/06/12	Nachiketa Gohil
Hardness (calculated as CaCO3)		9446569	N/A	2024/06/17	Automated Statchk
Mercury (low level)	CV/AA	9450254	2024/06/12	2024/06/13	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9451504	2024/06/12	2024/06/13	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9455485	N/A	2024/06/18	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9455473	N/A	2024/06/19	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9452225	2024/06/13	2024/06/14	Suban Kanapathippllai
Cyanide (Free)	SPEC	9463958	N/A	2024/06/18	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9463965	2024/06/17	2024/06/17	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9458176	2024/06/14	2024/06/14	Yan Lin
Total Ammonia-N	LACH/NH4	9450810	N/A	2024/06/13	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9450600	N/A	2024/06/12	Chandra Nandlal
pH	AT	9450207	2024/06/12	2024/06/12	Nachiketa Gohil
Sulphate by Automated Turbidimetry	SKAL	9451051	N/A	2024/06/13	Alina Dobreanu
Total Dissolved Solids	BAL	9450386	2024/06/12	2024/06/13	Razieh Tabesh
Total Kjeldahl Nitrogen in Water	SKAL	9451113	2024/06/12	2024/06/13	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9450398	2024/06/12	2024/06/13	Razieh Tabesh
Turbidity	AT	9450582	N/A	2024/06/12	Gurparteek KAUR

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.7°C
Package 2	1.7°C
Package 3	1.0°C
Package 4	0.0°C
Package 5	1.0°C
Package 6	1.0°C

Sample ZKL344 [23-14B] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZKL345 [MW07-18] : Mercury Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZKL346 [MW09-18] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample ZKL347 [MW08-18] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample ZKL348 [Duplicate 5] : Mercury Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZKL349 [Field blank] : Acidity sample contained headspace.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9450198	Alkalinity (Total as CaCO3)	2024/06/12			99	85 - 115	<1.0	mg/L	1.3	20		
9450203	Conductivity	2024/06/12			103	85 - 115	0.000700	mS/cm	0.26	10		
9450206	Fluoride (F-)	2024/06/12	104	80 - 120	108	80 - 120	<0.10	mg/L	1.4	20		
9450207	pH	2024/06/12			102	98 - 103			0.28	N/A		
9450254	Mercury (Hg)	2024/06/13	97	75 - 125	94	80 - 120	<0.01	ug/L	NC	20		
9450386	Total Dissolved Solids	2024/06/13			100	80 - 120	<10	mg/L	3.2	20		
9450398	Total Suspended Solids	2024/06/13			99	80 - 120	<1	mg/L	11	20		
9450498	Dissolved Chloride (Cl-)	2024/06/13	NC	80 - 120	95	80 - 120	<1.0	mg/L	0.46	20		
9450501	Dissolved Sulphate (SO4)	2024/06/13	NC	75 - 125	99	80 - 120	<1.0	mg/L	0.79	20		
9450523	Dissolved Mercury (Hg)	2024/06/13	94	75 - 125	93	80 - 120	<0.01	ug/L	NC	20		
9450582	Turbidity	2024/06/12			99	80 - 120	<0.1	NTU	NC	20		
9450600	Nitrate (N)	2024/06/12	84	80 - 120	91	80 - 120	<0.10	mg/L	1.6	20		
9450600	Nitrite (N)	2024/06/12	109	80 - 120	107	80 - 120	<0.010	mg/L	NC	20		
9450810	Total Ammonia-N	2024/06/13	93	75 - 125	99	80 - 120	<0.050	mg/L	NC	20		
9451039	Dissolved Chloride (Cl-)	2024/06/13	NC	80 - 120	103	80 - 120	<1.0	mg/L	5.2	20		
9451051	Dissolved Sulphate (SO4)	2024/06/13	NC	75 - 125	96	80 - 120	<1.0	mg/L	1.3	20		
9451113	Total Kjeldahl Nitrogen (TKN)	2024/06/13	NC	80 - 120	100	80 - 120	<0.10	mg/L	7.2	20	101	80 - 120
9451345	Total Suspended Solids	2024/06/13			99	80 - 120	<10	mg/L	0	20		
9451504	Dissolved Sulphur (S)	2024/06/13	NC	80 - 120	95	80 - 120	<0.5	mg/L	0	20		
9451660	Dissolved Chloride (Cl-)	2024/06/14	100	80 - 120	95	80 - 120	<1.0	mg/L	1.4	20		
9451670	Dissolved Sulphate (SO4)	2024/06/14	99	75 - 125	95	80 - 120	<1.0	mg/L	1.9	20		
9452225	Total Sulphur (S)	2024/06/14	97	80 - 120	96	80 - 120	<0.5	mg/L				
9452666	Mercury (Hg)	2024/06/13	97	75 - 125	95	80 - 120	<0.00010	mg/L	NC	20		
9455151	Acidity	2024/06/14	104	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9455473	. Aluminum (Al)	2024/06/18	110	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9455473	. Antimony (Sb)	2024/06/18	110	80 - 120	103	80 - 120	<0.0001	mg/L	7.3	20		
9455473	. Arsenic (As)	2024/06/18	102	80 - 120	99	80 - 120	<0.0001	mg/L	1.3	20		
9455473	. Barium (Ba)	2024/06/18	104	80 - 120	98	80 - 120	<0.0002	mg/L	0.82	20		
9455473	. Beryllium (Be)	2024/06/18	96	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9455473	. Bismuth (Bi)	2024/06/18	88	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9455473	. Boron (B)	2024/06/18	NC	80 - 120	95	80 - 120	<0.001	mg/L	1.2	20		
9455473	. Cadmium (Cd)	2024/06/18	99	80 - 120	96	80 - 120	<0.000005	mg/L	NC	20		
9455473	. Calcium (Ca)	2024/06/18	NC	80 - 120	101	80 - 120	<0.02	mg/L	3.0	20		
9455473	. Cesium (Cs)	2024/06/18	104	80 - 120	102	80 - 120	<0.00002	mg/L	1.1	20		
9455473	. Chromium (Cr)	2024/06/18	105	80 - 120	101	80 - 120	<0.0005	mg/L	NC	20		
9455473	. Cobalt (Co)	2024/06/18	100	80 - 120	100	80 - 120	<0.00005	mg/L	0.28	20		
9455473	. Copper (Cu)	2024/06/18	110	80 - 120	100	80 - 120	<0.0001	mg/L	0.49	20		
9455473	. Iron (Fe)	2024/06/18	106	80 - 120	103	80 - 120	<0.005	mg/L	0.18	20		
9455473	. Lead (Pb)	2024/06/18	92	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9455473	. Lithium (Li)	2024/06/18	102	80 - 120	102	80 - 120	<0.0005	mg/L	1.0	20		
9455473	. Magnesium (Mg)	2024/06/18	NC	80 - 120	104	80 - 120	<0.005	mg/L	2.1	20		
9455473	. Manganese (Mn)	2024/06/18	104	80 - 120	101	80 - 120	<0.0002	mg/L	2.3	20		
9455473	. Molybdenum (Mo)	2024/06/18	117	80 - 120	101	80 - 120	<0.00005	mg/L	0.59	20		
9455473	. Nickel (Ni)	2024/06/18	95	80 - 120	100	80 - 120	<0.0001	mg/L	1.6	20		
9455473	. Phosphorus (P)	2024/06/18	112	80 - 120	101	80 - 120	<0.005	mg/L	NC	20		
9455473	. Potassium (K)	2024/06/18	NC	80 - 120	104	80 - 120	<0.02	mg/L	2.0	20		
9455473	. Rubidium (Rb)	2024/06/18	98	80 - 120	98	80 - 120	<0.00002	mg/L	1.5	20		
9455473	. Selenium (Se)	2024/06/18	98	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9455473	. Silicon (Si)	2024/06/18	110	80 - 120	99	80 - 120	<0.005	mg/L	2.9	20		
9455473	. Silver (Ag)	2024/06/18	94	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9455473	. Sodium (Na)	2024/06/18	NC	80 - 120	105	80 - 120	<0.01	mg/L	2.1	20		
9455473	. Strontium (Sr)	2024/06/18	NC	80 - 120	99	80 - 120	<0.0001	mg/L	0.19	20		
9455473	. Tellurium (Te)	2024/06/18	98	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9455473	. Thallium (Tl)	2024/06/18	93	80 - 120	96	80 - 120	<0.000005	mg/L	NC	20		
9455473	. Thorium (Th)	2024/06/18	98	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9455473	. Tin (Sn)	2024/06/18	109	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9455473	. Titanium (Ti)	2024/06/18	108	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9455473	. Tungsten (W)	2024/06/18	105	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9455473	. Uranium (U)	2024/06/18	97	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9455473	. Vanadium (V)	2024/06/18	110	80 - 120	102	80 - 120	<0.00005	mg/L	2.7	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9455473	. Zinc (Zn)	2024/06/18	94	80 - 120	100	80 - 120	<0.0005	mg/L	2.5	20		
9455473	. Zirconium (Zr)	2024/06/18	122 (1)	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9455485	Dissolved Aluminum (Al)	2024/06/17	107	80 - 120	99	80 - 120	<0.0005	mg/L	10	20		
9455485	Dissolved Antimony (Sb)	2024/06/17	109	80 - 120	106	80 - 120	<0.0001	mg/L	2.0	20		
9455485	Dissolved Arsenic (As)	2024/06/17	99	80 - 120	99	80 - 120	<0.0001	mg/L	0.036	20		
9455485	Dissolved Barium (Ba)	2024/06/17	102	80 - 120	98	80 - 120	<0.0002	mg/L	1.4	20		
9455485	Dissolved Beryllium (Be)	2024/06/17	97	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9455485	Dissolved Bismuth (Bi)	2024/06/17	95	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9455485	Dissolved Boron (B)	2024/06/17	NC	80 - 120	96	80 - 120	<0.001	mg/L	1.2	20		
9455485	Dissolved Cadmium (Cd)	2024/06/17	98	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
9455485	Dissolved Calcium (Ca)	2024/06/17	NC	80 - 120	101	80 - 120	<0.02	mg/L	0.43	20		
9455485	Dissolved Cesium (Cs)	2024/06/17	95	80 - 120	96	80 - 120	<0.00002	mg/L	NC	N/A		
9455485	Dissolved Chromium (Cr)	2024/06/17	95	80 - 120	93	80 - 120	<0.0005	mg/L	NC	20		
9455485	Dissolved Cobalt (Co)	2024/06/17	98	80 - 120	97	80 - 120	<0.00005	mg/L	0.61	20		
9455485	Dissolved Copper (Cu)	2024/06/17	106	80 - 120	102	80 - 120	<0.0001	mg/L	1.1	20		
9455485	Dissolved Iron (Fe)	2024/06/17	100	80 - 120	100	80 - 120	<0.005	mg/L	0.92	20		
9455485	Dissolved Lead (Pb)	2024/06/17	94	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
9455485	Dissolved Lithium (Li)	2024/06/17	101	80 - 120	101	80 - 120	<0.0005	mg/L	0.98	20		
9455485	Dissolved Magnesium (Mg)	2024/06/17	NC	80 - 120	100	80 - 120	<0.005	mg/L	1.1	20		
9455485	Dissolved Manganese (Mn)	2024/06/17	99	80 - 120	99	80 - 120	<0.0002	mg/L	2.4	20		
9455485	Dissolved Molybdenum (Mo)	2024/06/17	108	80 - 120	96	80 - 120	<0.00005	mg/L	0.21	20		
9455485	Dissolved Nickel (Ni)	2024/06/17	92	80 - 120	96	80 - 120	<0.0001	mg/L	2.4	20		
9455485	Dissolved Phosphorus (P)	2024/06/17	114	80 - 120	100	80 - 120	<0.005	mg/L	NC	20		
9455485	Dissolved Potassium (K)	2024/06/17	NC	80 - 120	104	80 - 120	<0.02	mg/L	1.2	20		
9455485	Dissolved Rubidium (Rb)	2024/06/17	94	80 - 120	99	80 - 120	<0.00002	mg/L	1.1	N/A		
9455485	Dissolved Selenium (Se)	2024/06/17	99	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20		
9455485	Dissolved Silicon (Si)	2024/06/17	108	80 - 120	100	80 - 120	<0.005	mg/L	0.89	20		
9455485	Dissolved Silver (Ag)	2024/06/17	71 (1)	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9455485	Dissolved Sodium (Na)	2024/06/17	NC	80 - 120	100	80 - 120	<0.01	mg/L	2.2	20		
9455485	Dissolved Strontium (Sr)	2024/06/17	NC	80 - 120	99	80 - 120	<0.0001	mg/L	2.5	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9455485	Dissolved Tellurium (Te)	2024/06/17	98	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9455485	Dissolved Thallium (Tl)	2024/06/17	99	80 - 120	106	80 - 120	<0.000005	mg/L	NC	20		
9455485	Dissolved Thorium (Th)	2024/06/17	95	80 - 120	93	80 - 120	<0.0002	mg/L	NC	20		
9455485	Dissolved Tin (Sn)	2024/06/17	108	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9455485	Dissolved Titanium (Ti)	2024/06/17	105	80 - 120	100	80 - 120	<0.0005	mg/L	NC	20		
9455485	Dissolved Tungsten (W)	2024/06/17	105	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9455485	Dissolved Uranium (U)	2024/06/17	100	80 - 120	100	80 - 120	<0.00001	mg/L	6.5	20		
9455485	Dissolved Vanadium (V)	2024/06/17	103	80 - 120	96	80 - 120	<0.00005	mg/L	0.28	20		
9455485	Dissolved Zinc (Zn)	2024/06/17	91	80 - 120	98	80 - 120	<0.0005	mg/L	9.2	20		
9455485	Dissolved Zirconium (Zr)	2024/06/17	116	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9458176	Total Phosphorus (P)	2024/06/14	98	80 - 120	97	80 - 120	<0.0010	mg/L			90	80 - 120
9463958	Free Cyanide (CN)	2024/06/18	89	80 - 120	96	80 - 120	<2.0	ug/L				
9463965	Strong Acid Dissoc. Cyanide (CN)	2024/06/17	NC	80 - 120	101	80 - 120	<0.00050	mg/L	1.3	20		
9467680	Dissolved Sulphate (SO4)	2024/06/20	NC	75 - 125	96	80 - 120	<1.0	mg/L	1.2	20		
9467690	Dissolved Chloride (Cl-)	2024/06/20	81	80 - 120	98	80 - 120	<1.0	mg/L	14	20		
9468025	Conductivity	2024/06/20			99	85 - 115	0.000700	mS/cm	0.36	10		
9468033	Alkalinity (Total as CaCO3)	2024/06/20			95	85 - 115	<1.0	mg/L	0.89	20		
9468035	pH	2024/06/20			102	98 - 103			0.053	N/A		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, probable matrix interference

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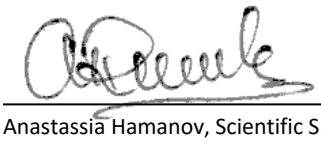
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4H5675
Report Date: 2024/06/20

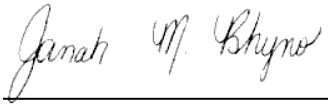
Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



Anastassia Hamanov, Scientific Specialist



Janah Rhyno, Scientific Specialist



Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist



Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 912385

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/24
Report #: R8206275
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4I1781
Received: 2024/06/12, 15:09

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	2	N/A	2024/06/19	ATL SOP-00205	SM 24 2310B m
Alkalinity	2	N/A	2024/06/15	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2024/06/17	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	2	N/A	2024/06/18	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	2	N/A	2024/06/15	CAM SOP-00414	SM 24 2510 m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2024/06/17	CAM SOP-00315	CCME PHC-CWS m
Fluoride	2	2024/06/15	2024/06/15	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2024/06/21	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	2	2024/06/17	2024/06/18	CAM SOP-00453	EPA 7470 m
Mercury (low level)	2	2024/06/17	2024/06/17	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	2	2024/06/17	2024/06/18	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	2	N/A	2024/06/21	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	2	N/A	2024/06/20	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	2	2024/06/18	2024/06/18	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	2	N/A	2024/06/20	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2024/06/19	2024/06/19	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	2	2024/06/19	2024/06/20	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	2	N/A	2024/06/19	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	2	N/A	2024/06/17	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	2	2024/06/15	2024/06/15	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	2	N/A	2024/06/14		Field pH Meter
Sulphate by Automated Turbidimetry	2	N/A	2024/06/18	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	2	2024/06/15	2024/06/17	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	2	N/A	2024/06/14		Field Thermometer
Total Kjeldahl Nitrogen in Water	2	2024/06/18	2024/06/19	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	2	2024/06/17	2024/06/18	CAM SOP-00428	SM 24 2540D m
Turbidity	2	N/A	2024/06/15	CAM SOP-00417	SM 24 2130 B

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 912385

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/24
Report #: R8206275
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4I1781
Received: 2024/06/12, 15:09

(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I1781
Report Date: 2024/06/24

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZLS542			ZLS542			ZLS543		
Sampling Date		2024/06/11 15:32			2024/06/11 15:32			2024/06/11 16:42		
COC Number		912385			912385			912385		
	UNITS	MWS-14-04	RDL	QC Batch	MWS-14-04 Lab-Dup	RDL	QC Batch	MW28-BR-23	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	340	1.0	9458087				350	1.0	9458087
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.6	1.0	9458087				2.1	1.0	9458087
Hardness (CaCO3)	mg/L	310	1.0	9458022				310	1.0	9458022
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9458087				<1.0	1.0	9458087
Field Measurements										
Field Temperature	Celsius	5.8	N/A	ONSITE				5.9	N/A	ONSITE
Field Measured pH	pH	7.13		ONSITE				6.99		ONSITE
Inorganics										
Acidity	mg/L	25	5.0	9464247	26	5.0	9464247	24	5.0	9464247
Total Ammonia-N	mg/L	<0.050	0.050	9461755	<0.050	0.050	9461755	0.13	0.050	9461755
Conductivity	mS/cm	0.633	0.001	9458593				0.701	0.001	9458593
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9471297				<2.0	2.0	9471298
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00081	0.00050	9469845				<0.00050	0.00050	9469845
Total Dissolved Solids	mg/L	395	10	9457975				470	10	9457975
Fluoride (F-)	mg/L	0.13	0.10	9458590				0.19	0.10	9458590
Total Kjeldahl Nitrogen (TKN)	mg/L	0.13	0.10	9463258				0.22	0.10	9463258
pH	pH	7.69		9458591				7.80		9458591
Total Phosphorus (P)	mg/L	0.016	0.0010	9471296				0.010	0.0010	9471296
Total Suspended Solids	mg/L	44	1	9459764				53	1	9459764
Dissolved Sulphate (SO4)	mg/L	4.2	1.0	9458270				27	1.0	9458270
Turbidity	NTU	3.9	0.1	9458124				20	0.1	9458124
Alkalinity (Total as CaCO3)	mg/L	340	1.0	9458592				350	1.0	9458592
Dissolved Chloride (Cl-)	mg/L	4.2	1.0	9458265				3.3	1.0	9458265
Nitrite (N)	mg/L	<0.010	0.010	9458245				<0.010	0.010	9458245
Nitrate (N)	mg/L	<0.10	0.10	9458245				<0.10	0.10	9458245
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9458245				<0.10	0.10	9458245

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I1781
Report Date: 2024/06/24

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZLS543		
Sampling Date		2024/06/11 16:42		
COC Number		912385		
	UNITS	MW28-BR-23 Lab-Dup	RDL	QC Batch
Inorganics				
Conductivity	mS/cm	0.703	0.001	9458593
Fluoride (F-)	mg/L	0.17	0.10	9458590
pH	pH	7.82		9458591
Alkalinity (Total as CaCO3)	mg/L	360	1.0	9458592

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C4I1781
Report Date: 2024/06/24

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLS542			ZLS542			ZLS543		
Sampling Date		2024/06/11 15:32			2024/06/11 15:32			2024/06/11 16:42		
COC Number		912385			912385			912385		
	UNITS	MWS-14-04	RDL	QC Batch	MWS-14-04 Lab-Dup	RDL	QC Batch	MW28-BR-23	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0038	0.0005	9465917				0.0066	0.0005	9465917
. Aluminum (Al)	mg/L	0.204	0.0005	9465949				0.0808	0.0005	9465949
Dissolved Antimony (Sb)	mg/L	0.0004	0.0001	9465917				0.0001	0.0001	9465917
. Antimony (Sb)	mg/L	0.0006	0.0001	9465949				0.0002	0.0001	9465949
Dissolved Arsenic (As)	mg/L	0.0052	0.0001	9465917				0.0013	0.0001	9465917
. Arsenic (As)	mg/L	0.0135	0.0001	9465949				0.0046	0.0001	9465949
Dissolved Barium (Ba)	mg/L	0.0560	0.0002	9465917				0.137	0.0002	9465917
. Barium (Ba)	mg/L	0.0626	0.0002	9465949				0.142	0.0002	9465949
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9465917				<0.00005	0.00005	9465917
. Beryllium (Be)	mg/L	<0.00005	0.00005	9465949				<0.00005	0.00005	9465949
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9465917				<0.0001	0.0001	9465917
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9465949				<0.0001	0.0001	9465949
Dissolved Boron (B)	mg/L	0.011	0.001	9465917				0.021	0.001	9465917
. Boron (B)	mg/L	0.012	0.001	9465949				0.022	0.001	9465949
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9465917				<0.00001	0.00001	9465917
. Cadmium (Cd)	mg/L	<0.000005	0.000005	9465949				<0.000005	0.000005	9465949
Dissolved Calcium (Ca)	mg/L	93.2	0.1	9465917				86.9	0.1	9465917
. Calcium (Ca)	mg/L	94.2	0.1	9465949				89.4	0.1	9465949
Dissolved Cesium (Cs)	mg/L	0.00004	0.00002	9465917				0.00031	0.00002	9465917
. Cesium (Cs)	mg/L	0.00007	0.00002	9465949				0.00033	0.00002	9465949
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9465917				<0.0005	0.0005	9465917
. Chromium (Cr)	mg/L	0.0009	0.0005	9465949				<0.0005	0.0005	9465949
Dissolved Cobalt (Co)	mg/L	0.0128	0.00005	9465917				0.00031	0.00005	9465917
. Cobalt (Co)	mg/L	0.0247	0.00005	9465949				0.00038	0.00005	9465949
Dissolved Copper (Cu)	mg/L	0.0018	0.0001	9465917				0.0001	0.0001	9465917
. Copper (Cu)	mg/L	0.0010	0.0001	9465949				0.0008	0.0001	9465949
Dissolved Iron (Fe)	mg/L	0.230	0.005	9465917				0.162	0.005	9465917
. Iron (Fe)	mg/L	0.696	0.005	9465949				0.485	0.005	9465949
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9465917				<0.00005	0.00005	9465917
. Lead (Pb)	mg/L	0.00049	0.00005	9465949				0.00051	0.00005	9465949

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLS542			ZLS542			ZLS543		
Sampling Date		2024/06/11 15:32			2024/06/11 15:32			2024/06/11 16:42		
COC Number		912385			912385			912385		
	UNITS	MWS-14-04	RDL	QC Batch	MWS-14-04 Lab-Dup	RDL	QC Batch	MW28-BR-23	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0029	0.0005	9465917				0.0043	0.0005	9465917
. Lithium (Li)	mg/L	0.0033	0.0005	9465949				0.0046	0.0005	9465949
Dissolved Magnesium (Mg)	mg/L	19.4	0.005	9465917				21.6	0.005	9465917
. Magnesium (Mg)	mg/L	20.6	0.005	9465949				22.0	0.005	9465949
Dissolved Manganese (Mn)	mg/L	0.818	0.0002	9465917				0.122	0.0002	9465917
. Manganese (Mn)	mg/L	0.897	0.0002	9465949				0.125	0.0002	9465949
Mercury (Hg)	ug/L	<0.01	0.01	9460274				<0.01	0.01	9460274
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9460544				<0.01	0.01	9460544
Dissolved Molybdenum (Mo)	mg/L	0.00211	0.00005	9465917				0.00122	0.00005	9465917
. Molybdenum (Mo)	mg/L	0.00271	0.00005	9465949				0.00084	0.00005	9465949
Dissolved Nickel (Ni)	mg/L	0.0149	0.0001	9465917				0.0008	0.0001	9465917
. Nickel (Ni)	mg/L	0.0339	0.0001	9465949				0.0010	0.0001	9465949
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9465917				<0.005	0.005	9465917
. Phosphorus (P)	mg/L	0.019	0.005	9465949				0.006	0.005	9465949
Dissolved Potassium (K)	mg/L	0.77	0.02	9465917				0.85	0.02	9465917
. Potassium (K)	mg/L	0.87	0.02	9465949				0.85	0.02	9465949
Dissolved Rubidium (Rb)	mg/L	0.00091	0.00002	9465917				0.00151	0.00002	9465917
. Rubidium (Rb)	mg/L	0.00107	0.00002	9465949				0.00161	0.00002	9465949
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9465917				<0.0002	0.0002	9465917
. Selenium (Se)	mg/L	<0.00005	0.00005	9465949				0.00008	0.00005	9465949
Dissolved Silicon (Si)	mg/L	5.88	0.025	9465917				6.93	0.025	9465917
. Silicon (Si)	mg/L	5.98	0.025	9465949				7.07	0.025	9465949
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9465917				<0.00001	0.00001	9465917
. Silver (Ag)	mg/L	<0.00001	0.00001	9465949				<0.00001	0.00001	9465949
Dissolved Sodium (Na)	mg/L	5.23	0.01	9465917				12.2	0.01	9465917
. Sodium (Na)	mg/L	4.79	0.01	9465949				12.2	0.01	9465949
Dissolved Strontium (Sr)	mg/L	0.178	0.0001	9465917				0.288	0.0001	9465917
. Strontium (Sr)	mg/L	0.177	0.0001	9465949				0.275	0.0001	9465949
Dissolved Sulphur (S)	mg/L	5.2	0.5	9460493				1.8	0.5	9460493
Total Sulphur (S)	mg/L	1.7	0.5	9461514	1.7	0.5	9461514	5.6	0.5	9461514
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9465917				<0.0001	0.0001	9465917

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLS542			ZLS542			ZLS543		
Sampling Date		2024/06/11 15:32			2024/06/11 15:32			2024/06/11 16:42		
COC Number		912385			912385			912385		
	UNITS	MWS-14-04	RDL	QC Batch	MWS-14-04 Lab-Dup	RDL	QC Batch	MW28-BR-23	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	9465949				<0.0001	0.0001	9465949
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9465917				<0.000005	0.000005	9465917
. Thallium (Tl)	mg/L	<0.000005	0.000005	9465949				<0.000005	0.000005	9465949
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9465917				<0.0002	0.0002	9465917
. Thorium (Th)	mg/L	<0.0002	0.0002	9465949				<0.0002	0.0002	9465949
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9465917				<0.0001	0.0001	9465917
. Tin (Sn)	mg/L	0.0002	0.0001	9465949				0.0001	0.0001	9465949
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9465917				0.0015	0.0005	9465917
. Titanium (Ti)	mg/L	0.0023	0.0005	9465949				0.0047	0.0005	9465949
Dissolved Tungsten (W)	mg/L	0.0017	0.0001	9465917				0.0032	0.0001	9465917
. Tungsten (W)	mg/L	0.0023	0.0001	9465949				0.0019	0.0001	9465949
Dissolved Uranium (U)	mg/L	0.00177	0.00001	9465917				0.00104	0.00001	9465917
. Uranium (U)	mg/L	0.00267	0.00001	9465949				0.00113	0.00001	9465949
Dissolved Vanadium (V)	mg/L	0.00030	0.00005	9465917				<0.00005	0.00005	9465917
. Vanadium (V)	mg/L	0.00085	0.00005	9465949				0.00023	0.00005	9465949
Dissolved Zinc (Zn)	mg/L	0.0024	0.0005	9465917				8.54	0.0025	9465917
. Zinc (Zn)	mg/L	0.0036	0.0005	9465949				9.15	0.0025	9465949
Dissolved Zirconium (Zr)	mg/L	0.0011	0.0001	9465917				0.0006	0.0001	9465917
. Zirconium (Zr)	mg/L	0.0008	0.0001	9465949				0.0018	0.0001	9465949

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLS543		
Sampling Date		2024/06/11 16:42		
COC Number		912385		
	UNITS	MW28-BR-23 Lab-Dup	RDL	QC Batch
Metals				
Dissolved Aluminum (Al)	mg/L	0.0070	0.0005	9465917
Dissolved Antimony (Sb)	mg/L	0.0001	0.0001	9465917
Dissolved Arsenic (As)	mg/L	0.0012	0.0001	9465917
Dissolved Barium (Ba)	mg/L	0.136	0.0002	9465917
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9465917
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9465917
Dissolved Boron (B)	mg/L	0.021	0.001	9465917
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9465917
Dissolved Calcium (Ca)	mg/L	86.1	0.1	9465917
Dissolved Cesium (Cs)	mg/L	0.00030	0.00002	9465917
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9465917
Dissolved Cobalt (Co)	mg/L	0.00030	0.00005	9465917
Dissolved Copper (Cu)	mg/L	0.0001	0.0001	9465917
Dissolved Iron (Fe)	mg/L	0.161	0.005	9465917
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9465917
Dissolved Lithium (Li)	mg/L	0.0043	0.0005	9465917
Dissolved Magnesium (Mg)	mg/L	21.3	0.005	9465917
Dissolved Manganese (Mn)	mg/L	0.119	0.0002	9465917
Dissolved Molybdenum (Mo)	mg/L	0.00122	0.00005	9465917
Dissolved Nickel (Ni)	mg/L	0.0007	0.0001	9465917
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9465917
Dissolved Potassium (K)	mg/L	0.84	0.02	9465917
Dissolved Rubidium (Rb)	mg/L	0.00148	0.00002	9465917
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9465917
Dissolved Silicon (Si)	mg/L	6.77	0.025	9465917
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9465917
Dissolved Sodium (Na)	mg/L	12.1	0.01	9465917
Dissolved Strontium (Sr)	mg/L	0.287	0.0001	9465917
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9465917
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9465917

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLS543		
Sampling Date		2024/06/11 16:42		
COC Number		912385		
	UNITS	MW28-BR-23 Lab-Dup	RDL	QC Batch
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9465917
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9465917
Dissolved Titanium (Ti)	mg/L	0.0008	0.0005	9465917
Dissolved Tungsten (W)	mg/L	0.0033	0.0001	9465917
Dissolved Uranium (U)	mg/L	0.00103	0.00001	9465917
Dissolved Vanadium (V)	mg/L	<0.00005	0.00005	9465917
Dissolved Zinc (Zn)	mg/L	8.72	0.0025	9465917
Dissolved Zirconium (Zr)	mg/L	0.0007	0.0001	9465917

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		ZLS542		
Sampling Date		2024/06/11 15:32		
COC Number		912385		
	UNITS	MWS-14-04	RDL	QC Batch
BTEX & F1 Hydrocarbons				
Benzene	ug/L	<0.20	0.20	9459144
Toluene	ug/L	<0.20	0.20	9459144
Ethylbenzene	ug/L	<0.20	0.20	9459144
o-Xylene	ug/L	<0.20	0.20	9459144
p+m-Xylene	ug/L	<0.40	0.40	9459144
Total Xylenes	ug/L	<0.40	0.40	9459144
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	113		9459144
4-Bromofluorobenzene	%	83		9459144
D10-o-Xylene	%	109		9459144
D4-1,2-Dichloroethane	%	103		9459144

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QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4I1781
Report Date: 2024/06/24

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: ZLS542
Sample ID: MWS-14-04
Matrix: Water

Collected: 2024/06/11
Shipped:
Received: 2024/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9464247	N/A	2024/06/19	Brent Boudreau
Alkalinity	AT	9458592	N/A	2024/06/15	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9458087	N/A	2024/06/17	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9458265	N/A	2024/06/18	Massarat Jan
Conductivity	AT	9458593	N/A	2024/06/15	Nachiketa Gohil
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9459144	N/A	2024/06/17	Domnica Andronescu
Fluoride	ISE	9458590	2024/06/15	2024/06/15	Nachiketa Gohil
Hardness (calculated as CaCO3)		9458022	N/A	2024/06/21	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9460544	2024/06/17	2024/06/18	Gagandeep Rai
Mercury (low level)	CV/AA	9460274	2024/06/17	2024/06/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9460493	2024/06/17	2024/06/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9465917	N/A	2024/06/21	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9465949	N/A	2024/06/20	Indira HarryPaul
Total Metals Analysis by ICP	ICP	9461514	2024/06/18	2024/06/18	Japneet Gill
Cyanide (Free)	SPEC	9471297	N/A	2024/06/20	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9469845	2024/06/19	2024/06/19	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9471296	2024/06/19	2024/06/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9461755	N/A	2024/06/19	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9458245	N/A	2024/06/17	Chandra Nandlal
pH	AT	9458591	2024/06/15	2024/06/15	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/14	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9458270	N/A	2024/06/18	Massarat Jan
Total Dissolved Solids	BAL	9457975	2024/06/15	2024/06/17	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/14	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9463258	2024/06/18	2024/06/19	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9459764	2024/06/17	2024/06/18	Razieh Tabesh
Turbidity	AT	9458124	N/A	2024/06/15	Gurparteek KAUR

Bureau Veritas ID: ZLS542 Dup
Sample ID: MWS-14-04
Matrix: Water

Collected: 2024/06/11
Shipped:
Received: 2024/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9464247	N/A	2024/06/19	Brent Boudreau
Total Metals Analysis by ICP	ICP	9461514	2024/06/18	2024/06/18	Japneet Gill
Total Ammonia-N	LACH/NH4	9461755	N/A	2024/06/19	Yogesh Patel

Bureau Veritas ID: ZLS543
Sample ID: MW28-BR-23
Matrix: Water

Collected: 2024/06/11
Shipped:
Received: 2024/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9464247	N/A	2024/06/19	Brent Boudreau

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I1781
Report Date: 2024/06/24

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: ZLS543
Sample ID: MW28-BR-23
Matrix: Water

Collected: 2024/06/11
Shipped:
Received: 2024/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9458592	N/A	2024/06/15	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9458087	N/A	2024/06/17	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9458265	N/A	2024/06/18	Massarat Jan
Conductivity	AT	9458593	N/A	2024/06/15	Nachiketa Gohil
Fluoride	ISE	9458590	2024/06/15	2024/06/15	Nachiketa Gohil
Hardness (calculated as CaCO3)		9458022	N/A	2024/06/21	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9460544	2024/06/17	2024/06/18	Gagandeep Rai
Mercury (low level)	CV/AA	9460274	2024/06/17	2024/06/17	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9460493	2024/06/17	2024/06/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9465917	N/A	2024/06/21	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9465949	N/A	2024/06/20	Indira HarryPaul
Total Metals Analysis by ICP	ICP	9461514	2024/06/18	2024/06/18	Japneet Gill
Cyanide (Free)	SPEC	9471298	N/A	2024/06/20	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9469845	2024/06/19	2024/06/19	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9471296	2024/06/19	2024/06/20	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9461755	N/A	2024/06/19	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9458245	N/A	2024/06/17	Chandra Nandlal
pH	AT	9458591	2024/06/15	2024/06/15	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/14	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9458270	N/A	2024/06/18	Massarat Jan
Total Dissolved Solids	BAL	9457975	2024/06/15	2024/06/17	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/14	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9463258	2024/06/18	2024/06/19	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9459764	2024/06/17	2024/06/18	Razieh Tabesh
Turbidity	AT	9458124	N/A	2024/06/15	Gurparteek KAUR

Bureau Veritas ID: ZLS543 Dup
Sample ID: MW28-BR-23
Matrix: Water

Collected: 2024/06/11
Shipped:
Received: 2024/06/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9458592	N/A	2024/06/15	Nachiketa Gohil
Conductivity	AT	9458593	N/A	2024/06/15	Nachiketa Gohil
Fluoride	ISE	9458590	2024/06/15	2024/06/15	Nachiketa Gohil
Dissolved Metals by ICPMS (low level)	ICP1/MS	9465917	N/A	2024/06/21	Indira HarryPaul
pH	AT	9458591	2024/06/15	2024/06/15	Nachiketa Gohil

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	3.3°C
Package 2	2.3°C
Package 3	0.7°C

Sample ZLS543 [MW28-BR-23] : Acidity sample contained headspace.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9459144	1,4-Difluorobenzene	2024/06/17	111	70 - 130	111	70 - 130	113	%				
9459144	4-Bromofluorobenzene	2024/06/17	81	70 - 130	81	70 - 130	81	%				
9459144	D10-o-Xylene	2024/06/17	116	70 - 130	111	70 - 130	121	%				
9459144	D4-1,2-Dichloroethane	2024/06/17	99	70 - 130	100	70 - 130	106	%				
9457975	Total Dissolved Solids	2024/06/17			100	80 - 120	<10	mg/L	0.48	20		
9458124	Turbidity	2024/06/15			97	80 - 120	<0.1	NTU				
9458245	Nitrate (N)	2024/06/17	93	80 - 120	99	80 - 120	<0.10	mg/L	0.48	20		
9458245	Nitrite (N)	2024/06/17	96	80 - 120	98	80 - 120	<0.010	mg/L	NC	20		
9458265	Dissolved Chloride (Cl-)	2024/06/18	NC	80 - 120	99	80 - 120	<1.0	mg/L	0.75	20		
9458270	Dissolved Sulphate (SO4)	2024/06/18	103	75 - 125	95	80 - 120	<1.0	mg/L	0.66	20		
9458590	Fluoride (F-)	2024/06/15	100	80 - 120	104	80 - 120	<0.10	mg/L	9.5	20		
9458591	pH	2024/06/15			102	98 - 103			0.24	N/A		
9458592	Alkalinity (Total as CaCO3)	2024/06/15			96	85 - 115	<1.0	mg/L	2.0	20		
9458593	Conductivity	2024/06/15			102	85 - 115	<0.001	mS/cm	0.30	10		
9459144	Benzene	2024/06/17	109	50 - 140	106	50 - 140	<0.20	ug/L	NC	30		
9459144	Ethylbenzene	2024/06/17	117	50 - 140	113	50 - 140	<0.20	ug/L	NC	30		
9459144	o-Xylene	2024/06/17	106	50 - 140	103	50 - 140	<0.20	ug/L	NC	30		
9459144	p+m-Xylene	2024/06/17	108	50 - 140	104	50 - 140	<0.40	ug/L	NC	30		
9459144	Toluene	2024/06/17	98	50 - 140	94	50 - 140	<0.20	ug/L	NC	30		
9459144	Total Xylenes	2024/06/17					<0.40	ug/L	NC	30		
9459764	Total Suspended Solids	2024/06/18			96	80 - 120	<1	mg/L	0	20		
9460274	Mercury (Hg)	2024/06/17	93	75 - 125	92	80 - 120	<0.01	ug/L	NC	20		
9460493	Dissolved Sulphur (S)	2024/06/19	NC	80 - 120	98	80 - 120	<0.5	mg/L				
9460544	Dissolved Mercury (Hg)	2024/06/18	95	75 - 125	95	80 - 120	<0.01	ug/L	NC	20		
9461514	Total Sulphur (S)	2024/06/18	103	80 - 120	101	80 - 120	<0.5	mg/L	3.2	20		
9461755	Total Ammonia-N	2024/06/19	98	75 - 125	102	80 - 120	<0.050	mg/L	NC	20		
9463258	Total Kjeldahl Nitrogen (TKN)	2024/06/19	98	80 - 120	94	80 - 120	<0.10	mg/L	NC (1)	20	91	80 - 120
9464247	Acidity	2024/06/19	99	80 - 120	105	80 - 120	<5.0	mg/L	3.2	25		
9465917	Dissolved Aluminum (Al)	2024/06/21	91	80 - 120	98	80 - 120	<0.0005	mg/L	6.8	20		
9465917	Dissolved Antimony (Sb)	2024/06/21	97	80 - 120	100	80 - 120	<0.0001	mg/L	4.8	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9465917	Dissolved Arsenic (As)	2024/06/21	94	80 - 120	97	80 - 120	<0.0001	mg/L	2.0	20		
9465917	Dissolved Barium (Ba)	2024/06/21	NC	80 - 120	96	80 - 120	<0.0002	mg/L	0.46	20		
9465917	Dissolved Beryllium (Be)	2024/06/21	91	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9465917	Dissolved Bismuth (Bi)	2024/06/21	74 (2)	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9465917	Dissolved Boron (B)	2024/06/21	87	80 - 120	95	80 - 120	<0.001	mg/L	2.0	20		
9465917	Dissolved Cadmium (Cd)	2024/06/21	95	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9465917	Dissolved Calcium (Ca)	2024/06/21	NC	80 - 120	99	80 - 120	<0.02	mg/L	0.97	20		
9465917	Dissolved Cesium (Cs)	2024/06/21	86	80 - 120	96	80 - 120	<0.00002	mg/L	NC	N/A		
9465917	Dissolved Chromium (Cr)	2024/06/21	86	80 - 120	93	80 - 120	<0.0005	mg/L	NC	20		
9465917	Dissolved Cobalt (Co)	2024/06/21	87	80 - 120	97	80 - 120	<0.00005	mg/L	0.99	20		
9465917	Dissolved Copper (Cu)	2024/06/21	85	80 - 120	91	80 - 120	<0.0001	mg/L	4.8	20		
9465917	Dissolved Iron (Fe)	2024/06/21	91	80 - 120	98	80 - 120	<0.005	mg/L	0.37	20		
9465917	Dissolved Lead (Pb)	2024/06/21	87	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9465917	Dissolved Lithium (Li)	2024/06/21	93	80 - 120	95	80 - 120	<0.0005	mg/L	1.6	20		
9465917	Dissolved Magnesium (Mg)	2024/06/21	NC	80 - 120	97	80 - 120	<0.005	mg/L	1.8	20		
9465917	Dissolved Manganese (Mn)	2024/06/21	NC	80 - 120	96	80 - 120	<0.0002	mg/L	1.7	20		
9465917	Dissolved Molybdenum (Mo)	2024/06/21	90	80 - 120	91	80 - 120	<0.00005	mg/L	0	20		
9465917	Dissolved Nickel (Ni)	2024/06/21	85	80 - 120	96	80 - 120	<0.0001	mg/L	2.1	20		
9465917	Dissolved Phosphorus (P)	2024/06/21	97	80 - 120	96	80 - 120	<0.005	mg/L	NC	20		
9465917	Dissolved Potassium (K)	2024/06/21	96	80 - 120	98	80 - 120	<0.02	mg/L	1.3	20		
9465917	Dissolved Rubidium (Rb)	2024/06/21	88	80 - 120	97	80 - 120	<0.00002	mg/L	NC	N/A		
9465917	Dissolved Selenium (Se)	2024/06/21	95	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9465917	Dissolved Silicon (Si)	2024/06/21	NC	80 - 120	99	80 - 120	<0.005	mg/L	2.3	20		
9465917	Dissolved Silver (Ag)	2024/06/21	87	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9465917	Dissolved Sodium (Na)	2024/06/21	NC	80 - 120	96	80 - 120	<0.01	mg/L	0.44	20		
9465917	Dissolved Strontium (Sr)	2024/06/21	NC	80 - 120	97	80 - 120	<0.0001	mg/L	0.22	20		
9465917	Dissolved Tellurium (Te)	2024/06/21	94	80 - 120	93	80 - 120	<0.0001	mg/L	NC	20		
9465917	Dissolved Thallium (Tl)	2024/06/21	91	80 - 120	102	80 - 120	<0.000005	mg/L	NC	20		
9465917	Dissolved Thorium (Th)	2024/06/21	93	80 - 120	99	80 - 120	<0.0002	mg/L	NC	20		
9465917	Dissolved Tin (Sn)	2024/06/21	98	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9465917	Dissolved Titanium (Ti)	2024/06/21	88	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9465917	Dissolved Tungsten (W)	2024/06/21	97	80 - 120	100	80 - 120	<0.0001	mg/L	0.62	20		
9465917	Dissolved Uranium (U)	2024/06/21	88	80 - 120	96	80 - 120	<0.00001	mg/L	0.58	20		
9465917	Dissolved Vanadium (V)	2024/06/21	88	80 - 120	92	80 - 120	<0.00005	mg/L	NC	20		
9465917	Dissolved Zinc (Zn)	2024/06/21	NC	80 - 120	97	80 - 120	<0.0005	mg/L	2.0	20		
9465917	Dissolved Zirconium (Zr)	2024/06/21	99	80 - 120	98	80 - 120	<0.0001	mg/L	2.0	20		
9465949	. Aluminum (Al)	2024/06/20	NC	80 - 120	99	80 - 120	<0.0005	mg/L	0.73	20		
9465949	. Antimony (Sb)	2024/06/20	94	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9465949	. Arsenic (As)	2024/06/20	NC	80 - 120	98	80 - 120	<0.0001	mg/L	1.1	20		
9465949	. Barium (Ba)	2024/06/20	86	80 - 120	98	80 - 120	<0.0002	mg/L	1.5	20		
9465949	. Beryllium (Be)	2024/06/20	84	80 - 120	101	80 - 120	<0.00005	mg/L	8.1	20		
9465949	. Bismuth (Bi)	2024/06/20	84	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9465949	. Boron (B)	2024/06/20	83	80 - 120	99	80 - 120	<0.001	mg/L	2.6	20		
9465949	. Cadmium (Cd)	2024/06/20	89	80 - 120	97	80 - 120	<0.000005	mg/L	4.7	20		
9465949	. Calcium (Ca)	2024/06/20	NC	80 - 120	101	80 - 120	<0.02	mg/L	1.9	20		
9465949	. Cesium (Cs)	2024/06/20	80	80 - 120	93	80 - 120	<0.00002	mg/L	1.2	20		
9465949	. Chromium (Cr)	2024/06/20	NC	80 - 120	96	80 - 120	<0.0005	mg/L	0.77	20		
9465949	. Cobalt (Co)	2024/06/20	NC	80 - 120	98	80 - 120	<0.00005	mg/L	0.54	20		
9465949	. Copper (Cu)	2024/06/20	NC	80 - 120	98	80 - 120	<0.0001	mg/L	1.9	20		
9465949	. Iron (Fe)	2024/06/20	NC	80 - 120	97	80 - 120	<0.005	mg/L	0.089	20		
9465949	. Lead (Pb)	2024/06/20	84	80 - 120	98	80 - 120	<0.00005	mg/L	1.0	20		
9465949	. Lithium (Li)	2024/06/20	91	80 - 120	105	80 - 120	<0.0005	mg/L	1.3	20		
9465949	. Magnesium (Mg)	2024/06/20	NC	80 - 120	101	80 - 120	<0.005	mg/L	1.6	20		
9465949	. Manganese (Mn)	2024/06/20	NC	80 - 120	97	80 - 120	<0.0002	mg/L	0.56	20		
9465949	. Molybdenum (Mo)	2024/06/20	88	80 - 120	96	80 - 120	<0.00005	mg/L	5.4	20		
9465949	. Nickel (Ni)	2024/06/20	83	80 - 120	97	80 - 120	<0.0001	mg/L	3.4	20		
9465949	. Phosphorus (P)	2024/06/20	NC	80 - 120	98	80 - 120	<0.005	mg/L	2.9	20		
9465949	. Potassium (K)	2024/06/20	91	80 - 120	101	80 - 120	<0.02	mg/L	0.31	20		
9465949	. Rubidium (Rb)	2024/06/20	85	80 - 120	96	80 - 120	<0.00002	mg/L	0.93	20		
9465949	. Selenium (Se)	2024/06/20	87	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9465949	. Silicon (Si)	2024/06/20	NC	80 - 120	101	80 - 120	<0.005	mg/L	2.7	20		
9465949	. Silver (Ag)	2024/06/20	88	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9465949	. Sodium (Na)	2024/06/20	88	80 - 120	101	80 - 120	<0.01	mg/L	2.6	20		
9465949	. Strontium (Sr)	2024/06/20	NC	80 - 120	97	80 - 120	<0.0001	mg/L	1.0	20		
9465949	. Tellurium (Te)	2024/06/20	89	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9465949	. Thallium (Tl)	2024/06/20	91	80 - 120	102	80 - 120	<0.000005	mg/L	4.6	20		
9465949	. Thorium (Th)	2024/06/20	87	80 - 120	96	80 - 120	<0.0002	mg/L	NC	20		
9465949	. Tin (Sn)	2024/06/20	92	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9465949	. Titanium (Ti)	2024/06/20	NC	80 - 120	98	80 - 120	<0.0005	mg/L	0.90	20		
9465949	. Tungsten (W)	2024/06/20	90	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9465949	. Uranium (U)	2024/06/20	87	80 - 120	96	80 - 120	<0.00001	mg/L	2.2	20		
9465949	. Vanadium (V)	2024/06/20	85	80 - 120	95	80 - 120	<0.00005	mg/L	0.72	20		
9465949	. Zinc (Zn)	2024/06/20	NC	80 - 120	99	80 - 120	<0.0005	mg/L	1.8	20		
9465949	. Zirconium (Zr)	2024/06/20	89	80 - 120	95	80 - 120	<0.0001	mg/L	1.8	20		
9469845	Strong Acid Dissoc. Cyanide (CN)	2024/06/19	101	80 - 120	102	80 - 120	<0.00050	mg/L				
9471296	Total Phosphorus (P)	2024/06/20	105	80 - 120	97	80 - 120	<0.0010	mg/L			90	80 - 120
9471297	Free Cyanide (CN)	2024/06/20	83	80 - 120	91	80 - 120	<2.0	ug/L				

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9471298	Free Cyanide (CN)	2024/06/20	80	80 - 120	83	80 - 120	<2.0	ug/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Due to a high concentration of NOx, the sample required dilution. The detection limit was adjusted accordingly.

(2) Matrix Spike exceeds acceptance limits, probable matrix interference

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I1781
Report Date: 2024/06/24

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Colleen Acker, B.Sc, Scientific Service Specialist

Cristina Carriere, Senior Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 913105

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/07/03
Report #: R8218859
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4I2224
Received: 2024/06/13, 15:52

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	6	N/A	2024/06/20	ATL SOP-00205	SM 24 2310B m
Alkalinity	5	N/A	2024/06/19	CAM SOP-00448	SM 24 2320 B m
Alkalinity	1	N/A	2024/06/25	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	6	N/A	2024/06/19	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	1	N/A	2024/06/19	CAM SOP-00463	SM 24 4500-Cl E m
Chloride by Automated Colourimetry	4	N/A	2024/06/20	CAM SOP-00463	SM 24 4500-Cl E m
Chloride by Automated Colourimetry	1	N/A	2024/06/26	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	6	N/A	2024/06/19	CAM SOP-00414	SM 24 2510 m
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2024/06/18	CAM SOP-00315	CCME PHC-CWS m
Fluoride	6	2024/06/18	2024/06/19	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	6	N/A	2024/06/21	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	3	2024/06/20	2024/06/21	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	6	2024/06/19	2024/06/20	CAM SOP-00453	EPA 7470 m
Mercury (low level)	3	2024/06/19	2024/06/20	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	6	2024/06/17	2024/06/18	CAM SOP-00408	EPA 6010D m
Low Level Lab Filtered Metals by ICPMS	1	N/A	2024/07/02	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	5	N/A	2024/06/21	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	6	N/A	2024/06/21	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	6	2024/06/19	2024/06/19	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	6	N/A	2024/06/20	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	6	2024/06/24	2024/06/24	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	5	2024/06/22	2024/06/24	AB SOP-00024	SM 24 4500-P A,B,F m
Total Phosphorus Low Level Total (2)	1	2024/06/24	2024/06/24	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	6	N/A	2024/06/19	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	6	N/A	2024/06/18	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	6	2024/06/18	2024/06/19	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	4	N/A	2024/06/15		Field pH Meter
Sulphate by Automated Turbidimetry	1	N/A	2024/06/19	CAM SOP-00464	SM 24 4500-SO42- E m
Sulphate by Automated Turbidimetry	4	N/A	2024/06/20	CAM SOP-00464	SM 24 4500-SO42- E m
Sulphate by Automated Turbidimetry	1	N/A	2024/06/26	CAM SOP-00464	SM 24 4500-SO42- E m

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 913105

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/07/03
Report #: R8218859
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4I2224
Received: 2024/06/13, 15:52

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Total Dissolved Solids	6	2024/06/18	2024/06/19	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	4	N/A	2024/06/15		Field Thermometer
Total Kjeldahl Nitrogen in Water	6	2024/06/18	2024/06/19	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	3	2024/06/18	2024/06/19	CAM SOP-00428	SM 24 2540D m
Low Level Total Suspended Solids	3	2024/06/18	2024/06/19	CAM SOP-00428	SM 24 2540D m
Turbidity	6	N/A	2024/06/18	CAM SOP-00417	SM 24 2130 B

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I2224
Report Date: 2024/07/03

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZLV918			ZLV919			ZLV919		
Sampling Date		2024/06/12 12:03			2024/06/12 13:35			2024/06/12 13:35		
COC Number		913105			913105			913105		
	UNITS	MW01-OB-18	RDL	QC Batch	MWS14-03-OB2	RDL	QC Batch	MWS14-03-OB2 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	390	1.0	9459344	260	1.0	9459344			
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.5	1.0	9459344	2.9	1.0	9459344			
Hardness (CaCO3)	mg/L	1500	1.0	9459733	200	1.0	9459733			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9459344	<1.0	1.0	9459344			
Field Measurements										
Field Temperature	Celsius	18.0	N/A	ONSITE	12.8	N/A	ONSITE			
Field Measured pH	pH	7.54		ONSITE	7.66		ONSITE			
Inorganics										
Acidity	mg/L	50	5.0	9467635	6.6	5.0	9467635			
Total Ammonia-N	mg/L	0.61	0.050	9463233	0.40	0.050	9463233			
Conductivity	mS/cm	2.38	N/A	9460953	0.487	N/A	9460953			
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9471298	<2.0 (1)	2.0	9471297			
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00229	0.00050	9475805	<0.00050	0.00050	9475805			
Total Dissolved Solids	mg/L	2340	10	9458016	290	10	9458016			
Fluoride (F-)	mg/L	<0.10	0.10	9460955	0.42	0.10	9460955			
Total Kjeldahl Nitrogen (TKN)	mg/L	1.3	0.20	9463258	0.70	0.10	9463258			
pH	pH	7.60		9460954	8.08		9460954			
Total Phosphorus (P)	mg/L	9.5	0.10	9475804	1.6 (2)	0.010	9475806			
Total Suspended Solids	mg/L	5900	33	9462394	9100	100	9462394			
Dissolved Sulphate (SO4)	mg/L	1200	5.0	9464972	4.1	1.0	9475227	3.4	1.0	9475227
Turbidity	NTU	84	0.1	9462307	100	0.1	9462307			
Alkalinity (Total as CaCO3)	mg/L	390	1.0	9460951	260	1.0	9475359	270	1.0	9475359
Dissolved Chloride (Cl-)	mg/L	2.0	1.0	9464955	<1.0	1.0	9475206	<1.0	1.0	9475206
Nitrite (N)	mg/L	<0.010	0.010	9462828	<0.010	0.010	9462828			
Nitrate (N)	mg/L	<0.10	0.10	9462828	0.18	0.10	9462828			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9462828	0.18	0.10	9462828			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I2224
Report Date: 2024/07/03

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZLV920			ZLV921			ZLV922		
Sampling Date		2024/06/12 11:16			2024/06/12 13:00			2024/06/12 13:40		
COC Number		913105			913105			913105		
	UNITS	DB2-B	RDL	QC Batch	MW30-OB-23	RDL	QC Batch	MW29-BR-23	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	160	1.0	9459344	330	1.0	9459344	310	1.0	9459344
Carb. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9459344	2.9	1.0	9459344	1.5	1.0	9459344
Hardness (CaCO3)	mg/L	270	1.0	9459733	270	1.0	9459733	680	1.0	9459733
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9459344	<1.0	1.0	9459344	<1.0	1.0	9459344
Field Measurements										
Field Temperature	Celsius	14.4	N/A	ONSITE	9.8	N/A	ONSITE			
Field Measured pH	pH	7.00		ONSITE	7.12		ONSITE			
Inorganics										
Acidity	mg/L	12	5.0	9467635	13	5.0	9467635	30	5.0	9467635
Total Ammonia-N	mg/L	0.25	0.050	9463233	0.064	0.050	9463233	<0.050	0.050	9463233
Conductivity	mS/cm	0.588	N/A	9460953	0.622	N/A	9460953	1.44	N/A	9460953
Free Cyanide (CN)	ug/L	2.2 (1)	2.0	9471298	<2.0 (1)	2.0	9471298	2.5 (1)	2.0	9471298
Strong Acid Dissoc. Cyanide (CN)	mg/L	0.00215 (2)	0.00050	9475805	0.00051	0.00050	9475805	<0.00050 (2)	0.00050	9475805
Total Dissolved Solids	mg/L	460	10	9462288	340	10	9458016	1270	10	9458016
Fluoride (F-)	mg/L	<0.10	0.10	9460955	0.32	0.10	9460955	<0.10	0.10	9460955
Total Kjeldahl Nitrogen (TKN)	mg/L	0.91	0.10	9463258	0.50	0.10	9463258	0.31	0.10	9463258
pH	pH	7.66		9460954	7.98		9460954	7.70		9460954
Total Phosphorus (P)	mg/L	0.16	0.0010	9475804	0.82 (3)	0.010	9475804	0.0068	0.0010	9475804
Total Suspended Solids	mg/L	7	1	9462403	2000	20	9462394	24	1	9462403
Dissolved Sulphate (SO4)	mg/L	25	1.0	9464972	16	1.0	9462789	11	1.0	9463887
Turbidity	NTU	1.1	0.1	9462307	130	0.1	9462307	16	0.1	9462307
Alkalinity (Total as CaCO3)	mg/L	160	1.0	9460951	330	1.0	9460951	310	1.0	9460951
Dissolved Chloride (Cl-)	mg/L	71	1.0	9464955	2.1	1.0	9462783	260	2.0	9463882
Nitrite (N)	mg/L	<0.010	0.010	9462828	<0.010	0.010	9462828	<0.010	0.010	9462828
Nitrate (N)	mg/L	<0.10	0.10	9462828	<0.10	0.10	9462828	<0.10	0.10	9462828
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9462828	<0.10	0.10	9462828	<0.10	0.10	9462828

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) SAD Cyanide < Free Cyanide: Both values fall within the method uncertainty for duplicates and are likely equivalent.
(3) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I2224
Report Date: 2024/07/03

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZLV923		
Sampling Date		2024/06/12 08:00		
COC Number		913105		
	UNITS	Duplicate 4	RDL	QC Batch
Calculated Parameters				
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	310	1.0	9459344
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.7	1.0	9459344
Hardness (CaCO3)	mg/L	670	1.0	9459733
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9459344
Inorganics				
Acidity	mg/L	31	5.0	9467635
Total Ammonia-N	mg/L	<0.050	0.050	9463233
Conductivity	mS/cm	1.44	N/A	9460953
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9471298
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9475805
Total Dissolved Solids	mg/L	1140	10	9462288
Fluoride (F-)	mg/L	<0.10	0.10	9460955
Total Kjeldahl Nitrogen (TKN)	mg/L	0.30	0.10	9463258
pH	pH	7.75		9460954
Total Phosphorus (P)	mg/L	0.012	0.0010	9475804
Total Suspended Solids	mg/L	26	1	9462403
Dissolved Sulphate (SO4)	mg/L	11	1.0	9463887
Turbidity	NTU	10	0.1	9462307
Alkalinity (Total as CaCO3)	mg/L	310	1.0	9460951
Dissolved Chloride (Cl-)	mg/L	260	2.0	9463882
Nitrite (N)	mg/L	<0.010	0.010	9462828
Nitrate (N)	mg/L	<0.10	0.10	9462828
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9462828

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLV918			ZLV919			ZLV919		
Sampling Date		2024/06/12 12:03			2024/06/12 13:35			2024/06/12 13:35		
COC Number		913105			913105			913105		
	UNITS	MW01-OB-18	RDL	QC Batch	MWS14-03-OB2	RDL	QC Batch	MWS14-03-OB2 Lab-Dup	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	<0.005	0.005	9470716						
Dissolved Aluminum (Al)	ug/L				1.0	0.5	9487820	1.4	0.5	9487820
. Aluminum (Al)	mg/L	9.68	0.005	9470726	4.00	0.0025	9470726			
Dissolved Antimony (Sb)	mg/L	0.005	0.001	9470716						
Dissolved Antimony (Sb)	ug/L				0.4	0.1	9487820	0.5	0.1	9487820
. Antimony (Sb)	mg/L	0.003	0.001	9470726	<0.0005	0.0005	9470726			
Dissolved Arsenic (As)	mg/L	0.943	0.005	9470716						
Dissolved Arsenic (As)	ug/L				2.5	0.1	9487820	2.5	0.1	9487820
. Arsenic (As)	mg/L	1.53	0.005	9470726	0.0069	0.0005	9470726			
Dissolved Barium (Ba)	mg/L	0.020	0.002	9470716						
Dissolved Barium (Ba)	ug/L				29.1	0.2	9487820	28.3	0.2	9487820
. Barium (Ba)	mg/L	0.083	0.002	9470726	0.157	0.001	9470726			
Dissolved Beryllium (Be)	mg/L	<0.0005	0.0005	9470716						
Dissolved Beryllium (Be)	ug/L				<0.05	0.05	9487820	<0.05	0.05	9487820
. Beryllium (Be)	mg/L	0.0020	0.0005	9470726	0.00337	0.00025	9470726			
Dissolved Bismuth (Bi)	mg/L	<0.001	0.001	9470716						
Dissolved Bismuth (Bi)	ug/L				<0.1	0.1	9487820	<0.1	0.1	9487820
. Bismuth (Bi)	mg/L	<0.001	0.001	9470726	<0.0005	0.0005	9470726			
Dissolved Boron (B)	mg/L	0.02	0.01	9470716						
Dissolved Boron (B)	ug/L				23	1	9487820	23	1	9487820
. Boron (B)	mg/L	0.04	0.01	9470726	0.039	0.005	9470726			
Dissolved Cadmium (Cd)	mg/L	<0.0001	0.0001	9470716						
Dissolved Cadmium (Cd)	ug/L				<0.01	0.01	9487820	<0.01	0.01	9487820
. Cadmium (Cd)	mg/L	0.00162	0.00005	9470726	0.000126	0.000025	9470726			
Dissolved Calcium (Ca)	mg/L	354	0.2	9470716						
Dissolved Calcium (Ca)	ug/L				49400	100	9487820	51400	100	9487820
. Calcium (Ca)	mg/L	740	1	9470726	287	0.2	9470726			
Dissolved Cesium (Cs)	mg/L	<0.0002	0.0002	9470716						
Dissolved Cesium (Cs)	ug/L				0.02	0.02	9487820	0.02	0.02	9487820

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLV918			ZLV919			ZLV919		
Sampling Date		2024/06/12 12:03			2024/06/12 13:35			2024/06/12 13:35		
COC Number		913105			913105			913105		
	UNITS	MW01-OB-18	RDL	QC Batch	MWS14-03-OB2	RDL	QC Batch	MWS14-03-OB2 Lab-Dup	RDL	QC Batch
. Cesium (Cs)	mg/L	0.0014	0.0002	9470726	0.0003	0.0001	9470726			
Dissolved Chromium (Cr)	mg/L	<0.005	0.005	9470716						
Dissolved Chromium (Cr)	ug/L				<0.5	0.5	9487820	<0.5	0.5	9487820
. Chromium (Cr)	mg/L	0.091	0.005	9470726	0.0065	0.0025	9470726			
Dissolved Cobalt (Co)	mg/L	<0.0005	0.0005	9470716						
Dissolved Cobalt (Co)	ug/L				0.32	0.05	9487820	0.31	0.05	9487820
. Cobalt (Co)	mg/L	0.0146	0.0005	9470726	0.00507	0.00025	9470726			
Dissolved Copper (Cu)	mg/L	<0.001	0.001	9470716						
Dissolved Copper (Cu)	ug/L				0.4	0.1	9487820	0.6	0.1	9487820
. Copper (Cu)	mg/L	0.354	0.001	9470726	0.0080	0.0005	9470726			
Dissolved Iron (Fe)	mg/L	10.6	0.05	9470716						
Dissolved Iron (Fe)	ug/L				<5	5	9487820	<5	5	9487820
. Iron (Fe)	mg/L	243	0.25	9470726	13.7	0.025	9470726			
Dissolved Lead (Pb)	mg/L	<0.0005	0.0005	9470716						
Dissolved Lead (Pb)	ug/L				<0.05	0.05	9487820	<0.05	0.05	9487820
. Lead (Pb)	mg/L	0.0351	0.0005	9470726	0.0195	0.00025	9470726			
Dissolved Lithium (Li)	mg/L	0.011	0.005	9470716						
Dissolved Lithium (Li)	ug/L				9.7	0.5	9487820	9.5	0.5	9487820
. Lithium (Li)	mg/L	0.023	0.005	9470726	0.0187	0.0025	9470726			
Dissolved Magnesium (Mg)	mg/L	158	0.05	9470716						
Dissolved Magnesium (Mg)	ug/L				18900	5	9487820	18100	5	9487820
. Magnesium (Mg)	mg/L	286	0.05	9470726	71.5	0.025	9470726			
Dissolved Manganese (Mn)	mg/L	0.081	0.002	9470716						
Dissolved Manganese (Mn)	ug/L				58.7	0.2	9487820	56.7	0.2	9487820
. Manganese (Mn)	mg/L	5.84	0.002	9470726	0.727	0.001	9470726			
Mercury (Hg)	mg/L	<0.00010	0.00010	9468722	<0.0015	0.0015	9468722			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9466842	<0.01	0.01	9466842			
Dissolved Molybdenum (Mo)	mg/L	0.0033	0.0005	9470716						
Dissolved Molybdenum (Mo)	ug/L				2.96	0.05	9487820	2.93	0.05	9487820
. Molybdenum (Mo)	mg/L	0.0008	0.0005	9470726	0.00051	0.00025	9470726			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I2224
Report Date: 2024/07/03

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLV918			ZLV919			ZLV919		
Sampling Date		2024/06/12 12:03			2024/06/12 13:35			2024/06/12 13:35		
COC Number		913105			913105			913105		
	UNITS	MW01-OB-18	RDL	QC Batch	MWS14-03-OB2	RDL	QC Batch	MWS14-03-OB2 Lab-Dup	RDL	QC Batch
Dissolved Nickel (Ni)	mg/L	<0.001	0.001	9470716						
Dissolved Nickel (Ni)	ug/L				1.1	0.1	9487820	1.1	0.1	9487820
. Nickel (Ni)	mg/L	0.046	0.001	9470726	0.0102	0.0005	9470726			
Dissolved Phosphorus (P)	mg/L	<0.05	0.05	9470716						
Dissolved Phosphorus (P)	ug/L				10	5	9487820	10	5	9487820
. Phosphorus (P)	mg/L	1.55	0.05	9470726	1.68	0.025	9470726			
Dissolved Potassium (K)	mg/L	8.7	0.2	9470716						
Dissolved Potassium (K)	ug/L				1620	20	9487820	1580	20	9487820
. Potassium (K)	mg/L	12.5	0.2	9470726	3.8	0.1	9470726			
Dissolved Rubidium (Rb)	mg/L	0.0101	0.0002	9470716						
Dissolved Rubidium (Rb)	ug/L				2.25	0.02	9487820	2.22	0.02	9487820
. Rubidium (Rb)	mg/L	0.0267	0.0002	9470726	0.0126	0.0001	9470726			
Dissolved Selenium (Se)	mg/L	<0.002	0.002	9470716						
Dissolved Selenium (Se)	ug/L				<0.2	0.2	9487820	<0.2	0.2	9487820
. Selenium (Se)	mg/L	<0.0005	0.0005	9470726	<0.00025	0.00025	9470726			
Dissolved Silicon (Si)	mg/L	10.2	0.05	9470716						
Dissolved Silicon (Si)	ug/L				8370	25	9487820	8590	25	9487820
. Silicon (Si)	mg/L	19.4	0.05	9470726	18.8	0.025	9470726			
Dissolved Silver (Ag)	mg/L	<0.0001	0.0001	9470716						
Dissolved Silver (Ag)	ug/L				<0.01	0.01	9487820	<0.01	0.01	9487820
. Silver (Ag)	mg/L	<0.0001	0.0001	9470726	<0.00005	0.00005	9470726			
Dissolved Sodium (Na)	mg/L	5.2	0.1	9470716						
Dissolved Sodium (Na)	ug/L				37100	10	9487820	36400	10	9487820
. Sodium (Na)	mg/L	6.9	0.1	9470726	49.4	0.05	9470726			
Dissolved Strontium (Sr)	mg/L	0.977	0.001	9470716						
Dissolved Strontium (Sr)	ug/L				217	0.1	9487820	211	0.1	9487820
. Strontium (Sr)	mg/L	2.10	0.001	9470726	0.413	0.0005	9470726			
Dissolved Sulphur (S)	mg/L	400	0.5	9460501	0.6	0.5	9460501			
Total Sulphur (S)	mg/L	450	5	9464179	2.8	0.5	9464179			
Dissolved Tellurium (Te)	mg/L	<0.001	0.001	9470716						

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLV918			ZLV919			ZLV919		
Sampling Date		2024/06/12 12:03			2024/06/12 13:35			2024/06/12 13:35		
COC Number		913105			913105			913105		
	UNITS	MW01-OB-18	RDL	QC Batch	MWS14-03-OB2	RDL	QC Batch	MWS14-03-OB2 Lab-Dup	RDL	QC Batch
Dissolved Tellurium (Te)	ug/L				<0.1	0.1	9487820	<0.1	0.1	9487820
. Tellurium (Te)	mg/L	<0.001	0.001	9470726	<0.0005	0.0005	9470726			
Dissolved Thallium (Tl)	mg/L	<0.00005	0.00005	9470716						
Dissolved Thallium (Tl)	ug/L				0.019	0.005	9487820	0.018	0.005	9487820
. Thallium (Tl)	mg/L	0.00014	0.00005	9470726	0.000049	0.000025	9470726			
Dissolved Thorium (Th)	mg/L	<0.002	0.002	9470716						
Dissolved Thorium (Th)	ug/L				<0.2	0.2	9487820	<0.2	0.2	9487820
. Thorium (Th)	mg/L	<0.002	0.002	9470726	0.002	0.001	9470726			
Dissolved Tin (Sn)	mg/L	<0.001	0.001	9470716						
Dissolved Tin (Sn)	ug/L				<0.1	0.1	9487820	<0.1	0.1	9487820
. Tin (Sn)	mg/L	<0.001	0.001	9470726	<0.0005	0.0005	9470726			
Dissolved Titanium (Ti)	mg/L	<0.005	0.005	9470716						
Dissolved Titanium (Ti)	ug/L				0.5	0.5	9487820	0.6	0.5	9487820
. Titanium (Ti)	mg/L	0.015	0.005	9470726	0.0793	0.0025	9470726			
Dissolved Tungsten (W)	mg/L	0.008	0.001	9470716						
Dissolved Tungsten (W)	ug/L				<0.1	0.1	9487820	<0.1	0.1	9487820
. Tungsten (W)	mg/L	0.001	0.001	9470726	<0.0005	0.0005	9470726			
Dissolved Uranium (U)	mg/L	0.0028	0.0001	9470716						
Dissolved Uranium (U)	ug/L				1.60	0.01	9487820	1.59	0.01	9487820
. Uranium (U)	mg/L	0.0029	0.0001	9470726	0.00747	0.00005	9470726			
Dissolved Vanadium (V)	mg/L	<0.0005	0.0005	9470716						
Dissolved Vanadium (V)	ug/L				1.69	0.05	9487820	1.68	0.05	9487820
. Vanadium (V)	mg/L	0.0406	0.0005	9470726	0.0134	0.00025	9470726			
Dissolved Zinc (Zn)	mg/L	<0.005	0.005	9470716						
Dissolved Zinc (Zn)	ug/L				<0.5	0.5	9487820	<0.5	0.5	9487820
. Zinc (Zn)	mg/L	0.141	0.005	9470726	0.0326	0.0025	9470726			
Dissolved Zirconium (Zr)	mg/L	<0.001	0.001	9470716						
Dissolved Zirconium (Zr)	ug/L				<0.1	0.1	9487820	0.1	0.1	9487820
. Zirconium (Zr)	mg/L	0.002	0.001	9470726	0.0010	0.0005	9470726			

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLV920			ZLV921			ZLV921		
Sampling Date		2024/06/12 11:16			2024/06/12 13:00			2024/06/12 13:00		
COC Number		913105			913105			913105		
	UNITS	DB2-B	RDL	QC Batch	MW30-OB-23	RDL	QC Batch	MW30-OB-23 Lab-Dup	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0147	0.0005	9470716	0.0095	0.0005	9470716			
. Aluminum (Al)	mg/L	0.0331	0.0005	9470726	1.75	0.0005	9470726			
Dissolved Antimony (Sb)	mg/L	0.0007	0.0001	9470716	0.0002	0.0001	9470716			
. Antimony (Sb)	mg/L	0.0007	0.0001	9470726	0.0002	0.0001	9470726			
Dissolved Arsenic (As)	mg/L	0.162	0.0005	9470716	0.0037	0.0001	9470716			
. Arsenic (As)	mg/L	0.168	0.0005	9470726	0.0056	0.0001	9470726			
Dissolved Barium (Ba)	mg/L	0.0277	0.0002	9470716	0.0272	0.0002	9470716			
. Barium (Ba)	mg/L	0.0290	0.0002	9470726	0.0465	0.0002	9470726			
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9470716	<0.00005	0.00005	9470716			
. Beryllium (Be)	mg/L	<0.00005	0.00005	9470726	0.00009	0.00005	9470726			
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9470716	<0.0001	0.0001	9470716			
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9470726	<0.0001	0.0001	9470726			
Dissolved Boron (B)	mg/L	0.007	0.001	9470716	0.018	0.001	9470716			
. Boron (B)	mg/L	0.006	0.001	9470726	0.022	0.001	9470726			
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9470716	<0.00001	0.00001	9470716			
. Cadmium (Cd)	mg/L	0.000005	0.000005	9470726	0.000057	0.000005	9470726			
Dissolved Calcium (Ca)	mg/L	82.4	0.1	9470716	81.5	0.1	9470716			
. Calcium (Ca)	mg/L	83.0	0.1	9470726	155	0.1	9470726			
Dissolved Cesium (Cs)	mg/L	0.00018	0.00002	9470716	<0.00002	0.00002	9470716			
. Cesium (Cs)	mg/L	0.00019	0.00002	9470726	0.00018	0.00002	9470726			
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9470716	<0.0005	0.0005	9470716			
. Chromium (Cr)	mg/L	<0.0005	0.0005	9470726	0.0051	0.0005	9470726			
Dissolved Cobalt (Co)	mg/L	0.00227	0.00005	9470716	0.00075	0.00005	9470716			
. Cobalt (Co)	mg/L	0.00235	0.00005	9470726	0.00296	0.00005	9470726			
Dissolved Copper (Cu)	mg/L	0.0004	0.0001	9470716	0.0010	0.0001	9470716			
. Copper (Cu)	mg/L	0.0004	0.0001	9470726	0.0075	0.0001	9470726			
Dissolved Iron (Fe)	mg/L	0.539	0.005	9470716	0.132	0.005	9470716			
. Iron (Fe)	mg/L	0.705	0.005	9470726	2.67	0.005	9470726			
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9470716	0.00007	0.00005	9470716			

RDL = Reportable Detection Limit
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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLV920			ZLV921			ZLV921		
Sampling Date		2024/06/12 11:16			2024/06/12 13:00			2024/06/12 13:00		
COC Number		913105			913105			913105		
	UNITS	DB2-B	RDL	QC Batch	MW30-OB-23	RDL	QC Batch	MW30-OB-23 Lab-Dup	RDL	QC Batch
. Lead (Pb)	mg/L	0.00014	0.00005	9470726	0.00268	0.00005	9470726			
Dissolved Lithium (Li)	mg/L	0.0025	0.0005	9470716	0.0057	0.0005	9470716			
. Lithium (Li)	mg/L	0.0026	0.0005	9470726	0.0085	0.0005	9470726			
Dissolved Magnesium (Mg)	mg/L	16.3	0.005	9470716	16.8	0.005	9470716			
. Magnesium (Mg)	mg/L	16.7	0.005	9470726	36.2	0.005	9470726			
Dissolved Manganese (Mn)	mg/L	0.465	0.0002	9470716	0.486	0.0002	9470716			
. Manganese (Mn)	mg/L	0.475	0.0002	9470726	0.670	0.0002	9470726			
Mercury (Hg)	mg/L				<0.00010	0.00010	9468722			
Mercury (Hg)	ug/L	0.01	0.01	9466853						
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9466842	<0.01	0.01	9466842	<0.01	0.01	9466842
Dissolved Molybdenum (Mo)	mg/L	0.00089	0.00005	9470716	0.0145	0.00005	9470716			
. Molybdenum (Mo)	mg/L	0.00077	0.00005	9470726	0.00924	0.00005	9470726			
Dissolved Nickel (Ni)	mg/L	0.0056	0.0001	9470716	0.0011	0.0001	9470716			
. Nickel (Ni)	mg/L	0.0059	0.0001	9470726	0.0054	0.0001	9470726			
Dissolved Phosphorus (P)	mg/L	0.078	0.005	9470716	<0.005	0.005	9470716			
. Phosphorus (P)	mg/L	0.117	0.005	9470726	0.300	0.005	9470726			
Dissolved Potassium (K)	mg/L	5.03	0.02	9470716	1.56	0.02	9470716			
. Potassium (K)	mg/L	5.15	0.02	9470726	2.03	0.02	9470726			
Dissolved Rubidium (Rb)	mg/L	0.00697	0.00002	9470716	0.00105	0.00002	9470716			
. Rubidium (Rb)	mg/L	0.00693	0.00002	9470726	0.00415	0.00002	9470726			
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9470716	<0.0002	0.0002	9470716			
. Selenium (Se)	mg/L	0.00013	0.00005	9470726	<0.00005	0.00005	9470726			
Dissolved Silicon (Si)	mg/L	3.68	0.005	9470716	7.40	0.025	9470716			
. Silicon (Si)	mg/L	3.83	0.005	9470726	9.77	0.025	9470726			
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9470716	<0.00001	0.00001	9470716			
. Silver (Ag)	mg/L	<0.00001	0.00001	9470726	<0.00001	0.00001	9470726			
Dissolved Sodium (Na)	mg/L	4.62	0.01	9470716	28.4	0.01	9470716			
. Sodium (Na)	mg/L	4.66	0.01	9470726	31.2	0.01	9470726			
Dissolved Strontium (Sr)	mg/L	0.242	0.0001	9470716	0.123	0.0001	9470716			
. Strontium (Sr)	mg/L	0.239	0.0001	9470726	0.179	0.0001	9470726			

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I2224
Report Date: 2024/07/03

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLV920			ZLV921			ZLV921		
Sampling Date		2024/06/12 11:16			2024/06/12 13:00			2024/06/12 13:00		
COC Number		913105			913105			913105		
	UNITS	DB2-B	RDL	QC Batch	MW30-OB-23	RDL	QC Batch	MW30-OB-23 Lab-Dup	RDL	QC Batch
Dissolved Sulphur (S)	mg/L	7.8	0.5	9460501	5.4	0.5	9460501			
Total Sulphur (S)	mg/L	8.1	0.5	9464179	5.9	0.5	9464179			
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9470716	<0.0001	0.0001	9470716			
. Tellurium (Te)	mg/L	<0.0001	0.0001	9470726	<0.0001	0.0001	9470726			
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9470716	0.000014	0.000005	9470716			
. Thallium (Tl)	mg/L	<0.000005	0.000005	9470726	0.000073	0.000005	9470726			
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9470716	<0.0002	0.0002	9470716			
. Thorium (Th)	mg/L	<0.0002	0.0002	9470726	0.0005	0.0002	9470726			
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9470716	<0.0001	0.0001	9470716			
. Tin (Sn)	mg/L	<0.0001	0.0001	9470726	0.0001	0.0001	9470726			
Dissolved Titanium (Ti)	mg/L	0.0006	0.0005	9470716	0.0010	0.0005	9470716			
. Titanium (Ti)	mg/L	0.0022	0.0005	9470726	0.0878	0.0005	9470726			
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	9470716	0.0001	0.0001	9470716			
. Tungsten (W)	mg/L	<0.0001	0.0001	9470726	<0.0001	0.0001	9470726			
Dissolved Uranium (U)	mg/L	0.00033	0.00001	9470716	0.00413	0.00001	9470716			
. Uranium (U)	mg/L	0.00032	0.00001	9470726	0.00443	0.00001	9470726			
Dissolved Vanadium (V)	mg/L	0.00030	0.00005	9470716	0.00036	0.00005	9470716			
. Vanadium (V)	mg/L	0.00034	0.00005	9470726	0.00466	0.00005	9470726			
Dissolved Zinc (Zn)	mg/L	0.0059	0.0005	9470716	0.0059	0.0005	9470716			
. Zinc (Zn)	mg/L	0.0011	0.0005	9470726	0.0169	0.0005	9470726			
Dissolved Zirconium (Zr)	mg/L	0.0003	0.0001	9470716	0.0003	0.0001	9470716			
. Zirconium (Zr)	mg/L	0.0003	0.0001	9470726	0.0015	0.0001	9470726			

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Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLV922	ZLV923			ZLV923		
Sampling Date		2024/06/12 13:40	2024/06/12 08:00			2024/06/12 08:00		
COC Number		913105	913105			913105		
	UNITS	MW29-BR-23	Duplicate 4	RDL	QC Batch	Duplicate 4 Lab-Dup	RDL	QC Batch
Metals								
Dissolved Aluminum (Al)	mg/L	0.0023	0.0021	0.0005	9470716			
. Aluminum (Al)	mg/L	0.112	0.140	0.0005	9470726			
Dissolved Antimony (Sb)	mg/L	0.0009	0.0010	0.0001	9470716			
. Antimony (Sb)	mg/L	0.0010	0.0008	0.0001	9470726			
Dissolved Arsenic (As)	mg/L	0.0036	0.0034	0.0001	9470716			
. Arsenic (As)	mg/L	0.0043	0.0041	0.0001	9470726			
Dissolved Barium (Ba)	mg/L	0.186	0.199	0.0002	9470716			
. Barium (Ba)	mg/L	0.196	0.171	0.0002	9470726			
Dissolved Beryllium (Be)	mg/L	<0.00005	<0.00005	0.00005	9470716			
. Beryllium (Be)	mg/L	<0.00005	<0.00005	0.00005	9470726			
Dissolved Bismuth (Bi)	mg/L	<0.0001	<0.0001	0.0001	9470716			
. Bismuth (Bi)	mg/L	<0.0001	<0.0001	0.0001	9470726			
Dissolved Boron (B)	mg/L	0.006	0.005	0.001	9470716			
. Boron (B)	mg/L	0.005	0.005	0.001	9470726			
Dissolved Cadmium (Cd)	mg/L	0.00015	0.00014	0.00001	9470716			
. Cadmium (Cd)	mg/L	0.000195	0.000185	0.000005	9470726			
Dissolved Calcium (Ca)	mg/L	207	205	0.1	9470716			
. Calcium (Ca)	mg/L	206	211	0.1	9470726			
Dissolved Cesium (Cs)	mg/L	0.00006	0.00005	0.00002	9470716			
. Cesium (Cs)	mg/L	0.00011	0.00009	0.00002	9470726			
Dissolved Chromium (Cr)	mg/L	<0.0005	<0.0005	0.0005	9470716			
. Chromium (Cr)	mg/L	<0.0005	<0.0005	0.0005	9470726			
Dissolved Cobalt (Co)	mg/L	0.109	0.106	0.00005	9470716			
. Cobalt (Co)	mg/L	0.111	0.118	0.00005	9470726			
Dissolved Copper (Cu)	mg/L	0.0021	0.0010	0.0001	9470716			
. Copper (Cu)	mg/L	0.0021	0.0024	0.0001	9470726			
Dissolved Iron (Fe)	mg/L	0.007	<0.005	0.005	9470716			
. Iron (Fe)	mg/L	0.151	0.194	0.005	9470726			
Dissolved Lead (Pb)	mg/L	<0.00005	<0.00005	0.00005	9470716			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLV922	ZLV923			ZLV923		
Sampling Date		2024/06/12 13:40	2024/06/12 08:00			2024/06/12 08:00		
COC Number		913105	913105			913105		
	UNITS	MW29-BR-23	Duplicate 4	RDL	QC Batch	Duplicate 4 Lab-Dup	RDL	QC Batch
. Lead (Pb)	mg/L	0.00037	0.00041	0.00005	9470726			
Dissolved Lithium (Li)	mg/L	0.0024	0.0025	0.0005	9470716			
. Lithium (Li)	mg/L	0.0027	0.0025	0.0005	9470726			
Dissolved Magnesium (Mg)	mg/L	39.2	38.4	0.005	9470716			
. Magnesium (Mg)	mg/L	38.1	39.9	0.005	9470726			
Dissolved Manganese (Mn)	mg/L	2.52	2.57	0.001	9470716			
. Manganese (Mn)	mg/L	2.75	2.36	0.001	9470726			
Mercury (Hg)	ug/L	<0.01	<0.01	0.01	9466853	<0.01	0.01	9466853
Dissolved Mercury (Hg)	ug/L	<0.01	<0.01	0.01	9466842			
Dissolved Molybdenum (Mo)	mg/L	0.00277	0.00283	0.00005	9470716			
. Molybdenum (Mo)	mg/L	0.00259	0.00238	0.00005	9470726			
Dissolved Nickel (Ni)	mg/L	0.0604	0.0594	0.0001	9470716			
. Nickel (Ni)	mg/L	0.0546	0.0596	0.0001	9470726			
Dissolved Phosphorus (P)	mg/L	0.006	0.007	0.005	9470716			
. Phosphorus (P)	mg/L	0.012	0.019	0.005	9470726			
Dissolved Potassium (K)	mg/L	0.55	0.56	0.02	9470716			
. Potassium (K)	mg/L	0.59	0.57	0.02	9470726			
Dissolved Rubidium (Rb)	mg/L	0.00074	0.00078	0.00002	9470716			
. Rubidium (Rb)	mg/L	0.00112	0.00097	0.00002	9470726			
Dissolved Selenium (Se)	mg/L	<0.0002	<0.0002	0.0002	9470716			
. Selenium (Se)	mg/L	<0.00005	<0.00005	0.00005	9470726			
Dissolved Silicon (Si)	mg/L	4.94	4.98	0.025	9470716			
. Silicon (Si)	mg/L	5.21	5.23	0.025	9470726			
Dissolved Silver (Ag)	mg/L	<0.00001	<0.00001	0.00001	9470716			
. Silver (Ag)	mg/L	0.00002	0.00002	0.00001	9470726			
Dissolved Sodium (Na)	mg/L	7.04	7.07	0.01	9470716			
. Sodium (Na)	mg/L	7.33	6.87	0.01	9470726			
Dissolved Strontium (Sr)	mg/L	0.256	0.260	0.0001	9470716			
. Strontium (Sr)	mg/L	0.269	0.248	0.0001	9470726			
Dissolved Sulphur (S)	mg/L	3.5	3.6	0.5	9460501			

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZLV922	ZLV923			ZLV923		
Sampling Date		2024/06/12 13:40	2024/06/12 08:00			2024/06/12 08:00		
COC Number		913105	913105			913105		
	UNITS	MW29-BR-23	Duplicate 4	RDL	QC Batch	Duplicate 4 Lab-Dup	RDL	QC Batch
Total Sulphur (S)	mg/L	3.8	3.6	0.5	9464179			
Dissolved Tellurium (Te)	mg/L	<0.0001	<0.0001	0.0001	9470716			
. Tellurium (Te)	mg/L	<0.0001	<0.0001	0.0001	9470726			
Dissolved Thallium (Tl)	mg/L	0.000008	0.000007	0.000005	9470716			
. Thallium (Tl)	mg/L	0.000009	0.000009	0.000005	9470726			
Dissolved Thorium (Th)	mg/L	<0.0002	<0.0002	0.0002	9470716			
. Thorium (Th)	mg/L	<0.0002	<0.0002	0.0002	9470726			
Dissolved Tin (Sn)	mg/L	0.0003	0.0003	0.0001	9470716			
. Tin (Sn)	mg/L	0.0003	0.0003	0.0001	9470726			
Dissolved Titanium (Ti)	mg/L	<0.0005	<0.0005	0.0005	9470716			
. Titanium (Ti)	mg/L	0.0060	0.0083	0.0005	9470726			
Dissolved Tungsten (W)	mg/L	0.0013	0.0013	0.0001	9470716			
. Tungsten (W)	mg/L	0.0008	0.0013	0.0001	9470726			
Dissolved Uranium (U)	mg/L	0.00198	0.00206	0.00001	9470716			
. Uranium (U)	mg/L	0.00216	0.00196	0.00001	9470726			
Dissolved Vanadium (V)	mg/L	0.00145	0.00143	0.00005	9470716			
. Vanadium (V)	mg/L	0.00111	0.00175	0.00005	9470726			
Dissolved Zinc (Zn)	mg/L	0.0267	0.0233	0.0005	9470716			
. Zinc (Zn)	mg/L	0.0329	0.0280	0.0005	9470726			
Dissolved Zirconium (Zr)	mg/L	0.0004	0.0004	0.0001	9470716			
. Zirconium (Zr)	mg/L	0.0006	0.0007	0.0001	9470726			

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		ZLV920	ZLV922		
Sampling Date		2024/06/12 11:16	2024/06/12 13:40		
COC Number		913105	913105		
	UNITS	DB2-B	MW29-BR-23	RDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/L	<0.20	<0.20	0.20	9461498
Toluene	ug/L	11	<0.20	0.20	9461498
Ethylbenzene	ug/L	<0.20	<0.20	0.20	9461498
o-Xylene	ug/L	<0.20	<0.20	0.20	9461498
p+m-Xylene	ug/L	<0.40	<0.40	0.40	9461498
Total Xylenes	ug/L	<0.40	<0.40	0.40	9461498
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	104	104		9461498
4-Bromofluorobenzene	%	95	88		9461498
D10-o-Xylene	%	105	103		9461498
D4-1,2-Dichloroethane	%	110	109		9461498

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I2224
Report Date: 2024/07/03

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZLV918
Sample ID: MW01-OB-18
Matrix: Water

Collected: 2024/06/12
Shipped:
Received: 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9467635	N/A	2024/06/20	Brent Boudreau
Alkalinity	AT	9460951	N/A	2024/06/19	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9459344	N/A	2024/06/19	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9464955	N/A	2024/06/20	Massarat Jan
Conductivity	AT	9460953	N/A	2024/06/19	Surinder Rai
Fluoride	ISE	9460955	2024/06/18	2024/06/19	Surinder Rai
Hardness (calculated as CaCO3)		9459733	N/A	2024/06/21	Automated Statchk
Mercury in Water by CVAA	CV/AA	9468722	2024/06/20	2024/06/21	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9466842	2024/06/19	2024/06/20	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9460501	2024/06/17	2024/06/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9470716	N/A	2024/06/21	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9470726	N/A	2024/06/21	Indira HarryPaul
Total Metals Analysis by ICP	ICP	9464179	2024/06/19	2024/06/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9471298	N/A	2024/06/20	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9475805	2024/06/24	2024/06/24	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9475804	2024/06/22	2024/06/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9463233	N/A	2024/06/19	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9462828	N/A	2024/06/18	Jinal Chavda
pH	AT	9460954	2024/06/18	2024/06/19	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/06/15	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9464972	N/A	2024/06/20	Massarat Jan
Total Dissolved Solids	BAL	9458016	2024/06/18	2024/06/19	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/15	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9463258	2024/06/18	2024/06/19	Kruti Jitesh Patel
Total Suspended Solids	BAL	9462394	2024/06/18	2024/06/19	Razieh Tabesh
Turbidity	AT	9462307	N/A	2024/06/18	Gurparteek KAUR

Bureau Veritas ID: ZLV919
Sample ID: MWS14-03-OB2
Matrix: Water

Collected: 2024/06/12
Shipped:
Received: 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9467635	N/A	2024/06/20	Brent Boudreau
Alkalinity	AT	9475359	N/A	2024/06/25	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9459344	N/A	2024/06/19	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9475206	N/A	2024/06/26	Massarat Jan
Conductivity	AT	9460953	N/A	2024/06/19	Surinder Rai
Fluoride	ISE	9460955	2024/06/18	2024/06/19	Surinder Rai
Hardness (calculated as CaCO3)		9459733	N/A	2024/06/21	Automated Statchk
Mercury in Water by CVAA	CV/AA	9468722	2024/06/20	2024/06/21	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9466842	2024/06/19	2024/06/20	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9460501	2024/06/17	2024/06/18	Suban Kanapathippllai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I2224
Report Date: 2024/07/03

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZLV919
Sample ID: MWS14-03-OB2
Matrix: Water

Collected: 2024/06/12
Shipped:
Received: 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Low Level Lab Filtered Metals by ICPMS	ICP1/MS	9487820	N/A	2024/07/02	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9470726	N/A	2024/06/21	Indira HarryPaul
Total Metals Analysis by ICP	ICP	9464179	2024/06/19	2024/06/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9471297	N/A	2024/06/20	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9475805	2024/06/24	2024/06/24	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9475806	2024/06/24	2024/06/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9463233	N/A	2024/06/19	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9462828	N/A	2024/06/18	Jinal Chavda
pH	AT	9460954	2024/06/18	2024/06/19	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/06/15	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9475227	N/A	2024/06/26	Massarat Jan
Total Dissolved Solids	BAL	9458016	2024/06/18	2024/06/19	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/15	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9463258	2024/06/18	2024/06/19	Kruti Jitesh Patel
Total Suspended Solids	BAL	9462394	2024/06/18	2024/06/19	Razieh Tabesh
Turbidity	AT	9462307	N/A	2024/06/18	Gurparteek KAUR

Bureau Veritas ID: ZLV919 Dup
Sample ID: MWS14-03-OB2
Matrix: Water

Collected: 2024/06/12
Shipped:
Received: 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9475359	N/A	2024/06/25	Surinder Rai
Chloride by Automated Colourimetry	SKAL	9475206	N/A	2024/06/26	Massarat Jan
Low Level Lab Filtered Metals by ICPMS	ICP1/MS	9487820	N/A	2024/07/02	Azita Fazaeli
Sulphate by Automated Turbidimetry	SKAL	9475227	N/A	2024/06/26	Massarat Jan

Bureau Veritas ID: ZLV920
Sample ID: DB2-B
Matrix: Water

Collected: 2024/06/12
Shipped:
Received: 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9467635	N/A	2024/06/20	Brent Boudreau
Alkalinity	AT	9460951	N/A	2024/06/19	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9459344	N/A	2024/06/19	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9464955	N/A	2024/06/20	Massarat Jan
Conductivity	AT	9460953	N/A	2024/06/19	Surinder Rai
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9461498	N/A	2024/06/18	Ravinder Gaidhu
Fluoride	ISE	9460955	2024/06/18	2024/06/19	Surinder Rai
Hardness (calculated as CaCO3)		9459733	N/A	2024/06/21	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9466842	2024/06/19	2024/06/20	Gagandeep Rai
Mercury (low level)	CV/AA	9466853	2024/06/19	2024/06/20	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9460501	2024/06/17	2024/06/18	Suban Kanapathippllai

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Bureau Veritas Job #: C4I2224
Report Date: 2024/07/03

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZLV920
Sample ID: DB2-B
Matrix: Water

Collected: 2024/06/12
Shipped:
Received: 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS (low level)	ICP1/MS	9470716	N/A	2024/06/21	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9470726	N/A	2024/06/21	Indira HarryPaul
Total Metals Analysis by ICP	ICP	9464179	2024/06/19	2024/06/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9471298	N/A	2024/06/20	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9475805	2024/06/24	2024/06/24	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9475804	2024/06/22	2024/06/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9463233	N/A	2024/06/19	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9462828	N/A	2024/06/18	Jinal Chavda
pH	AT	9460954	2024/06/18	2024/06/19	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/06/15	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9464972	N/A	2024/06/20	Massarat Jan
Total Dissolved Solids	BAL	9462288	2024/06/18	2024/06/19	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/15	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9463258	2024/06/18	2024/06/19	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9462403	2024/06/18	2024/06/19	Razieh Tabesh
Turbidity	AT	9462307	N/A	2024/06/18	Gurparteek KAUR

Bureau Veritas ID: ZLV921
Sample ID: MW30-OB-23
Matrix: Water

Collected: 2024/06/12
Shipped:
Received: 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9467635	N/A	2024/06/20	Brent Boudreau
Alkalinity	AT	9460951	N/A	2024/06/19	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9459344	N/A	2024/06/19	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9462783	N/A	2024/06/19	Massarat Jan
Conductivity	AT	9460953	N/A	2024/06/19	Surinder Rai
Fluoride	ISE	9460955	2024/06/18	2024/06/19	Surinder Rai
Hardness (calculated as CaCO3)		9459733	N/A	2024/06/21	Automated Statchk
Mercury in Water by CVAA	CV/AA	9468722	2024/06/20	2024/06/21	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9466842	2024/06/19	2024/06/20	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9460501	2024/06/17	2024/06/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9470716	N/A	2024/06/21	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9470726	N/A	2024/06/21	Indira HarryPaul
Total Metals Analysis by ICP	ICP	9464179	2024/06/19	2024/06/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9471298	N/A	2024/06/20	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9475805	2024/06/24	2024/06/24	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9475804	2024/06/22	2024/06/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9463233	N/A	2024/06/19	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9462828	N/A	2024/06/18	Jinal Chavda
pH	AT	9460954	2024/06/18	2024/06/19	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/06/15	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I2224
Report Date: 2024/07/03

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

TEST SUMMARY

Bureau Veritas ID: ZLV921
Sample ID: MW30-OB-23
Matrix: Water

Collected: 2024/06/12
Shipped:
Received: 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sulphate by Automated Turbidimetry	SKAL	9462789	N/A	2024/06/19	Massarat Jan
Total Dissolved Solids	BAL	9458016	2024/06/18	2024/06/19	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/15	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9463258	2024/06/18	2024/06/19	Kruti Jitesh Patel
Total Suspended Solids	BAL	9462394	2024/06/18	2024/06/19	Razieh Tabesh
Turbidity	AT	9462307	N/A	2024/06/18	Gurparteek KAUR

Bureau Veritas ID: ZLV921 Dup
Sample ID: MW30-OB-23
Matrix: Water

Collected: 2024/06/12
Shipped:
Received: 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	9466842	2024/06/19	2024/06/20	Gagandeep Rai

Bureau Veritas ID: ZLV922
Sample ID: MW29-BR-23
Matrix: Water

Collected: 2024/06/12
Shipped:
Received: 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9467635	N/A	2024/06/20	Brent Boudreau
Alkalinity	AT	9460951	N/A	2024/06/19	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9459344	N/A	2024/06/19	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9463882	N/A	2024/06/20	Massarat Jan
Conductivity	AT	9460953	N/A	2024/06/19	Surinder Rai
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9461498	N/A	2024/06/18	Ravinder Gaidhu
Fluoride	ISE	9460955	2024/06/18	2024/06/19	Surinder Rai
Hardness (calculated as CaCO3)		9459733	N/A	2024/06/21	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9466842	2024/06/19	2024/06/20	Gagandeep Rai
Mercury (low level)	CV/AA	9466853	2024/06/19	2024/06/20	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9460501	2024/06/17	2024/06/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9470716	N/A	2024/06/21	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9470726	N/A	2024/06/21	Indira HarryPaul
Total Metals Analysis by ICP	ICP	9464179	2024/06/19	2024/06/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9471298	N/A	2024/06/20	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9475805	2024/06/24	2024/06/24	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9475804	2024/06/22	2024/06/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9463233	N/A	2024/06/19	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9462828	N/A	2024/06/18	Jinal Chavda
pH	AT	9460954	2024/06/18	2024/06/19	Surinder Rai
Sulphate by Automated Turbidimetry	SKAL	9463887	N/A	2024/06/20	Massarat Jan
Total Dissolved Solids	BAL	9458016	2024/06/18	2024/06/19	Razieh Tabesh
Total Kjeldahl Nitrogen in Water	SKAL	9463258	2024/06/18	2024/06/19	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9462403	2024/06/18	2024/06/19	Razieh Tabesh

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZLV922 **Collected:** 2024/06/12
Sample ID: MW29-BR-23 **Shipped:**
Matrix: Water **Received:** 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Turbidity	AT	9462307	N/A	2024/06/18	Gurparteek KAUR

Bureau Veritas ID: ZLV923 **Collected:** 2024/06/12
Sample ID: Duplicate 4 **Shipped:**
Matrix: Water **Received:** 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9467635	N/A	2024/06/20	Brent Boudreau
Alkalinity	AT	9460951	N/A	2024/06/19	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9459344	N/A	2024/06/19	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9463882	N/A	2024/06/20	Massarat Jan
Conductivity	AT	9460953	N/A	2024/06/19	Surinder Rai
Fluoride	ISE	9460955	2024/06/18	2024/06/19	Surinder Rai
Hardness (calculated as CaCO3)		9459733	N/A	2024/06/21	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9466842	2024/06/19	2024/06/20	Gagandeep Rai
Mercury (low level)	CV/AA	9466853	2024/06/19	2024/06/20	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9460501	2024/06/17	2024/06/18	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9470716	N/A	2024/06/21	Indira HarryPaul
Metals in Water by ICPMS (low level)	ICP1/MS	9470726	N/A	2024/06/21	Indira HarryPaul
Total Metals Analysis by ICP	ICP	9464179	2024/06/19	2024/06/19	Suban Kanapathippllai
Cyanide (Free)	SPEC	9471298	N/A	2024/06/20	Santiago Rios Origgi
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9475805	2024/06/24	2024/06/24	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9475804	2024/06/22	2024/06/24	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9463233	N/A	2024/06/19	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9462828	N/A	2024/06/18	Jinal Chavda
pH	AT	9460954	2024/06/18	2024/06/19	Surinder Rai
Sulphate by Automated Turbidimetry	SKAL	9463887	N/A	2024/06/20	Massarat Jan
Total Dissolved Solids	BAL	9462288	2024/06/18	2024/06/19	Razieh Tabesh
Total Kjeldahl Nitrogen in Water	SKAL	9463258	2024/06/18	2024/06/19	Kruti Jitesh Patel
Low Level Total Suspended Solids	BAL	9462403	2024/06/18	2024/06/19	Razieh Tabesh
Turbidity	AT	9462307	N/A	2024/06/18	Gurparteek KAUR

Bureau Veritas ID: ZLV923 Dup **Collected:** 2024/06/12
Sample ID: Duplicate 4 **Shipped:**
Matrix: Water **Received:** 2024/06/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (low level)	CV/AA	9466853	2024/06/19	2024/06/20	Gagandeep Rai

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	6.7°C
Package 2	6.0°C

Sample ZLV918 [MW01-OB-18] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZLV919 [MWS14-03-OB2] : Acidity sample contained headspace.
Mercury Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample ZLV920 [DB2-B] : Acidity sample contained headspace.

Sample ZLV921 [MW30-OB-23] : Acidity: Sample contained headspace.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9461498	1,4-Difluorobenzene	2024/06/18	99	70 - 130	96	70 - 130	103	%				
9461498	4-Bromofluorobenzene	2024/06/18	98	70 - 130	99	70 - 130	90	%				
9461498	D10-o-Xylene	2024/06/18	121	70 - 130	101	70 - 130	98	%				
9461498	D4-1,2-Dichloroethane	2024/06/18	99	70 - 130	97	70 - 130	108	%				
9458016	Total Dissolved Solids	2024/06/19			97	80 - 120	<10	mg/L	0.78	20		
9460501	Dissolved Sulphur (S)	2024/06/18	NC	80 - 120	93	80 - 120	<0.5	mg/L				
9460951	Alkalinity (Total as CaCO3)	2024/06/19			96	85 - 115	<1.0	mg/L	0.71	20		
9460953	Conductivity	2024/06/19			101	85 - 115	0.000600	mS/cm	0.48	10		
9460954	pH	2024/06/19			101	98 - 103			0.38	N/A		
9460955	Fluoride (F-)	2024/06/19	99	80 - 120	98	80 - 120	<0.10	mg/L	9.0	20		
9461498	Benzene	2024/06/18	106	50 - 140	94	50 - 140	<0.20	ug/L	NC	30		
9461498	Ethylbenzene	2024/06/18	109	50 - 140	99	50 - 140	<0.20	ug/L	NC	30		
9461498	o-Xylene	2024/06/18	108	50 - 140	95	50 - 140	<0.20	ug/L	NC	30		
9461498	p+m-Xylene	2024/06/18	105	50 - 140	91	50 - 140	<0.40	ug/L	NC	30		
9461498	Toluene	2024/06/18	100	50 - 140	88	50 - 140	<0.20	ug/L	NC	30		
9461498	Total Xylenes	2024/06/18					<0.40	ug/L	NC	30		
9462288	Total Dissolved Solids	2024/06/19			98	80 - 120	<10	mg/L	0	20		
9462307	Turbidity	2024/06/18			95	80 - 120	<0.1	NTU	16	20		
9462394	Total Suspended Solids	2024/06/19			98	80 - 120	<10	mg/L	NC	20		
9462403	Total Suspended Solids	2024/06/19			99	80 - 120	<1	mg/L	0	20		
9462783	Dissolved Chloride (Cl-)	2024/06/19	100	80 - 120	99	80 - 120	<1.0	mg/L	0.25	20		
9462789	Dissolved Sulphate (SO4)	2024/06/19	NC	75 - 125	92	80 - 120	<1.0	mg/L	4.2	20		
9462828	Nitrate (N)	2024/06/18	98	80 - 120	104	80 - 120	<0.10	mg/L	NC	20		
9462828	Nitrite (N)	2024/06/18	98	80 - 120	99	80 - 120	<0.010	mg/L	NC	20		
9463233	Total Ammonia-N	2024/06/19	94	75 - 125	96	80 - 120	<0.050	mg/L	19	20		
9463258	Total Kjeldahl Nitrogen (TKN)	2024/06/19	98	80 - 120	94	80 - 120	<0.10	mg/L	NC (1)	20	91	80 - 120
9463882	Dissolved Chloride (Cl-)	2024/06/20	99	80 - 120	97	80 - 120	<1.0	mg/L	0.73	20		
9463887	Dissolved Sulphate (SO4)	2024/06/20	NC	75 - 125	95	80 - 120	<1.0	mg/L	2.3	20		
9464179	Total Sulphur (S)	2024/06/20	96	80 - 120	96	80 - 120	<0.5	mg/L				
9464955	Dissolved Chloride (Cl-)	2024/06/20	99	80 - 120	97	80 - 120	<1.0	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9464972	Dissolved Sulphate (SO4)	2024/06/20	102	75 - 125	94	80 - 120	<1.0	mg/L	NC	20		
9466842	Dissolved Mercury (Hg)	2024/06/20	92	75 - 125	93	80 - 120	<0.01	ug/L	NC	20		
9466853	Mercury (Hg)	2024/06/20	93	75 - 125	93	80 - 120	<0.01	ug/L	NC	20		
9467635	Acidity	2024/06/20	99	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9468722	Mercury (Hg)	2024/06/21	98	75 - 125	99	80 - 120	<0.00010	mg/L	NC	20		
9470716	Dissolved Aluminum (Al)	2024/06/21	98	80 - 120	95	80 - 120	<0.0005	mg/L	2.8	20		
9470716	Dissolved Antimony (Sb)	2024/06/21	103	80 - 120	102	80 - 120	<0.0001	mg/L	0	20		
9470716	Dissolved Arsenic (As)	2024/06/21	100	80 - 120	97	80 - 120	<0.0001	mg/L	1.5	20		
9470716	Dissolved Barium (Ba)	2024/06/21	99	80 - 120	97	80 - 120	<0.0002	mg/L	1.2	20		
9470716	Dissolved Beryllium (Be)	2024/06/21	102	80 - 120	94	80 - 120	<0.00005	mg/L	NC	20		
9470716	Dissolved Bismuth (Bi)	2024/06/21	89	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9470716	Dissolved Boron (B)	2024/06/21	98	80 - 120	92	80 - 120	<0.001	mg/L	0.037	20		
9470716	Dissolved Cadmium (Cd)	2024/06/21	100	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9470716	Dissolved Calcium (Ca)	2024/06/21	NC	80 - 120	97	80 - 120	<0.02	mg/L	3.9	20		
9470716	Dissolved Cesium (Cs)	2024/06/21	93	80 - 120	94	80 - 120	<0.00002	mg/L	NC	N/A		
9470716	Dissolved Chromium (Cr)	2024/06/21	93	80 - 120	91	80 - 120	<0.0005	mg/L	NC	20		
9470716	Dissolved Cobalt (Co)	2024/06/21	96	80 - 120	94	80 - 120	<0.00005	mg/L	1.8	20		
9470716	Dissolved Copper (Cu)	2024/06/21	94	80 - 120	90	80 - 120	<0.0001	mg/L	2.1	20		
9470716	Dissolved Iron (Fe)	2024/06/21	97	80 - 120	96	80 - 120	<0.005	mg/L	0.92	20		
9470716	Dissolved Lead (Pb)	2024/06/21	94	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
9470716	Dissolved Lithium (Li)	2024/06/21	99	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9470716	Dissolved Magnesium (Mg)	2024/06/21	NC	80 - 120	95	80 - 120	<0.005	mg/L	2.8	20		
9470716	Dissolved Manganese (Mn)	2024/06/21	NC	80 - 120	95	80 - 120	<0.0002	mg/L	0.86	20		
9470716	Dissolved Molybdenum (Mo)	2024/06/21	107	80 - 120	91	80 - 120	<0.00005	mg/L	0.13	20		
9470716	Dissolved Nickel (Ni)	2024/06/21	96	80 - 120	95	80 - 120	<0.0001	mg/L	2.6	20		
9470716	Dissolved Phosphorus (P)	2024/06/21	100	80 - 120	95	80 - 120	<0.005	mg/L	0.68	20		
9470716	Dissolved Potassium (K)	2024/06/21	NC	80 - 120	95	80 - 120	<0.02	mg/L	1.3	20		
9470716	Dissolved Rubidium (Rb)	2024/06/21	93	80 - 120	96	80 - 120	<0.00002	mg/L	NC	N/A		
9470716	Dissolved Selenium (Se)	2024/06/21	99	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9470716	Dissolved Silicon (Si)	2024/06/21	100	80 - 120	95	80 - 120	<0.005	mg/L	2.1	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9470716	Dissolved Silver (Ag)	2024/06/21	75 (2)	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9470716	Dissolved Sodium (Na)	2024/06/21	NC	80 - 120	95	80 - 120	<0.01	mg/L	3.0	20		
9470716	Dissolved Strontium (Sr)	2024/06/21	NC	80 - 120	96	80 - 120	<0.0001	mg/L	4.1	20		
9470716	Dissolved Tellurium (Te)	2024/06/21	82	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9470716	Dissolved Thallium (Tl)	2024/06/21	97	80 - 120	96	80 - 120	<0.000005	mg/L	NC	20		
9470716	Dissolved Thorium (Th)	2024/06/21	99	80 - 120	97	80 - 120	<0.0002	mg/L				
9470716	Dissolved Tin (Sn)	2024/06/21	102	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9470716	Dissolved Titanium (Ti)	2024/06/21	101	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9470716	Dissolved Tungsten (W)	2024/06/21	106	80 - 120	99	80 - 120	<0.0001	mg/L	1.1	20		
9470716	Dissolved Uranium (U)	2024/06/21	94	80 - 120	90	80 - 120	<0.00001	mg/L	0	20		
9470716	Dissolved Vanadium (V)	2024/06/21	94	80 - 120	90	80 - 120	<0.00005	mg/L	0.42	20		
9470716	Dissolved Zinc (Zn)	2024/06/21	97	80 - 120	96	80 - 120	<0.0005	mg/L	7.7	20		
9470716	Dissolved Zirconium (Zr)	2024/06/21	106	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9470726	. Aluminum (Al)	2024/06/21	100	80 - 120	100	80 - 120	<0.0005	mg/L	2.2	20		
9470726	. Antimony (Sb)	2024/06/21	103	80 - 120	100	80 - 120	<0.0001	mg/L	3.4	20		
9470726	. Arsenic (As)	2024/06/21	101	80 - 120	97	80 - 120	<0.0001	mg/L	1.4	20		
9470726	. Barium (Ba)	2024/06/21	96	80 - 120	97	80 - 120	<0.0002	mg/L	1.1	20		
9470726	. Beryllium (Be)	2024/06/21	104	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9470726	. Bismuth (Bi)	2024/06/21	88	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9470726	. Boron (B)	2024/06/21	99	80 - 120	95	80 - 120	<0.001	mg/L	2.4	20		
9470726	. Cadmium (Cd)	2024/06/21	99	80 - 120	97	80 - 120	<0.000005	mg/L	NC	20		
9470726	. Calcium (Ca)	2024/06/21	NC	80 - 120	99	80 - 120	<0.02	mg/L	0.62	20		
9470726	. Cesium (Cs)	2024/06/21	92	80 - 120	98	80 - 120	<0.00002	mg/L	4.1	20		
9470726	. Chromium (Cr)	2024/06/21	93	80 - 120	94	80 - 120	<0.0005	mg/L	NC	20		
9470726	. Cobalt (Co)	2024/06/21	97	80 - 120	98	80 - 120	<0.00005	mg/L	2.4	20		
9470726	. Copper (Cu)	2024/06/21	102	80 - 120	94	80 - 120	<0.0001	mg/L	2.8	20		
9470726	. Iron (Fe)	2024/06/21	98	80 - 120	100	80 - 120	<0.005	mg/L	0.15	20		
9470726	. Lead (Pb)	2024/06/21	94	80 - 120	94	80 - 120	<0.00005	mg/L	NC	20		
9470726	. Lithium (Li)	2024/06/21	102	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9470726	. Magnesium (Mg)	2024/06/21	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.67	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9470726	. Manganese (Mn)	2024/06/21	NC	80 - 120	98	80 - 120	<0.0002	mg/L	1.0	20		
9470726	. Molybdenum (Mo)	2024/06/21	105	80 - 120	92	80 - 120	<0.00005	mg/L	2.1	20		
9470726	. Nickel (Ni)	2024/06/21	94	80 - 120	98	80 - 120	<0.0001	mg/L	0.67	20		
9470726	. Phosphorus (P)	2024/06/21	108	80 - 120	96	80 - 120	<0.005	mg/L	1.2	20		
9470726	. Potassium (K)	2024/06/21	NC	80 - 120	100	80 - 120	<0.02	mg/L	0.75	20		
9470726	. Rubidium (Rb)	2024/06/21	92	80 - 120	98	80 - 120	<0.00002	mg/L	4.3	20		
9470726	. Selenium (Se)	2024/06/21	102	80 - 120	99	80 - 120	<0.00005	mg/L	2.0	20		
9470726	. Silicon (Si)	2024/06/21	101	80 - 120	99	80 - 120	<0.005	mg/L	2.6	20		
9470726	. Silver (Ag)	2024/06/21	77 (2)	80 - 120	95	80 - 120	<0.00001	mg/L	NC	20		
9470726	. Sodium (Na)	2024/06/21	NC	80 - 120	98	80 - 120	<0.01	mg/L	0.13	20		
9470726	. Strontium (Sr)	2024/06/21	NC	80 - 120	96	80 - 120	<0.0001	mg/L	0.31	20		
9470726	. Tellurium (Te)	2024/06/21	83	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9470726	. Thallium (Tl)	2024/06/21	97	80 - 120	99	80 - 120	<0.000005	mg/L	NC	20		
9470726	. Thorium (Th)	2024/06/21	97	80 - 120	98	80 - 120	<0.0002	mg/L				
9470726	. Tin (Sn)	2024/06/21	103	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9470726	. Titanium (Ti)	2024/06/21	99	80 - 120	99	80 - 120	<0.0005	mg/L	NC	20		
9470726	. Tungsten (W)	2024/06/21	103	80 - 120	105	80 - 120	<0.0001	mg/L	1.7	20		
9470726	. Uranium (U)	2024/06/21	96	80 - 120	94	80 - 120	<0.00001	mg/L	0	20		
9470726	. Vanadium (V)	2024/06/21	95	80 - 120	94	80 - 120	<0.00005	mg/L	0.74	20		
9470726	. Zinc (Zn)	2024/06/21	96	80 - 120	98	80 - 120	<0.0005	mg/L	4.0	20		
9470726	. Zirconium (Zr)	2024/06/21	106	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9471297	Free Cyanide (CN)	2024/06/20	83	80 - 120	91	80 - 120	<2.0	ug/L				
9471298	Free Cyanide (CN)	2024/06/20	80	80 - 120	83	80 - 120	<2.0	ug/L	NC	20		
9475206	Dissolved Chloride (Cl-)	2024/06/26	102	80 - 120	97	80 - 120	<1.0	mg/L	NC	20		
9475227	Dissolved Sulphate (SO4)	2024/06/26	95	75 - 125	96	80 - 120	<1.0	mg/L	NC	20		
9475359	Alkalinity (Total as CaCO3)	2024/06/25			93	85 - 115	<1.0	mg/L	8.8	20		
9475804	Total Phosphorus (P)	2024/06/24	97	80 - 120	93	80 - 120	<0.0010	mg/L			89	80 - 120
9475805	Strong Acid Dissoc. Cyanide (CN)	2024/06/24	108	80 - 120	109	80 - 120	<0.00050	mg/L				
9475806	Total Phosphorus (P)	2024/06/24	NC	80 - 120	94	80 - 120	<0.0010	mg/L			90	80 - 120
9487820	Dissolved Aluminum (Al)	2024/07/02	104	80 - 120	99	80 - 120	<0.5	ug/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9487820	Dissolved Antimony (Sb)	2024/07/02	108	80 - 120	102	80 - 120	<0.1	ug/L	2.5	20		
9487820	Dissolved Arsenic (As)	2024/07/02	103	80 - 120	100	80 - 120	<0.1	ug/L	2.1	20		
9487820	Dissolved Barium (Ba)	2024/07/02	94	80 - 120	97	80 - 120	<0.2	ug/L	2.7	20		
9487820	Dissolved Beryllium (Be)	2024/07/02	106	80 - 120	100	80 - 120	<0.05	ug/L	NC	20		
9487820	Dissolved Bismuth (Bi)	2024/07/02	96	80 - 120	100	80 - 120	<0.1	ug/L	NC	20		
9487820	Dissolved Boron (B)	2024/07/02	102	80 - 120	100	80 - 120	<1	ug/L	0.062	20		
9487820	Dissolved Cadmium (Cd)	2024/07/02	103	80 - 120	99	80 - 120	<0.01	ug/L	NC	20		
9487820	Dissolved Calcium (Ca)	2024/07/02	NC	80 - 120	101	80 - 120	<20	ug/L	4.1	20		
9487820	Dissolved Cesium (Cs)	2024/07/02	98	80 - 120	99	80 - 120	<0.02	ug/L	4.9	20		
9487820	Dissolved Chromium (Cr)	2024/07/02	100	80 - 120	99	80 - 120	<0.5	ug/L	NC	20		
9487820	Dissolved Cobalt (Co)	2024/07/02	98	80 - 120	99	80 - 120	<0.05	ug/L	3.5	20		
9487820	Dissolved Copper (Cu)	2024/07/02	100	80 - 120	98	80 - 120	<0.1	ug/L	NC	20		
9487820	Dissolved Iron (Fe)	2024/07/02	102	80 - 120	104	80 - 120	<5	ug/L	NC	20		
9487820	Dissolved Lead (Pb)	2024/07/02	96	80 - 120	100	80 - 120	<0.05	ug/L	NC	20		
9487820	Dissolved Lithium (Li)	2024/07/02	104	80 - 120	105	80 - 120	<0.5	ug/L	1.9	20		
9487820	Dissolved Magnesium (Mg)	2024/07/02	NC	80 - 120	100	80 - 120	<5	ug/L	4.0	20		
9487820	Dissolved Manganese (Mn)	2024/07/02	NC	80 - 120	99	80 - 120	<0.2	ug/L	3.4	20		
9487820	Dissolved Molybdenum (Mo)	2024/07/02	108	80 - 120	99	80 - 120	<0.05	ug/L	1.1	20		
9487820	Dissolved Nickel (Ni)	2024/07/02	96	80 - 120	99	80 - 120	<0.1	ug/L	3.1	20		
9487820	Dissolved Phosphorus (P)	2024/07/02	109	80 - 120	101	80 - 120	<5	ug/L	0.85	20		
9487820	Dissolved Potassium (K)	2024/07/02	97	80 - 120	99	80 - 120	<20	ug/L	2.3	20		
9487820	Dissolved Rubidium (Rb)	2024/07/02	95	80 - 120	99	80 - 120	<0.02	ug/L	1.4	20		
9487820	Dissolved Selenium (Se)	2024/07/02	106	80 - 120	101	80 - 120	<0.2	ug/L	NC	20		
9487820	Dissolved Silicon (Si)	2024/07/02	NC	80 - 120	101	80 - 120	<5	ug/L	2.6	20		
9487820	Dissolved Silver (Ag)	2024/07/02	102	80 - 120	100	80 - 120	<0.01	ug/L	NC	20		
9487820	Dissolved Sodium (Na)	2024/07/02	NC	80 - 120	102	80 - 120	39, RDL=10	ug/L	1.9	20		
9487820	Dissolved Strontium (Sr)	2024/07/02	NC	80 - 120	101	80 - 120	<0.1	ug/L	2.9	20		
9487820	Dissolved Tellurium (Te)	2024/07/02	102	80 - 120	99	80 - 120	<0.1	ug/L	NC	20		
9487820	Dissolved Thallium (Tl)	2024/07/02	101	80 - 120	102	80 - 120	<0.005	ug/L	5.4	20		
9487820	Dissolved Thorium (Th)	2024/07/02	103	80 - 120	100	80 - 120	<0.2	ug/L	NC	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9487820	Dissolved Tin (Sn)	2024/07/02	109	80 - 120	100	80 - 120	<0.1	ug/L	NC	20		
9487820	Dissolved Titanium (Ti)	2024/07/02	101	80 - 120	99	80 - 120	<0.5	ug/L	3.6	20		
9487820	Dissolved Tungsten (W)	2024/07/02	104	80 - 120	101	80 - 120	<0.1	ug/L	NC	20		
9487820	Dissolved Uranium (U)	2024/07/02	103	80 - 120	103	80 - 120	<0.01	ug/L	0.44	20		
9487820	Dissolved Vanadium (V)	2024/07/02	103	80 - 120	100	80 - 120	<0.05	ug/L	0.53	20		
9487820	Dissolved Zinc (Zn)	2024/07/02	96	80 - 120	99	80 - 120	<0.5	ug/L	NC	20		
9487820	Dissolved Zirconium (Zr)	2024/07/02	110	80 - 120	101	80 - 120	<0.1	ug/L	3.9	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Due to a high concentration of NOx, the sample required dilution. The detection limit was adjusted accordingly.

(2) Matrix Spike exceeds acceptance limits, probable matrix interference

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I2224
Report Date: 2024/07/03

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: WM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

Janah Rhyno, Scientific Specialist

Sandy Yuan, M.Sc., QP, Scientific Specialist

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 915478

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/26
Report #: R8208666
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4I5776
Received: 2024/06/18, 08:54

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	1	N/A	2024/06/25	ATL SOP-00205	SM 24 2310B m
Alkalinity	1	N/A	2024/06/20	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2024/06/21	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	1	N/A	2024/06/21	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	1	N/A	2024/06/20	CAM SOP-00414	SM 24 2510 m
Fluoride	1	2024/06/19	2024/06/20	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2024/06/25	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	1	2024/06/25	2024/06/25	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	1	2024/06/24	2024/06/24	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	1	2024/06/20	2024/06/25	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	1	N/A	2024/06/25	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2024/06/25	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	1	2024/06/22	2024/06/25	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	1	N/A	2024/06/25	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	1	2024/06/25	2024/06/25	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	1	2024/06/25	2024/06/25	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	1	N/A	2024/06/24	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	1	N/A	2024/06/21	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	1	2024/06/19	2024/06/20	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	1	N/A	2024/06/19		Field pH Meter
Sulphate by Automated Turbidimetry	1	N/A	2024/06/20	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	1	2024/06/20	2024/06/21	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	1	N/A	2024/06/19		Field Thermometer
Total Kjeldahl Nitrogen in Water	1	2024/06/21	2024/06/24	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	1	2024/06/20	2024/06/21	CAM SOP-00428	SM 24 2540D m
Turbidity	1	N/A	2024/06/19	CAM SOP-00417	SM 24 2130 B

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 915478

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/06/26
Report #: R8208666
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4I5776
Received: 2024/06/18, 08:54

compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C4I5776
Report Date: 2024/06/26

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZMP135		
Sampling Date		2024/06/17 16:04		
COC Number		915478		
	UNITS	MWS-14-03-OB1	RDL	QC Batch
Calculated Parameters				
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	170	1.0	9465420
Carb. Alkalinity (calc. as CaCO3)	mg/L	2.6	1.0	9465420
Hardness (CaCO3)	mg/L	140	1.0	9464406
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9465420
Field Measurements				
Field Temperature	Celsius	8.9	N/A	ONSITE
Field Measured pH	pH	8.34		ONSITE
Inorganics				
Acidity	mg/L	<5.0	5.0	9476252
Total Ammonia-N	mg/L	0.34	0.050	9468925
Conductivity	mS/cm	0.311	N/A	9466847
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9478465
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9478490
Total Dissolved Solids	mg/L	220	10	9468059
Fluoride (F-)	mg/L	0.57	0.10	9466843
Total Kjeldahl Nitrogen (TKN)	mg/L	0.39	0.10	9470938
pH	pH	8.22		9466844
Total Phosphorus (P)	mg/L	0.37 (2)	0.010	9478491
Total Suspended Solids	mg/L	130	5	9467312
Dissolved Sulphate (SO4)	mg/L	<1.0	1.0	9466859
Turbidity	NTU	370	0.2	9466258
Alkalinity (Total as CaCO3)	mg/L	170	1.0	9466845
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9466858
Nitrite (N)	mg/L	<0.010	0.010	9466509
Nitrate (N)	mg/L	<0.10	0.10	9466509

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.
(2) Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I5776
Report Date: 2024/06/26

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZMP135		
Sampling Date		2024/06/17 16:04		
COC Number		915478		
	UNITS	MWS-14-03-OB1	RDL	QC Batch
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9466509

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZMP135			ZMP135		
Sampling Date		2024/06/17 16:04			2024/06/17 16:04		
COC Number		915478			915478		
	UNITS	MWS-14-03-OB1	RDL	QC Batch	MWS-14-03-OB1 Lab-Dup	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	0.688	0.0025	9476764			
. Aluminum (Al)	mg/L	2.67	0.0025	9474827			
Dissolved Antimony (Sb)	mg/L	<0.0005	0.0005	9476764			
. Antimony (Sb)	mg/L	<0.0005	0.0005	9474827			
Dissolved Arsenic (As)	mg/L	0.0006	0.0005	9476764			
. Arsenic (As)	mg/L	0.0017	0.0005	9474827			
Dissolved Barium (Ba)	mg/L	0.027	0.001	9476764			
. Barium (Ba)	mg/L	0.081	0.001	9474827			
Dissolved Beryllium (Be)	mg/L	<0.00025	0.00025	9476764			
. Beryllium (Be)	mg/L	0.00063	0.00025	9474827			
Dissolved Bismuth (Bi)	mg/L	<0.0005	0.0005	9476764			
. Bismuth (Bi)	mg/L	<0.0005	0.0005	9474827			
Dissolved Boron (B)	mg/L	0.034	0.005	9476764			
. Boron (B)	mg/L	0.034	0.005	9474827			
Dissolved Cadmium (Cd)	mg/L	<0.00005	0.00005	9476764			
. Cadmium (Cd)	mg/L	0.000084	0.000025	9474827			
Dissolved Calcium (Ca)	mg/L	30.1	0.1	9476764			
. Calcium (Ca)	mg/L	93.2	0.1	9474827			
Dissolved Cesium (Cs)	mg/L	<0.0001	0.0001	9476764			
. Cesium (Cs)	mg/L	0.0003	0.0001	9474827			
Dissolved Chromium (Cr)	mg/L	<0.0025	0.0025	9476764			
. Chromium (Cr)	mg/L	0.0099	0.0025	9474827			
Dissolved Cobalt (Co)	mg/L	0.00050	0.00025	9476764			
. Cobalt (Co)	mg/L	0.00395	0.00025	9474827			
Dissolved Copper (Cu)	mg/L	0.0024	0.0005	9476764			
. Copper (Cu)	mg/L	0.0150	0.0005	9474827			
Dissolved Iron (Fe)	mg/L	2.02	0.025	9476764			
. Iron (Fe)	mg/L	14.5	0.025	9474827			
Dissolved Lead (Pb)	mg/L	0.00083	0.00025	9476764			
. Lead (Pb)	mg/L	0.00818	0.00025	9474827			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZMP135			ZMP135		
Sampling Date		2024/06/17 16:04			2024/06/17 16:04		
COC Number		915478			915478		
	UNITS	MWS-14-03-OB1	RDL	QC Batch	MWS-14-03-OB1 Lab-Dup	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0049	0.0025	9476764			
. Lithium (Li)	mg/L	0.0109	0.0025	9474827			
Dissolved Magnesium (Mg)	mg/L	14.8	0.025	9476764			
. Magnesium (Mg)	mg/L	31.0	0.025	9474827			
Dissolved Manganese (Mn)	mg/L	0.076	0.001	9476764			
. Manganese (Mn)	mg/L	0.419	0.001	9474827			
Mercury (Hg)	mg/L	<0.0015	0.0015	9476630			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9474664	<0.01	0.01	9474664
Dissolved Molybdenum (Mo)	mg/L	0.00821	0.00025	9476764			
. Molybdenum (Mo)	mg/L	<0.00025	0.00025	9474827			
Dissolved Nickel (Ni)	mg/L	0.0010	0.0005	9476764			
. Nickel (Ni)	mg/L	0.0084	0.0005	9474827			
Dissolved Phosphorus (P)	mg/L	<0.025	0.025	9476764			
. Phosphorus (P)	mg/L	0.120	0.025	9474827			
Dissolved Potassium (K)	mg/L	2.0	0.1	9476764			
. Potassium (K)	mg/L	3.1	0.1	9474827			
Dissolved Rubidium (Rb)	mg/L	0.0019	0.0001	9476764			
. Rubidium (Rb)	mg/L	0.0072	0.0001	9474827			
Dissolved Selenium (Se)	mg/L	<0.001	0.001	9476764			
. Selenium (Se)	mg/L	<0.00025	0.00025	9474827			
Dissolved Silicon (Si)	mg/L	3.95	0.025	9476764			
. Silicon (Si)	mg/L	8.19	0.025	9474827			
Dissolved Silver (Ag)	mg/L	<0.00005	0.00005	9476764			
. Silver (Ag)	mg/L	<0.00005	0.00005	9474827			
Dissolved Sodium (Na)	mg/L	28.8	0.05	9476764			
. Sodium (Na)	mg/L	28.4	0.05	9474827			
Dissolved Strontium (Sr)	mg/L	0.156	0.0005	9476764			
. Strontium (Sr)	mg/L	0.246	0.0005	9474827			
Dissolved Sulphur (S)	mg/L	<0.5	0.5	9468474	<0.5	0.5	9468474
Total Sulphur (S)	mg/L	<0.5	0.5	9472796			
Dissolved Tellurium (Te)	mg/L	<0.0005	0.0005	9476764			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZMP135			ZMP135		
Sampling Date		2024/06/17 16:04			2024/06/17 16:04		
COC Number		915478			915478		
	UNITS	MWS-14-03-OB1	RDL	QC Batch	MWS-14-03-OB1 Lab-Dup	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0005	0.0005	9474827			
Dissolved Thallium (Tl)	mg/L	<0.000025	0.000025	9476764			
. Thallium (Tl)	mg/L	0.000050	0.000025	9474827			
Dissolved Thorium (Th)	mg/L	<0.001	0.001	9476764			
. Thorium (Th)	mg/L	0.001	0.001	9474827			
Dissolved Tin (Sn)	mg/L	<0.0005	0.0005	9476764			
. Tin (Sn)	mg/L	<0.0005	0.0005	9474827			
Dissolved Titanium (Ti)	mg/L	0.0234	0.0025	9476764			
. Titanium (Ti)	mg/L	0.0559	0.0025	9474827			
Dissolved Tungsten (W)	mg/L	0.0013	0.0005	9476764			
. Tungsten (W)	mg/L	<0.0005	0.0005	9474827			
Dissolved Uranium (U)	mg/L	0.00029	0.00005	9476764			
. Uranium (U)	mg/L	0.00239	0.00005	9474827			
Dissolved Vanadium (V)	mg/L	0.00094	0.00025	9476764			
. Vanadium (V)	mg/L	0.00755	0.00025	9474827			
Dissolved Zinc (Zn)	mg/L	0.0054	0.0025	9476764			
. Zinc (Zn)	mg/L	0.0300	0.0025	9474827			
Dissolved Zirconium (Zr)	mg/L	0.0006	0.0005	9476764			
. Zirconium (Zr)	mg/L	0.0005	0.0005	9474827			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I5776
Report Date: 2024/06/26

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZMP135
Sample ID: MWS-14-03-OB1
Matrix: Water

Collected: 2024/06/17
Shipped:
Received: 2024/06/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9476252	N/A	2024/06/25	Brent Boudreau
Alkalinity	AT	9466845	N/A	2024/06/20	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9465420	N/A	2024/06/21	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9466858	N/A	2024/06/21	Alina Dobreanu
Conductivity	AT	9466847	N/A	2024/06/20	Nachiketa Gohil
Fluoride	ISE	9466843	2024/06/19	2024/06/20	Nachiketa Gohil
Hardness (calculated as CaCO3)		9464406	N/A	2024/06/25	Automated Statchk
Mercury in Water by CVAA	CV/AA	9476630	2024/06/25	2024/06/25	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9474664	2024/06/24	2024/06/24	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9468474	2024/06/20	2024/06/25	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9476764	N/A	2024/06/25	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9474827	N/A	2024/06/25	Nan Raykha
Total Metals Analysis by ICP	ICP	9472796	2024/06/22	2024/06/25	Suban Kanapathippllai
Cyanide (Free)	SPEC	9478465	N/A	2024/06/25	Dafne Strozake Maximo
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9478490	2024/06/25	2024/06/25	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9478491	2024/06/25	2024/06/25	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9468925	N/A	2024/06/24	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9466509	N/A	2024/06/21	Chandra Nandlal
pH	AT	9466844	2024/06/19	2024/06/20	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/19	Ramandeep Kaur
Sulphate by Automated Turbidimetry	SKAL	9466859	N/A	2024/06/20	Massarat Jan
Total Dissolved Solids	BAL	9468059	2024/06/20	2024/06/21	Madhav Somani
Field Measured pH	PH	ONSITE	N/A	2024/06/19	Ramandeep Kaur
Total Kjeldahl Nitrogen in Water	SKAL	9470938	2024/06/21	2024/06/24	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9467312	2024/06/20	2024/06/21	Razieh Tabesh
Turbidity	AT	9466258	N/A	2024/06/19	Gurparteek KAUR

Bureau Veritas ID: ZMP135 Dup
Sample ID: MWS-14-03-OB1
Matrix: Water

Collected: 2024/06/17
Shipped:
Received: 2024/06/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	9474664	2024/06/24	2024/06/24	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9468474	2024/06/20	2024/06/25	Suban Kanapathippllai

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	7.0°C

Sample ZMP135 [MWS-14-03-OB1] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.
Mercury Analysis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I5776
Report Date: 2024/06/26

QUALITY ASSURANCE REPORT

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9466258	Turbidity	2024/06/19			98	80 - 120	<0.1	NTU	5.8	20		
9466509	Nitrate (N)	2024/06/21	94	80 - 120	96	80 - 120	<0.10	mg/L	1.5	20		
9466509	Nitrite (N)	2024/06/21	101	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
9466843	Fluoride (F-)	2024/06/20	101	80 - 120	102	80 - 120	<0.10	mg/L	NC	20		
9466844	pH	2024/06/20			102	98 - 103			0.69	N/A		
9466845	Alkalinity (Total as CaCO3)	2024/06/20			96	85 - 115	<1.0	mg/L	0.60	20		
9466847	Conductivity	2024/06/20			100	85 - 115	0.000700	mS/cm	0.14	10		
9466858	Dissolved Chloride (Cl-)	2024/06/21	85	80 - 120	102	80 - 120	<1.0	mg/L	NC	20		
9466859	Dissolved Sulphate (SO4)	2024/06/20	98	75 - 125	93	80 - 120	<1.0	mg/L	6.0	20		
9467312	Total Suspended Solids	2024/06/21			99	80 - 120	<1	mg/L	0	20		
9468059	Total Dissolved Solids	2024/06/21			97	80 - 120	<10	mg/L	2.1	20		
9468474	Dissolved Sulphur (S)	2024/06/25	97	80 - 120	94	80 - 120	<0.5	mg/L	NC	20		
9468925	Total Ammonia-N	2024/06/24	89	75 - 125	96	80 - 120	<0.050	mg/L	NC	20		
9470938	Total Kjeldahl Nitrogen (TKN)	2024/06/24	94	80 - 120	93	80 - 120	<0.10	mg/L	NC	20	95	80 - 120
9472796	Total Sulphur (S)	2024/06/25	NC	80 - 120	99	80 - 120	<0.5	mg/L				
9474664	Dissolved Mercury (Hg)	2024/06/24	87	75 - 125	96	80 - 120	<0.01	ug/L	NC	20		
9474827	. Aluminum (Al)	2024/06/24	NC	80 - 120	94	80 - 120	<0.0005	mg/L	11	20		
9474827	. Antimony (Sb)	2024/06/24	101	80 - 120	103	80 - 120	<0.0001	mg/L	1.7	20		
9474827	. Arsenic (As)	2024/06/24	NC	80 - 120	100	80 - 120	<0.0001	mg/L	1.1	20		
9474827	. Barium (Ba)	2024/06/24	95	80 - 120	96	80 - 120	<0.0002	mg/L	1.3	20		
9474827	. Beryllium (Be)	2024/06/24	98	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9474827	. Bismuth (Bi)	2024/06/24	94	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9474827	. Boron (B)	2024/06/24	95	80 - 120	95	80 - 120	<0.001	mg/L	5.2	20		
9474827	. Cadmium (Cd)	2024/06/24	98	80 - 120	97	80 - 120	<0.000005	mg/L	7.2	20		
9474827	. Calcium (Ca)	2024/06/24	NC	80 - 120	98	80 - 120	<0.02	mg/L	0.12	20		
9474827	. Cesium (Cs)	2024/06/24	95	80 - 120	98	80 - 120	<0.00002	mg/L	7.5	20		
9474827	. Chromium (Cr)	2024/06/24	94	80 - 120	93	80 - 120	<0.0005	mg/L	NC	20		
9474827	. Cobalt (Co)	2024/06/24	99	80 - 120	96	80 - 120	<0.00005	mg/L	0.26	20		
9474827	. Copper (Cu)	2024/06/24	NC	80 - 120	95	80 - 120	<0.0001	mg/L	0.96	20		
9474827	. Iron (Fe)	2024/06/24	99	80 - 120	98	80 - 120	<0.005	mg/L	0.56	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9474827	. Lead (Pb)	2024/06/24	96	80 - 120	97	80 - 120	<0.00005	mg/L	0.48	20		
9474827	. Lithium (Li)	2024/06/24	107	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9474827	. Magnesium (Mg)	2024/06/24	NC	80 - 120	97	80 - 120	<0.005	mg/L	0.77	20		
9474827	. Manganese (Mn)	2024/06/24	NC	80 - 120	96	80 - 120	<0.0002	mg/L	1.2	20		
9474827	. Molybdenum (Mo)	2024/06/24	102	80 - 120	98	80 - 120	<0.00005	mg/L	0.93	20		
9474827	. Nickel (Ni)	2024/06/24	96	80 - 120	95	80 - 120	<0.0001	mg/L	0.56	20		
9474827	. Phosphorus (P)	2024/06/24	NC	80 - 120	94	80 - 120	<0.005	mg/L	0.049	20		
9474827	. Potassium (K)	2024/06/24	NC	80 - 120	99	80 - 120	<0.02	mg/L	0.64	20		
9474827	. Rubidium (Rb)	2024/06/24	NC	80 - 120	98	80 - 120	<0.00002	mg/L	0.52	20		
9474827	. Selenium (Se)	2024/06/24	99	80 - 120	99	80 - 120	<0.00005	mg/L	0.40	20		
9474827	. Silicon (Si)	2024/06/24	NC	80 - 120	95	80 - 120	<0.005	mg/L	1.3	20		
9474827	. Silver (Ag)	2024/06/24	81	80 - 120	97	80 - 120	<0.00001	mg/L	1.4	20		
9474827	. Sodium (Na)	2024/06/24	NC	80 - 120	97	80 - 120	<0.01	mg/L	0.31	20		
9474827	. Strontium (Sr)	2024/06/24	NC	80 - 120	98	80 - 120	<0.0001	mg/L	0.72	20		
9474827	. Tellurium (Te)	2024/06/24	98	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9474827	. Thallium (Tl)	2024/06/24	98	80 - 120	100	80 - 120	<0.000005	mg/L	NC	20		
9474827	. Thorium (Th)	2024/06/24	95	80 - 120	92	80 - 120	<0.0002	mg/L				
9474827	. Tin (Sn)	2024/06/24	100	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9474827	. Titanium (Ti)	2024/06/24	100	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9474827	. Tungsten (W)	2024/06/24	102	80 - 120	100	80 - 120	<0.0001	mg/L	1.6	20		
9474827	. Uranium (U)	2024/06/24	99	80 - 120	98	80 - 120	<0.00001	mg/L	0.38	20		
9474827	. Vanadium (V)	2024/06/24	97	80 - 120	93	80 - 120	<0.00005	mg/L	6.1	20		
9474827	. Zinc (Zn)	2024/06/24	96	80 - 120	97	80 - 120	<0.0005	mg/L	NC	20		
9474827	. Zirconium (Zr)	2024/06/24	104	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9476252	Acidity	2024/06/25	85	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9476630	Mercury (Hg)	2024/06/25	91	75 - 125	89	80 - 120	<0.00010	mg/L	NC	20		
9476764	Dissolved Aluminum (Al)	2024/06/25	100	80 - 120	101	80 - 120	<0.0005	mg/L	9.0	20		
9476764	Dissolved Antimony (Sb)	2024/06/25	104	80 - 120	104	80 - 120	<0.0001	mg/L	NC	20		
9476764	Dissolved Arsenic (As)	2024/06/25	99	80 - 120	99	80 - 120	<0.0001	mg/L	1.6	20		
9476764	Dissolved Barium (Ba)	2024/06/25	95	80 - 120	98	80 - 120	<0.0002	mg/L	4.1	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9476764	Dissolved Beryllium (Be)	2024/06/25	100	80 - 120	99	80 - 120	<0.00005	mg/L	NC	20		
9476764	Dissolved Bismuth (Bi)	2024/06/25	99	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9476764	Dissolved Boron (B)	2024/06/25	97	80 - 120	97	80 - 120	<0.001	mg/L	4.1	20		
9476764	Dissolved Cadmium (Cd)	2024/06/25	100	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9476764	Dissolved Calcium (Ca)	2024/06/25	NC	80 - 120	103	80 - 120	<0.02	mg/L	0.32	20		
9476764	Dissolved Cesium (Cs)	2024/06/25	95	80 - 120	99	80 - 120	<0.00002	mg/L	NC	N/A		
9476764	Dissolved Chromium (Cr)	2024/06/25	93	80 - 120	94	80 - 120	<0.0005	mg/L	NC	20		
9476764	Dissolved Cobalt (Co)	2024/06/25	97	80 - 120	98	80 - 120	<0.00005	mg/L	1.5	20		
9476764	Dissolved Copper (Cu)	2024/06/25	95	80 - 120	101	80 - 120	<0.0001	mg/L	1.2	20		
9476764	Dissolved Iron (Fe)	2024/06/25	100	80 - 120	100	80 - 120	<0.005	mg/L	0.55	20		
9476764	Dissolved Lead (Pb)	2024/06/25	101	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
9476764	Dissolved Lithium (Li)	2024/06/25	104	80 - 120	101	80 - 120	<0.0005	mg/L	NC	20		
9476764	Dissolved Magnesium (Mg)	2024/06/25	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.50	20		
9476764	Dissolved Manganese (Mn)	2024/06/25	NC	80 - 120	97	80 - 120	<0.0002	mg/L	0.30	20		
9476764	Dissolved Molybdenum (Mo)	2024/06/25	99	80 - 120	96	80 - 120	<0.00005	mg/L	0.85	20		
9476764	Dissolved Nickel (Ni)	2024/06/25	94	80 - 120	97	80 - 120	<0.0001	mg/L	0.93	20		
9476764	Dissolved Phosphorus (P)	2024/06/25	100	80 - 120	93	80 - 120	<0.005	mg/L	NC	20		
9476764	Dissolved Potassium (K)	2024/06/25	NC	80 - 120	99	80 - 120	<0.02	mg/L	0.53	20		
9476764	Dissolved Rubidium (Rb)	2024/06/25	94	80 - 120	99	80 - 120	<0.00002	mg/L	NC	N/A		
9476764	Dissolved Selenium (Se)	2024/06/25	99	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9476764	Dissolved Silicon (Si)	2024/06/25	101	80 - 120	98	80 - 120	<0.005	mg/L	0.15	20		
9476764	Dissolved Silver (Ag)	2024/06/25	80	80 - 120	99	80 - 120	<0.00001	mg/L	NC	20		
9476764	Dissolved Sodium (Na)	2024/06/25	NC	80 - 120	100	80 - 120	<0.01	mg/L	0.35	20		
9476764	Dissolved Strontium (Sr)	2024/06/25	NC	80 - 120	98	80 - 120	<0.0001	mg/L	0.94	20		
9476764	Dissolved Tellurium (Te)	2024/06/25	95	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9476764	Dissolved Thallium (Tl)	2024/06/25	104	80 - 120	103	80 - 120	<0.000005	mg/L	NC	20		
9476764	Dissolved Thorium (Th)	2024/06/25	98	80 - 120	96	80 - 120	<0.0002	mg/L				
9476764	Dissolved Tin (Sn)	2024/06/25	103	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9476764	Dissolved Titanium (Ti)	2024/06/25	97	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9476764	Dissolved Tungsten (W)	2024/06/25	103	80 - 120	104	80 - 120	<0.0001	mg/L	1.4	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9476764	Dissolved Uranium (U)	2024/06/25	102	80 - 120	100	80 - 120	<0.00001	mg/L	NC	20		
9476764	Dissolved Vanadium (V)	2024/06/25	97	80 - 120	98	80 - 120	<0.00005	mg/L	2.2	20		
9476764	Dissolved Zinc (Zn)	2024/06/25	96	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9476764	Dissolved Zirconium (Zr)	2024/06/25	103	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9478465	Free Cyanide (CN)	2024/06/25	84	80 - 120	92	80 - 120	<2.0	ug/L				
9478490	Strong Acid Dissoc. Cyanide (CN)	2024/06/25	97	80 - 120	105	80 - 120	<0.00050	mg/L				
9478491	Total Phosphorus (P)	2024/06/25			94	80 - 120	<0.0010	mg/L			90	N/A

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I5776
Report Date: 2024/06/26

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Colleen Acker, B.Sc, Scientific Service Specialist

Cristina Carriere, Senior Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 917140

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/07/05
Report #: R8222821
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4I9516
Received: 2024/06/20, 15:33

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	2	N/A	2024/06/26	ATL SOP-00205	SM 24 2310B m
Alkalinity	2	N/A	2024/06/24	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2024/06/25	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	2	N/A	2024/06/25	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	2	N/A	2024/06/24	CAM SOP-00414	SM 24 2510 m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2024/06/24	CAM SOP-00315	CCME PHC-CWS m
Fluoride	2	2024/06/22	2024/06/24	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2024/06/28	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	1	2024/06/26	2024/06/27	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	2	2024/06/25	2024/06/26	CAM SOP-00453	EPA 7470 m
Mercury (low level)	1	2024/06/25	2024/06/26	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	2	2024/06/26	2024/06/26	CAM SOP-00408	EPA 6010D m
Low Level Lab Filtered Metals by ICPMS	1	N/A	2024/07/04	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (low level)	1	N/A	2024/06/27	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	2	N/A	2024/06/27	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	2	2024/06/25	2024/06/25	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	2	N/A	2024/06/27	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2024/06/28	2024/06/28	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	2	2024/06/26	2024/06/26	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	2	N/A	2024/06/26	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	2	N/A	2024/06/22	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	2	2024/06/22	2024/06/24	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	2	N/A	2024/06/21		Field pH Meter
Sulphate by Automated Turbidimetry	2	N/A	2024/06/25	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	2	2024/06/25	2024/06/26	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	2	N/A	2024/06/21		Field Thermometer
Total Kjeldahl Nitrogen in Water	2	2024/06/24	2024/06/25	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	1	2024/06/25	2024/06/26	CAM SOP-00428	SM 24 2540D m
Low Level Total Suspended Solids	1	2024/06/25	2024/06/26	CAM SOP-00428	SM 24 2540D m
Turbidity	2	N/A	2024/06/22	CAM SOP-00417	SM 24 2130 B

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 917140

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/07/05
Report #: R8222821
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4I9516
Received: 2024/06/20, 15:33

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633
==========
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I9516
Report Date: 2024/07/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZNI592			ZNI593		
Sampling Date		2024/06/19 15:25			2024/06/19 16:48		
COC Number		917140			917140		
	UNITS	MW30-BR-23	RDL	QC Batch	MW6-OB-13	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	300	1.0	9471692	340	1.0	9471692
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.9	1.0	9471692	<1.0	1.0	9471692
Hardness (CaCO3)	mg/L	300	1.0	9472786	320	1.0	9472786
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9471692	<1.0	1.0	9471692
Field Measurements							
Field Temperature	Celsius	7.6	N/A	ONSITE	13.0	N/A	ONSITE
Field Measured pH	pH	6.92		ONSITE	6.40		ONSITE
Inorganics							
Acidity	mg/L	19	5.0	9478735	100	5.0	9478735
Total Ammonia-N	mg/L	0.19	0.050	9476586	0.092	0.050	9476586
Conductivity	mS/cm	0.590	N/A	9473504	1.04	N/A	9473504
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9485788	<2.0 (1)	2.0	9485788
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9486986	<0.00050	0.00050	9486986
Total Dissolved Solids	mg/L	290	10	9477083	560	10	9477083
Fluoride (F-)	mg/L	0.24	0.10	9473505	<0.10	0.10	9473505
Total Kjeldahl Nitrogen (TKN)	mg/L	0.25	0.10	9474792	0.57	0.10	9474792
pH	pH	7.83		9473506	7.40		9473506
Total Phosphorus (P)	mg/L	0.038	0.0010	9481109	0.23	0.0010	9481109
Total Suspended Solids	mg/L	230	1	9476589	560	50	9477321
Dissolved Sulphate (SO4)	mg/L	14	1.0	9473558	14	1.0	9473558
Turbidity	NTU	28	0.1	9472940	160	0.1	9472940
Alkalinity (Total as CaCO3)	mg/L	300	1.0	9473502	340	1.0	9473502
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9473552	120	1.0	9473552
Nitrite (N)	mg/L	<0.010	0.010	9472831	<0.010	0.010	9472831
Nitrate (N)	mg/L	<0.10	0.10	9472831	<0.10	0.10	9472831
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9472831	<0.10	0.10	9472831

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZNI592			ZNI592			ZNI593		
Sampling Date		2024/06/19 15:25			2024/06/19 15:25			2024/06/19 16:48		
COC Number		917140			917140			917140		
	UNITS	MW30-BR-23	RDL	QC Batch	MW30-BR-23 Lab-Dup	RDL	QC Batch	MW6-OB-13	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0014	0.0005	9481899	0.0014	0.0005	9481899			
Dissolved Aluminum (Al)	ug/L							9.5	2.5	9493025
. Aluminum (Al)	mg/L	0.204	0.0025	9481902				0.950	0.0025	9481902
Dissolved Antimony (Sb)	mg/L	0.0005	0.0001	9481899	0.0005	0.0001	9481899			
Dissolved Antimony (Sb)	ug/L							<0.5	0.5	9493025
. Antimony (Sb)	mg/L	0.0007	0.0005	9481902				<0.0005	0.0005	9481902
Dissolved Arsenic (As)	mg/L	0.0011	0.0001	9481899	0.0010	0.0001	9481899			
Dissolved Arsenic (As)	ug/L							1.4	0.5	9493025
. Arsenic (As)	mg/L	0.0060	0.0005	9481902				0.0335	0.0005	9481902
Dissolved Barium (Ba)	mg/L	0.156	0.0002	9481899	0.154	0.0002	9481899			
Dissolved Barium (Ba)	ug/L							71	1	9493025
. Barium (Ba)	mg/L	0.162	0.001	9481902				0.109	0.001	9481902
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9481899	<0.00005	0.00005	9481899			
Dissolved Beryllium (Be)	ug/L							<0.25	0.25	9493025
. Beryllium (Be)	mg/L	<0.00025	0.00025	9481902				<0.00025	0.00025	9481902
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9481899	<0.0001	0.0001	9481899			
Dissolved Bismuth (Bi)	ug/L							<0.5	0.5	9493025
. Bismuth (Bi)	mg/L	<0.0005	0.0005	9481902				<0.0005	0.0005	9481902
Dissolved Boron (B)	mg/L	0.024	0.001	9481899	0.025	0.001	9481899			
Dissolved Boron (B)	ug/L							7	5	9493025
. Boron (B)	mg/L	0.022	0.005	9481902				0.008	0.005	9481902
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9481899	<0.00001	0.00001	9481899			
Dissolved Cadmium (Cd)	ug/L							0.06	0.05	9493025
. Cadmium (Cd)	mg/L	<0.000025	0.000025	9481902				0.000140	0.000025	9481902
Dissolved Calcium (Ca)	mg/L	83.0	0.1	9481899	83.1	0.1	9481899			
Dissolved Calcium (Ca)	ug/L							102000	100	9493025
. Calcium (Ca)	mg/L	87.8	0.1	9481902				118	0.1	9481902
Dissolved Cesium (Cs)	mg/L	0.00033	0.00002	9481899	0.00035	0.00002	9481899			
Dissolved Cesium (Cs)	ug/L							<0.1	0.1	9493025
. Cesium (Cs)	mg/L	0.0004	0.0001	9481902				<0.0001	0.0001	9481902

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I9516
Report Date: 2024/07/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZNI592			ZNI592			ZNI593		
Sampling Date		2024/06/19 15:25			2024/06/19 15:25			2024/06/19 16:48		
COC Number		917140			917140			917140		
	UNITS	MW30-BR-23	RDL	QC Batch	MW30-BR-23 Lab-Dup	RDL	QC Batch	MW6-OB-13	RDL	QC Batch
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9481899	<0.0005	0.0005	9481899			
Dissolved Chromium (Cr)	ug/L							<2.5	2.5	9493025
. Chromium (Cr)	mg/L	<0.0025	0.0025	9481902				0.0048	0.0025	9481902
Dissolved Cobalt (Co)	mg/L	0.00065	0.00005	9481899	0.00065	0.00005	9481899			
Dissolved Cobalt (Co)	ug/L							4.21	0.25	9493025
. Cobalt (Co)	mg/L	0.00103	0.00025	9481902				0.00568	0.00025	9481902
Dissolved Copper (Cu)	mg/L	0.0007	0.0001	9481899	0.0007	0.0001	9481899			
Dissolved Copper (Cu)	ug/L							76.4	0.5	9493025
. Copper (Cu)	mg/L	0.0021	0.0005	9481902				0.595	0.0005	9481902
Dissolved Iron (Fe)	mg/L	0.018	0.005	9481899	0.018	0.005	9481899			
Dissolved Iron (Fe)	ug/L							180	25	9493025
. Iron (Fe)	mg/L	0.808	0.025	9481902				24.3	0.025	9481902
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9481899	<0.00005	0.00005	9481899			
Dissolved Lead (Pb)	ug/L							<0.25	0.25	9493025
. Lead (Pb)	mg/L	0.00057	0.00025	9481902				0.00672	0.00025	9481902
Dissolved Lithium (Li)	mg/L	0.0059	0.0005	9481899	0.0061	0.0005	9481899			
Dissolved Lithium (Li)	ug/L							4.7	2.5	9493025
. Lithium (Li)	mg/L	0.0059	0.0025	9481902				0.0055	0.0025	9481902
Dissolved Magnesium (Mg)	mg/L	22.7	0.005	9481899	22.6	0.005	9481899			
Dissolved Magnesium (Mg)	ug/L							15400	25	9493025
. Magnesium (Mg)	mg/L	23.0	0.025	9481902				19.0	0.025	9481902
Dissolved Manganese (Mn)	mg/L	0.302	0.0002	9481899	0.303	0.0002	9481899			
Dissolved Manganese (Mn)	ug/L							2040	1	9493025
. Manganese (Mn)	mg/L	0.291	0.001	9481902				2.26	0.001	9481902
Mercury (Hg)	mg/L							<0.00010	0.00010	9480042
Mercury (Hg)	ug/L	<0.01	0.01	9478002						
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9477997				<0.01	0.01	9477997
Dissolved Molybdenum (Mo)	mg/L	0.00403	0.00005	9481899	0.00408	0.00005	9481899			
Dissolved Molybdenum (Mo)	ug/L							0.51	0.25	9493025
. Molybdenum (Mo)	mg/L	0.00355	0.00025	9481902				0.00032	0.00025	9481902
Dissolved Nickel (Ni)	mg/L	0.0041	0.0001	9481899	0.0041	0.0001	9481899			

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QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I9516
Report Date: 2024/07/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZNI592			ZNI592			ZNI593		
Sampling Date		2024/06/19 15:25			2024/06/19 15:25			2024/06/19 16:48		
COC Number		917140			917140			917140		
	UNITS	MW30-BR-23	RDL	QC Batch	MW30-BR-23 Lab-Dup	RDL	QC Batch	MW6-OB-13	RDL	QC Batch
Dissolved Nickel (Ni)	ug/L							2.5	0.5	9493025
. Nickel (Ni)	mg/L	0.0047	0.0005	9481902				0.0043	0.0005	9481902
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9481899	<0.005	0.005	9481899			
Dissolved Phosphorus (P)	ug/L							<25	25	9493025
. Phosphorus (P)	mg/L	<0.025	0.025	9481902				0.120	0.025	9481902
Dissolved Potassium (K)	mg/L	2.31	0.02	9481899	2.39	0.02	9481899			
Dissolved Potassium (K)	ug/L							2130	100	9493025
. Potassium (K)	mg/L	2.2	0.1	9481902				2.4	0.1	9481902
Dissolved Rubidium (Rb)	mg/L	0.00144	0.00002	9481899	0.00141	0.00002	9481899			
Dissolved Rubidium (Rb)	ug/L							2.0	0.1	9493025
. Rubidium (Rb)	mg/L	0.0017	0.0001	9481902				0.0029	0.0001	9481902
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9481899	<0.0002	0.0002	9481899			
Dissolved Selenium (Se)	ug/L							<1	1	9493025
. Selenium (Se)	mg/L	<0.00025	0.00025	9481902				<0.00025	0.00025	9481902
Dissolved Silicon (Si)	mg/L	7.12	0.025	9481899	7.11	0.025	9481899			
Dissolved Silicon (Si)	ug/L							5990	25	9493025
. Silicon (Si)	mg/L	7.82	0.025	9481902				6.94	0.025	9481902
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9481899	<0.00001	0.00001	9481899			
Dissolved Silver (Ag)	ug/L							<0.05	0.05	9493025
. Silver (Ag)	mg/L	<0.00005	0.00005	9481902				<0.00005	0.00005	9481902
Dissolved Sodium (Na)	mg/L	11.6	0.01	9481899	11.6	0.01	9481899			
Dissolved Sodium (Na)	ug/L							77500	50	9493025
. Sodium (Na)	mg/L	11.1	0.05	9481902				82.6	0.05	9481902
Dissolved Strontium (Sr)	mg/L	0.320	0.0001	9481899	0.316	0.0001	9481899			
Dissolved Strontium (Sr)	ug/L							253	0.5	9493025
. Strontium (Sr)	mg/L	0.306	0.0005	9481902				0.297	0.0005	9481902
Dissolved Sulphur (S)	mg/L	6.1	0.5	9478944				4.9	0.5	9478944
Total Sulphur (S)	mg/L	6.1	0.5	9476235				5.0	0.5	9476235
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9481899	<0.0001	0.0001	9481899			
Dissolved Tellurium (Te)	ug/L							<0.5	0.5	9493025
. Tellurium (Te)	mg/L	<0.0005	0.0005	9481902				<0.0005	0.0005	9481902

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZNI592			ZNI592			ZNI593		
Sampling Date		2024/06/19 15:25			2024/06/19 15:25			2024/06/19 16:48		
COC Number		917140			917140			917140		
	UNITS	MW30-BR-23	RDL	QC Batch	MW30-BR-23 Lab-Dup	RDL	QC Batch	MW6-OB-13	RDL	QC Batch
Dissolved Thallium (Tl)	mg/L	0.000007	0.000005	9481899	0.000006	0.000005	9481899			
Dissolved Thallium (Tl)	ug/L							<0.025	0.025	9493025
. Thallium (Tl)	mg/L	<0.000025	0.000025	9481902				0.000027	0.000025	9481902
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9481899	<0.0002	0.0002	9481899			
Dissolved Thorium (Th)	ug/L							<1	1	9493025
. Thorium (Th)	mg/L	<0.001	0.001	9481902				0.001	0.001	9481902
Dissolved Tin (Sn)	mg/L	0.0003	0.0001	9481899	0.0003	0.0001	9481899			
Dissolved Tin (Sn)	ug/L							<0.5	0.5	9493025
. Tin (Sn)	mg/L	<0.0005	0.0005	9481902				<0.0005	0.0005	9481902
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9481899	<0.0005	0.0005	9481899			
Dissolved Titanium (Ti)	ug/L							<2.5	2.5	9493025
. Titanium (Ti)	mg/L	0.0076	0.0025	9481902				0.0182	0.0025	9481902
Dissolved Tungsten (W)	mg/L	0.0031	0.0001	9481899	0.0032	0.0001	9481899			
Dissolved Tungsten (W)	ug/L							<0.5	0.5	9493025
. Tungsten (W)	mg/L	0.0028	0.0005	9481902				<0.0005	0.0005	9481902
Dissolved Uranium (U)	mg/L	0.00227	0.00001	9481899	0.00229	0.00001	9481899			
Dissolved Uranium (U)	ug/L							2.12	0.05	9493025
. Uranium (U)	mg/L	0.00219	0.00005	9481902				0.00292	0.00005	9481902
Dissolved Vanadium (V)	mg/L	0.00032	0.00005	9481899	0.00032	0.00005	9481899			
Dissolved Vanadium (V)	ug/L							0.28	0.25	9493025
. Vanadium (V)	mg/L	0.00109	0.00025	9481902				0.0106	0.00025	9481902
Dissolved Zinc (Zn)	mg/L	0.0032	0.0005	9481899	0.0032	0.0005	9481899			
Dissolved Zinc (Zn)	ug/L							50.0	2.5	9493025
. Zinc (Zn)	mg/L	0.0053	0.0025	9481902				0.146	0.0025	9481902
Dissolved Zirconium (Zr)	mg/L	0.0006	0.0001	9481899	0.0006	0.0001	9481899			
Dissolved Zirconium (Zr)	ug/L							<0.5	0.5	9493025
. Zirconium (Zr)	mg/L	0.0008	0.0005	9481902				0.0026	0.0005	9481902

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PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		ZNI592		
Sampling Date		2024/06/19 15:25		
COC Number		917140		
	UNITS	MW30-BR-23	RDL	QC Batch
BTEX & F1 Hydrocarbons				
Benzene	ug/L	<0.20	0.20	9474536
Toluene	ug/L	<0.20	0.20	9474536
Ethylbenzene	ug/L	<0.20	0.20	9474536
o-Xylene	ug/L	<0.20	0.20	9474536
p+m-Xylene	ug/L	<0.40	0.40	9474536
Total Xylenes	ug/L	<0.40	0.40	9474536
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	112		9474536
4-Bromofluorobenzene	%	77		9474536
D10-o-Xylene	%	101		9474536
D4-1,2-Dichloroethane	%	95		9474536

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Bureau Veritas Job #: C4I9516
Report Date: 2024/07/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: ZNI592
Sample ID: MW30-BR-23
Matrix: Water

Collected: 2024/06/19
Shipped:
Received: 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9478735	N/A	2024/06/26	Brent Boudreau
Alkalinity	AT	9473502	N/A	2024/06/24	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9471692	N/A	2024/06/25	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9473552	N/A	2024/06/25	Massarat Jan
Conductivity	AT	9473504	N/A	2024/06/24	Surinder Rai
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9474536	N/A	2024/06/24	Georgeta Rusu
Fluoride	ISE	9473505	2024/06/22	2024/06/24	Surinder Rai
Hardness (calculated as CaCO3)		9472786	N/A	2024/06/28	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9477997	2024/06/25	2024/06/26	Gagandeep Rai
Mercury (low level)	CV/AA	9478002	2024/06/25	2024/06/26	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9478944	2024/06/26	2024/06/26	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9481899	N/A	2024/06/27	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9481902	N/A	2024/06/27	Nan Raykha
Total Metals Analysis by ICP	ICP	9476235	2024/06/25	2024/06/25	Suban Kanapathippllai
Cyanide (Free)	SPEC	9485788	N/A	2024/06/27	Dafne Strozake Maximo
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9486986	2024/06/28	2024/06/28	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9481109	2024/06/26	2024/06/26	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9476586	N/A	2024/06/26	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9472831	N/A	2024/06/22	Jinal Chavda
pH	AT	9473506	2024/06/22	2024/06/24	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/06/21	Jimmy Liu
Sulphate by Automated Turbidimetry	SKAL	9473558	N/A	2024/06/25	Massarat Jan
Total Dissolved Solids	BAL	9477083	2024/06/25	2024/06/26	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/21	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9474792	2024/06/24	2024/06/25	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9476589	2024/06/25	2024/06/26	Razieh Tabesh
Turbidity	AT	9472940	N/A	2024/06/22	Kien Tran

Bureau Veritas ID: ZNI592 Dup
Sample ID: MW30-BR-23
Matrix: Water

Collected: 2024/06/19
Shipped:
Received: 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS (low level)	ICP1/MS	9481899	N/A	2024/06/27	Nan Raykha

Bureau Veritas ID: ZNI593
Sample ID: MW6-OB-13
Matrix: Water

Collected: 2024/06/19
Shipped:
Received: 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9478735	N/A	2024/06/26	Brent Boudreau
Alkalinity	AT	9473502	N/A	2024/06/24	Surinder Rai
Carbonate, Bicarbonate and Hydroxide	CALC	9471692	N/A	2024/06/25	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9473552	N/A	2024/06/25	Massarat Jan

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I9516
Report Date: 2024/07/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: ZNI593
Sample ID: MW6-OB-13
Matrix: Water

Collected: 2024/06/19
Shipped:
Received: 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	9473504	N/A	2024/06/24	Surinder Rai
Fluoride	ISE	9473505	2024/06/22	2024/06/24	Surinder Rai
Hardness (calculated as CaCO3)		9472786	N/A	2024/06/28	Automated Statchk
Mercury in Water by CVAA	CV/AA	9480042	2024/06/26	2024/06/27	Gagandeep Rai
Dissolved Mercury (low level)	CV/AA	9477997	2024/06/25	2024/06/26	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9478944	2024/06/26	2024/06/26	Suban Kanapathippllai
Low Level Lab Filtered Metals by ICPMS	ICP1/MS	9493025	N/A	2024/07/04	Azita Fazaeli
Metals in Water by ICPMS (low level)	ICP1/MS	9481902	N/A	2024/06/27	Nan Raykha
Total Metals Analysis by ICP	ICP	9476235	2024/06/25	2024/06/25	Suban Kanapathippllai
Cyanide (Free)	SPEC	9485788	N/A	2024/06/27	Dafne Strozake Maximo
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9486986	2024/06/28	2024/06/28	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9481109	2024/06/26	2024/06/26	Mary Anne Dela Cruz
Total Ammonia-N	LACH/NH4	9476586	N/A	2024/06/26	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9472831	N/A	2024/06/22	Jinal Chavda
pH	AT	9473506	2024/06/22	2024/06/24	Surinder Rai
Field Measured pH	PH	ONSITE	N/A	2024/06/21	Jimmy Liu
Sulphate by Automated Turbidimetry	SKAL	9473558	N/A	2024/06/25	Massarat Jan
Total Dissolved Solids	BAL	9477083	2024/06/25	2024/06/26	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/21	Jimmy Liu
Total Kjeldahl Nitrogen in Water	SKAL	9474792	2024/06/24	2024/06/25	Rajni Tyagi
Total Suspended Solids	BAL	9477321	2024/06/25	2024/06/26	Razieh Tabesh
Turbidity	AT	9472940	N/A	2024/06/22	Kien Tran

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	8.3°C

Sample ZNI592 [MW30-BR-23] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample ZNI593 [MW6-OB-13] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9474536	1,4-Difluorobenzene	2024/06/24	103	70 - 130	103	70 - 130	106	%				
9474536	4-Bromofluorobenzene	2024/06/24	105	70 - 130	106	70 - 130	91	%				
9474536	D10-o-Xylene	2024/06/24	102	70 - 130	97	70 - 130	99	%				
9474536	D4-1,2-Dichloroethane	2024/06/24	94	70 - 130	95	70 - 130	97	%				
9472831	Nitrate (N)	2024/06/22	103	80 - 120	101	80 - 120	<0.10	mg/L	0.83	20		
9472831	Nitrite (N)	2024/06/22	90	80 - 120	88	80 - 120	<0.010	mg/L	0.39	20		
9472940	Turbidity	2024/06/22			95	80 - 120	<0.1	NTU	9.5	20		
9473502	Alkalinity (Total as CaCO3)	2024/06/24			95	85 - 115	<1.0	mg/L	2.9	20		
9473504	Conductivity	2024/06/24			99	85 - 115	0.000500	mS/cm	0	10		
9473505	Fluoride (F-)	2024/06/24	40 (1)	80 - 120	97	80 - 120	<0.10	mg/L	16	20		
9473506	pH	2024/06/24			102	98 - 103			2.5	N/A		
9473552	Dissolved Chloride (Cl-)	2024/06/25	NC	80 - 120	97	80 - 120	<1.0	mg/L	1.0	20		
9473558	Dissolved Sulphate (SO4)	2024/06/25	NC	75 - 125	100	80 - 120	<1.0	mg/L	0.81	20		
9474536	Benzene	2024/06/24	96	50 - 140	102	50 - 140	<0.20	ug/L	NC	30		
9474536	Ethylbenzene	2024/06/24	104	50 - 140	109	50 - 140	<0.20	ug/L	5.7	30		
9474536	o-Xylene	2024/06/24	99	50 - 140	107	50 - 140	<0.20	ug/L	5.5	30		
9474536	p+m-Xylene	2024/06/24	99	50 - 140	105	50 - 140	<0.40	ug/L	4.4	30		
9474536	Toluene	2024/06/24	87	50 - 140	93	50 - 140	<0.20	ug/L	2.1	30		
9474536	Total Xylenes	2024/06/24					<0.40	ug/L	5.3	30		
9474792	Total Kjeldahl Nitrogen (TKN)	2024/06/25	NC	80 - 120	103	80 - 120	<0.10	mg/L	0.57	20	104	80 - 120
9476235	Total Sulphur (S)	2024/06/25	103	80 - 120	99	80 - 120	<0.5	mg/L				
9476586	Total Ammonia-N	2024/06/26	90	75 - 125	101	80 - 120	<0.050	mg/L	1.0	20		
9476589	Total Suspended Solids	2024/06/26			99	80 - 120	<1	mg/L	12	20		
9477083	Total Dissolved Solids	2024/06/26			97	80 - 120	<10	mg/L	0.73	20		
9477321	Total Suspended Solids	2024/06/26			96	80 - 120	<10	mg/L	3.2	20		
9477997	Dissolved Mercury (Hg)	2024/06/26	98	75 - 125	96	80 - 120	<0.01	ug/L	NC	20		
9478002	Mercury (Hg)	2024/06/26	96	75 - 125	96	80 - 120	<0.01	ug/L	NC	20		
9478735	Acidity	2024/06/26	76 (2)	80 - 120	104	80 - 120	<5.0	mg/L	NC	25		
9478944	Dissolved Sulphur (S)	2024/06/26	NC	80 - 120	99	80 - 120	<0.5	mg/L				
9480042	Mercury (Hg)	2024/06/27	99	75 - 125	95	80 - 120	<0.00010	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9481109	Total Phosphorus (P)	2024/06/26	107	80 - 120	95	80 - 120	<0.0010	mg/L	17	20	93	80 - 120
9481899	Dissolved Aluminum (Al)	2024/06/27	103	80 - 120	102	80 - 120	<0.0005	mg/L	5.2	20		
9481899	Dissolved Antimony (Sb)	2024/06/27	107	80 - 120	102	80 - 120	<0.0001	mg/L	0.20	20		
9481899	Dissolved Arsenic (As)	2024/06/27	101	80 - 120	98	80 - 120	<0.0001	mg/L	4.4	20		
9481899	Dissolved Barium (Ba)	2024/06/27	NC	80 - 120	98	80 - 120	<0.0002	mg/L	1.0	20		
9481899	Dissolved Beryllium (Be)	2024/06/27	103	80 - 120	101	80 - 120	<0.00005	mg/L	NC	20		
9481899	Dissolved Bismuth (Bi)	2024/06/27	92	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9481899	Dissolved Boron (B)	2024/06/27	100	80 - 120	101	80 - 120	<0.001	mg/L	2.1	20		
9481899	Dissolved Cadmium (Cd)	2024/06/27	102	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9481899	Dissolved Calcium (Ca)	2024/06/27	NC	80 - 120	103	80 - 120	<0.02	mg/L	0.028	20		
9481899	Dissolved Cesium (Cs)	2024/06/27	97	80 - 120	98	80 - 120	<0.00002	mg/L	NC	N/A		
9481899	Dissolved Chromium (Cr)	2024/06/27	94	80 - 120	93	80 - 120	<0.0005	mg/L	NC	20		
9481899	Dissolved Cobalt (Co)	2024/06/27	94	80 - 120	96	80 - 120	<0.00005	mg/L	0.61	20		
9481899	Dissolved Copper (Cu)	2024/06/27	100	80 - 120	97	80 - 120	<0.0001	mg/L	1.4	20		
9481899	Dissolved Iron (Fe)	2024/06/27	99	80 - 120	100	80 - 120	<0.005	mg/L	0.68	20		
9481899	Dissolved Lead (Pb)	2024/06/27	97	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9481899	Dissolved Lithium (Li)	2024/06/27	102	80 - 120	103	80 - 120	<0.0005	mg/L	3.4	20		
9481899	Dissolved Magnesium (Mg)	2024/06/27	NC	80 - 120	99	80 - 120	<0.005	mg/L	0.45	20		
9481899	Dissolved Manganese (Mn)	2024/06/27	NC	80 - 120	96	80 - 120	<0.0002	mg/L	0.15	20		
9481899	Dissolved Molybdenum (Mo)	2024/06/27	105	80 - 120	99	80 - 120	<0.00005	mg/L	1.1	20		
9481899	Dissolved Nickel (Ni)	2024/06/27	90	80 - 120	96	80 - 120	<0.0001	mg/L	1.1	20		
9481899	Dissolved Phosphorus (P)	2024/06/27	110	80 - 120	105	80 - 120	<0.005	mg/L	NC	20		
9481899	Dissolved Potassium (K)	2024/06/27	97	80 - 120	100	80 - 120	<0.02	mg/L	3.4	20		
9481899	Dissolved Rubidium (Rb)	2024/06/27	93	80 - 120	98	80 - 120	<0.00002	mg/L	NC	N/A		
9481899	Dissolved Selenium (Se)	2024/06/27	103	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9481899	Dissolved Silicon (Si)	2024/06/27	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.13	20		
9481899	Dissolved Silver (Ag)	2024/06/27	65 (3)	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9481899	Dissolved Sodium (Na)	2024/06/27	NC	80 - 120	99	80 - 120	<0.01	mg/L	0.035	20		
9481899	Dissolved Strontium (Sr)	2024/06/27	NC	80 - 120	97	80 - 120	<0.0001	mg/L	1.4	20		
9481899	Dissolved Tellurium (Te)	2024/06/27	104	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9481899	Dissolved Thallium (Tl)	2024/06/27	99	80 - 120	100	80 - 120	<0.000005	mg/L	15	20		
9481899	Dissolved Thorium (Th)	2024/06/27	98	80 - 120	96	80 - 120	<0.0002	mg/L	NC	20		
9481899	Dissolved Tin (Sn)	2024/06/27	106	80 - 120	99	80 - 120	<0.0001	mg/L	7.7	20		
9481899	Dissolved Titanium (Ti)	2024/06/27	101	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9481899	Dissolved Tungsten (W)	2024/06/27	104	80 - 120	100	80 - 120	<0.0001	mg/L	2.0	20		
9481899	Dissolved Uranium (U)	2024/06/27	101	80 - 120	98	80 - 120	<0.00001	mg/L	1.1	20		
9481899	Dissolved Vanadium (V)	2024/06/27	97	80 - 120	95	80 - 120	<0.00005	mg/L	1.6	20		
9481899	Dissolved Zinc (Zn)	2024/06/27	93	80 - 120	96	80 - 120	<0.0005	mg/L	0.19	20		
9481899	Dissolved Zirconium (Zr)	2024/06/27	111	80 - 120	101	80 - 120	<0.0001	mg/L	2.9	20		
9481902	. Aluminum (Al)	2024/06/27	102	80 - 120	98	80 - 120	<0.0005	mg/L	0.027	20		
9481902	. Antimony (Sb)	2024/06/27	107	80 - 120	103	80 - 120	<0.0001	mg/L	2.5	20		
9481902	. Arsenic (As)	2024/06/27	NC	80 - 120	99	80 - 120	<0.0001	mg/L	0.81	20		
9481902	. Barium (Ba)	2024/06/27	98	80 - 120	99	80 - 120	<0.0002	mg/L	2.7	20		
9481902	. Beryllium (Be)	2024/06/27	98	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
9481902	. Bismuth (Bi)	2024/06/27	92	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9481902	. Boron (B)	2024/06/27	93	80 - 120	96	80 - 120	<0.001	mg/L	4.3	20		
9481902	. Cadmium (Cd)	2024/06/27	102	80 - 120	98	80 - 120	<0.000005	mg/L	0	20		
9481902	. Calcium (Ca)	2024/06/27	NC	80 - 120	101	80 - 120	<0.02	mg/L	1.2	20		
9481902	. Cesium (Cs)	2024/06/27	98	80 - 120	99	80 - 120	<0.00002	mg/L	1.8	20		
9481902	. Chromium (Cr)	2024/06/27	95	80 - 120	94	80 - 120	<0.0005	mg/L	NC	20		
9481902	. Cobalt (Co)	2024/06/27	NC	80 - 120	94	80 - 120	<0.00005	mg/L	3.2	20		
9481902	. Copper (Cu)	2024/06/27	99	80 - 120	96	80 - 120	<0.0001	mg/L	2.7	20		
9481902	. Iron (Fe)	2024/06/27	96	80 - 120	99	80 - 120	<0.005	mg/L	2.4	20		
9481902	. Lead (Pb)	2024/06/27	97	80 - 120	98	80 - 120	<0.00005	mg/L	6.2	20		
9481902	. Lithium (Li)	2024/06/27	103	80 - 120	102	80 - 120	<0.0005	mg/L	3.5	20		
9481902	. Magnesium (Mg)	2024/06/27	NC	80 - 120	99	80 - 120	<0.005	mg/L	1.6	20		
9481902	. Manganese (Mn)	2024/06/27	NC	80 - 120	97	80 - 120	<0.0002	mg/L	0.66	20		
9481902	. Molybdenum (Mo)	2024/06/27	107	80 - 120	99	80 - 120	<0.00005	mg/L	1.9	20		
9481902	. Nickel (Ni)	2024/06/27	91	80 - 120	94	80 - 120	<0.0001	mg/L	1.1	20		
9481902	. Phosphorus (P)	2024/06/27	103	80 - 120	98	80 - 120	<0.005	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9481902	. Potassium (K)	2024/06/27	108	80 - 120	103	80 - 120	<0.02	mg/L	4.1	20		
9481902	. Rubidium (Rb)	2024/06/27	98	80 - 120	101	80 - 120	<0.00002	mg/L	3.4	20		
9481902	. Selenium (Se)	2024/06/27	105	80 - 120	101	80 - 120	<0.00005	mg/L	5.5	20		
9481902	. Silicon (Si)	2024/06/27	NC	80 - 120	98	80 - 120	<0.005	mg/L	0.91	20		
9481902	. Silver (Ag)	2024/06/27	98	80 - 120	96	80 - 120	<0.00001	mg/L	12	20		
9481902	. Sodium (Na)	2024/06/27	NC	80 - 120	99	80 - 120	<0.01	mg/L	3.1	20		
9481902	. Strontium (Sr)	2024/06/27	NC	80 - 120	98	80 - 120	<0.0001	mg/L	1.9	20		
9481902	. Tellurium (Te)	2024/06/27	110	80 - 120	105	80 - 120	<0.0001	mg/L	NC	20		
9481902	. Thallium (Tl)	2024/06/27	100	80 - 120	101	80 - 120	<0.000005	mg/L	0	20		
9481902	. Thorium (Th)	2024/06/27	98	80 - 120	96	80 - 120	<0.0002	mg/L	NC	20		
9481902	. Tin (Sn)	2024/06/27	106	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9481902	. Titanium (Ti)	2024/06/27	101	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9481902	. Tungsten (W)	2024/06/27	101	80 - 120	99	80 - 120	<0.0001	mg/L	1.0	20		
9481902	. Uranium (U)	2024/06/27	101	80 - 120	100	80 - 120	<0.00001	mg/L	3.0	20		
9481902	. Vanadium (V)	2024/06/27	97	80 - 120	94	80 - 120	<0.00005	mg/L	3.7	20		
9481902	. Zinc (Zn)	2024/06/27	96	80 - 120	97	80 - 120	<0.0005	mg/L	4.1	20		
9481902	. Zirconium (Zr)	2024/06/27	109	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9485788	Free Cyanide (CN)	2024/06/27	77 (1)	80 - 120	91	80 - 120	<2.0	ug/L	NC	20		
9486986	Strong Acid Dissoc. Cyanide (CN)	2024/06/28	99	80 - 120	103	80 - 120	<0.00050	mg/L				
9493025	Dissolved Aluminum (Al)	2024/07/04	104	80 - 120	97	80 - 120	<0.5	ug/L	4.4	20		
9493025	Dissolved Antimony (Sb)	2024/07/04	107	80 - 120	100	80 - 120	<0.1	ug/L	0.17	20		
9493025	Dissolved Arsenic (As)	2024/07/04	NC	80 - 120	99	80 - 120	<0.1	ug/L	1.2	20		
9493025	Dissolved Barium (Ba)	2024/07/04	NC	80 - 120	99	80 - 120	<0.2	ug/L	3.6	20		
9493025	Dissolved Beryllium (Be)	2024/07/04	106	80 - 120	100	80 - 120	<0.05	ug/L	NC	20		
9493025	Dissolved Bismuth (Bi)	2024/07/04	98	80 - 120	99	80 - 120	<0.1	ug/L	NC	20		
9493025	Dissolved Boron (B)	2024/07/04	101	80 - 120	94	80 - 120	<1	ug/L	0.32	20		
9493025	Dissolved Cadmium (Cd)	2024/07/04	101	80 - 120	97	80 - 120	<0.01	ug/L	NC	20		
9493025	Dissolved Calcium (Ca)	2024/07/04	NC	80 - 120	99	80 - 120	<20	ug/L	5.0	20		
9493025	Dissolved Cesium (Cs)	2024/07/04	98	80 - 120	99	80 - 120	<0.02	ug/L	14	20		
9493025	Dissolved Chromium (Cr)	2024/07/04	101	80 - 120	96	80 - 120	<0.5	ug/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9493025	Dissolved Cobalt (Co)	2024/07/04	100	80 - 120	97	80 - 120	<0.05	ug/L	13	20		
9493025	Dissolved Copper (Cu)	2024/07/04	98	80 - 120	98	80 - 120	<0.1	ug/L	8.2	20		
9493025	Dissolved Iron (Fe)	2024/07/04	103	80 - 120	100	80 - 120	<5	ug/L	18	20		
9493025	Dissolved Lead (Pb)	2024/07/04	97	80 - 120	97	80 - 120	0.50, RDL=0.05	ug/L	NC	20		
9493025	Dissolved Lithium (Li)	2024/07/04	102	80 - 120	102	80 - 120	<0.5	ug/L	3.0	20		
9493025	Dissolved Magnesium (Mg)	2024/07/04	NC	80 - 120	97	80 - 120	<5	ug/L	2.0	20		
9493025	Dissolved Manganese (Mn)	2024/07/04	103	80 - 120	98	80 - 120	<0.2	ug/L	15	20		
9493025	Dissolved Molybdenum (Mo)	2024/07/04	106	80 - 120	98	80 - 120	<0.05	ug/L	1.8	20		
9493025	Dissolved Nickel (Ni)	2024/07/04	99	80 - 120	97	80 - 120	<0.1	ug/L	9.2	20		
9493025	Dissolved Phosphorus (P)	2024/07/04	110	80 - 120	95	80 - 120	<5	ug/L	0.74	20		
9493025	Dissolved Potassium (K)	2024/07/04	NC	80 - 120	99	80 - 120	<20	ug/L	6.1	20		
9493025	Dissolved Rubidium (Rb)	2024/07/04	99	80 - 120	97	80 - 120	<0.02	ug/L	8.4	20		
9493025	Dissolved Selenium (Se)	2024/07/04	102	80 - 120	99	80 - 120	<0.2	ug/L	NC	20		
9493025	Dissolved Silicon (Si)	2024/07/04	NC	80 - 120	100	80 - 120	<5	ug/L	2.1	20		
9493025	Dissolved Silver (Ag)	2024/07/04	101	80 - 120	97	80 - 120	<0.01	ug/L	NC	20		
9493025	Dissolved Sodium (Na)	2024/07/04	NC	80 - 120	99	80 - 120	36, RDL=10	ug/L	4.3	20		
9493025	Dissolved Strontium (Sr)	2024/07/04	NC	80 - 120	97	80 - 120	<0.1	ug/L	4.1	20		
9493025	Dissolved Tellurium (Te)	2024/07/04	101	80 - 120	98	80 - 120	<0.1	ug/L	NC	20		
9493025	Dissolved Thallium (Tl)	2024/07/04	107	80 - 120	100	80 - 120	<0.005	ug/L	NC	20		
9493025	Dissolved Thorium (Th)	2024/07/04	100	80 - 120	98	80 - 120	<0.2	ug/L				
9493025	Dissolved Tin (Sn)	2024/07/04	106	80 - 120	99	80 - 120	<0.1	ug/L	NC	20		
9493025	Dissolved Titanium (Ti)	2024/07/04	102	80 - 120	101	80 - 120	<0.5	ug/L	NC	20		
9493025	Dissolved Tungsten (W)	2024/07/04	111	80 - 120	99	80 - 120	<0.1	ug/L	2.3	20		
9493025	Dissolved Uranium (U)	2024/07/04	102	80 - 120	98	80 - 120	<0.01	ug/L	0.70	20		
9493025	Dissolved Vanadium (V)	2024/07/04	104	80 - 120	98	80 - 120	<0.05	ug/L	11	20		
9493025	Dissolved Zinc (Zn)	2024/07/04	96	80 - 120	98	80 - 120	<0.5	ug/L	5.8	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9493025	Dissolved Zirconium (Zr)	2024/07/04	108	80 - 120	99	80 - 120	<0.1	ug/L	NC	20		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) Matrix Spike: results are outside acceptance limit. Analysis was repeated with similar results.

(3) Matrix Spike exceeds acceptance limits, probable matrix interference

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Bureau Veritas Job #: C4I9516
Report Date: 2024/07/05

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Anastassia Hamanov, Scientific Specialist

Cristina Carriere, Senior Scientific Specialist

Janah Rhyno, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 918720

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/07/04
Report #: R8220551
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4J2357
Received: 2024/06/24, 16:05

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	2	N/A	2024/07/02	ATL SOP-00205	SM 24 2310B m
Alkalinity	2	N/A	2024/06/26	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2024/06/27	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	2	N/A	2024/06/27	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	2	N/A	2024/06/26	CAM SOP-00414	SM 24 2510 m
Fluoride	2	2024/06/25	2024/06/26	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2024/06/28	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	2	2024/06/27	2024/06/27	CAM SOP-00453	EPA 7470 m
Mercury (low level)	2	2024/06/27	2024/06/27	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	2	2024/06/27	2024/06/28	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	2	N/A	2024/06/27	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	2	N/A	2024/06/27	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	2	2024/06/27	2024/06/27	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	2	N/A	2024/07/02	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2024/07/02	2024/07/02	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	2	2024/06/29	2024/07/02	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	2	N/A	2024/06/27	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	2	N/A	2024/06/26	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	2	2024/06/25	2024/06/26	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	2	N/A	2024/06/25		Field pH Meter
Sulphate by Automated Turbidimetry	2	N/A	2024/06/27	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	2	2024/06/26	2024/06/27	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	2	N/A	2024/06/25		Field Thermometer
Total Kjeldahl Nitrogen in Water	2	2024/06/27	2024/06/28	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	2	2024/06/26	2024/06/27	CAM SOP-00428	SM 24 2540D m
Turbidity	2	N/A	2024/06/25	CAM SOP-00417	SM 24 2130 B

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 918720

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/07/04
Report #: R8220551
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4J2357
Received: 2024/06/24, 16:05

compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Bureau Veritas Job #: C4J2357
Report Date: 2024/07/04

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZNX935			ZNX935			ZNX936		
Sampling Date		2024/06/23 10:50			2024/06/23 10:50			2024/06/23 11:06		
COC Number		918720			918720			918720		
	UNITS	G6-OB-14	RDL	QC Batch	G6-OB-14 Lab-Dup	RDL	QC Batch	G6-BR-14	RDL	QC Batch
Calculated Parameters										
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	120	1.0	9476972				300	1.0	9476972
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.5	1.0	9476972				2.8	1.0	9476972
Hardness (CaCO3)	mg/L	120	1.0	9476977				270	1.0	9476977
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9476972				<1.0	1.0	9476972
Field Measurements										
Field Temperature	Celsius	10.6	N/A	ONSITE				7.1	N/A	ONSITE
Field Measured pH	pH	8.36		ONSITE				7.56		ONSITE
Inorganics										
Acidity	mg/L	<5.0	5.0	9488682				13	5.0	9488682
Total Ammonia-N	mg/L	<0.050	0.050	9482039	<0.050	0.050	9482039	0.33	0.050	9482039
Conductivity	mS/cm	0.227	N/A	9478435				0.532	N/A	9478435
Free Cyanide (CN)	ug/L	<2.0 (1)	2.0	9494796				<2.0 (1)	2.0	9494796
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9494797				<0.00050	0.00050	9494797
Total Dissolved Solids	mg/L	150	10	9479773				305	10	9479773
Fluoride (F-)	mg/L	<0.10	0.10	9478436				0.35	0.10	9478436
Total Kjeldahl Nitrogen (TKN)	mg/L	<0.10	0.10	9481960				0.41	0.10	9481960
pH	pH	8.14		9478437				8.00		9478437
Total Phosphorus (P)	mg/L	0.025	0.0010	9494798				0.046	0.0010	9494798
Total Suspended Solids	mg/L	46	1	9479790				11	1	9479790
Dissolved Sulphate (SO4)	mg/L	1.5	1.0	9478172				<1.0	1.0	9478172
Turbidity	NTU	9.3	0.1	9478236				7.0	0.1	9478236
Alkalinity (Total as CaCO3)	mg/L	120	1.0	9478434				300	1.0	9478434
Dissolved Chloride (Cl-)	mg/L	<1.0	1.0	9478159				<1.0	1.0	9478159
Nitrite (N)	mg/L	<0.010	0.010	9478407				<0.010	0.010	9478407
Nitrate (N)	mg/L	<0.10	0.10	9478407				<0.10	0.10	9478407
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9478407				<0.10	0.10	9478407

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J2357
Report Date: 2024/07/04

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZNX936		
Sampling Date		2024/06/23 11:06		
COC Number		918720		
	UNITS	G6-BR-14 Lab-Dup	RDL	QC Batch
Inorganics				
Conductivity	mS/cm	0.536	N/A	9478435
Fluoride (F-)	mg/L	0.33	0.10	9478436
pH	pH	8.04		9478437
Alkalinity (Total as CaCO3)	mg/L	300	1.0	9478434

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Bureau Veritas Job #: C4J2357
Report Date: 2024/07/04

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZNX935			ZNX935			ZNX936		
Sampling Date		2024/06/23 10:50			2024/06/23 10:50			2024/06/23 11:06		
COC Number		918720			918720			918720		
	UNITS	G6-OB-14	RDL	QC Batch	G6-OB-14 Lab-Dup	RDL	QC Batch	G6-BR-14	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0016	0.0005	9481899				0.0007	0.0005	9481899
. Aluminum (Al)	mg/L	0.128	0.0005	9481902				0.0668	0.0005	9481902
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9481899				<0.0001	0.0001	9481899
. Antimony (Sb)	mg/L	<0.0001	0.0001	9481902				<0.0001	0.0001	9481902
Dissolved Arsenic (As)	mg/L	0.0004	0.0001	9481899				0.0011	0.0001	9481899
. Arsenic (As)	mg/L	0.0006	0.0001	9481902				0.0011	0.0001	9481902
Dissolved Barium (Ba)	mg/L	0.0060	0.0002	9481899				0.0493	0.0002	9481899
. Barium (Ba)	mg/L	0.0112	0.0002	9481902				0.0514	0.0002	9481902
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9481899				<0.00005	0.00005	9481899
. Beryllium (Be)	mg/L	<0.00005	0.00005	9481902				<0.00005	0.00005	9481902
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9481899				<0.0001	0.0001	9481899
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9481902				<0.0001	0.0001	9481902
Dissolved Boron (B)	mg/L	0.005	0.001	9481899				0.030	0.001	9481899
. Boron (B)	mg/L	0.005	0.001	9481902				0.030	0.001	9481902
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9481899				<0.00001	0.00001	9481899
. Cadmium (Cd)	mg/L	0.000006	0.000005	9481902				<0.000005	0.000005	9481902
Dissolved Calcium (Ca)	mg/L	32.7	0.02	9481899				71.3	0.1	9481899
. Calcium (Ca)	mg/L	41.1	0.02	9481902				72.1	0.1	9481902
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9481899				0.00056	0.00002	9481899
. Cesium (Cs)	mg/L	<0.00002	0.00002	9481902				0.00066	0.00002	9481902
Dissolved Chromium (Cr)	mg/L	0.0005	0.0005	9481899				<0.0005	0.0005	9481899
. Chromium (Cr)	mg/L	0.0008	0.0005	9481902				<0.0005	0.0005	9481902
Dissolved Cobalt (Co)	mg/L	<0.00005	0.00005	9481899				<0.00005	0.00005	9481899
. Cobalt (Co)	mg/L	0.00017	0.00005	9481902				0.00007	0.00005	9481902
Dissolved Copper (Cu)	mg/L	0.0002	0.0001	9481899				<0.0001	0.0001	9481899
. Copper (Cu)	mg/L	0.0008	0.0001	9481902				0.0003	0.0001	9481902
Dissolved Iron (Fe)	mg/L	<0.005	0.005	9481899				0.799	0.005	9481899
. Iron (Fe)	mg/L	0.230	0.005	9481902				0.923	0.005	9481902
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9481899				<0.00005	0.00005	9481899
. Lead (Pb)	mg/L	0.00035	0.00005	9481902				0.00026	0.00005	9481902

RDL = Reportable Detection Limit
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J2357
Report Date: 2024/07/04

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZNX935			ZNX935			ZNX936		
Sampling Date		2024/06/23 10:50			2024/06/23 10:50			2024/06/23 11:06		
COC Number		918720			918720			918720		
	UNITS	G6-OB-14	RDL	QC Batch	G6-OB-14 Lab-Dup	RDL	QC Batch	G6-BR-14	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0008	0.0005	9481899				0.0072	0.0005	9481899
. Lithium (Li)	mg/L	0.0013	0.0005	9481902				0.0075	0.0005	9481902
Dissolved Magnesium (Mg)	mg/L	8.46	0.005	9481899				22.8	0.005	9481899
. Magnesium (Mg)	mg/L	10.1	0.005	9481902				23.2	0.005	9481902
Dissolved Manganese (Mn)	mg/L	0.0013	0.0002	9481899				0.0443	0.0002	9481899
. Manganese (Mn)	mg/L	0.0233	0.0002	9481902				0.0487	0.0002	9481902
Mercury (Hg)	ug/L	<0.01	0.01	9483379				<0.01	0.01	9483379
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9483394	<0.01	0.01	9483394	<0.01	0.01	9483394
Dissolved Molybdenum (Mo)	mg/L	0.00010	0.00005	9481899				0.00063	0.00005	9481899
. Molybdenum (Mo)	mg/L	0.00011	0.00005	9481902				0.00072	0.00005	9481902
Dissolved Nickel (Ni)	mg/L	<0.0001	0.0001	9481899				<0.0001	0.0001	9481899
. Nickel (Ni)	mg/L	0.0004	0.0001	9481902				0.0002	0.0001	9481902
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9481899				0.040	0.005	9481899
. Phosphorus (P)	mg/L	0.026	0.005	9481902				0.059	0.005	9481902
Dissolved Potassium (K)	mg/L	0.28	0.02	9481899				2.29	0.02	9481899
. Potassium (K)	mg/L	0.34	0.02	9481902				2.25	0.02	9481902
Dissolved Rubidium (Rb)	mg/L	0.00028	0.00002	9481899				0.00077	0.00002	9481899
. Rubidium (Rb)	mg/L	0.00054	0.00002	9481902				0.00092	0.00002	9481902
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9481899				<0.0002	0.0002	9481899
. Selenium (Se)	mg/L	0.00007	0.00005	9481902				<0.00005	0.00005	9481902
Dissolved Silicon (Si)	mg/L	4.54	0.005	9481899				8.58	0.025	9481899
. Silicon (Si)	mg/L	4.87	0.005	9481902				8.47	0.025	9481902
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9481899				<0.00001	0.00001	9481899
. Silver (Ag)	mg/L	<0.00001	0.00001	9481902				<0.00001	0.00001	9481902
Dissolved Sodium (Na)	mg/L	1.97	0.01	9481899				13.9	0.01	9481899
. Sodium (Na)	mg/L	2.27	0.01	9481902				13.3	0.01	9481902
Dissolved Strontium (Sr)	mg/L	0.0298	0.0001	9481899				0.316	0.0001	9481899
. Strontium (Sr)	mg/L	0.0367	0.0001	9481902				0.306	0.0001	9481902
Dissolved Sulphur (S)	mg/L	0.8	0.5	9482694				<0.5	0.5	9482694
Total Sulphur (S)	mg/L	0.7	0.5	9481689				<0.5	0.5	9481689
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9481899				<0.0001	0.0001	9481899

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J2357
Report Date: 2024/07/04

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZNX935			ZNX935			ZNX936		
Sampling Date		2024/06/23 10:50			2024/06/23 10:50			2024/06/23 11:06		
COC Number		918720			918720			918720		
	UNITS	G6-OB-14	RDL	QC Batch	G6-OB-14 Lab-Dup	RDL	QC Batch	G6-BR-14	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	9481902				<0.0001	0.0001	9481902
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9481899				<0.000005	0.000005	9481899
. Thallium (Tl)	mg/L	0.000007	0.000005	9481902				<0.000005	0.000005	9481902
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9481899				<0.0002	0.0002	9481899
. Thorium (Th)	mg/L	<0.0002	0.0002	9481902				<0.0002	0.0002	9481902
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9481899				<0.0001	0.0001	9481899
. Tin (Sn)	mg/L	<0.0001	0.0001	9481902				<0.0001	0.0001	9481902
Dissolved Titanium (Ti)	mg/L	<0.0005	0.0005	9481899				<0.0005	0.0005	9481899
. Titanium (Ti)	mg/L	0.0066	0.0005	9481902				0.0039	0.0005	9481902
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	9481899				0.0006	0.0001	9481899
. Tungsten (W)	mg/L	<0.0001	0.0001	9481902				0.0005	0.0001	9481902
Dissolved Uranium (U)	mg/L	0.00013	0.00001	9481899				0.00002	0.00001	9481899
. Uranium (U)	mg/L	0.00018	0.00001	9481902				0.00004	0.00001	9481902
Dissolved Vanadium (V)	mg/L	0.00088	0.00005	9481899				<0.00005	0.00005	9481899
. Vanadium (V)	mg/L	0.00122	0.00005	9481902				0.00021	0.00005	9481902
Dissolved Zinc (Zn)	mg/L	0.0009	0.0005	9481899				0.0006	0.0005	9481899
. Zinc (Zn)	mg/L	0.0019	0.0005	9481902				0.0022	0.0005	9481902
Dissolved Zirconium (Zr)	mg/L	<0.0001	0.0001	9481899				0.0004	0.0001	9481899
. Zirconium (Zr)	mg/L	0.0001	0.0001	9481902				0.0009	0.0001	9481902

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		ZNX936		
Sampling Date		2024/06/23 11:06		
COC Number		918720		
	UNITS	G6-BR-14 Lab-Dup	RDL	QC Batch
Metals				
Mercury (Hg)	ug/L	<0.01	0.01	9483379

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C4J2357
Report Date: 2024/07/04

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: ZNX935
Sample ID: G6-OB-14
Matrix: Water

Collected: 2024/06/23
Shipped:
Received: 2024/06/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9488682	N/A	2024/07/02	Brent Boudreau
Alkalinity	AT	9478434	N/A	2024/06/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9476972	N/A	2024/06/27	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9478159	N/A	2024/06/27	Alina Dobreanu
Conductivity	AT	9478435	N/A	2024/06/26	Nachiketa Gohil
Fluoride	ISE	9478436	2024/06/25	2024/06/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		9476977	N/A	2024/06/28	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9483394	2024/06/27	2024/06/27	Gagandeep Rai
Mercury (low level)	CV/AA	9483379	2024/06/27	2024/06/27	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9482694	2024/06/27	2024/06/28	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9481899	N/A	2024/06/27	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9481902	N/A	2024/06/27	Nan Raykha
Total Metals Analysis by ICP	ICP	9481689	2024/06/27	2024/06/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9494796	N/A	2024/07/02	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9494797	2024/07/02	2024/07/02	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9494798	2024/06/29	2024/07/02	Yan Lin
Total Ammonia-N	LACH/NH4	9482039	N/A	2024/06/27	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9478407	N/A	2024/06/26	Jinal Chavda
pH	AT	9478437	2024/06/25	2024/06/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/25	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9478172	N/A	2024/06/27	Alina Dobreanu
Total Dissolved Solids	BAL	9479773	2024/06/26	2024/06/27	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/25	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9481960	2024/06/27	2024/06/28	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9479790	2024/06/26	2024/06/27	Razieh Tabesh
Turbidity	AT	9478236	N/A	2024/06/25	Kien Tran

Bureau Veritas ID: ZNX935 Dup
Sample ID: G6-OB-14
Matrix: Water

Collected: 2024/06/23
Shipped:
Received: 2024/06/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	9483394	2024/06/27	2024/06/27	Gagandeep Rai
Total Ammonia-N	LACH/NH4	9482039	N/A	2024/06/27	Yogesh Patel

Bureau Veritas ID: ZNX936
Sample ID: G6-BR-14
Matrix: Water

Collected: 2024/06/23
Shipped:
Received: 2024/06/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9488682	N/A	2024/07/02	Brent Boudreau
Alkalinity	AT	9478434	N/A	2024/06/26	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9476972	N/A	2024/06/27	Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J2357
Report Date: 2024/07/04

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

TEST SUMMARY

Bureau Veritas ID: ZNX936
Sample ID: G6-BR-14
Matrix: Water

Collected: 2024/06/23
Shipped:
Received: 2024/06/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	SKAL	9478159	N/A	2024/06/27	Alina Dobreanu
Conductivity	AT	9478435	N/A	2024/06/26	Nachiketa Gohil
Fluoride	ISE	9478436	2024/06/25	2024/06/26	Nachiketa Gohil
Hardness (calculated as CaCO3)		9476977	N/A	2024/06/28	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9483394	2024/06/27	2024/06/27	Gagandeep Rai
Mercury (low level)	CV/AA	9483379	2024/06/27	2024/06/27	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9482694	2024/06/27	2024/06/28	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9481899	N/A	2024/06/27	Nan Raykha
Metals in Water by ICPMS (low level)	ICP1/MS	9481902	N/A	2024/06/27	Nan Raykha
Total Metals Analysis by ICP	ICP	9481689	2024/06/27	2024/06/27	Suban Kanapathippllai
Cyanide (Free)	SPEC	9494796	N/A	2024/07/02	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9494797	2024/07/02	2024/07/02	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9494798	2024/06/29	2024/07/02	Yan Lin
Total Ammonia-N	LACH/NH4	9482039	N/A	2024/06/27	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9478407	N/A	2024/06/26	Jinal Chavda
pH	AT	9478437	2024/06/25	2024/06/26	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/06/25	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Sulphate by Automated Turbidimetry	SKAL	9478172	N/A	2024/06/27	Alina Dobreanu
Total Dissolved Solids	BAL	9479773	2024/06/26	2024/06/27	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/06/25	Akhiljyothi PUTHUPARAMBIL SUNILKUMAR
Total Kjeldahl Nitrogen in Water	SKAL	9481960	2024/06/27	2024/06/28	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9479790	2024/06/26	2024/06/27	Razieh Tabesh
Turbidity	AT	9478236	N/A	2024/06/25	Kien Tran

Bureau Veritas ID: ZNX936 Dup
Sample ID: G6-BR-14
Matrix: Water

Collected: 2024/06/23
Shipped:
Received: 2024/06/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9478434	N/A	2024/06/26	Nachiketa Gohil
Conductivity	AT	9478435	N/A	2024/06/26	Nachiketa Gohil
Fluoride	ISE	9478436	2024/06/25	2024/06/26	Nachiketa Gohil
Mercury (low level)	CV/AA	9483379	2024/06/27	2024/06/27	Gagandeep Rai
pH	AT	9478437	2024/06/25	2024/06/26	Nachiketa Gohil

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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	12.0°C

Sample ZNX935 [G6-OB-14] : Acidity sample contained headspace.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J2357
Report Date: 2024/07/04

QUALITY ASSURANCE REPORT

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9478159	Dissolved Chloride (Cl-)	2024/06/27	99	80 - 120	101	80 - 120	<1.0	mg/L	0.91	20		
9478172	Dissolved Sulphate (SO4)	2024/06/27	NC	75 - 125	98	80 - 120	<1.0	mg/L	0.15	20		
9478236	Turbidity	2024/06/25			98	80 - 120	<0.1	NTU	8.5	20		
9478407	Nitrate (N)	2024/06/26	89	80 - 120	95	80 - 120	<0.10	mg/L	NC	20		
9478407	Nitrite (N)	2024/06/26	96	80 - 120	98	80 - 120	<0.010	mg/L	NC	20		
9478434	Alkalinity (Total as CaCO3)	2024/06/26			97	85 - 115	<1.0	mg/L	0.58	20		
9478435	Conductivity	2024/06/26			101	85 - 115	0.000700	mS/cm	0.75	10		
9478436	Fluoride (F-)	2024/06/26	97	80 - 120	99	80 - 120	<0.10	mg/L	7.1	20		
9478437	pH	2024/06/26			102	98 - 103			0.49	N/A		
9479773	Total Dissolved Solids	2024/06/27			97	80 - 120	<10	mg/L	7.2	20		
9479790	Total Suspended Solids	2024/06/27			100	80 - 120	<1	mg/L	0	20		
9481689	Total Sulphur (S)	2024/06/27	102	80 - 120	99	80 - 120	<0.5	mg/L				
9481899	Dissolved Aluminum (Al)	2024/06/27	103	80 - 120	102	80 - 120	<0.0005	mg/L	5.2	20		
9481899	Dissolved Antimony (Sb)	2024/06/27	107	80 - 120	102	80 - 120	<0.0001	mg/L	0.20	20		
9481899	Dissolved Arsenic (As)	2024/06/27	101	80 - 120	98	80 - 120	<0.0001	mg/L	4.4	20		
9481899	Dissolved Barium (Ba)	2024/06/27	NC	80 - 120	98	80 - 120	<0.0002	mg/L	1.0	20		
9481899	Dissolved Beryllium (Be)	2024/06/27	103	80 - 120	101	80 - 120	<0.00005	mg/L	NC	20		
9481899	Dissolved Bismuth (Bi)	2024/06/27	92	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9481899	Dissolved Boron (B)	2024/06/27	100	80 - 120	101	80 - 120	<0.001	mg/L	2.1	20		
9481899	Dissolved Cadmium (Cd)	2024/06/27	102	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9481899	Dissolved Calcium (Ca)	2024/06/27	NC	80 - 120	103	80 - 120	<0.02	mg/L	0.028	20		
9481899	Dissolved Cesium (Cs)	2024/06/27	97	80 - 120	98	80 - 120	<0.00002	mg/L	NC	N/A		
9481899	Dissolved Chromium (Cr)	2024/06/27	94	80 - 120	93	80 - 120	<0.0005	mg/L	NC	20		
9481899	Dissolved Cobalt (Co)	2024/06/27	94	80 - 120	96	80 - 120	<0.00005	mg/L	0.61	20		
9481899	Dissolved Copper (Cu)	2024/06/27	100	80 - 120	97	80 - 120	<0.0001	mg/L	1.4	20		
9481899	Dissolved Iron (Fe)	2024/06/27	99	80 - 120	100	80 - 120	<0.005	mg/L	0.68	20		
9481899	Dissolved Lead (Pb)	2024/06/27	97	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9481899	Dissolved Lithium (Li)	2024/06/27	102	80 - 120	103	80 - 120	<0.0005	mg/L	3.4	20		
9481899	Dissolved Magnesium (Mg)	2024/06/27	NC	80 - 120	99	80 - 120	<0.005	mg/L	0.45	20		
9481899	Dissolved Manganese (Mn)	2024/06/27	NC	80 - 120	96	80 - 120	<0.0002	mg/L	0.15	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9481899	Dissolved Molybdenum (Mo)	2024/06/27	105	80 - 120	99	80 - 120	<0.00005	mg/L	1.1	20		
9481899	Dissolved Nickel (Ni)	2024/06/27	90	80 - 120	96	80 - 120	<0.0001	mg/L	1.1	20		
9481899	Dissolved Phosphorus (P)	2024/06/27	110	80 - 120	105	80 - 120	<0.005	mg/L	NC	20		
9481899	Dissolved Potassium (K)	2024/06/27	97	80 - 120	100	80 - 120	<0.02	mg/L	3.4	20		
9481899	Dissolved Rubidium (Rb)	2024/06/27	93	80 - 120	98	80 - 120	<0.00002	mg/L	NC	N/A		
9481899	Dissolved Selenium (Se)	2024/06/27	103	80 - 120	100	80 - 120	<0.0002	mg/L	NC	20		
9481899	Dissolved Silicon (Si)	2024/06/27	NC	80 - 120	100	80 - 120	<0.005	mg/L	0.13	20		
9481899	Dissolved Silver (Ag)	2024/06/27	65 (1)	80 - 120	97	80 - 120	<0.00001	mg/L	NC	20		
9481899	Dissolved Sodium (Na)	2024/06/27	NC	80 - 120	99	80 - 120	<0.01	mg/L	0.035	20		
9481899	Dissolved Strontium (Sr)	2024/06/27	NC	80 - 120	97	80 - 120	<0.0001	mg/L	1.4	20		
9481899	Dissolved Tellurium (Te)	2024/06/27	104	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9481899	Dissolved Thallium (Tl)	2024/06/27	99	80 - 120	100	80 - 120	<0.000005	mg/L	15	20		
9481899	Dissolved Thorium (Th)	2024/06/27	98	80 - 120	96	80 - 120	<0.0002	mg/L	NC	20		
9481899	Dissolved Tin (Sn)	2024/06/27	106	80 - 120	99	80 - 120	<0.0001	mg/L	7.7	20		
9481899	Dissolved Titanium (Ti)	2024/06/27	101	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9481899	Dissolved Tungsten (W)	2024/06/27	104	80 - 120	100	80 - 120	<0.0001	mg/L	2.0	20		
9481899	Dissolved Uranium (U)	2024/06/27	101	80 - 120	98	80 - 120	<0.00001	mg/L	1.1	20		
9481899	Dissolved Vanadium (V)	2024/06/27	97	80 - 120	95	80 - 120	<0.00005	mg/L	1.6	20		
9481899	Dissolved Zinc (Zn)	2024/06/27	93	80 - 120	96	80 - 120	<0.0005	mg/L	0.19	20		
9481899	Dissolved Zirconium (Zr)	2024/06/27	111	80 - 120	101	80 - 120	<0.0001	mg/L	2.9	20		
9481902	. Aluminum (Al)	2024/06/27	102	80 - 120	98	80 - 120	<0.0005	mg/L	0.027	20		
9481902	. Antimony (Sb)	2024/06/27	107	80 - 120	103	80 - 120	<0.0001	mg/L	2.5	20		
9481902	. Arsenic (As)	2024/06/27	NC	80 - 120	99	80 - 120	<0.0001	mg/L	0.81	20		
9481902	. Barium (Ba)	2024/06/27	98	80 - 120	99	80 - 120	<0.0002	mg/L	2.7	20		
9481902	. Beryllium (Be)	2024/06/27	98	80 - 120	100	80 - 120	<0.00005	mg/L	NC	20		
9481902	. Bismuth (Bi)	2024/06/27	92	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9481902	. Boron (B)	2024/06/27	93	80 - 120	96	80 - 120	<0.001	mg/L	4.3	20		
9481902	. Cadmium (Cd)	2024/06/27	102	80 - 120	98	80 - 120	<0.000005	mg/L	0	20		
9481902	. Calcium (Ca)	2024/06/27	NC	80 - 120	101	80 - 120	<0.02	mg/L	1.2	20		
9481902	. Cesium (Cs)	2024/06/27	98	80 - 120	99	80 - 120	<0.00002	mg/L	1.8	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9481902	. Chromium (Cr)	2024/06/27	95	80 - 120	94	80 - 120	<0.0005	mg/L	NC	20		
9481902	. Cobalt (Co)	2024/06/27	NC	80 - 120	94	80 - 120	<0.00005	mg/L	3.2	20		
9481902	. Copper (Cu)	2024/06/27	99	80 - 120	96	80 - 120	<0.0001	mg/L	2.7	20		
9481902	. Iron (Fe)	2024/06/27	96	80 - 120	99	80 - 120	<0.005	mg/L	2.4	20		
9481902	. Lead (Pb)	2024/06/27	97	80 - 120	98	80 - 120	<0.00005	mg/L	6.2	20		
9481902	. Lithium (Li)	2024/06/27	103	80 - 120	102	80 - 120	<0.0005	mg/L	3.5	20		
9481902	. Magnesium (Mg)	2024/06/27	NC	80 - 120	99	80 - 120	<0.005	mg/L	1.6	20		
9481902	. Manganese (Mn)	2024/06/27	NC	80 - 120	97	80 - 120	<0.0002	mg/L	0.66	20		
9481902	. Molybdenum (Mo)	2024/06/27	107	80 - 120	99	80 - 120	<0.00005	mg/L	1.9	20		
9481902	. Nickel (Ni)	2024/06/27	91	80 - 120	94	80 - 120	<0.0001	mg/L	1.1	20		
9481902	. Phosphorus (P)	2024/06/27	103	80 - 120	98	80 - 120	<0.005	mg/L	NC	20		
9481902	. Potassium (K)	2024/06/27	108	80 - 120	103	80 - 120	<0.02	mg/L	4.1	20		
9481902	. Rubidium (Rb)	2024/06/27	98	80 - 120	101	80 - 120	<0.00002	mg/L	3.4	20		
9481902	. Selenium (Se)	2024/06/27	105	80 - 120	101	80 - 120	<0.00005	mg/L	5.5	20		
9481902	. Silicon (Si)	2024/06/27	NC	80 - 120	98	80 - 120	<0.005	mg/L	0.91	20		
9481902	. Silver (Ag)	2024/06/27	98	80 - 120	96	80 - 120	<0.00001	mg/L	12	20		
9481902	. Sodium (Na)	2024/06/27	NC	80 - 120	99	80 - 120	<0.01	mg/L	3.1	20		
9481902	. Strontium (Sr)	2024/06/27	NC	80 - 120	98	80 - 120	<0.0001	mg/L	1.9	20		
9481902	. Tellurium (Te)	2024/06/27	110	80 - 120	105	80 - 120	<0.0001	mg/L	NC	20		
9481902	. Thallium (Tl)	2024/06/27	100	80 - 120	101	80 - 120	<0.000005	mg/L	0	20		
9481902	. Thorium (Th)	2024/06/27	98	80 - 120	96	80 - 120	<0.0002	mg/L	NC	20		
9481902	. Tin (Sn)	2024/06/27	106	80 - 120	101	80 - 120	<0.0001	mg/L	NC	20		
9481902	. Titanium (Ti)	2024/06/27	101	80 - 120	96	80 - 120	<0.0005	mg/L	NC	20		
9481902	. Tungsten (W)	2024/06/27	101	80 - 120	99	80 - 120	<0.0001	mg/L	1.0	20		
9481902	. Uranium (U)	2024/06/27	101	80 - 120	100	80 - 120	<0.00001	mg/L	3.0	20		
9481902	. Vanadium (V)	2024/06/27	97	80 - 120	94	80 - 120	<0.00005	mg/L	3.7	20		
9481902	. Zinc (Zn)	2024/06/27	96	80 - 120	97	80 - 120	<0.0005	mg/L	4.1	20		
9481902	. Zirconium (Zr)	2024/06/27	109	80 - 120	100	80 - 120	<0.0001	mg/L	NC	20		
9481960	Total Kjeldahl Nitrogen (TKN)	2024/07/02	NC	80 - 120	98	80 - 120	<0.10	mg/L	1.6	20	98	80 - 120
9482039	Total Ammonia-N	2024/06/27	100	75 - 125	102	80 - 120	<0.050	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9482694	Dissolved Sulphur (S)	2024/06/28	NC	80 - 120	94	80 - 120	<0.5	mg/L	0.35	20		
9483379	Mercury (Hg)	2024/06/27	94	75 - 125	95	80 - 120	<0.01	ug/L	NC	20		
9483394	Dissolved Mercury (Hg)	2024/06/27	95	75 - 125	95	80 - 120	<0.01	ug/L	NC	20		
9488682	Acidity	2024/07/02	92	80 - 120	105	80 - 120	<5.0	mg/L	NC	25		
9494796	Free Cyanide (CN)	2024/07/02	95	80 - 120	96	80 - 120	<2.0	ug/L	NC	20		
9494797	Strong Acid Dissoc. Cyanide (CN)	2024/07/02	96	80 - 120	98	80 - 120	<0.00050	mg/L				
9494798	Total Phosphorus (P)	2024/07/02	101	80 - 120	95	80 - 120	<0.0010	mg/L			91	80 - 120

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Matrix Spike exceeds acceptance limits, probable matrix interference

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J2357
Report Date: 2024/07/04

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: BM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Colleen Acker, B.Sc, Scientific Service Specialist

Cristina Carriere, Senior Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

Bureau Veritas Proprietary Software
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Automated Statchk

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 920864

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/07/11
Report #: R8229653
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4K1225
Received: 2024/07/02, 17:04

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	2	N/A	2024/07/08	ATL SOP-00205	SM 24 2310B m
Alkalinity	2	N/A	2024/07/04	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	2	N/A	2024/07/04	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	2	N/A	2024/07/08	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	2	N/A	2024/07/04	CAM SOP-00414	SM 24 2510 m
Fluoride	2	2024/07/04	2024/07/04	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	2	N/A	2024/07/10	CAM SOP 00102/00408/00447	SM 2340 B
Dissolved Mercury (low level)	2	2024/07/04	2024/07/04	CAM SOP-00453	EPA 7470 m
Mercury (low level)	2	2024/07/04	2024/07/04	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	2	2024/07/05	2024/07/09	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	2	N/A	2024/07/09	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	2	N/A	2024/07/09	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	2	2024/07/05	2024/07/05	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	2	N/A	2024/07/09	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	2	2024/07/10	2024/07/10	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	2	2024/07/06	2024/07/08	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	2	N/A	2024/07/05	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	2	N/A	2024/07/04	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	2	2024/07/04	2024/07/04	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	2	N/A	2024/07/03		Field pH Meter
Sulphate by Automated Turbidimetry	2	N/A	2024/07/08	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	2	2024/07/03	2024/07/04	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	2	N/A	2024/07/03		Field Thermometer
Total Kjeldahl Nitrogen in Water	2	2024/07/05	2024/07/08	CAM SOP-00938	OMOE E3516 m
Low Level Total Suspended Solids	2	2024/07/03	2024/07/04	CAM SOP-00428	SM 24 2540D m
Turbidity	2	N/A	2024/07/04	CAM SOP-00417	SM 24 2130 B

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 920864

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/07/11
Report #: R8229653
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4K1225
Received: 2024/07/02, 17:04

compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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Bureau Veritas Job #: C4K1225
Report Date: 2024/07/11

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZPS805	ZPS806			ZPS806		
Sampling Date		2024/06/26 14:30	2024/06/26 14:49			2024/06/26 14:49		
COC Number		920864	920864			920864		
	UNITS	MWS-14-02 BR	MWS-14-02 OB	RDL	QC Batch	MWS-14-02 OB Lab-Dup	RDL	QC Batch
Calculated Parameters								
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	290	260	1.0	9492730			
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.6	1.9	1.0	9492730			
Hardness (CaCO3)	mg/L	290	280	1.0	9492731			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	<1.0	1.0	9492730			
Field Measurements								
Field Temperature	Celsius	11.6	12.2	N/A	ONSITE			
Field Measured pH	pH	7.23	7.40		ONSITE			
Inorganics								
Acidity	mg/L	13	8.4	5.0	9500085			
Total Ammonia-N	mg/L	0.095	<0.050	0.050	9495511			
Conductivity	mS/cm	0.547	0.509	N/A	9495137	0.513	N/A	9495137
Free Cyanide (CN)	ug/L	<2.0 (1)	<2.0 (1)	2.0	9507213			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	<0.00050	0.00050	9507211			
Total Dissolved Solids	mg/L	320	300	10	9491882			
Fluoride (F-)	mg/L	0.29	0.31	0.10	9495139	0.29	0.10	9495139
Total Kjeldahl Nitrogen (TKN)	mg/L	0.13	<0.10	0.10	9497101			
pH	pH	7.78	7.88		9495128	7.85		9495128
Total Phosphorus (P)	mg/L	0.016	0.024	0.0010	9507212			
Total Suspended Solids	mg/L	6	62	1	9491922			
Dissolved Sulphate (SO4)	mg/L	6.5	11	1.0	9495660			
Turbidity	NTU	9.5	17	0.1	9495146			
Alkalinity (Total as CaCO3)	mg/L	290	260	1.0	9495121	270	1.0	9495121
Dissolved Chloride (Cl-)	mg/L	<1.0	<1.0	1.0	9495650			
Nitrite (N)	mg/L	<0.010	<0.010	0.010	9494346			
Nitrate (N)	mg/L	<0.10	<0.10	0.10	9494346			
Nitrate + Nitrite (N)	mg/L	<0.10	<0.10	0.10	9494346			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable
(1) Interference checks not performed at the time of sampling. The lab cannot guarantee that interferences were not present at the time of sampling and that there is no low bias in results.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4K1225
Report Date: 2024/07/11

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZPS805			ZPS805			ZPS806		
Sampling Date		2024/06/26 14:30			2024/06/26 14:30			2024/06/26 14:49		
COC Number		920864			920864			920864		
	UNITS	MWS-14-02 BR	RDL	QC Batch	MWS-14-02 BR Lab-Dup	RDL	QC Batch	MWS-14-02 OB	RDL	QC Batch
Metals										
Dissolved Aluminum (Al)	mg/L	0.0018	0.0005	9502878	0.0018	0.0005	9502878	0.0006	0.0005	9502878
. Aluminum (Al)	mg/L	0.0086	0.0005	9502859				0.0917	0.0005	9502859
Dissolved Antimony (Sb)	mg/L	<0.0001	0.0001	9502878	<0.0001	0.0001	9502878	<0.0001	0.0001	9502878
. Antimony (Sb)	mg/L	<0.0001	0.0001	9502859				0.0002	0.0001	9502859
Dissolved Arsenic (As)	mg/L	0.0016	0.0001	9502878	0.0016	0.0001	9502878	0.0004	0.0001	9502878
. Arsenic (As)	mg/L	0.0025	0.0001	9502859				0.0009	0.0001	9502859
Dissolved Barium (Ba)	mg/L	0.0317	0.0002	9502878	0.0323	0.0002	9502878	0.0322	0.0002	9502878
. Barium (Ba)	mg/L	0.0328	0.0002	9502859				0.0342	0.0002	9502859
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9502878	<0.00005	0.00005	9502878	<0.00005	0.00005	9502878
. Beryllium (Be)	mg/L	<0.00005	0.00005	9502859				<0.00005	0.00005	9502859
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9502878	<0.0001	0.0001	9502878	<0.0001	0.0001	9502878
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9502859				<0.0001	0.0001	9502859
Dissolved Boron (B)	mg/L	0.016	0.001	9502878	0.016	0.001	9502878	0.010	0.001	9502878
. Boron (B)	mg/L	0.015	0.001	9502859				0.010	0.001	9502859
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9502878	<0.00001	0.00001	9502878	<0.00001	0.00001	9502878
. Cadmium (Cd)	mg/L	<0.000005	0.000005	9502859				0.000005	0.000005	9502859
Dissolved Calcium (Ca)	mg/L	81.9	0.1	9502878	78.0	0.1	9502878	78.3	0.1	9502878
. Calcium (Ca)	mg/L	79.1	0.1	9502859				78.7	0.1	9502859
Dissolved Cesium (Cs)	mg/L	0.00003	0.00002	9502878	0.00002	0.00002	9502878	<0.00002	0.00002	9502878
. Cesium (Cs)	mg/L	0.00003	0.00002	9502859				<0.00002	0.00002	9502859
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9502878	<0.0005	0.0005	9502878	<0.0005	0.0005	9502878
. Chromium (Cr)	mg/L	<0.0005	0.0005	9502859				0.0005	0.0005	9502859
Dissolved Cobalt (Co)	mg/L	0.00008	0.00005	9502878	0.00008	0.00005	9502878	<0.00005	0.00005	9502878
. Cobalt (Co)	mg/L	0.00010	0.00005	9502859				0.00013	0.00005	9502859
Dissolved Copper (Cu)	mg/L	0.0004	0.0001	9502878	0.0004	0.0001	9502878	0.0006	0.0001	9502878
. Copper (Cu)	mg/L	0.0001	0.0001	9502859				0.0006	0.0001	9502859
Dissolved Iron (Fe)	mg/L	1.21	0.005	9502878	1.21	0.005	9502878	0.410	0.005	9502878
. Iron (Fe)	mg/L	1.50	0.005	9502859				0.324	0.005	9502859
Dissolved Lead (Pb)	mg/L	<0.00005	0.00005	9502878	<0.00005	0.00005	9502878	<0.00005	0.00005	9502878

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZPS805			ZPS805			ZPS806		
Sampling Date		2024/06/26 14:30			2024/06/26 14:30			2024/06/26 14:49		
COC Number		920864			920864			920864		
	UNITS	MWS-14-02 BR	RDL	QC Batch	MWS-14-02 BR Lab-Dup	RDL	QC Batch	MWS-14-02 OB	RDL	QC Batch
. Lead (Pb)	mg/L	0.00081	0.00005	9502859				0.00022	0.00005	9502859
Dissolved Lithium (Li)	mg/L	0.0070	0.0005	9502878	0.0072	0.0005	9502878	0.0061	0.0005	9502878
. Lithium (Li)	mg/L	0.0071	0.0005	9502859				0.0058	0.0005	9502859
Dissolved Magnesium (Mg)	mg/L	21.2	0.005	9502878	21.0	0.005	9502878	19.9	0.005	9502878
. Magnesium (Mg)	mg/L	21.8	0.005	9502859				19.6	0.005	9502859
Dissolved Manganese (Mn)	mg/L	0.105	0.0002	9502878	0.105	0.0002	9502878	0.0429	0.0002	9502878
. Manganese (Mn)	mg/L	0.115	0.0002	9502859				0.0343	0.0002	9502859
Mercury (Hg)	ug/L	<0.01	0.01	9494980	<0.01	0.01	9494980	<0.01	0.01	9494980
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9495011				<0.01	0.01	9495011
Dissolved Molybdenum (Mo)	mg/L	0.00114	0.00005	9502878	0.00115	0.00005	9502878	0.00150	0.00005	9502878
. Molybdenum (Mo)	mg/L	0.00114	0.00005	9502859				0.00192	0.00005	9502859
Dissolved Nickel (Ni)	mg/L	<0.0001	0.0001	9502878	<0.0001	0.0001	9502878	0.0002	0.0001	9502878
. Nickel (Ni)	mg/L	0.0001	0.0001	9502859				0.0007	0.0001	9502859
Dissolved Phosphorus (P)	mg/L	0.019	0.005	9502878	0.019	0.005	9502878	0.011	0.005	9502878
. Phosphorus (P)	mg/L	0.020	0.005	9502859				0.022	0.005	9502859
Dissolved Potassium (K)	mg/L	2.10	0.02	9502878	2.10	0.02	9502878	2.17	0.02	9502878
. Potassium (K)	mg/L	2.18	0.02	9502859				2.32	0.02	9502859
Dissolved Rubidium (Rb)	mg/L	0.00107	0.00002	9502878	0.00104	0.00002	9502878	0.00126	0.00002	9502878
. Rubidium (Rb)	mg/L	0.00109	0.00002	9502859				0.00180	0.00002	9502859
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9502878	<0.0002	0.0002	9502878	<0.0002	0.0002	9502878
. Selenium (Se)	mg/L	<0.00005	0.00005	9502859				<0.00005	0.00005	9502859
Dissolved Silicon (Si)	mg/L	7.29	0.025	9502878	7.01	0.025	9502878	5.96	0.025	9502878
. Silicon (Si)	mg/L	6.84	0.025	9502859				5.72	0.025	9502859
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9502878	<0.00001	0.00001	9502878	<0.00001	0.00001	9502878
. Silver (Ag)	mg/L	<0.00001	0.00001	9502859				<0.00001	0.00001	9502859
Dissolved Sodium (Na)	mg/L	6.04	0.01	9502878	5.95	0.01	9502878	5.87	0.01	9502878
. Sodium (Na)	mg/L	6.35	0.01	9502859				7.61	0.01	9502859
Dissolved Strontium (Sr)	mg/L	0.168	0.0001	9502878	0.168	0.0001	9502878	0.125	0.0001	9502878
. Strontium (Sr)	mg/L	0.172	0.0001	9502859				0.112	0.0001	9502859
Dissolved Sulphur (S)	mg/L	2.3	0.5	9498107	2.3	0.5	9498107	2.9	0.5	9498107

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Lab-Dup = Laboratory Initiated Duplicate

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Bureau Veritas Job #: C4K1225
Report Date: 2024/07/11

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZPS805			ZPS805			ZPS806		
Sampling Date		2024/06/26 14:30			2024/06/26 14:30			2024/06/26 14:49		
COC Number		920864			920864			920864		
	UNITS	MWS-14-02 BR	RDL	QC Batch	MWS-14-02 BR Lab-Dup	RDL	QC Batch	MWS-14-02 OB	RDL	QC Batch
Total Sulphur (S)	mg/L	2.4	0.5	9496448				3.2	0.5	9496448
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9502878	<0.0001	0.0001	9502878	<0.0001	0.0001	9502878
. Tellurium (Te)	mg/L	<0.0001	0.0001	9502859				<0.0001	0.0001	9502859
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9502878	<0.000005	0.000005	9502878	<0.000005	0.000005	9502878
. Thallium (Tl)	mg/L	<0.000005	0.000005	9502859				0.000009	0.000005	9502859
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9502878	<0.0002	0.0002	9502878	<0.0002	0.0002	9502878
. Thorium (Th)	mg/L	<0.0002	0.0002	9502859				<0.0002	0.0002	9502859
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9502878	<0.0001	0.0001	9502878	<0.0001	0.0001	9502878
. Tin (Sn)	mg/L	<0.0001	0.0001	9502859				0.0001	0.0001	9502859
Dissolved Titanium (Ti)	mg/L	0.0006	0.0005	9502878	0.0006	0.0005	9502878	<0.0005	0.0005	9502878
. Titanium (Ti)	mg/L	0.0010	0.0005	9502859				0.0070	0.0005	9502859
Dissolved Tungsten (W)	mg/L	0.0004	0.0001	9502878	0.0004	0.0001	9502878	<0.0001	0.0001	9502878
. Tungsten (W)	mg/L	0.0004	0.0001	9502859				<0.0001	0.0001	9502859
Dissolved Uranium (U)	mg/L	0.00022	0.00001	9502878	0.00020	0.00001	9502878	0.00092	0.00001	9502878
. Uranium (U)	mg/L	0.00020	0.00001	9502859				0.00182	0.00001	9502859
Dissolved Vanadium (V)	mg/L	0.00024	0.00005	9502878	0.00024	0.00005	9502878	<0.00005	0.00005	9502878
. Vanadium (V)	mg/L	0.00037	0.00005	9502859				0.00035	0.00005	9502859
Dissolved Zinc (Zn)	mg/L	0.0019	0.0005	9502878	0.0019	0.0005	9502878	0.0025	0.0005	9502878
. Zinc (Zn)	mg/L	0.0021	0.0005	9502859				0.0064	0.0005	9502859
Dissolved Zirconium (Zr)	mg/L	0.0003	0.0001	9502878	0.0003	0.0001	9502878	<0.0001	0.0001	9502878
. Zirconium (Zr)	mg/L	0.0003	0.0001	9502859				0.0003	0.0001	9502859

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZPS806		
Sampling Date		2024/06/26 14:49		
COC Number		920864		
	UNITS	MWS-14-02 OB Lab-Dup	RDL	QC Batch
Metals				
. Aluminum (Al)	mg/L	0.0883	0.0005	9502859
. Antimony (Sb)	mg/L	0.0002	0.0001	9502859
. Arsenic (As)	mg/L	0.0008	0.0001	9502859
. Barium (Ba)	mg/L	0.0331	0.0002	9502859
. Beryllium (Be)	mg/L	<0.00005	0.00005	9502859
. Bismuth (Bi)	mg/L	<0.0001	0.0001	9502859
. Boron (B)	mg/L	0.010	0.001	9502859
. Cadmium (Cd)	mg/L	0.000006	0.000005	9502859
. Calcium (Ca)	mg/L	76.6	0.1	9502859
. Cesium (Cs)	mg/L	<0.00002	0.00002	9502859
. Chromium (Cr)	mg/L	0.0005	0.0005	9502859
. Cobalt (Co)	mg/L	0.00013	0.00005	9502859
. Copper (Cu)	mg/L	0.0006	0.0001	9502859
. Iron (Fe)	mg/L	0.331	0.005	9502859
. Lead (Pb)	mg/L	0.00021	0.00005	9502859
. Lithium (Li)	mg/L	0.0057	0.0005	9502859
. Magnesium (Mg)	mg/L	20.1	0.005	9502859
. Manganese (Mn)	mg/L	0.0348	0.0002	9502859
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9495011
. Molybdenum (Mo)	mg/L	0.00192	0.00005	9502859
. Nickel (Ni)	mg/L	0.0007	0.0001	9502859
. Phosphorus (P)	mg/L	0.022	0.005	9502859
. Potassium (K)	mg/L	2.34	0.02	9502859
. Rubidium (Rb)	mg/L	0.00185	0.00002	9502859
. Selenium (Se)	mg/L	<0.00005	0.00005	9502859
. Silicon (Si)	mg/L	5.62	0.025	9502859
. Silver (Ag)	mg/L	<0.00001	0.00001	9502859
. Sodium (Na)	mg/L	7.68	0.01	9502859
. Strontium (Sr)	mg/L	0.115	0.0001	9502859

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZPS806		
Sampling Date		2024/06/26 14:49		
COC Number		920864		
	UNITS	MWS-14-02 OB Lab-Dup	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.0001	0.0001	9502859
. Thallium (Tl)	mg/L	0.000008	0.000005	9502859
. Thorium (Th)	mg/L	<0.0002	0.0002	9502859
. Tin (Sn)	mg/L	0.0001	0.0001	9502859
. Titanium (Ti)	mg/L	0.0068	0.0005	9502859
. Tungsten (W)	mg/L	<0.0001	0.0001	9502859
. Uranium (U)	mg/L	0.00183	0.00001	9502859
. Vanadium (V)	mg/L	0.00035	0.00005	9502859
. Zinc (Zn)	mg/L	0.0065	0.0005	9502859
. Zirconium (Zr)	mg/L	0.0002	0.0001	9502859

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4K1225
Report Date: 2024/07/11

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZPS805
Sample ID: MWS-14-02 BR
Matrix: Water

Collected: 2024/06/26
Shipped:
Received: 2024/07/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9500085	N/A	2024/07/08	Brent Boudreau
Alkalinity	AT	9495121	N/A	2024/07/04	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9492730	N/A	2024/07/04	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9495650	N/A	2024/07/08	Alina Dobreanu
Conductivity	AT	9495137	N/A	2024/07/04	Nachiketa Gohil
Fluoride	ISE	9495139	2024/07/04	2024/07/04	Nachiketa Gohil
Hardness (calculated as CaCO3)		9492731	N/A	2024/07/10	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9495011	2024/07/04	2024/07/04	Gagandeep Rai
Mercury (low level)	CV/AA	9494980	2024/07/04	2024/07/04	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9498107	2024/07/05	2024/07/09	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9502878	N/A	2024/07/09	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9502859	N/A	2024/07/09	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9496448	2024/07/05	2024/07/05	Suban Kanapathippllai
Cyanide (Free)	SPEC	9507213	N/A	2024/07/09	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9507211	2024/07/10	2024/07/10	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9507212	2024/07/06	2024/07/08	Mary Anne Dela Cruz
Total Ammonia-N	SKAL/NH4	9495511	N/A	2024/07/05	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9494346	N/A	2024/07/04	Jinal Chavda
pH	AT	9495128	2024/07/04	2024/07/04	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/07/03	Sattyajita Bastola
Sulphate by Automated Turbidimetry	SKAL	9495660	N/A	2024/07/08	Alina Dobreanu
Total Dissolved Solids	BAL	9491882	2024/07/03	2024/07/04	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/07/03	Sattyajita Bastola
Total Kjeldahl Nitrogen in Water	SKAL	9497101	2024/07/05	2024/07/08	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9491922	2024/07/03	2024/07/04	Razieh Tabesh
Turbidity	AT	9495146	N/A	2024/07/04	Gurparteek KAUR

Bureau Veritas ID: ZPS805 Dup
Sample ID: MWS-14-02 BR
Matrix: Water

Collected: 2024/06/26
Shipped:
Received: 2024/07/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury (low level)	CV/AA	9494980	2024/07/04	2024/07/04	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9498107	2024/07/05	2024/07/09	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9502878	N/A	2024/07/09	Prempal Bhatti

Bureau Veritas ID: ZPS806
Sample ID: MWS-14-02 OB
Matrix: Water

Collected: 2024/06/26
Shipped:
Received: 2024/07/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9500085	N/A	2024/07/08	Brent Boudreau
Alkalinity	AT	9495121	N/A	2024/07/04	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9492730	N/A	2024/07/04	Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4K1225
Report Date: 2024/07/11

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZPS806
Sample ID: MWS-14-02 OB
Matrix: Water

Collected: 2024/06/26
Shipped:
Received: 2024/07/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	SKAL	9495650	N/A	2024/07/08	Alina Dobreanu
Conductivity	AT	9495137	N/A	2024/07/04	Nachiketa Gohil
Fluoride	ISE	9495139	2024/07/04	2024/07/04	Nachiketa Gohil
Hardness (calculated as CaCO3)		9492731	N/A	2024/07/10	Automated Statchk
Dissolved Mercury (low level)	CV/AA	9495011	2024/07/04	2024/07/04	Gagandeep Rai
Mercury (low level)	CV/AA	9494980	2024/07/04	2024/07/04	Gagandeep Rai
Dissolved Metals Analysis by ICP	ICP	9498107	2024/07/05	2024/07/09	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9502878	N/A	2024/07/09	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9502859	N/A	2024/07/09	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9496448	2024/07/05	2024/07/05	Suban Kanapathippllai
Cyanide (Free)	SPEC	9507213	N/A	2024/07/09	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9507211	2024/07/10	2024/07/10	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9507212	2024/07/06	2024/07/08	Mary Anne Dela Cruz
Total Ammonia-N	SKAL/NH4	9495511	N/A	2024/07/05	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9494346	N/A	2024/07/04	Jinal Chavda
pH	AT	9495128	2024/07/04	2024/07/04	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/07/03	Sattyajita Bastola
Sulphate by Automated Turbidimetry	SKAL	9495660	N/A	2024/07/08	Alina Dobreanu
Total Dissolved Solids	BAL	9491882	2024/07/03	2024/07/04	Razieh Tabesh
Field Measured pH	PH	ONSITE	N/A	2024/07/03	Sattyajita Bastola
Total Kjeldahl Nitrogen in Water	SKAL	9497101	2024/07/05	2024/07/08	Rajni Tyagi
Low Level Total Suspended Solids	BAL	9491922	2024/07/03	2024/07/04	Razieh Tabesh
Turbidity	AT	9495146	N/A	2024/07/04	Gurparteek KAUR

Bureau Veritas ID: ZPS806 Dup
Sample ID: MWS-14-02 OB
Matrix: Water

Collected: 2024/06/26
Shipped:
Received: 2024/07/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Alkalinity	AT	9495121	N/A	2024/07/04	Nachiketa Gohil
Conductivity	AT	9495137	N/A	2024/07/04	Nachiketa Gohil
Fluoride	ISE	9495139	2024/07/04	2024/07/04	Nachiketa Gohil
Dissolved Mercury (low level)	CV/AA	9495011	2024/07/04	2024/07/04	Gagandeep Rai
Metals in Water by ICPMS (low level)	ICP1/MS	9502859	N/A	2024/07/09	Prempal Bhatti
pH	AT	9495128	2024/07/04	2024/07/04	Nachiketa Gohil

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.0°C

Sample received past hold time for Turbidity analysis, proceeded with client consent.

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9491882	Total Dissolved Solids	2024/07/04			97	80 - 120	<10	mg/L	3.3	20		
9491922	Total Suspended Solids	2024/07/04			97	80 - 120	<1	mg/L	11	20		
9494346	Nitrate (N)	2024/07/04	95	80 - 120	99	80 - 120	<0.10	mg/L	NC	20		
9494346	Nitrite (N)	2024/07/04	104	80 - 120	106	80 - 120	<0.010	mg/L	NC	20		
9494980	Mercury (Hg)	2024/07/04	94	75 - 125	95	80 - 120	<0.01	ug/L	NC	20		
9495011	Dissolved Mercury (Hg)	2024/07/04	96	75 - 125	94	80 - 120	<0.01	ug/L	NC	20		
9495121	Alkalinity (Total as CaCO3)	2024/07/04			95	85 - 115	<1.0	mg/L	2.4	20		
9495128	pH	2024/07/04			101	98 - 103			0.39	N/A		
9495137	Conductivity	2024/07/04			103	85 - 115	0.000500	mS/cm	0.78	10		
9495139	Fluoride (F-)	2024/07/04	88	80 - 120	93	80 - 120	<0.10	mg/L	4.3	20		
9495146	Turbidity	2024/07/04			99	80 - 120	<0.1	NTU	NC	20		
9495511	Total Ammonia-N	2024/07/05	97	75 - 125	99	80 - 120	<0.050	mg/L	14	20		
9495650	Dissolved Chloride (Cl-)	2024/07/08	NC	80 - 120	95	80 - 120	<1.0	mg/L	0.30	20		
9495660	Dissolved Sulphate (SO4)	2024/07/08	NC	75 - 125	97	80 - 120	<1.0	mg/L	0.79	20		
9496448	Total Sulphur (S)	2024/07/05	NC	80 - 120	99	80 - 120	<0.5	mg/L				
9497101	Total Kjeldahl Nitrogen (TKN)	2024/07/08	97	80 - 120	101	80 - 120	<0.10	mg/L	5.7	20	100	80 - 120
9498107	Dissolved Sulphur (S)	2024/07/09	NC	80 - 120	95	80 - 120	<0.5	mg/L	0.30	20		
9500085	Acidity	2024/07/08			99	80 - 120	<5.0	mg/L	NC	25		
9502859	. Aluminum (Al)	2024/07/09	NC	80 - 120	95	80 - 120	<0.0005	mg/L	3.7	20		
9502859	. Antimony (Sb)	2024/07/09	107	80 - 120	102	80 - 120	<0.0001	mg/L	1.3	20		
9502859	. Arsenic (As)	2024/07/09	104	80 - 120	101	80 - 120	<0.0001	mg/L	1.1	20		
9502859	. Barium (Ba)	2024/07/09	100	80 - 120	97	80 - 120	<0.0002	mg/L	3.4	20		
9502859	. Beryllium (Be)	2024/07/09	100	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
9502859	. Bismuth (Bi)	2024/07/09	90	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9502859	. Boron (B)	2024/07/09	94	80 - 120	93	80 - 120	<0.001	mg/L	2.5	20		
9502859	. Cadmium (Cd)	2024/07/09	103	80 - 120	96	80 - 120	<0.000005	mg/L	18	20		
9502859	. Calcium (Ca)	2024/07/09	NC	80 - 120	98	80 - 120	<0.02	mg/L	2.7	20		
9502859	. Cesium (Cs)	2024/07/09	100	80 - 120	102	80 - 120	<0.00002	mg/L	NC	20		
9502859	. Chromium (Cr)	2024/07/09	102	80 - 120	100	80 - 120	<0.0005	mg/L	0.18	20		
9502859	. Cobalt (Co)	2024/07/09	99	80 - 120	98	80 - 120	<0.00005	mg/L	2.4	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9502859	. Copper (Cu)	2024/07/09	100	80 - 120	100	80 - 120	<0.0001	mg/L	1.3	20		
9502859	. Iron (Fe)	2024/07/09	105	80 - 120	103	80 - 120	<0.005	mg/L	2.0	20		
9502859	. Lead (Pb)	2024/07/09	96	80 - 120	97	80 - 120	<0.00005	mg/L	3.7	20		
9502859	. Lithium (Li)	2024/07/09	103	80 - 120	99	80 - 120	<0.0005	mg/L	1.6	20		
9502859	. Magnesium (Mg)	2024/07/09	NC	80 - 120	101	80 - 120	<0.005	mg/L	2.2	20		
9502859	. Manganese (Mn)	2024/07/09	102	80 - 120	101	80 - 120	<0.0002	mg/L	1.4	20		
9502859	. Molybdenum (Mo)	2024/07/09	111	80 - 120	101	80 - 120	<0.00005	mg/L	0.21	20		
9502859	. Nickel (Ni)	2024/07/09	99	80 - 120	102	80 - 120	<0.0001	mg/L	4.4	20		
9502859	. Phosphorus (P)	2024/07/09	108	80 - 120	99	80 - 120	<0.005	mg/L	1.2	20		
9502859	. Potassium (K)	2024/07/09	106	80 - 120	104	80 - 120	<0.02	mg/L	1.0	20		
9502859	. Rubidium (Rb)	2024/07/09	97	80 - 120	97	80 - 120	<0.00002	mg/L	2.5	20		
9502859	. Selenium (Se)	2024/07/09	105	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9502859	. Silicon (Si)	2024/07/09	NC	80 - 120	94	80 - 120	<0.005	mg/L	1.7	20		
9502859	. Silver (Ag)	2024/07/09	102	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9502859	. Sodium (Na)	2024/07/09	NC	80 - 120	103	80 - 120	<0.01	mg/L	0.92	20		
9502859	. Strontium (Sr)	2024/07/09	NC	80 - 120	100	80 - 120	<0.0001	mg/L	2.6	20		
9502859	. Tellurium (Te)	2024/07/09	101	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9502859	. Thallium (Tl)	2024/07/09	98	80 - 120	97	80 - 120	<0.000005	mg/L	12	20		
9502859	. Thorium (Th)	2024/07/09	103	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9502859	. Tin (Sn)	2024/07/09	109	80 - 120	99	80 - 120	<0.0001	mg/L	2.0	20		
9502859	. Titanium (Ti)	2024/07/09	99	80 - 120	95	80 - 120	<0.0005	mg/L	2.4	20		
9502859	. Tungsten (W)	2024/07/09	102	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9502859	. Uranium (U)	2024/07/09	100	80 - 120	97	80 - 120	<0.00001	mg/L	0.27	20		
9502859	. Vanadium (V)	2024/07/09	106	80 - 120	101	80 - 120	<0.00005	mg/L	0	20		
9502859	. Zinc (Zn)	2024/07/09	100	80 - 120	99	80 - 120	<0.0005	mg/L	1.9	20		
9502859	. Zirconium (Zr)	2024/07/09	112	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Aluminum (Al)	2024/07/09	94	80 - 120	95	80 - 120	<0.0005	mg/L	0.34	20		
9502878	Dissolved Antimony (Sb)	2024/07/09	104	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Arsenic (As)	2024/07/09	100	80 - 120	98	80 - 120	<0.0001	mg/L	1.1	20		
9502878	Dissolved Barium (Ba)	2024/07/09	97	80 - 120	99	80 - 120	<0.0002	mg/L	1.9	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9502878	Dissolved Beryllium (Be)	2024/07/09	95	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9502878	Dissolved Bismuth (Bi)	2024/07/09	88	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Boron (B)	2024/07/09	87	80 - 120	92	80 - 120	<0.001	mg/L	1.4	20		
9502878	Dissolved Cadmium (Cd)	2024/07/09	99	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9502878	Dissolved Calcium (Ca)	2024/07/09	NC	80 - 120	102	80 - 120	<0.02	mg/L	4.8	20		
9502878	Dissolved Cesium (Cs)	2024/07/09	97	80 - 120	101	80 - 120	<0.00002	mg/L	NC	N/A		
9502878	Dissolved Chromium (Cr)	2024/07/09	98	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9502878	Dissolved Cobalt (Co)	2024/07/09	94	80 - 120	98	80 - 120	<0.00005	mg/L	1.3	20		
9502878	Dissolved Copper (Cu)	2024/07/09	96	80 - 120	97	80 - 120	<0.0001	mg/L	2.4	20		
9502878	Dissolved Iron (Fe)	2024/07/09	101	80 - 120	101	80 - 120	<0.005	mg/L	0.33	20		
9502878	Dissolved Lead (Pb)	2024/07/09	93	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9502878	Dissolved Lithium (Li)	2024/07/09	98	80 - 120	100	80 - 120	<0.0005	mg/L	2.7	20		
9502878	Dissolved Magnesium (Mg)	2024/07/09	NC	80 - 120	98	80 - 120	<0.005	mg/L	0.59	20		
9502878	Dissolved Manganese (Mn)	2024/07/09	NC	80 - 120	97	80 - 120	<0.0002	mg/L	0.24	20		
9502878	Dissolved Molybdenum (Mo)	2024/07/09	106	80 - 120	101	80 - 120	<0.00005	mg/L	0.96	20		
9502878	Dissolved Nickel (Ni)	2024/07/09	94	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Phosphorus (P)	2024/07/09	102	80 - 120	99	80 - 120	<0.005	mg/L	0.25	20		
9502878	Dissolved Potassium (K)	2024/07/09	102	80 - 120	99	80 - 120	<0.02	mg/L	0.032	20		
9502878	Dissolved Rubidium (Rb)	2024/07/09	93	80 - 120	97	80 - 120	<0.00002	mg/L	NC	N/A		
9502878	Dissolved Selenium (Se)	2024/07/09	95	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9502878	Dissolved Silicon (Si)	2024/07/09	NC	80 - 120	95	80 - 120	<0.005	mg/L	3.9	20		
9502878	Dissolved Silver (Ag)	2024/07/09	98	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9502878	Dissolved Sodium (Na)	2024/07/09	NC	80 - 120	98	80 - 120	<0.01	mg/L	1.5	20		
9502878	Dissolved Strontium (Sr)	2024/07/09	NC	80 - 120	100	80 - 120	<0.0001	mg/L	0.20	20		
9502878	Dissolved Tellurium (Te)	2024/07/09	97	80 - 120	94	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Thallium (Tl)	2024/07/09	95	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9502878	Dissolved Thorium (Th)	2024/07/09	99	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
9502878	Dissolved Tin (Sn)	2024/07/09	104	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Titanium (Ti)	2024/07/09	94	80 - 120	97	80 - 120	<0.0005	mg/L	3.8	20		
9502878	Dissolved Tungsten (W)	2024/07/09	99	80 - 120	99	80 - 120	<0.0001	mg/L	3.9	20		

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9502878	Dissolved Uranium (U)	2024/07/09	97	80 - 120	98	80 - 120	<0.00001	mg/L	8.6	20		
9502878	Dissolved Vanadium (V)	2024/07/09	100	80 - 120	99	80 - 120	<0.00005	mg/L	0.83	20		
9502878	Dissolved Zinc (Zn)	2024/07/09	95	80 - 120	98	80 - 120	<0.0005	mg/L	0.85	20		
9502878	Dissolved Zirconium (Zr)	2024/07/09	109	80 - 120	101	80 - 120	<0.0001	mg/L	2.7	20		
9507211	Strong Acid Dissoc. Cyanide (CN)	2024/07/10	82	80 - 120	89	80 - 120	<0.00050	mg/L				
9507212	Total Phosphorus (P)	2024/07/08	98	80 - 120	95	80 - 120	<0.0010	mg/L			92	80 - 120
9507213	Free Cyanide (CN)	2024/07/09	104	80 - 120	95	80 - 120	<2.0	ug/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4K1225
Report Date: 2024/07/11

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

Janah Rhyno, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Logiciel Propriétaire de Bureau Veritas

Automated Statchk

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 921700

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/07/11
Report #: R8231292
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4K1763
Received: 2024/07/02, 17:18

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Acidity (CaCO3) in water (1)	1	N/A	2024/07/08	ATL SOP-00205	SM 24 2310B m
Alkalinity	1	N/A	2024/07/04	CAM SOP-00448	SM 24 2320 B m
Carbonate, Bicarbonate and Hydroxide	1	N/A	2024/07/04	CAM SOP-00102	APHA 4500-CO2 D
Chloride by Automated Colourimetry	1	N/A	2024/07/08	CAM SOP-00463	SM 24 4500-Cl E m
Conductivity	1	N/A	2024/07/04	CAM SOP-00414	SM 24 2510 m
Fluoride	1	2024/07/04	2024/07/04	CAM SOP-00449	SM 24 4500-F C m
Hardness (calculated as CaCO3)	1	N/A	2024/07/10	CAM SOP 00102/00408/00447	SM 2340 B
Mercury in Water by CVAA	1	2024/07/10	2024/07/10	CAM SOP-00453	EPA 7470A m
Dissolved Mercury (low level)	1	2024/07/09	2024/07/09	CAM SOP-00453	EPA 7470 m
Dissolved Metals Analysis by ICP	1	2024/07/04	2024/07/09	CAM SOP-00408	EPA 6010D m
Dissolved Metals by ICPMS (low level)	1	N/A	2024/07/10	CAM SOP-00447	EPA 6020B m
Metals in Water by ICPMS (low level)	1	N/A	2024/07/09	CAM SOP-00447	EPA 6020B m
Total Metals Analysis by ICP	1	2024/07/08	2024/07/09	CAM SOP-00408	EPA 6010D m
Cyanide (Free) (2)	1	N/A	2024/07/09	CAL SOP-00266	EPA 9016d R0 m
Cyanide, Strong Acid Dissociable (SAD) (2)	1	2024/07/10	2024/07/10	CAL SOP-00270	SM 24 4500-CN m
Total Phosphorus Low Level Total (2)	1	2024/07/06	2024/07/08	AB SOP-00024	SM 24 4500-P A,B,F m
Total Ammonia-N	1	N/A	2024/07/09	CAM SOP-00441	USGS I-2522-90 m
Nitrate & Nitrite as Nitrogen in Water (3)	1	N/A	2024/07/05	CAM SOP-00440	SM 24 4500-NO3I/NO2B
pH (4)	1	2024/07/04	2024/07/04	CAM SOP-00413	SM 24th - 4500H+ B
Field Measured pH (5)	1	N/A	2024/07/03		Field pH Meter
Sulphate by Automated Turbidimetry	1	N/A	2024/07/08	CAM SOP-00464	SM 24 4500-SO42- E m
Total Dissolved Solids	1	2024/07/04	2024/07/05	CAM SOP-00428	SM 24 2540C m
Field Temperature (5)	1	N/A	2024/07/03		Field Thermometer
Total Kjeldahl Nitrogen in Water	1	2024/07/04	2024/07/08	CAM SOP-00938	OMOE E3516 m
Total Suspended Solids	1	2024/07/04	2024/07/05	CAM SOP-00428	SM 24 2540D m
Turbidity	1	N/A	2024/07/04	CAM SOP-00417	SM 24 2130 B

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9
(2) This test was performed by Bureau Veritas Calgary (19th), 4000 19th Street NE , Calgary, AB, T2E 6P8
(3) Values for calculated parameters may not appear to add up due to rounding of raw data and significant figures.
(4) "The CCME method and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) requires pH to be analyzed within 15 minutes of sampling and therefore field analysis is required for

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your P.O. #: 4800001036
Your Project #: Groundwater Sampling Program
Your C.O.C. #: 921700

Attention: Laura Vares

Greenstone Mine
6 Twilight Bay
Geraldton, ON
CANADA P0T 1M0

Report Date: 2024/07/11
Report #: R8231292
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4K1763
Received: 2024/07/02, 17:18

compliance. All Laboratory pH analyses in this report are reported past the CCME and Analytical Protocol (O. Reg 153/04, O. Reg. 406/19) holding time. Bureau Veritas endeavors to analyze samples as soon as possible after receipt."

(5) This is a field test, therefore, the results relate to items that were not analysed at Bureau Veritas.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Katherine Szozda, Project Manager
Email: Katherine.Szozda@bureauveritas.com
Phone# (613)274-0573 Ext:7063633

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4K1763
Report Date: 2024/07/11

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		ZPV662			ZPV662		
Sampling Date		2024/06/27 11:27			2024/06/27 11:27		
COC Number		921700			921700		
	UNITS	DP-C	RDL	QC Batch	DP-C Lab-Dup	RDL	QC Batch
Calculated Parameters							
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	330	1.0	9494021			
Carb. Alkalinity (calc. as CaCO3)	mg/L	1.3	1.0	9494021			
Hardness (CaCO3)	mg/L	310	1.0	9494024			
Hydrox. Alkalinity (calc. as CaCO3)	mg/L	<1.0	1.0	9494021			
Field Measurements							
Field Temperature	Celsius	14.6	N/A	ONSITE			
Field Measured pH	pH	7.18		ONSITE			
Inorganics							
Acidity	mg/L	21	5.0	9500085			
Total Ammonia-N	mg/L	1.4	0.050	9494502			
Conductivity	mS/cm	0.601	N/A	9495137			
Free Cyanide (CN)	ug/L	<2.0	2.0	9507213			
Strong Acid Dissoc. Cyanide (CN)	mg/L	<0.00050	0.00050	9507211	<0.00050	0.00050	9507211
Total Dissolved Solids	mg/L	340	10	9494302			
Fluoride (F-)	mg/L	0.33	0.10	9495139			
Total Kjeldahl Nitrogen (TKN)	mg/L	2.0	0.50	9494897			
pH	pH	7.62		9495128			
Total Phosphorus (P)	mg/L	3.5	0.020	9507212			
Total Suspended Solids	mg/L	8500	200	9494378			
Dissolved Sulphate (SO4)	mg/L	<1.0	1.0	9495660			
Turbidity	NTU	230	0.1	9495146			
Alkalinity (Total as CaCO3)	mg/L	330	1.0	9495121			
Dissolved Chloride (Cl-)	mg/L	1.2	1.0	9495650			
Nitrite (N)	mg/L	<0.010	0.010	9495219			
Nitrate (N)	mg/L	<0.10	0.10	9495219			
Nitrate + Nitrite (N)	mg/L	<0.10	0.10	9495219			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZPV662			ZPV662		
Sampling Date		2024/06/27 11:27			2024/06/27 11:27		
COC Number		921700			921700		
	UNITS	DP-C	RDL	QC Batch	DP-C Lab-Dup	RDL	QC Batch
Metals							
Dissolved Aluminum (Al)	mg/L	0.0008	0.0005	9502878			
. Aluminum (Al)	mg/L	0.231	0.005	9502859			
Dissolved Antimony (Sb)	mg/L	0.0004	0.0001	9502878			
. Antimony (Sb)	mg/L	<0.001	0.001	9502859			
Dissolved Arsenic (As)	mg/L	0.0006	0.0001	9502878			
. Arsenic (As)	mg/L	<0.001	0.001	9502859			
Dissolved Barium (Ba)	mg/L	0.391	0.0002	9502878			
. Barium (Ba)	mg/L	1.12	0.002	9502859			
Dissolved Beryllium (Be)	mg/L	<0.00005	0.00005	9502878			
. Beryllium (Be)	mg/L	<0.0005	0.0005	9502859			
Dissolved Bismuth (Bi)	mg/L	<0.0001	0.0001	9502878			
. Bismuth (Bi)	mg/L	<0.001	0.001	9502859			
Dissolved Boron (B)	mg/L	0.022	0.001	9502878			
. Boron (B)	mg/L	0.03	0.01	9502859			
Dissolved Cadmium (Cd)	mg/L	<0.00001	0.00001	9502878			
. Cadmium (Cd)	mg/L	0.00039	0.00005	9502859			
Dissolved Calcium (Ca)	mg/L	93.2	0.1	9502878			
. Calcium (Ca)	mg/L	1190	1	9502859			
Dissolved Cesium (Cs)	mg/L	<0.00002	0.00002	9502878			
. Cesium (Cs)	mg/L	<0.0002	0.0002	9502859			
Dissolved Chromium (Cr)	mg/L	<0.0005	0.0005	9502878			
. Chromium (Cr)	mg/L	<0.005	0.005	9502859			
Dissolved Cobalt (Co)	mg/L	0.00068	0.00005	9502878			
. Cobalt (Co)	mg/L	0.0056	0.0005	9502859			
Dissolved Copper (Cu)	mg/L	0.0003	0.0001	9502878			
. Copper (Cu)	mg/L	0.003	0.001	9502859			
Dissolved Iron (Fe)	mg/L	0.496	0.005	9502878			
. Iron (Fe)	mg/L	0.48	0.05	9502859			
Dissolved Lead (Pb)	mg/L	0.00028	0.00005	9502878			
. Lead (Pb)	mg/L	<0.0005	0.0005	9502859			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZPV662			ZPV662		
Sampling Date		2024/06/27 11:27			2024/06/27 11:27		
COC Number		921700			921700		
	UNITS	DP-C	RDL	QC Batch	DP-C Lab-Dup	RDL	QC Batch
Dissolved Lithium (Li)	mg/L	0.0089	0.0005	9502878			
. Lithium (Li)	mg/L	0.011	0.005	9502859			
Dissolved Magnesium (Mg)	mg/L	19.7	0.005	9502878			
. Magnesium (Mg)	mg/L	29.2	0.05	9502859			
Dissolved Manganese (Mn)	mg/L	0.0854	0.0002	9502878			
. Manganese (Mn)	mg/L	1.97	0.002	9502859			
Mercury (Hg)	mg/L	<0.0015	0.0015	9505246			
Dissolved Mercury (Hg)	ug/L	<0.01	0.01	9503118	<0.01	0.01	9503118
Dissolved Molybdenum (Mo)	mg/L	0.00064	0.00005	9502878			
. Molybdenum (Mo)	mg/L	<0.0005	0.0005	9502859			
Dissolved Nickel (Ni)	mg/L	0.0043	0.0001	9502878			
. Nickel (Ni)	mg/L	0.015	0.001	9502859			
Dissolved Phosphorus (P)	mg/L	<0.005	0.005	9502878			
. Phosphorus (P)	mg/L	<0.05	0.05	9502859			
Dissolved Potassium (K)	mg/L	4.36	0.02	9502878			
. Potassium (K)	mg/L	4.9	0.2	9502859			
Dissolved Rubidium (Rb)	mg/L	0.00279	0.00002	9502878			
. Rubidium (Rb)	mg/L	0.0073	0.0002	9502859			
Dissolved Selenium (Se)	mg/L	<0.0002	0.0002	9502878			
. Selenium (Se)	mg/L	<0.0005	0.0005	9502859			
Dissolved Silicon (Si)	mg/L	8.87	0.025	9502878			
. Silicon (Si)	mg/L	9.46	0.05	9502859			
Dissolved Silver (Ag)	mg/L	<0.00001	0.00001	9502878			
. Silver (Ag)	mg/L	<0.0001	0.0001	9502859			
Dissolved Sodium (Na)	mg/L	6.45	0.01	9502878			
. Sodium (Na)	mg/L	6.5	0.1	9502859			
Dissolved Strontium (Sr)	mg/L	0.256	0.0001	9502878			
. Strontium (Sr)	mg/L	0.989	0.001	9502859			
Dissolved Sulphur (S)	mg/L	<0.5	0.5	9495478			
Total Sulphur (S)	mg/L	<5	5	9500444			
Dissolved Tellurium (Te)	mg/L	<0.0001	0.0001	9502878			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		ZPV662			ZPV662		
Sampling Date		2024/06/27 11:27			2024/06/27 11:27		
COC Number		921700			921700		
	UNITS	DP-C	RDL	QC Batch	DP-C Lab-Dup	RDL	QC Batch
. Tellurium (Te)	mg/L	<0.001	0.001	9502859			
Dissolved Thallium (Tl)	mg/L	<0.000005	0.000005	9502878			
. Thallium (Tl)	mg/L	0.00010	0.00005	9502859			
Dissolved Thorium (Th)	mg/L	<0.0002	0.0002	9502878			
. Thorium (Th)	mg/L	<0.002	0.002	9502859			
Dissolved Tin (Sn)	mg/L	<0.0001	0.0001	9502878			
. Tin (Sn)	mg/L	<0.001	0.001	9502859			
Dissolved Titanium (Ti)	mg/L	0.0007	0.0005	9502878			
. Titanium (Ti)	mg/L	0.020	0.005	9502859			
Dissolved Tungsten (W)	mg/L	<0.0001	0.0001	9502878			
. Tungsten (W)	mg/L	<0.001	0.001	9502859			
Dissolved Uranium (U)	mg/L	0.00013	0.00001	9502878			
. Uranium (U)	mg/L	0.0057	0.0001	9502859			
Dissolved Vanadium (V)	mg/L	0.00018	0.00005	9502878			
. Vanadium (V)	mg/L	0.0006	0.0005	9502859			
Dissolved Zinc (Zn)	mg/L	0.218	0.0005	9502878			
. Zinc (Zn)	mg/L	2.03	0.005	9502859			
Dissolved Zirconium (Zr)	mg/L	0.0001	0.0001	9502878			
. Zirconium (Zr)	mg/L	<0.001	0.001	9502859			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4K1763
Report Date: 2024/07/11

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

TEST SUMMARY

Bureau Veritas ID: ZPV662
Sample ID: DP-C
Matrix: Water

Collected: 2024/06/27
Shipped:
Received: 2024/07/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acidity (CaCO3) in water	MT	9500085	N/A	2024/07/08	Brent Boudreau
Alkalinity	AT	9495121	N/A	2024/07/04	Nachiketa Gohil
Carbonate, Bicarbonate and Hydroxide	CALC	9494021	N/A	2024/07/04	Automated Statchk
Chloride by Automated Colourimetry	SKAL	9495650	N/A	2024/07/08	Alina Dobreanu
Conductivity	AT	9495137	N/A	2024/07/04	Nachiketa Gohil
Fluoride	ISE	9495139	2024/07/04	2024/07/04	Nachiketa Gohil
Hardness (calculated as CaCO3)		9494024	N/A	2024/07/10	Automated Statchk
Mercury in Water by CVAA	CV/AA	9505246	2024/07/10	2024/07/10	Aswathy Neduveli Suresh
Dissolved Mercury (low level)	CV/AA	9503118	2024/07/09	2024/07/09	Aswathy Neduveli Suresh
Dissolved Metals Analysis by ICP	ICP	9495478	2024/07/04	2024/07/09	Suban Kanapathippllai
Dissolved Metals by ICPMS (low level)	ICP1/MS	9502878	N/A	2024/07/10	Prempal Bhatti
Metals in Water by ICPMS (low level)	ICP1/MS	9502859	N/A	2024/07/09	Prempal Bhatti
Total Metals Analysis by ICP	ICP	9500444	2024/07/08	2024/07/09	Suban Kanapathippllai
Cyanide (Free)	SPEC	9507213	N/A	2024/07/09	Amy Phan
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9507211	2024/07/10	2024/07/10	Ye Hyun KIM
Total Phosphorus Low Level Total	KONE	9507212	2024/07/06	2024/07/08	Mary Anne Dela Cruz
Total Ammonia-N	SKAL/NH4	9494502	N/A	2024/07/09	Yogesh Patel
Nitrate & Nitrite as Nitrogen in Water	LACH	9495219	N/A	2024/07/05	Jinal Chavda
pH	AT	9495128	2024/07/04	2024/07/04	Nachiketa Gohil
Field Measured pH	PH	ONSITE	N/A	2024/07/03	Sugar Ray Salvan
Sulphate by Automated Turbidimetry	SKAL	9495660	N/A	2024/07/08	Alina Dobreanu
Total Dissolved Solids	BAL	9494302	2024/07/04	2024/07/05	Tina Teng
Field Measured pH	PH	ONSITE	N/A	2024/07/03	Sugar Ray Salvan
Total Kjeldahl Nitrogen in Water	SKAL	9494897	2024/07/04	2024/07/08	Rajni Tyagi
Total Suspended Solids	BAL	9494378	2024/07/04	2024/07/05	Tina Teng
Turbidity	AT	9495146	N/A	2024/07/04	Gurparteek KAUR

Bureau Veritas ID: ZPV662 Dup
Sample ID: DP-C
Matrix: Water

Collected: 2024/06/27
Shipped:
Received: 2024/07/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Mercury (low level)	CV/AA	9503118	2024/07/09	2024/07/09	Aswathy Neduveli Suresh
Cyanide, Strong Acid Dissociable (SAD)	TECH/UVVS	9507211	2024/07/10	2024/07/10	Ye Hyun KIM

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	0.0°C

Sample received past hold time for Turbidity analysis, proceeded with client consent.

Sample ZPV662 [DP-C] : Acidity sample contained headspace.

Metals Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

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Bureau Veritas Job #: C4K1763
Report Date: 2024/07/11

QUALITY ASSURANCE REPORT

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9494302	Total Dissolved Solids	2024/07/05			95	80 - 120	<10	mg/L	0.67	20		
9494378	Total Suspended Solids	2024/07/05			95	80 - 120	<10	mg/L	NC	20		
9494502	Total Ammonia-N	2024/07/09	89	75 - 125	88	80 - 120	<0.050	mg/L	8.2	20		
9494897	Total Kjeldahl Nitrogen (TKN)	2024/07/05	100	80 - 120	104	80 - 120	<0.10	mg/L	NC	20	103	80 - 120
9495121	Alkalinity (Total as CaCO3)	2024/07/04			95	85 - 115	<1.0	mg/L	2.4	20		
9495128	pH	2024/07/04			101	98 - 103			0.39	N/A		
9495137	Conductivity	2024/07/04			103	85 - 115	0.000500	mS/cm	0.78	10		
9495139	Fluoride (F-)	2024/07/04	88	80 - 120	93	80 - 120	<0.10	mg/L	4.3	20		
9495146	Turbidity	2024/07/04			99	80 - 120	<0.1	NTU	NC	20		
9495219	Nitrate (N)	2024/07/05	100	80 - 120	100	80 - 120	<0.10	mg/L	1.0	20		
9495219	Nitrite (N)	2024/07/05	103	80 - 120	105	80 - 120	<0.010	mg/L	NC	20		
9495478	Dissolved Sulphur (S)	2024/07/09	NC	80 - 120	94	80 - 120	<0.5	mg/L	0.29	20		
9495650	Dissolved Chloride (Cl-)	2024/07/08	NC	80 - 120	95	80 - 120	<1.0	mg/L	0.30	20		
9495660	Dissolved Sulphate (SO4)	2024/07/08	NC	75 - 125	97	80 - 120	<1.0	mg/L	0.79	20		
9500085	Acidity	2024/07/08			99	80 - 120	<5.0	mg/L	NC	25		
9500444	Total Sulphur (S)	2024/07/09	97	80 - 120	98	80 - 120	<0.5	mg/L				
9502859	. Aluminum (Al)	2024/07/09	NC	80 - 120	95	80 - 120	<0.0005	mg/L	3.7	20		
9502859	. Antimony (Sb)	2024/07/09	107	80 - 120	102	80 - 120	<0.0001	mg/L	1.3	20		
9502859	. Arsenic (As)	2024/07/09	104	80 - 120	101	80 - 120	<0.0001	mg/L	1.1	20		
9502859	. Barium (Ba)	2024/07/09	100	80 - 120	97	80 - 120	<0.0002	mg/L	3.4	20		
9502859	. Beryllium (Be)	2024/07/09	100	80 - 120	95	80 - 120	<0.00005	mg/L	NC	20		
9502859	. Bismuth (Bi)	2024/07/09	90	80 - 120	95	80 - 120	<0.0001	mg/L	NC	20		
9502859	. Boron (B)	2024/07/09	94	80 - 120	93	80 - 120	<0.001	mg/L	2.5	20		
9502859	. Cadmium (Cd)	2024/07/09	103	80 - 120	96	80 - 120	<0.000005	mg/L	18	20		
9502859	. Calcium (Ca)	2024/07/09	NC	80 - 120	98	80 - 120	<0.02	mg/L	2.7	20		
9502859	. Cesium (Cs)	2024/07/09	100	80 - 120	102	80 - 120	<0.00002	mg/L	NC	20		
9502859	. Chromium (Cr)	2024/07/09	102	80 - 120	100	80 - 120	<0.0005	mg/L	0.18	20		
9502859	. Cobalt (Co)	2024/07/09	99	80 - 120	98	80 - 120	<0.00005	mg/L	2.4	20		
9502859	. Copper (Cu)	2024/07/09	100	80 - 120	100	80 - 120	<0.0001	mg/L	1.3	20		
9502859	. Iron (Fe)	2024/07/09	105	80 - 120	103	80 - 120	<0.005	mg/L	2.0	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9502859	. Lead (Pb)	2024/07/09	96	80 - 120	97	80 - 120	<0.00005	mg/L	3.7	20		
9502859	. Lithium (Li)	2024/07/09	103	80 - 120	99	80 - 120	<0.0005	mg/L	1.6	20		
9502859	. Magnesium (Mg)	2024/07/09	NC	80 - 120	101	80 - 120	<0.005	mg/L	2.2	20		
9502859	. Manganese (Mn)	2024/07/09	102	80 - 120	101	80 - 120	<0.0002	mg/L	1.4	20		
9502859	. Molybdenum (Mo)	2024/07/09	111	80 - 120	101	80 - 120	<0.00005	mg/L	0.21	20		
9502859	. Nickel (Ni)	2024/07/09	99	80 - 120	102	80 - 120	<0.0001	mg/L	4.4	20		
9502859	. Phosphorus (P)	2024/07/09	108	80 - 120	99	80 - 120	<0.005	mg/L	1.2	20		
9502859	. Potassium (K)	2024/07/09	106	80 - 120	104	80 - 120	<0.02	mg/L	1.0	20		
9502859	. Rubidium (Rb)	2024/07/09	97	80 - 120	97	80 - 120	<0.00002	mg/L	2.5	20		
9502859	. Selenium (Se)	2024/07/09	105	80 - 120	98	80 - 120	<0.00005	mg/L	NC	20		
9502859	. Silicon (Si)	2024/07/09	NC	80 - 120	94	80 - 120	<0.005	mg/L	1.7	20		
9502859	. Silver (Ag)	2024/07/09	102	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9502859	. Sodium (Na)	2024/07/09	NC	80 - 120	103	80 - 120	<0.01	mg/L	0.92	20		
9502859	. Strontium (Sr)	2024/07/09	NC	80 - 120	100	80 - 120	<0.0001	mg/L	2.6	20		
9502859	. Tellurium (Te)	2024/07/09	101	80 - 120	97	80 - 120	<0.0001	mg/L	NC	20		
9502859	. Thallium (Tl)	2024/07/09	98	80 - 120	97	80 - 120	<0.000005	mg/L	12	20		
9502859	. Thorium (Th)	2024/07/09	103	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9502859	. Tin (Sn)	2024/07/09	109	80 - 120	99	80 - 120	<0.0001	mg/L	2.0	20		
9502859	. Titanium (Ti)	2024/07/09	99	80 - 120	95	80 - 120	<0.0005	mg/L	2.4	20		
9502859	. Tungsten (W)	2024/07/09	102	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9502859	. Uranium (U)	2024/07/09	100	80 - 120	97	80 - 120	<0.00001	mg/L	0.27	20		
9502859	. Vanadium (V)	2024/07/09	106	80 - 120	101	80 - 120	<0.00005	mg/L	0	20		
9502859	. Zinc (Zn)	2024/07/09	100	80 - 120	99	80 - 120	<0.0005	mg/L	1.9	20		
9502859	. Zirconium (Zr)	2024/07/09	112	80 - 120	102	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Aluminum (Al)	2024/07/09	94	80 - 120	95	80 - 120	<0.0005	mg/L	0.34	20		
9502878	Dissolved Antimony (Sb)	2024/07/09	104	80 - 120	103	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Arsenic (As)	2024/07/09	100	80 - 120	98	80 - 120	<0.0001	mg/L	1.1	20		
9502878	Dissolved Barium (Ba)	2024/07/09	97	80 - 120	99	80 - 120	<0.0002	mg/L	1.9	20		
9502878	Dissolved Beryllium (Be)	2024/07/09	95	80 - 120	96	80 - 120	<0.00005	mg/L	NC	20		
9502878	Dissolved Bismuth (Bi)	2024/07/09	88	80 - 120	96	80 - 120	<0.0001	mg/L	NC	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9502878	Dissolved Boron (B)	2024/07/09	87	80 - 120	92	80 - 120	<0.001	mg/L	1.4	20		
9502878	Dissolved Cadmium (Cd)	2024/07/09	99	80 - 120	96	80 - 120	<0.00001	mg/L	NC	20		
9502878	Dissolved Calcium (Ca)	2024/07/09	NC	80 - 120	102	80 - 120	<0.02	mg/L	4.8	20		
9502878	Dissolved Cesium (Cs)	2024/07/09	97	80 - 120	101	80 - 120	<0.00002	mg/L	NC	N/A		
9502878	Dissolved Chromium (Cr)	2024/07/09	98	80 - 120	98	80 - 120	<0.0005	mg/L	NC	20		
9502878	Dissolved Cobalt (Co)	2024/07/09	94	80 - 120	98	80 - 120	<0.00005	mg/L	1.3	20		
9502878	Dissolved Copper (Cu)	2024/07/09	96	80 - 120	97	80 - 120	<0.0001	mg/L	2.4	20		
9502878	Dissolved Iron (Fe)	2024/07/09	101	80 - 120	101	80 - 120	<0.005	mg/L	0.33	20		
9502878	Dissolved Lead (Pb)	2024/07/09	93	80 - 120	97	80 - 120	<0.00005	mg/L	NC	20		
9502878	Dissolved Lithium (Li)	2024/07/09	98	80 - 120	100	80 - 120	<0.0005	mg/L	2.7	20		
9502878	Dissolved Magnesium (Mg)	2024/07/09	NC	80 - 120	98	80 - 120	<0.005	mg/L	0.59	20		
9502878	Dissolved Manganese (Mn)	2024/07/09	NC	80 - 120	97	80 - 120	<0.0002	mg/L	0.24	20		
9502878	Dissolved Molybdenum (Mo)	2024/07/09	106	80 - 120	101	80 - 120	<0.00005	mg/L	0.96	20		
9502878	Dissolved Nickel (Ni)	2024/07/09	94	80 - 120	98	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Phosphorus (P)	2024/07/09	102	80 - 120	99	80 - 120	<0.005	mg/L	0.25	20		
9502878	Dissolved Potassium (K)	2024/07/09	102	80 - 120	99	80 - 120	<0.02	mg/L	0.032	20		
9502878	Dissolved Rubidium (Rb)	2024/07/09	93	80 - 120	97	80 - 120	<0.00002	mg/L	NC	N/A		
9502878	Dissolved Selenium (Se)	2024/07/09	95	80 - 120	98	80 - 120	<0.0002	mg/L	NC	20		
9502878	Dissolved Silicon (Si)	2024/07/09	NC	80 - 120	95	80 - 120	<0.005	mg/L	3.9	20		
9502878	Dissolved Silver (Ag)	2024/07/09	98	80 - 120	98	80 - 120	<0.00001	mg/L	NC	20		
9502878	Dissolved Sodium (Na)	2024/07/09	NC	80 - 120	98	80 - 120	<0.01	mg/L	1.5	20		
9502878	Dissolved Strontium (Sr)	2024/07/09	NC	80 - 120	100	80 - 120	<0.0001	mg/L	0.20	20		
9502878	Dissolved Tellurium (Te)	2024/07/09	97	80 - 120	94	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Thallium (Tl)	2024/07/09	95	80 - 120	98	80 - 120	<0.000005	mg/L	NC	20		
9502878	Dissolved Thorium (Th)	2024/07/09	99	80 - 120	101	80 - 120	<0.0002	mg/L	NC	20		
9502878	Dissolved Tin (Sn)	2024/07/09	104	80 - 120	99	80 - 120	<0.0001	mg/L	NC	20		
9502878	Dissolved Titanium (Ti)	2024/07/09	94	80 - 120	97	80 - 120	<0.0005	mg/L	3.8	20		
9502878	Dissolved Tungsten (W)	2024/07/09	99	80 - 120	99	80 - 120	<0.0001	mg/L	3.9	20		
9502878	Dissolved Uranium (U)	2024/07/09	97	80 - 120	98	80 - 120	<0.00001	mg/L	8.6	20		
9502878	Dissolved Vanadium (V)	2024/07/09	100	80 - 120	99	80 - 120	<0.00005	mg/L	0.83	20		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9502878	Dissolved Zinc (Zn)	2024/07/09	95	80 - 120	98	80 - 120	<0.0005	mg/L	0.85	20		
9502878	Dissolved Zirconium (Zr)	2024/07/09	109	80 - 120	101	80 - 120	<0.0001	mg/L	2.7	20		
9503118	Dissolved Mercury (Hg)	2024/07/09	93	75 - 125	90	80 - 120	<0.01	ug/L	NC	20		
9505246	Mercury (Hg)	2024/07/10	94	75 - 125	90	80 - 120	<0.00010	mg/L	NC	20		
9507211	Strong Acid Dissoc. Cyanide (CN)	2024/07/10	82	80 - 120	89	80 - 120	<0.00050	mg/L	NC	20		
9507212	Total Phosphorus (P)	2024/07/08	98	80 - 120	95	80 - 120	<0.0010	mg/L			92	80 - 120
9507213	Free Cyanide (CN)	2024/07/09	104	80 - 120	95	80 - 120	<2.0	ug/L				

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Bureau Veritas Job #: C4K1763
Report Date: 2024/07/11

Greenstone Mine
Client Project #: Groundwater Sampling Program
Your P.O. #: 4800001036
Sampler Initials: RD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

Janah Rhyno, Scientific Specialist

Suwan (Sze Yeung) Fock, B.Sc., Scientific Specialist

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **TY2407474**	Page	: 1 of 7
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 6 Twilight Bay P.O BOX 69 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 12-Jul-2024 09:10
PO	: 5500000426	Date Analysis Commenced	: 13-Jul-2024
C-O-C number	: ----	Issue Date	: 19-Jul-2024 14:49
Sampler	: JC, WM		
Site	: ----		
Quote number	: Standing Offer - Pick a Project		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Andrea Armstrong	Department Manager - Air Quality and Volatiles	VOC, Waterloo, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Administration, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Jeremy Gingras	Supervisor - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Kelly Fischer	Technical Specialist	Inorganics, Waterloo, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Mingjian Yang	Laboratory Assistant	Inorganics, Thunder Bay, Ontario
Rhiannon Scheffee	Project Manager	Metals, Thunder Bay, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Metals, Thunder Bay, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLDS	*Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
DTSE	*Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.*

Analytical Results

Sub-Matrix: Water
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW20-BR-21	MW20-OB-21	MWS-14-07 OB	MWS-14-07 BR	Duplicate 1
					Client sampling date / time	10-Jul-2024 13:23	10-Jul-2024 13:50	10-Jul-2024 14:38	10-Jul-2024 14:57	10-Jul-2024 08:00
						TY2407474-001	TY2407474-002	TY2407474-003	TY2407474-004	TY2407474-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/TY	0.10	pH units		12.5	8.78	8.07	8.12	----
Temperature, field	----	EF001/TY	0.10	°C		8.20	11.0	7.80	7.10	----
Physical Tests										
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L		<2.0	<2.0	6.3	4.8	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L		<50.0 DLM	202	299	338	<50.0 DLM
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L		670	<2.0	<2.0	<2.0	615
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L		460	<2.0	<2.0	<2.0	438
Alkalinity, phenolphthalein (as CaCO3)	----	E290/TY	2.0	mg/L		795	<2.0	<2.0	<2.0	745
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L		1130	202	299	338	1050
Conductivity	----	E100/TY	2.0	µS/cm		1480	408	535	630	1400
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L		627	188	294	252	642
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/TY	0.50	mg/L		744	348	377	253	660
pH	----	E108/TY	0.10	pH units		11.8	8.23	7.95	8.07	11.8
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L		883	281	395	346	813
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L		24.5	338	38.3	154	20.7
Turbidity	----	E121/TY	0.10	NTU		14.9	136	48.9	12.5	11.0
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L		1.37	0.0229	<0.0050	0.116	1.38
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L		1.37	0.0025	<0.0010	0.0022	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L		4.41	0.88	0.62	0.64	4.17
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L		<0.400 DLDS	0.060	0.049	0.057	<0.400 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L		2.14	0.659	0.155	0.309	2.14
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L		<0.400 DLDS	0.773	0.021	<0.020	<0.400 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L		<0.200 DLDS	<0.010	<0.010	<0.010	<0.200 DLDS
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L		0.0139	0.285	0.200	0.0103	0.0093
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L		<6.00 DLDS	23.7	4.56	12.2	<6.00 DLDS
Cyanides										
Cyanide, free	----	E339/WT	0.0050	mg/L		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0050	mg/L		<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Organic / Inorganic Carbon										

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW20-BR-21	MW20-OB-21	MWS-14-07 OB	MWS-14-07 BR	Duplicate 1
					Client sampling date / time	10-Jul-2024 13:23	10-Jul-2024 13:50	10-Jul-2024 14:38	10-Jul-2024 14:57	10-Jul-2024 08:00
						TY2407474-001	TY2407474-002	TY2407474-003	TY2407474-004	TY2407474-005
						Result	Result	Result	Result	Result
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		----	----	4.56	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L		0.927	3.40	1.57	0.0660	0.399
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		0.00070	<0.00100 DLM	0.00046	0.00060	0.00063
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.00404	0.00358	0.0112	0.00490	0.00362
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.488	0.0367	0.0338	0.0236	0.480
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		<0.000100 DLM	<0.000200 DLM	0.000041	<0.000020	<0.000100 DLM
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.000250 DLM	<0.000500 DLM	<0.000100 DLM	<0.000050	<0.000250 DLM
Boron, total	7440-42-8	E420/TY	0.010	mg/L		<0.050 DLM	<0.100 DLM	<0.020 DLM	0.028	<0.050 DLM
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		0.0000422	<0.0000500 DLM	0.0000863	0.0000284	<0.0000250 DLM
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		290	96.5	108	73.0	264
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.000148	0.000294	0.000338	0.000096	0.000117
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		0.00456	0.0114	0.00648	0.00081	<0.00250 DLM
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.00093	0.00177	0.00575	0.00192	<0.00050 DLM
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		0.00853	0.00729	0.0174	0.0109	0.00291
Iron, total	7439-89-6	E420/TY	0.010	mg/L		1.28	6.17	3.19	1.01	0.300
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.00199	0.00298	0.00236	0.000595	0.000946
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.0235	<0.0100 DLM	0.0034	0.0024	0.0230
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		4.93	26.1	26.1	17.1	0.202
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		0.0445	0.107	0.580	0.173	0.00381
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.0268	0.00223	0.000973	0.00410	0.0282
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.0167	<0.00500 DLM	0.0121	0.00481	0.0157
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		<0.250 DLM	<0.500 DLM	0.151	<0.050	<0.250 DLM
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		15.6	2.89	1.98	1.85	15.6
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.0309	0.00637	0.00512	0.00291	0.0303
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		0.000328	0.00104	0.000184	0.000077	0.000284
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		2.03	11.7	8.15	5.84	1.29
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		0.000349	<0.000100 DLM	0.000030	0.000015	<0.000050 DLM
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		101	15.9	6.87	59.2	97.4
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		1.30	0.0890	0.0969	0.0984	1.24
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		<2.50 DLM	6.72	1.83	5.30	<2.50 DLM

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW20-BR-21	MW20-OB-21	MWS-14-07 OB	MWS-14-07 BR	Duplicate 1
					Client sampling date / time	10-Jul-2024 13:23	10-Jul-2024 13:50	10-Jul-2024 14:38	10-Jul-2024 14:57	10-Jul-2024 08:00
						TY2407474-001	TY2407474-002	TY2407474-003	TY2407474-004	TY2407474-005
						Result	Result	Result	Result	Result
Total Metals										
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00100 DLM	<0.00200 DLM	<0.00040 DLM	<0.00020	<0.00100 DLM
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		0.000067	<0.000100 DLM	0.000027	<0.000010	<0.000050 DLM
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		<0.00050 DLM	0.00172	0.00051	<0.00010	<0.00050 DLM
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		0.00089	0.00322	0.00097	0.00048	0.00080
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		0.0355	0.219	0.116	0.00407	<0.00495 DLM
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.0117	0.00152	<0.00020 DLM	0.00280	0.00547
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.000122	0.000817	0.000609	0.00209	<0.000050 DLM
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.00268	0.00827	0.00505	0.00066	<0.00250 DLM
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		2.49	1.15	0.0233	0.0253	2.48
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		<0.00100 DLM	0.00215	0.00097	0.00078	<0.00100 DLM
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.314	0.0036	0.0018	0.0036	0.338
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		<0.00050 DLM	0.00015	<0.00010	0.00011	<0.00050 DLM
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.00154	0.00040	0.00173	0.00289	0.00172
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.485	0.0107	0.0188	0.0207	0.473
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000100 DLM	<0.000020	<0.000020	<0.000020	<0.000100 DLM
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000250 DLM	<0.000050	<0.000050	<0.000050	<0.000250 DLM
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		<0.050 DLM	<0.010	<0.010	0.026	<0.050 DLM
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000250 DLM	<0.0000050	0.0000068	<0.0000050	<0.0000250 DLM
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		251	53.2	87.2	74.8	257
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		0.000102	<0.000010	0.000036	0.000100	0.000102
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00250 DLM	0.00095	<0.00050	<0.00050	<0.00250 DLM
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		<0.00050 DLM	<0.00010	0.00012	0.00076	<0.00050 DLM
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		0.00284	0.00146	0.00146	0.00036	0.00241
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		<0.050 DLM	<0.010	<0.010	1.20	<0.050 DLM
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		0.000566	<0.000050	<0.000050	<0.000050	0.000589
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0260	0.0014	0.0019	0.0029	0.0266
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		<0.0250 DLM	13.4	18.4	15.9	<0.0250 DLM
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		<0.00050 DLM	0.00353	0.0163	0.164	<0.00050 DLM
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.0297	0.00210	0.000693	0.00308	0.0291
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		0.0129	<0.00050	0.00156	0.00216	0.0136

Analytical Results

Sub-Matrix: **Water**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW20-BR-21	MW20-OB-21	MWS-14-07 OB	MWS-14-07 BR	Duplicate 1
					Client sampling date / time	10-Jul-2024 13:23	10-Jul-2024 13:50	10-Jul-2024 14:38	10-Jul-2024 14:57	10-Jul-2024 08:00
						TY2407474-001	TY2407474-002	TY2407474-003	TY2407474-004	TY2407474-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.250 DLM	<0.050	<0.050	<0.050	<0.250 DLM
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		14.6	1.66	1.56	1.69	15.2
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.0277	0.00100	0.00245	0.00279	0.0287
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		<0.000250 DLM	0.000965	0.000095	0.000225 DTSE	<0.000250 DLM
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		0.812	5.06	5.54	6.06	0.792
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000050 DLM	<0.000010	<0.000010	<0.000010	<0.000050 DLM
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		92.3	14.6	6.65	49.5	95.1
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		1.22	0.0599	0.0769	0.108	1.22
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		<2.50 DLM	8.30	1.92	4.88	<2.50 DLM
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00100 DLM	<0.00020	<0.00020	<0.00020	<0.00100 DLM
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000050 DLM	<0.000010	<0.000010	<0.000010	<0.000050 DLM
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00050 DLM	<0.00010	<0.00010	<0.00010	<0.00050 DLM
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		<0.00050 DLM	0.00011	<0.00010	<0.00010	<0.00050 DLM
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00150 DLM	<0.00030	<0.00030	<0.00030	<0.00150 DLM
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		0.00538	0.00049	<0.00010	0.00209	0.00522
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		<0.000050 DLM	0.000288	0.000423	0.00137	<0.000050 DLM
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00250 DLM	<0.00050	<0.00050	<0.00050	<0.00250 DLM
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		1.07	0.214	0.0023	0.0046	1.10
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		<0.00150 DLM	<0.00030	<0.00030	0.00076	<0.00150 DLM
Dissolved metals filtration location	----	EP421/TY	-	-		Field	Field	Field	Field	Field
Hydrocarbons										
F1 (C6-C10)	----	E581.F1-L/WT	25	µg/L		----	----	<25	----	----
F2 (C10-C16)	----	E601.SG/WT	100	µg/L		----	----	<100	----	----
F3 (C16-C34)	----	E601.SG/WT	250	µg/L		----	----	<250	----	----
F4 (C34-C50)	----	E601.SG/WT	250	µg/L		----	----	<250	----	----
Hydrocarbons, total (C6-C50)	n/a	EC581SG/WT	240	µg/L		----	----	<370	----	----
Chromatogram to baseline at nC50	n/a	E601.SG/WT	-	-		----	----	YES	----	----
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601.SG/WT	1.0	%		----	----	91.4	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.F1-L/WT	1.0	%		----	----	85.2	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2407474**	Page	: 1 of 21
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 6 Twilight Bay P.O BOX 69 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 12-Jul-2024 09:10
PO	: 5500000426	Issue Date	: 19-Jul-2024 14:50
C-O-C number	: ----		
Sampler	: JC, WM		
Site	: ----		
Quote number	: Standing Offer - Pick a Project		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] Duplicate 1	E298	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	15-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW20-BR-21	E298	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	15-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW20-OB-21	E298	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	15-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-07 BR	E298	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	15-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-07 OB	E298	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	15-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] Duplicate 1	E235.Cl-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW20-BR-21	E235.Cl-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
MW20-OB-21	E235.Cl-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
MWS-14-07 BR	E235.Cl-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
MWS-14-07 OB	E235.Cl-L	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
Duplicate 1	E235.F	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW20-BR-21	E235.F	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW20-OB-21	E235.F	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MWS-14-07 BR	E235.F	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MWS-14-07 OB	E235.F	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
Duplicate 1	E235.NO3	10-Jul-2024	13-Jul-2024	7 days	3 days	✓	14-Jul-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MW20-BR-21	E235.NO3	10-Jul-2024	13-Jul-2024	7 days	3 days	✓	14-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MW20-OB-21	E235.NO3	10-Jul-2024	13-Jul-2024	7 days	3 days	✓	14-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MWS-14-07 BR	E235.NO3	10-Jul-2024	13-Jul-2024	7 days	3 days	✓	14-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MWS-14-07 OB	E235.NO3	10-Jul-2024	13-Jul-2024	7 days	3 days	✓	14-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] Duplicate 1	E235.NO2	10-Jul-2024	13-Jul-2024	7 days	3 days	✓	14-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW20-BR-21	E235.NO2	10-Jul-2024	13-Jul-2024	7 days	3 days	✓	14-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW20-OB-21	E235.NO2	10-Jul-2024	13-Jul-2024	7 days	3 days	✓	14-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MWS-14-07 BR	E235.NO2	10-Jul-2024	13-Jul-2024	7 days	3 days	✓	14-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MWS-14-07 OB	E235.NO2	10-Jul-2024	13-Jul-2024	7 days	3 days	✓	14-Jul-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] Duplicate 1	E235.SO4	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW20-BR-21	E235.SO4	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW20-OB-21	E235.SO4	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MWS-14-07 BR	E235.SO4	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MWS-14-07 OB	E235.SO4	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	14-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] Duplicate 1	E318	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW20-BR-21	E318	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW20-OB-21	E318	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-07 BR	E318	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-07 OB	E318	10-Jul-2024	15-Jul-2024	28 days	5 days	✓	16-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] Duplicate 1	E372-S	10-Jul-2024	16-Jul-2024	3 days	6 days	× EHT	17-Jul-2024	3 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW20-BR-21	E372-S	10-Jul-2024	16-Jul-2024	3 days	6 days	× EHT	17-Jul-2024	3 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW20-OB-21	E372-S	10-Jul-2024	16-Jul-2024	3 days	6 days	× EHT	17-Jul-2024	3 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-07 BR	E372-S	10-Jul-2024	16-Jul-2024	3 days	6 days	× EHT	17-Jul-2024	3 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-07 OB	E372-S	10-Jul-2024	16-Jul-2024	3 days	6 days	× EHT	17-Jul-2024	3 days	7 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) Duplicate 1	E339	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW20-BR-21	E339	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW20-OB-21	E339	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MWS-14-07 BR	E339	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MWS-14-07 OB	E339	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) Duplicate 1	E333	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW20-BR-21	E333	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW20-OB-21	E333	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MWS-14-07 BR	E333	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MWS-14-07 OB	E333	10-Jul-2024	17-Jul-2024	14 days	7 days	✓	17-Jul-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) Duplicate 1	E421	10-Jul-2024	15-Jul-2024	180 days	5 days	✓	15-Jul-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) MW20-BR-21	E421	10-Jul-2024	15-Jul-2024	180 days	5 days	✓	15-Jul-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW20-OB-21	E421	10-Jul-2024	15-Jul-2024	180 days	5 days	✓	15-Jul-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MWS-14-07 BR	E421	10-Jul-2024	15-Jul-2024	180 days	5 days	✓	15-Jul-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MWS-14-07 OB	E421	10-Jul-2024	15-Jul-2024	180 days	5 days	✓	15-Jul-2024	180 days	5 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW20-BR-21	EF001	10-Jul-2024	----	----	----		14-Jul-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW20-OB-21	EF001	10-Jul-2024	----	----	----		14-Jul-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MWS-14-07 BR	EF001	10-Jul-2024	----	----	----		14-Jul-2024	----	4 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MWS-14-07 OB	EF001	10-Jul-2024	----	----	----		14-Jul-2024	----	4 days	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate)										
MWS-14-07 OB	E581.F1-L	10-Jul-2024	18-Jul-2024	14 days	8 days	✓	18-Jul-2024	14 days	8 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) [ON MECP]										
MWS-14-07 OB	E601.SG	10-Jul-2024	17-Jul-2024	40 days	7 days	✓	18-Jul-2024	40 days	1 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP]										
MWS-14-07 OB	E358-L	10-Jul-2024	17-Jul-2024	28 days	7 days	✓	18-Jul-2024	28 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
Duplicate 1	E283	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	13-Jul-2024	14 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
MW20-BR-21	E283	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	13-Jul-2024	14 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
MW20-OB-21	E283	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	13-Jul-2024	14 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
MWS-14-07 BR	E283	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	13-Jul-2024	14 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
MWS-14-07 OB	E283	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	13-Jul-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
Duplicate 1	E290	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	15-Jul-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
MW20-BR-21	E290	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	15-Jul-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
MW20-OB-21	E290	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	15-Jul-2024	14 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MWS-14-07 BR	E290	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	15-Jul-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MWS-14-07 OB	E290	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	15-Jul-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] Duplicate 1	E100	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	15-Jul-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW20-BR-21	E100	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	15-Jul-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW20-OB-21	E100	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	15-Jul-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MWS-14-07 BR	E100	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	15-Jul-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MWS-14-07 OB	E100	10-Jul-2024	13-Jul-2024	28 days	3 days	✓	15-Jul-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] Duplicate 1	E108	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	15-Jul-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW20-BR-21	E108	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	15-Jul-2024	14 days	5 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] MW20-OB-21	E108	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	15-Jul-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MWS-14-07 BR	E108	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	15-Jul-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MWS-14-07 OB	E108	10-Jul-2024	13-Jul-2024	14 days	3 days	✓	15-Jul-2024	14 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] Duplicate 1	E162	10-Jul-2024	----	----	----		13-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MW20-BR-21	E162	10-Jul-2024	----	----	----		13-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MW20-OB-21	E162	10-Jul-2024	----	----	----		13-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MWS-14-07 BR	E162	10-Jul-2024	----	----	----		13-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MWS-14-07 OB	E162	10-Jul-2024	----	----	----		13-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] Duplicate 1	E160	10-Jul-2024	----	----	----		13-Jul-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW20-BR-21	E160	10-Jul-2024	----	----	----		13-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW20-OB-21	E160	10-Jul-2024	----	----	----		13-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MWS-14-07 BR	E160	10-Jul-2024	----	----	----		13-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MWS-14-07 OB	E160	10-Jul-2024	----	----	----		13-Jul-2024	7 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MWS-14-07 BR	E121	10-Jul-2024	----	----	----		13-Jul-2024	48 hrs	68 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MWS-14-07 OB	E121	10-Jul-2024	----	----	----		13-Jul-2024	48 hrs	69 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW20-BR-21	E121	10-Jul-2024	----	----	----		13-Jul-2024	48 hrs	70 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW20-OB-21	E121	10-Jul-2024	----	----	----		13-Jul-2024	48 hrs	70 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] Duplicate 1	E121	10-Jul-2024	----	----	----		13-Jul-2024	48 hrs	75 hrs	× EHTR

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) Duplicate 1	E420	10-Jul-2024	15-Jul-2024	180 days	5 days	✓	16-Jul-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW20-BR-21	E420	10-Jul-2024	15-Jul-2024	180 days	5 days	✓	16-Jul-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW20-OB-21	E420	10-Jul-2024	15-Jul-2024	180 days	5 days	✓	16-Jul-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MWS-14-07 BR	E420	10-Jul-2024	15-Jul-2024	180 days	5 days	✓	16-Jul-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MWS-14-07 OB	E420	10-Jul-2024	15-Jul-2024	180 days	5 days	✓	16-Jul-2024	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR: Exceeded ALS recommended hold time prior to sample receipt.

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1543377	1	15	6.6	5.0	✓
Alkalinity Species by Titration	E290	1543370	2	32	6.2	5.0	✓
Ammonia by Fluorescence	E298	1543490	1	7	14.2	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1551410	1	15	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1543364	1	7	14.2	5.0	✓
Conductivity in Water	E100	1543369	2	32	6.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1544689	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1550250	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1543362	1	13	7.6	5.0	✓
Free Cyanide	E339	1549579	1	15	6.6	5.0	✓
Nitrate in Water by IC	E235.NO3	1543360	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1543359	1	17	5.8	5.0	✓
pH by Meter	E108	1543368	2	31	6.4	5.0	✓
Sulfate in Water by IC	E235.SO4	1543358	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1543631	1	16	6.2	5.0	✓
Total Cyanide	E333	1549580	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1543482	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1544800	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1548644	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1543630	1	16	6.2	5.0	✓
Turbidity by Nephelometry	E121	1543244	1	12	8.3	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1543377	1	15	6.6	5.0	✓
Alkalinity Species by Titration	E290	1543370	2	32	6.2	5.0	✓
Ammonia by Fluorescence	E298	1543490	1	7	14.2	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1551410	1	15	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1543364	1	7	14.2	5.0	✓
Conductivity in Water	E100	1543369	2	32	6.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1544689	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1550250	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1543362	1	13	7.6	5.0	✓
Free Cyanide	E339	1549579	1	15	6.6	5.0	✓
Nitrate in Water by IC	E235.NO3	1543360	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1543359	1	17	5.8	5.0	✓
pH by Meter	E108	1543368	2	31	6.4	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	1550002	1	1	100.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Sulfate in Water by IC	E235.SO4	1543358	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1543631	1	16	6.2	5.0	✓
Total Cyanide	E333	1549580	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1543482	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1544800	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1548644	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1543630	1	16	6.2	5.0	✓
Turbidity by Nephelometry	E121	1543244	1	12	8.3	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1543377	1	15	6.6	5.0	✓
Alkalinity Species by Titration	E290	1543370	2	32	6.2	5.0	✓
Ammonia by Fluorescence	E298	1543490	1	7	14.2	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1551410	1	15	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1543364	1	7	14.2	5.0	✓
Conductivity in Water	E100	1543369	2	32	6.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1544689	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1550250	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1543362	1	13	7.6	5.0	✓
Free Cyanide	E339	1549579	1	15	6.6	5.0	✓
Nitrate in Water by IC	E235.NO3	1543360	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1543359	1	17	5.8	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	1550002	1	1	100.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1543358	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1543631	1	16	6.2	5.0	✓
Total Cyanide	E333	1549580	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1543482	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1544800	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1548644	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1543630	1	16	6.2	5.0	✓
Turbidity by Nephelometry	E121	1543244	1	12	8.3	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1543490	1	7	14.2	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1551410	1	15	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1543364	1	7	14.2	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1544689	1	19	5.2	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1550250	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1543362	1	13	7.6	5.0	✓
Free Cyanide	E339	1549579	1	15	6.6	5.0	✓
Nitrate in Water by IC	E235.NO3	1543360	1	17	5.8	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Nitrite in Water by IC	E235.NO2	1543359	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1543358	1	16	6.2	5.0	✓
Total Cyanide	E333	1549580	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1543482	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1544800	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1548644	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	Sample extracts are subjected to in-situ silica gel treatment prior to analysis by GC-FID for CCME hydrocarbon fractions (F2-F4). Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations. Hardness from total Ca/Mg is normally comparable to Dissolved Hardness in non-turbid waters.
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
SUM F1 to F4 where F2-F4 is SG treated	EC581SG ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fraction F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50), where F2-F4 have been treated with silica gel. F4G-sg is not used within this calculation due to overlap with other fractions.
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Waterloo	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.

COURTESY FREIGHT 1-800-267-0598
5542383590

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix AL

COC Number: 14 -

Page ____ of ____

Telephone : +1 807 623 6463

Report To		Report Format / Distribution	Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report ☐ Yes ☐ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11 Geraldton, ON P0T 1M0	☐ Criteria on Report - provide details below if box checked Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	807-853-1816	Email 1: environmental@ggmines.com, laura.vares@ggmines.com	Specify Date Required for E2,E or P:
		Email 2: see comments	

Invoice To		Invoice Distribution	Analysis Request
	Same as Report To ☐ Yes ☑ No	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
	Copy of Invoice with Report ☐ Yes ☑ No		
Company:	Greenstone Mine	Email 1 or Fax: ap@ggmines.com	
Contact:	Accounts Payable	Email 2: laura.vares@ggmines.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): 7474 **ALS Contact:** Christine Paradis **Sampler:** WM/JC

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox	Chloride, fluoride, nitrate, nitrite, TKN, low lev	Sulphate, cyanide (total/free), ammonia (total/	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	MW20-BR-21	10-Jul-24	13:23	Water	x	x	x	x	x							12.49	8.20	6
	MW20-OB-21	10-Jul-24	13:50	Water	x	x	x	x	x							8.78	11.00	6
	MWS-14-07 OB	10-Jul-24	14:38	Water	x	x	x	x	x	x	x					8.07	7.80	11
	MWS-14-07 BR	10-Jul-24	14:57	Water	x	x	x	x	x							8.12	7.10	6
	Duplicate 1	10-Jul-24	8:00	Water	x	x	x	x	x								-	6

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com
Are samples for human drinking water use? ☐ Yes ☑ No	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No ☐	
Ice packs	Yes ☒	No ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated	☒				

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
9.6					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: LV	Date: 7/12/24	Time: 9:10
Will Metansinine	10-Jul-24	15:00						

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0329e v09 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Attahours ← Courtesy 1x

Intake and Login Verification Form

SAMPLE INTAKE			
Priority/Emergency Service Requested		YES	NO
Time Sensitive Hold Time		YES	NO
Client:	Greenstone		

SAMPLE RECEIPT INFORMATION			
Mode of Delivery:	Courier		Drop Off
Courier	Courtesy		
Waybill Number	554238 3590		
Temperature	9.6		Cooler Count 1
Cooling Method	None	Ice	Ice Packs

SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	Water	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?				~~Yes~~	~~No~~
DW Metals pH Check <2				Yes	No
Regulation Circled, Works # present			Yes	No - Reject?	
# of Bottles: 9	Sample Count			5	
Green/white	5 Routine,				
Purple/white	~~5 H2SO4~~, 5x2 Nuts, 1 DOC				
Warm red/white	5 Tot. M, 5 Diss-M				
Yellow/black					
Light blue/white					
Orange/black					
Others (detail)	5 Cyanide 2 blue bottles 2 blue vials				
Comments on Samples and Bottles:	✓				
Samples Requiring Preservation or Filtering:	✓				
Layout Staff Initials Date and Time of Layout	LV 7/12/24 2:30				

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	NO
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client ✓	Work Contact ✓	Quote ✓

RECEIPT DETAIL			
Project ✓	PO ✓	Site/LSD	N/A
Overall Description Entered		Yes	~~NA~~
Received date/time as per COC		✓	
Recipients match CoC or Sample Remarks		Yes	No
Billing Instruction added to remarks		Yes	NA
Sample Remarks/Specification Doc checked		✓	
Submission Issues communicated		Yes	~~NA~~
Sample Info communicated via Remarks		Yes	NA

VERIFICATION CHECKLIST		
Plannned Event Submission	Yes	No
Sample Name entered as per CoC	✓	
Sampling Date and time entered as per CoC	✓	
Containers selected in layout order	✓	
Sales items entered from QUOTE ONLY (and/or verified as correct)	✓	
Field Data/EC298A removed if not on COC	Yes	NA
Bottle Allocation Verified	✓	
Guideline added or ~~auto~~-allocated	✓	
Due dates updated	✓	

VALIDATION		
Validation errors resolved?	Yes	No
Internal Sublet CoC created	Yes	NA
Login Comments:	✓	
Login Staff Initials:	MM	

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **TY2407741**	Page	: 1 of 7
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 6 Twilight Bay P.O BOX 69 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 18-Jul-2024 09:16
PO	: 5500000426	Date Analysis Commenced	: 19-Jul-2024
C-O-C number	: ----	Issue Date	: 31-Jul-2024 10:41
Sampler	: ----		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cassandra Grzelewski	Team Leader - Inorganics	Administration, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Rhiannon Scheffee	Project Manager	Metals, Thunder Bay, Ontario
Sarah Birch	VOC Section Supervisor	VOC, Waterloo, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Inorganics, Thunder Bay, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Metals, Thunder Bay, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLDS	*Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.*
DTC	*Dissolved concentration exceeds total. Results were confirmed by re-analysis.*

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW30-BR-23	MW30-OB-23	Pond B2	MWS-14-04	MW27-BR-23
					Client sampling date / time	16-Jul-2024 13:25	16-Jul-2024 13:57	16-Jul-2024 14:30	16-Jul-2024 15:02	16-Jul-2024 15:32
						TY2407741-001	TY2407741-002	TY2407741-003	TY2407741-004	TY2407741-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/TY	0.10	pH units		7.14	7.26	8.09	7.37	7.02
Temperature, field	----	EF001/TY	0.10	°C		12.8	8.70	23.9	6.50	15.8
Physical Tests										
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L		4.6	4.4	<2.0	7.6	24.4
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L		295	318	173	346	469
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	<2.0	9.0	15.4	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L		295	318	182	361	469
Conductivity	----	E100/TY	1.0	µS/cm		532	573	670	654	1250
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L		292	252	316	361	588
pH	----	E108/TY	0.10	pH units		8.07	8.15	8.42	8.39	8.12
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L		365	422	499	432	1000
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L		85.2	3790	7.4	56.6	110
Turbidity	----	E121/TY	0.10	NTU		61.1	889	2.00	48.6	249
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L		0.186	0.0740	0.0359	0.157	0.0430
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L		<0.0010	<0.0010	0.0022	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L		0.71	1.50	82.9	2.52	120
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L		0.140	0.249	0.060	0.081	<0.200 DLDS
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L		0.165	0.232	0.484	0.167	0.657
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L		<0.020	<0.020	0.061	<0.040 DLDS	<0.200 DLDS
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L		<0.010	<0.010	<0.020 DLDS	<0.020 DLDS	<0.100 DLDS
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L		0.0392	0.612	0.0122	0.0764	0.131
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L		16.8	16.9	39.5	31.1	22.7
Cyanides										
Cyanide, free	----	E339/WT	0.0020	mg/L		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Total Metals										
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L		0.816	53.7	0.0258	1.39	0.826
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		0.00111	<0.00200	0.00369	0.00088	0.00118

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW30-BR-23	MW30-OB-23	Pond B2	MWS-14-04	MW27-BR-23
					Client sampling date / time	16-Jul-2024 13:25	16-Jul-2024 13:57	16-Jul-2024 14:30	16-Jul-2024 15:02	16-Jul-2024 15:32
						TY2407741-001	TY2407741-002	TY2407741-003	TY2407741-004	TY2407741-005
						Result	Result	Result	Result	Result
Total Metals										
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.0256	0.0342	0.0315	0.00880	0.0136
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.184	0.613	0.0707	0.217	0.170
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		0.000030	0.00204	<0.000020	0.000171	0.000054
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.000050	<0.00100	<0.000050	<0.000050	<0.000050
Boron, total	7440-42-8	E420/TY	0.010	mg/L		0.025	<0.200	0.012	0.019	0.017
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		0.0000117	0.000586	0.0000068	0.0000127	0.000129
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		86.8	1140	92.2	106	192
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.000329	0.00451	0.000581	0.00144	0.000156
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		0.00292	0.149	<0.00050	0.00384	0.00476
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.00181	0.0366	0.00033	0.00251	0.303
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		0.00353	0.158	0.00429	0.00576	0.0183
Iron, total	7439-89-6	E420/TY	0.010	mg/L		2.46	61.5	0.046	6.11	21.5
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.00120	0.0324	0.000082	0.00495	0.00161
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.0056	0.0617	0.0035	0.0052	0.0090
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		24.8	362	21.7	27.4	31.8
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		0.480	2.54	0.0154	0.240	16.2
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.00414	0.0267	0.00439	0.00249	0.0175
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.00708	0.0929	0.00674	0.00558	0.0561
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		0.084	4.31	<0.050	0.078	0.139
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		2.53	17.2	6.46	1.17	3.83
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.00202	0.0752	0.00641	0.00335	0.00282
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		<0.000050	<0.00100	0.000256	0.00133	0.000079
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		9.22	110	2.23	10.8	7.74
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		0.000234	0.000367	<0.000010	0.000332	0.00170
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		11.5	47.2	7.44	7.07	17.9
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		0.322	0.869	0.267	0.318	0.428
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		6.08	<10.0	15.5	12.0	11.2
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00020	<0.00400	<0.00020	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		0.000012	0.00107	0.000021	0.000028	0.000088
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		0.00045	0.0357	<0.00010	0.00094	0.00076

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW30-BR-23	MW30-OB-23	Pond B2	MWS-14-04	MW27-BR-23
					Client sampling date / time	16-Jul-2024 13:25	16-Jul-2024 13:57	16-Jul-2024 14:30	16-Jul-2024 15:02	16-Jul-2024 15:32
						TY2407741-001	TY2407741-002	TY2407741-003	TY2407741-004	TY2407741-005
						Result	Result	Result	Result	Result
Total Metals										
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		0.00104	0.00879	<0.00010	0.00027	0.00143
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		0.0356	4.07	0.00082	0.0762	0.0295
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.00456	0.00322	<0.00010	0.00283	0.369
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.00257	0.0108	0.00330	0.00149	0.00224
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.00241	0.121	0.00054	0.00350	0.00300
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		0.0094	0.144	<0.0030	6.18	13.9
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.00107	0.0328	0.00024	0.0154	0.00135
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.0013	0.0024	0.0059	<0.0010	0.0042
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		0.00053	0.00033	0.00369	0.00016	0.00072
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.0117	0.00532	0.0334	0.00439	0.00928
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.159	0.0252	0.0727	0.172	0.151
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		0.021	0.018	0.011	0.017	0.015
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000052	0.0000206	0.0000062
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		80.4	72.2	90.9	102	186
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		0.000316	<0.000010	0.000552	0.000270	0.000055
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.00065	0.00056	0.00032	0.00118	0.304
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		0.00033	0.00052	0.00405	0.00062	0.00153
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		0.450	0.173	0.013	2.03	16.2
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0056	0.0058	0.0040	0.0043	0.0080
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		22.2	17.3	21.7	25.9	30.0
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		0.330	0.331	0.0102	0.208	16.3
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.00344	0.0180	0.00434	0.00172	0.0167
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		0.00361	0.00097	0.00650	0.00106	0.0515
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		2.18	1.57	6.37	0.900	3.41

Analytical Results

Sub-Matrix: **Groundwater** (Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW30-BR-23	MW30-OB-23	Pond B2	MWS-14-04	MW27-BR-23
					Client sampling date / time	16-Jul-2024 13:25	16-Jul-2024 13:57	16-Jul-2024 14:30	16-Jul-2024 15:02	16-Jul-2024 15:32
						TY2407741-001	TY2407741-002	TY2407741-003	TY2407741-004	TY2407741-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00141	0.00091	0.00617	0.00144	0.00200
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		<0.000050	0.000188	0.000305	<0.000050	0.000064
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		7.55	8.24	2.08	7.82	5.97
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		10.5	32.6	7.42	6.72	15.0
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.313	0.122	0.270	0.305	0.393
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		5.42	6.23	14.9	11.8	11.2
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000010	<0.000010	0.000019	0.000014	0.000015
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		0.00023	0.00017	<0.00010	<0.00010	0.00034
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		0.00232	<0.00010	<0.00010	0.00165	0.299
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.00218	0.00501	0.00313	0.00104	0.00186
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.0036	0.0024	0.0041 DTC	6.15	12.6
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		0.00032	<0.00030	<0.00030	0.00062	0.00038
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	Laboratory	Laboratory	Laboratory	Laboratory
Dissolved metals filtration location	----	EP421/TY	-	-		Field	Field	Field	Field	Field
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		<0.50	<0.50	<0.50	----	<0.50
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		<0.50	<0.50	<0.50	----	<0.50
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		<0.50	<0.50	<0.50	----	<0.50
Styrene	100-42-5	E611A/WT	0.50	µg/L		<0.50	<0.50	<0.50	----	<0.50
Toluene	108-88-3	E611A/WT	0.50	µg/L		<0.50	<0.50	<0.50	----	<0.50
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		<0.40	<0.40	<0.40	----	<0.40
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		<0.30	<0.30	<0.30	----	<0.30
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		<0.50	<0.50	<0.50	----	<0.50
BTEX, total	----	E611A/WT	1.0	µg/L		<1.0	<1.0	<1.0	----	<1.0
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		85.4	85.0	84.5	----	85.9

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	MW30-BR-23	MW30-OB-23	Pond B2	MWS-14-04	MW27-BR-23
					Client sampling date / time	16-Jul-2024 13:25	16-Jul-2024 13:57	16-Jul-2024 14:30	16-Jul-2024 15:02	16-Jul-2024 15:32
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2407741-001	TY2407741-002	TY2407741-003	TY2407741-004	TY2407741-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds Surrogates										
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		95.8	96.4	94.4	----	95.5

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2407741**	Page	: 1 of 22
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 6 Twilight Bay P.O BOX 69 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 18-Jul-2024 09:16
PO	: 5500000426	Issue Date	: 31-Jul-2024 10:42
C-O-C number	: ----		
Sampler	: ----		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 5		
No. of samples analysed	: 5		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW27-BR-23	E298	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	22-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW30-BR-23	E298	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	22-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW30-OB-23	E298	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	22-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-04	E298	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	22-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] Pond B2	E298	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	22-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW27-BR-23	E235.Cl-L	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW30-BR-23	E235.Cl-L	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
MW30-OB-23	E235.Cl-L	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
MWS-14-04	E235.Cl-L	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
Pond B2	E235.Cl-L	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW27-BR-23	E235.F	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW30-BR-23	E235.F	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW30-OB-23	E235.F	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MWS-14-04	E235.F	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
Pond B2	E235.F	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
MW27-BR-23	E235.NO3	16-Jul-2024	20-Jul-2024	7 days	4 days	✓	21-Jul-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MW30-BR-23	E235.NO3	16-Jul-2024	20-Jul-2024	7 days	4 days	✓	21-Jul-2024	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MW30-OB-23	E235.NO3	16-Jul-2024	20-Jul-2024	7 days	4 days	✓	21-Jul-2024	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MWS-14-04	E235.NO3	16-Jul-2024	20-Jul-2024	7 days	4 days	✓	21-Jul-2024	7 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] Pond B2	E235.NO3	16-Jul-2024	20-Jul-2024	7 days	4 days	✓	21-Jul-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW27-BR-23	E235.NO2	16-Jul-2024	20-Jul-2024	7 days	4 days	✓	21-Jul-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW30-BR-23	E235.NO2	16-Jul-2024	20-Jul-2024	7 days	4 days	✓	21-Jul-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW30-OB-23	E235.NO2	16-Jul-2024	20-Jul-2024	7 days	4 days	✓	21-Jul-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MWS-14-04	E235.NO2	16-Jul-2024	20-Jul-2024	7 days	4 days	✓	21-Jul-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] Pond B2	E235.NO2	16-Jul-2024	20-Jul-2024	7 days	4 days	✓	21-Jul-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW27-BR-23	E235.SO4	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW30-BR-23	E235.SO4	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW30-OB-23	E235.SO4	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MWS-14-04	E235.SO4	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] Pond B2	E235.SO4	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	21-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW27-BR-23	E318	16-Jul-2024	22-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW30-BR-23	E318	16-Jul-2024	22-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW30-OB-23	E318	16-Jul-2024	22-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-04	E318	16-Jul-2024	22-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] Pond B2	E318	16-Jul-2024	22-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW27-BR-23	E372-S	16-Jul-2024	24-Jul-2024	3 days	7 days	× EHT	25-Jul-2024	3 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW30-BR-23	E372-S	16-Jul-2024	24-Jul-2024	3 days	8 days	× EHT	25-Jul-2024	3 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW30-OB-23	E372-S	16-Jul-2024	24-Jul-2024	3 days	8 days	× EHT	25-Jul-2024	3 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-04	E372-S	16-Jul-2024	24-Jul-2024	3 days	8 days	× EHT	25-Jul-2024	3 days	9 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] Pond B2	E372-S	16-Jul-2024	24-Jul-2024	3 days	8 days	× EHT	25-Jul-2024	3 days	9 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW27-BR-23	E339	16-Jul-2024	22-Jul-2024	14 days	6 days	✓	22-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW30-BR-23	E339	16-Jul-2024	22-Jul-2024	14 days	6 days	✓	22-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW30-OB-23	E339	16-Jul-2024	22-Jul-2024	14 days	6 days	✓	22-Jul-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MWS-14-04	E339	16-Jul-2024	22-Jul-2024	14 days	6 days	✓	22-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
Pond B2	E339	16-Jul-2024	22-Jul-2024	14 days	6 days	✓	22-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW27-BR-23	E333	16-Jul-2024	22-Jul-2024	14 days	6 days	✓	22-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW30-BR-23	E333	16-Jul-2024	22-Jul-2024	14 days	6 days	✓	22-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW30-OB-23	E333	16-Jul-2024	22-Jul-2024	14 days	6 days	✓	22-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MWS-14-04	E333	16-Jul-2024	22-Jul-2024	14 days	6 days	✓	22-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
Pond B2	E333	16-Jul-2024	22-Jul-2024	14 days	6 days	✓	22-Jul-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved)										
MW27-BR-23	E509	16-Jul-2024	23-Jul-2024	28 days	7 days	✓	24-Jul-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved)										
MW30-BR-23	E509	16-Jul-2024	23-Jul-2024	28 days	7 days	✓	24-Jul-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved)										
MW30-OB-23	E509	16-Jul-2024	23-Jul-2024	28 days	7 days	✓	24-Jul-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved)										
MWS-14-04	E509	16-Jul-2024	23-Jul-2024	28 days	7 days	✓	24-Jul-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab preserved)										
Pond B2	E509	16-Jul-2024	23-Jul-2024	28 days	7 days	✓	24-Jul-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW27-BR-23	E421	16-Jul-2024	22-Jul-2024	180 days	6 days	✓	22-Jul-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW30-BR-23	E421	16-Jul-2024	22-Jul-2024	180 days	6 days	✓	22-Jul-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW30-OB-23	E421	16-Jul-2024	22-Jul-2024	180 days	6 days	✓	22-Jul-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MWS-14-04	E421	16-Jul-2024	22-Jul-2024	180 days	6 days	✓	22-Jul-2024	180 days	6 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
Pond B2	E421	16-Jul-2024	22-Jul-2024	180 days	6 days	✓	22-Jul-2024	180 days	6 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW27-BR-23	EF001	16-Jul-2024	----	----	----		22-Jul-2024	----	6 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid) MW30-BR-23	EF001	16-Jul-2024	----	----	----		22-Jul-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid) MW30-OB-23	EF001	16-Jul-2024	----	----	----		22-Jul-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid) MWS-14-04	EF001	16-Jul-2024	----	----	----		22-Jul-2024	----	6 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid) Pond B2	EF001	16-Jul-2024	----	----	----		22-Jul-2024	----	6 days	
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW27-BR-23	E283	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	21-Jul-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW30-BR-23	E283	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	21-Jul-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW30-OB-23	E283	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	21-Jul-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MWS-14-04	E283	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	21-Jul-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] Pond B2	E283	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	21-Jul-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW27-BR-23	E290	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	22-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW30-BR-23	E290	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	22-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW30-OB-23	E290	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	22-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MWS-14-04	E290	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	22-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] Pond B2	E290	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	22-Jul-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW27-BR-23	E100	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	22-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW30-BR-23	E100	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	22-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW30-OB-23	E100	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	22-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MWS-14-04	E100	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	22-Jul-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] Pond B2	E100	16-Jul-2024	20-Jul-2024	28 days	4 days	✓	22-Jul-2024	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW27-BR-23	E108	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	22-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW30-BR-23	E108	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	22-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW30-OB-23	E108	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	22-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MWS-14-04	E108	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	22-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] Pond B2	E108	16-Jul-2024	20-Jul-2024	14 days	4 days	✓	22-Jul-2024	14 days	6 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MW27-BR-23	E162	16-Jul-2024	----	----	----		20-Jul-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MW30-BR-23	E162	16-Jul-2024	----	----	----		20-Jul-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MW30-OB-23	E162	16-Jul-2024	----	----	----		20-Jul-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MWS-14-04	E162	16-Jul-2024	----	----	----		20-Jul-2024	7 days	4 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] Pond B2	E162	16-Jul-2024	----	----	----		20-Jul-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW27-BR-23	E160	16-Jul-2024	----	----	----		20-Jul-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW30-BR-23	E160	16-Jul-2024	----	----	----		20-Jul-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW30-OB-23	E160	16-Jul-2024	----	----	----		20-Jul-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MWS-14-04	E160	16-Jul-2024	----	----	----		20-Jul-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] Pond B2	E160	16-Jul-2024	----	----	----		20-Jul-2024	7 days	4 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW27-BR-23	E121	16-Jul-2024	----	----	----		19-Jul-2024	48 hrs	72 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MWS-14-04	E121	16-Jul-2024	----	----	----		19-Jul-2024	48 hrs	72 hrs	× EHTL

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW30-OB-23	E121	16-Jul-2024	----	----	----		19-Jul-2024	48 hrs	73 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] Pond B2	E121	16-Jul-2024	----	----	----		19-Jul-2024	48 hrs	73 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW30-BR-23	E121	16-Jul-2024	----	----	----		19-Jul-2024	48 hrs	74 hrs	× EHTL
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW30-BR-23	E508	16-Jul-2024	22-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW30-OB-23	E508	16-Jul-2024	22-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] Pond B2	E508	16-Jul-2024	22-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW27-BR-23	E508	16-Jul-2024	23-Jul-2024	28 days	7 days	✓	23-Jul-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MWS-14-04	E508	16-Jul-2024	23-Jul-2024	28 days	7 days	✓	23-Jul-2024	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW27-BR-23	E420	16-Jul-2024	22-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW30-BR-23	E420	16-Jul-2024	22-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW30-OB-23	E420	16-Jul-2024	22-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MWS-14-04	E420	16-Jul-2024	22-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) Pond B2	E420	16-Jul-2024	22-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) MW27-BR-23	E611A	16-Jul-2024	23-Jul-2024	14 days	7 days	✓	23-Jul-2024	14 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) MW30-BR-23	E611A	16-Jul-2024	23-Jul-2024	14 days	7 days	✓	23-Jul-2024	14 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) MW30-OB-23	E611A	16-Jul-2024	23-Jul-2024	14 days	7 days	✓	23-Jul-2024	14 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) Pond B2	E611A	16-Jul-2024	23-Jul-2024	14 days	7 days	✓	23-Jul-2024	14 days	7 days	✓

Legend & Qualifier Definitions

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1556422	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1556116	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1556088	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1559368	1	12	8.3	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1556137	1	5	20.0	5.0	✓
Conductivity in Water	E100	1556115	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1557798	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1557298	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1556136	1	13	7.6	5.0	✓
Free Cyanide	E339	1557349	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1556132	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1556134	1	19	5.2	5.0	✓
pH by Meter	E108	1556114	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1556133	1	14	7.1	5.0	✓
TDS by Gravimetry	E162	1555688	2	33	6.0	5.0	✓
Total Cyanide	E333	1557350	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1556270	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1557550	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1554749	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1563151	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1555689	2	33	6.0	5.0	✓
Turbidity by Nephelometry	E121	1554699	1	15	6.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1556422	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1556116	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1556088	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1559368	1	12	8.3	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1556137	1	5	20.0	5.0	✓
Conductivity in Water	E100	1556115	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1557798	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1557298	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1556136	1	13	7.6	5.0	✓
Free Cyanide	E339	1557349	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1556132	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1556134	1	19	5.2	5.0	✓
pH by Meter	E108	1556114	1	19	5.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Sulfate in Water by IC	E235.SO4	1556133	1	14	7.1	5.0	✓
TDS by Gravimetry	E162	1555688	2	33	6.0	5.0	✓
Total Cyanide	E333	1557350	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1556270	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1557550	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1554749	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1563151	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1555689	2	33	6.0	5.0	✓
Turbidity by Nephelometry	E121	1554699	1	15	6.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1556422	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1556116	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1556088	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1559368	1	12	8.3	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1556137	1	5	20.0	5.0	✓
Conductivity in Water	E100	1556115	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1557798	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1557298	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1556136	1	13	7.6	5.0	✓
Free Cyanide	E339	1557349	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1556132	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1556134	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1556133	1	14	7.1	5.0	✓
TDS by Gravimetry	E162	1555688	2	33	6.0	5.0	✓
Total Cyanide	E333	1557350	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1556270	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1557550	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1554749	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1563151	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1555689	2	33	6.0	5.0	✓
Turbidity by Nephelometry	E121	1554699	1	15	6.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1556088	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1559368	1	12	8.3	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1556137	1	5	20.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1557798	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1557298	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1556136	1	13	7.6	5.0	✓
Free Cyanide	E339	1557349	1	8	12.5	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Nitrate in Water by IC	E235.NO3	1556132	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1556134	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1556133	1	14	7.1	5.0	✓
Total Cyanide	E333	1557350	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1556270	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1557550	2	40	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1554749	1	16	6.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1563151	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into the GC/MS-FID system.

COURTESY FREIGHT
1800-387-9593
5542383594

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Telephone : +1 807 623 6463

COC Number: 14 -

Page ____ of ____

Company:	Greenstone Mine
Contact:	Environmental Coordinators
Address:	8000 Highway 11 Geraldton, ON P0T 1M0
Phone:	807-853-1816

Report Format / Distribution

Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)

Quality Control (QC) Report with Report ☐ Yes ☑ No

☑ Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1: environmental@ggmines.com, laura.vares@ggmines.com

Email 2: see comments

Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)

- R ☑ Regular (Standard TAT if received by 3 pm - business days)
- P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
- E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
- E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge

Specify Date Required for E2,E or P:

Invoice To	Same as Report To	☐ Yes ☑ No
	Copy of Invoice with Report	☐ Yes ☐ No
Company:	Greenstone Mine	
Contact:	Accounts Payable	

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: ap@ggmines.com

Email 2: laura.vares@ggmines.com

Project Information

ALS Quote #:	
Job #:	Groundwater
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)

Approver ID:	Cost Center:
GL Account:	Routing Code:
Activity Code:	
Location:	

ALS Lab Work Order # (lab use only): TY2407741

ALS Contact: Christine Paradis **Sampler:** JC/AL

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox)	Chloride, fluoride, nitrate, nitrite, TKN, low level	Sulphate, cyanide (total/free), ammonia (total/u	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	MW30-BR-23	16-Jul-24	13:25	Water	x	x	x	x	x			x				7.14	12.80	8
	MW30-OB-23	16-Jul-24	13:57	Water	x	x	x	x	x			x				7.26	8.70	8
	Pond B2	16-Jul-24	14:30	Water	x	x	x	x	x			x				8.09	23.90	8
	MWS-14-04	16-Jul-24	15:02	Water	x	x	x	x	x							7.37	6.50	6
	MW27-BR-23	16-Jul-24	15:32	Water	x	x	x	x	x			x				7.02	15.80	8

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ Yes ☑ No

Are samples for human drinking water use? ☐ Yes ☑ No

Special Instructions / Specify Criteria to add on report (client Use)

EDD to be sent as a .csv to importer@greenstone.ehsdata.com
Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com

Please include PWQO criteria on the report.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice packs Yes ☒ No ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☑

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
6.6	6.6	8.2	3.3		

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Jason Chapais	17-Jul-24	11:00

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AC	07-18-24	9:16

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0329e v06 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form.**

4x courtesy

Intake and Login Verification Form

SAMPLE INTAKE					
Priority/Emergency Service Requested				YES	(NO)
Time Sensitive Hold Time				YES	(NO)
Client:	Greenstone Mine				
SAMPLE RECEIPT INFORMATION					
Mode of Delivery:	(Courier)			Drop Off	
Courier	Courtesy				
Waybill Number	554238835 94				
Temperature	6·6, 6·6, 8·2, 3·3			Cooler Count	
Cooling Method	None	Ice		(Ice Packs)	
SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	(Water)	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?				~~Yes~~	No
DW Metals ~~pH Check~~ <2				Yes	No
~~Regulation~~ Circled, Works # present			Yes	No - Reject?	
# of Bottles:	7	Sample Count		5	
Green/white	5R				
Purple/white	2X5 NUTS				
Warm red/white	5 TOT MET, 5 DISS MET				
Yellow/black	NA				
Light blue/white	NA				
Orange/black	NA				
Others (detail)	5 CYANIDE 2X4 BTEX (Dark Blue Vials)				
Comments on Samples and Bottles:	NA				
Samples Requiring Preservation or Filtering:	NA				
Layout Staff Initials	AC				
Date and Time of Layout	07-18-24 12:19				

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	(NO)
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client / Work Contact / Quote		
RECEIPT DETAIL		
Project / PO / Site/LSD		
Overall Description Entered	Yes	(NA)
Received-date/time as per COC		
Recipients match CoC or Sample Remarks	(Yes)	No
Billing Instruction added to remarks	(Yes)	NA
Sample Remarks/Specification Doc checked		
Submission Issues communicated	Yes	(NA)
Sample Info communicated via Remarks	Yes	(NA)
VERIFICATION CHECKLIST		
Plannned Event Submission	(Yes)	No
Sample Name entered as per CoC		
Sampling Date and time entered as per CoC		
Containers selected in layout order		
Sales items entered from QUOTE ONLY (and/or verified as correct)		
Field Data/EC298A removed if not on COC	Yes	(NA)
Bottle Allocation Verified		
Guideline added or auto-allocated		
Due dates updated		
VALIDATION		
Validation errors resolved?	(Yes)	No
Internal Sublet CoC created	~~Yes~~	NA
Login Comments:	N/A	
Login Staff Initials:	AM	

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **TY2407798**	Page	: 1 of 10
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 6 Twilight Bay P.O BOX 69 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 19-Jul-2024 09:14
PO	: 5500000426	Date Analysis Commenced	: 20-Jul-2024
C-O-C number	: ----	Issue Date	: 31-Jul-2024 16:41
Sampler	: ----		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cassandra Grzelewski	Team Leader - Inorganics	Administration, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Rhiannon Scheffee	Project Manager	Metals, Thunder Bay, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Inorganics, Thunder Bay, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Metals, Thunder Bay, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.
Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLDS	*Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
DTSE	*Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.*
RRV	*Reported result verified by repeat analysis.*
TMV	*Turbidity exceeded upper limit of the nephelometric method. Minimum value reported.*

Analytical Results

Sub-Matrix: **Groundwater** (Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW03-OB-18	MW03-BR-18	MW3-OB-13	MW3-BR-13	Travel Blank 1
					Client sampling date / time	17-Jul-2024 11:46	17-Jul-2024 12:18	17-Jul-2024 13:04	17-Jul-2024 13:26	17-Jul-2024 08:00
						TY2407798-001	TY2407798-002	TY2407798-003	TY2407798-004	TY2407798-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/TY	0.10	pH units		7.09	7.67	7.24	6.91	----
Temperature, field	----	EF001/TY	0.10	°C		13.9	14.2	7.10	8.80	----
Physical Tests										
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L		12.8	<2.0	14.9	12.8	<2.0
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L		360	332	440	378	<2.0
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	6.4	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L		360	338	440	378	<2.0
Conductivity	----	E100/TY	1.0	µS/cm		625	555	655	645	1.1
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L		373	299	380	355	<0.50
pH	----	E108/TY	0.10	pH units		7.85	8.33	7.97	8.00	5.51
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L		395	296	443	386	<10
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L		491	134	6230	115	<3.0
Turbidity	----	E121/TY	0.10	NTU		206	89.7	>4000 TMV	131	<0.10
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L		0.0183	0.502	0.389	0.623	<0.0050
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L		<0.0010	0.0060	<0.0010	<0.0010	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L		0.71	0.57	1.33	4.68	<0.10
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L		0.247	0.208	0.253	0.185	<0.020
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L		<0.050	0.426	<0.500 DLM	0.972	<0.050
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L		<0.040 DLDS	0.025	<0.040 DLDS	<0.020	<0.020
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L		<0.020 DLDS	<0.010	<0.020 DLDS	<0.010	<0.010
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L		0.278	0.112	1.68	0.0876	<0.0010
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L		19.7	<0.30	3.86	4.70	<0.30
Cyanides										
Cyanide, free	----	E339/WT	0.0020	mg/L		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Total Metals										
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L		2.78	1.72	34.4	0.321	<0.0030
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		<0.00100 DLM	0.00107	<0.00100 DLM	0.00014	<0.00010

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW03-OB-18	MW03-BR-18	MW3-OB-13	MW3-BR-13	Travel Blank 1
					Client sampling date / time	17-Jul-2024 11:46	17-Jul-2024 12:18	17-Jul-2024 13:04	17-Jul-2024 13:26	17-Jul-2024 08:00
						TY2407798-001	TY2407798-002	TY2407798-003	TY2407798-004	TY2407798-005
						Result	Result	Result	Result	Result
Total Metals										
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.00303	0.0288	0.0145	0.0322	0.00023 RRV
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.0562	0.0841	0.338	0.273	<0.00010
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		<0.000200 DLM	0.000281	0.00128	0.000076	<0.000020
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.000500 DLM	<0.000050	<0.000500 DLM	<0.000050	<0.000050
Boron, total	7440-42-8	E420/TY	0.010	mg/L		<0.100 DLM	0.038	0.101	0.019	<0.010
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		<0.0000500 DLM	0.0000110	0.000279	0.0000080	<0.0000050
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		183	81.0	700	115	<0.050
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.000237	0.00110	0.00301	0.00107	<0.000010
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		<0.00500 DLM	0.00471	0.0781	0.00120	<0.00050
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.00137	0.00415	0.0188	0.00074	<0.00010
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		<0.00500 DLM	0.0140	0.0413	0.00117	<0.00050
Iron, total	7439-89-6	E420/TY	0.010	mg/L		5.73	11.2	40.7	10.9	<0.010
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.00165	0.00228	0.0191	0.00107	<0.000050
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		<0.0100 DLM	0.0095	0.0486	0.0074	<0.0010
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		45.9	30.9	212	24.4	<0.0050
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		0.161	0.130	1.31	0.302	<0.00010
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.000626	0.00110	0.00155	0.000582	<0.000050
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		<0.00500 DLM	0.0114	0.0458	0.00098	<0.00050
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		<0.500 DLM	0.139	2.37	0.076	<0.050
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		2.54	3.76	14.2	2.38	<0.050
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.00512	0.00288	0.0553	0.00193	<0.00020
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		<0.000500 DLM	<0.000050	<0.000500 DLM	0.000065	<0.000050
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		12.4	14.8	82.1	11.8	<0.10
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		<0.000100 DLM	0.000070	0.000157	0.000090	<0.000010
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		4.16	13.2	21.4	8.77	<0.050
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		0.163	0.584	0.998	0.424	<0.00020
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		6.39	<0.50	<5.00 DLM	3.31	<0.50
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00200 DLM	<0.00020	<0.00200 DLM	<0.00020	<0.00020
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		<0.000100 DLM	0.000014	0.000456	<0.000010	<0.000010
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		0.00138	0.00092	0.0166	0.00026	<0.00010

Analytical Results

Sub-Matrix: **Groundwater** (Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW03-OB-18	MW03-BR-18	MW3-OB-13	MW3-BR-13	Travel Blank 1
					Client sampling date / time	17-Jul-2024 11:46	17-Jul-2024 12:18	17-Jul-2024 13:04	17-Jul-2024 13:26	17-Jul-2024 08:00
						TY2407798-001	TY2407798-002	TY2407798-003	TY2407798-004	TY2407798-005
						Result	Result	Result	Result	Result
Total Metals										
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		<0.00100 DLM	0.00020	0.00146	0.00010	<0.00010
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		0.243	0.0642	2.91	0.0174	<0.00030
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		<0.00100 DLM	0.00058	<0.00100 DLM	0.00238	<0.00010
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.000230	0.000619	0.00310	0.000302	<0.000010
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.00602	0.00582	0.0797	0.00122	<0.00050
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		<0.0300 DLM	0.0182	0.0903	0.0034	<0.0030
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		<0.00200 DLM	0.00272	0.0281	0.00510	<0.00020
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0032	<0.0010
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.00072	0.0256	0.00361	0.0358	<0.00010
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.0337	0.0717	0.0754	0.250	<0.00010
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000020	<0.000020	<0.000020	0.000048	<0.000020
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		<0.010	0.036	0.034	0.019	<0.010
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		111	73.1	91.3	105	<0.050
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		<0.000010	0.000082	<0.000010	0.000836	<0.000010
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		<0.00010	<0.00010	0.00041	0.00053	<0.00010
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		0.00030	<0.00020	0.00046	<0.00020	<0.00020
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		1.05	2.13	0.466	9.41	<0.010
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0064	0.0089	0.0142	0.0078	<0.0010
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		23.2	28.2	36.8	22.6	<0.0050
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		0.0541	0.0571	0.0710	0.263	<0.00010
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.000642	0.00105	0.000954	0.000582	<0.000050
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		<0.00050	<0.00050	0.00083	<0.00050	<0.00050
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.050	0.055	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		1.67	3.40	3.92	2.23	<0.050

Analytical Results

Sub-Matrix: **Groundwater** (Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW03-OB-18	MW03-BR-18	MW3-OB-13	MW3-BR-13	Travel Blank 1
					Client sampling date / time	17-Jul-2024 11:46	17-Jul-2024 12:18	17-Jul-2024 13:04	17-Jul-2024 13:26	17-Jul-2024 08:00
						TY2407798-001	TY2407798-002	TY2407798-003	TY2407798-004	TY2407798-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00140	0.00092	0.00177	0.00146	<0.00020
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		<0.000050	0.000114 DTSE	<0.000050	0.000874 DTSE	<0.000050
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		7.00	9.18	10.8	10.8	<0.050
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		3.93	12.8	16.2	8.40	<0.050
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.118	0.549	0.530	0.392	<0.00020
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		7.20	<0.50	1.64	2.24	<0.50
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00030	<0.00030	<0.00030	0.00033	<0.00030
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		<0.00010	0.00035	<0.00010	0.00210	<0.00010
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.000012	0.000074	0.000381	0.000245	<0.000010
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00050	<0.00050	<0.00050	0.00057	<0.00050
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.0023	0.0012	0.0022	0.0021	<0.0010
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		<0.00030	<0.00030	<0.00030	0.00467	<0.00030
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	Laboratory	Laboratory	Laboratory	----
Dissolved metals filtration location	----	EP421/TY	-	-		Field	Field	Field	Field	Field

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Duplicate 2	----	----	----	----
					Client sampling date / time	17-Jul-2024 08:00	----	----	----	----
						TY2407798-006	--------	--------	--------	--------
						Result	----	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L		12.9	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L		355	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L		355	----	----	----	----
Conductivity	----	E100/TY	1.0	µS/cm		612	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L		352	----	----	----	----
pH	----	E108/TY	0.10	pH units		7.96	----	----	----	----
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L		356	----	----	----	----
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L		157	----	----	----	----
Turbidity	----	E121/TY	0.10	NTU		134	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L		0.628	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L		5.04	----	----	----	----
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L		0.182	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L		1.04	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L		<0.020	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L		<0.010	----	----	----	----
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L		0.122	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L		3.73	----	----	----	----
Cyanides										
Cyanide, free	----	E339/WT	0.0020	mg/L		<0.0020	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L		<0.0020	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L		1.15	----	----	----	----
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		0.00018	----	----	----	----
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.0369	----	----	----	----
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.272	----	----	----	----
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		0.000120	----	----	----	----
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/TY	0.010	mg/L		0.019	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	Duplicate 2	----	----	----	----
					Client sampling date / time	17-Jul-2024 08:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2407798-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		0.0000119	----	----	----	----
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		118	----	----	----	----
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.00138	----	----	----	----
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		0.00299	----	----	----	----
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.00127	----	----	----	----
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		0.00284	----	----	----	----
Iron, total	7439-89-6	E420/TY	0.010	mg/L		12.0	----	----	----	----
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.00194	----	----	----	----
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.0079	----	----	----	----
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		26.0	----	----	----	----
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		0.312	----	----	----	----
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.000784	----	----	----	----
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.00220	----	----	----	----
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		0.123	----	----	----	----
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		2.46	----	----	----	----
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.00288	----	----	----	----
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		<0.000050	----	----	----	----
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		13.3	----	----	----	----
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		0.000257	----	----	----	----
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		8.40	----	----	----	----
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		0.389	----	----	----	----
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		1.59	----	----	----	----
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		0.000017	----	----	----	----
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		0.00088	----	----	----	----
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		0.00019	----	----	----	----
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		0.0680	----	----	----	----
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.00261	----	----	----	----
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.000434	----	----	----	----
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.00278	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	Duplicate 2	----	----	----	----
					Client sampling date / time	17-Jul-2024 08:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2407798-006	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		0.0084	----	----	----	----
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.00448	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.0030	----	----	----	----
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.0362	----	----	----	----
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.246	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		0.000046	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		0.018	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		104	----	----	----	----
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		0.000860	----	----	----	----
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.00052	----	----	----	----
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		<0.00020	----	----	----	----
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		9.51	----	----	----	----
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0078	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		22.5	----	----	----	----
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		0.261	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.000625	----	----	----	----
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		2.23	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00144	----	----	----	----
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		0.000869 DTSE	----	----	----	----
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		11.0	----	----	----	----
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		8.33	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	Duplicate 2	----	----	----	----
					Client sampling date / time	17-Jul-2024 08:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2407798-006	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.399	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		2.22	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		0.00040	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		0.00209	----	----	----	----
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.000248	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		0.00056	----	----	----	----
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.0012	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		0.00476	----	----	----	----
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	----	----	----	----
Dissolved metals filtration location	----	EP421/TY	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2407798**	Page	: 1 of 24
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 6 Twilight Bay P.O BOX 69 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 19-Jul-2024 09:14
PO	: 5500000426	Issue Date	: 31-Jul-2024 16:41
C-O-C number	: ----		
Sampler	: ----		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Method Blank value outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-1559118-001	----	Arsenic, total	7440-38-2	E420	0.00016 MB-LOR mg/L	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
MB-LOR	*Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] Duplicate 2	E298	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	22-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW03-BR-18	E298	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	22-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW03-OB-18	E298	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	22-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW3-BR-13	E298	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	22-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW3-OB-13	E298	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	22-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] Travel Blank 1	E298	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	22-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] Duplicate 2	E235.Cl-L	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW03-BR-18	E235.Cl-L	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW03-OB-18	E235.Cl-L	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW3-BR-13	E235.Cl-L	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW3-OB-13	E235.Cl-L	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] Travel Blank 1	E235.Cl-L	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] Duplicate 2	E235.F	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] MW03-BR-18	E235.F	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] MW03-OB-18	E235.F	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] MW3-BR-13	E235.F	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW3-OB-13	E235.F	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
Travel Blank 1	E235.F	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
Duplicate 2	E235.NO3	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
MW03-BR-18	E235.NO3	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
MW03-OB-18	E235.NO3	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
MW3-BR-13	E235.NO3	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
MW3-OB-13	E235.NO3	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
Travel Blank 1	E235.NO3	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
Duplicate 2	E235.NO2	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW03-BR-18	E235.NO2	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW03-OB-18	E235.NO2	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW3-BR-13	E235.NO2	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW3-OB-13	E235.NO2	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] Travel Blank 1	E235.NO2	17-Jul-2024	20-Jul-2024	7 days	3 days	✓	21-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] Duplicate 2	E235.SO4	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW03-BR-18	E235.SO4	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW03-OB-18	E235.SO4	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW3-BR-13	E235.SO4	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
MW3-OB-13	E235.SO4	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
Travel Blank 1	E235.SO4	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	21-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
Duplicate 2	E318	17-Jul-2024	23-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
MW03-BR-18	E318	17-Jul-2024	23-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
MW03-OB-18	E318	17-Jul-2024	23-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
MW3-BR-13	E318	17-Jul-2024	23-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
MW3-OB-13	E318	17-Jul-2024	23-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
Travel Blank 1	E318	17-Jul-2024	23-Jul-2024	28 days	6 days	✓	23-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
Duplicate 2	E372-S	17-Jul-2024	24-Jul-2024	3 days	7 days	× EHT	25-Jul-2024	3 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW03-BR-18	E372-S	17-Jul-2024	24-Jul-2024	3 days	7 days	× EHT	25-Jul-2024	3 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW03-OB-18	E372-S	17-Jul-2024	24-Jul-2024	3 days	7 days	× EHT	25-Jul-2024	3 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW3-BR-13	E372-S	17-Jul-2024	24-Jul-2024	3 days	7 days	× EHT	25-Jul-2024	3 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW3-OB-13	E372-S	17-Jul-2024	24-Jul-2024	3 days	7 days	× EHT	25-Jul-2024	3 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] Travel Blank 1	E372-S	17-Jul-2024	24-Jul-2024	3 days	7 days	× EHT	25-Jul-2024	3 days	8 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) Duplicate 2	E339	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW03-BR-18	E339	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW03-OB-18	E339	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW3-BR-13	E339	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW3-OB-13	E339	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
Travel Blank 1	E339	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
Duplicate 2	E333	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW03-BR-18	E333	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW03-OB-18	E333	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW3-BR-13	E333	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW3-OB-13	E333	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
Travel Blank 1	E333	17-Jul-2024	23-Jul-2024	14 days	6 days	✓	23-Jul-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
Duplicate 2	E509	17-Jul-2024	24-Jul-2024	28 days	7 days	✓	24-Jul-2024	28 days	7 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW03-BR-18	E509	17-Jul-2024	24-Jul-2024	28 days	7 days	✓	24-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW03-OB-18	E509	17-Jul-2024	24-Jul-2024	28 days	7 days	✓	24-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW3-BR-13	E509	17-Jul-2024	24-Jul-2024	28 days	7 days	✓	24-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW3-OB-13	E509	17-Jul-2024	24-Jul-2024	28 days	7 days	✓	24-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
Duplicate 2	E421	17-Jul-2024	22-Jul-2024	180 days	5 days	✓	22-Jul-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW03-BR-18	E421	17-Jul-2024	22-Jul-2024	180 days	5 days	✓	22-Jul-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW03-OB-18	E421	17-Jul-2024	22-Jul-2024	180 days	5 days	✓	22-Jul-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW3-BR-13	E421	17-Jul-2024	22-Jul-2024	180 days	5 days	✓	22-Jul-2024	180 days	5 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW3-OB-13	E421	17-Jul-2024	22-Jul-2024	180 days	5 days	✓	22-Jul-2024	180 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
Travel Blank 1	E421	17-Jul-2024	22-Jul-2024	180 days	5 days	✓	22-Jul-2024	180 days	5 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW03-BR-18	EF001	17-Jul-2024	----	----	----		22-Jul-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW03-OB-18	EF001	17-Jul-2024	----	----	----		22-Jul-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW3-BR-13	EF001	17-Jul-2024	----	----	----		22-Jul-2024	----	5 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW3-OB-13	EF001	17-Jul-2024	----	----	----		22-Jul-2024	----	5 days	
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
MW03-BR-18	E283	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	21-Jul-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
MW03-OB-18	E283	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	21-Jul-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
MW3-BR-13	E283	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	21-Jul-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
MW3-OB-13	E283	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	21-Jul-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] Duplicate 2	E283	17-Jul-2024	20-Jul-2024	14 days	4 days	✓	21-Jul-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] Travel Blank 1	E283	17-Jul-2024	20-Jul-2024	14 days	4 days	✓	21-Jul-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] Duplicate 2	E290	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW03-BR-18	E290	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW03-OB-18	E290	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW3-BR-13	E290	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW3-OB-13	E290	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] Travel Blank 1	E290	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] Duplicate 2	E100	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	23-Jul-2024	28 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW03-BR-18	E100	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	23-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW03-OB-18	E100	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	23-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW3-BR-13	E100	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	23-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW3-OB-13	E100	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	23-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] Travel Blank 1	E100	17-Jul-2024	20-Jul-2024	28 days	3 days	✓	23-Jul-2024	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] Duplicate 2	E108	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW03-BR-18	E108	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW03-OB-18	E108	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW3-BR-13	E108	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP]										
MW3-OB-13	E108	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
Travel Blank 1	E108	17-Jul-2024	20-Jul-2024	14 days	3 days	✓	23-Jul-2024	14 days	6 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
Duplicate 2	E162	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
MW03-BR-18	E162	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
MW03-OB-18	E162	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
MW3-BR-13	E162	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
MW3-OB-13	E162	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
Travel Blank 1	E162	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP]										
Duplicate 2	E160	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW03-BR-18	E160	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW03-OB-18	E160	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW3-BR-13	E160	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW3-OB-13	E160	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] Travel Blank 1	E160	17-Jul-2024	----	----	----		22-Jul-2024	7 days	5 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW3-BR-13	E121	17-Jul-2024	----	----	----		20-Jul-2024	48 hrs	73 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW3-OB-13	E121	17-Jul-2024	----	----	----		20-Jul-2024	48 hrs	73 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW03-BR-18	E121	17-Jul-2024	----	----	----		20-Jul-2024	48 hrs	74 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW03-OB-18	E121	17-Jul-2024	----	----	----		20-Jul-2024	48 hrs	75 hrs	× EHTL

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] Duplicate 2	E121	17-Jul-2024	----	----	----		20-Jul-2024	48 hrs	78 hrs	× EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] Travel Blank 1	E121	17-Jul-2024	----	----	----		20-Jul-2024	48 hrs	78 hrs	× EHTR
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] Duplicate 2	E508	17-Jul-2024	24-Jul-2024	28 days	7 days	✓	25-Jul-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW03-BR-18	E508	17-Jul-2024	24-Jul-2024	28 days	7 days	✓	25-Jul-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW03-OB-18	E508	17-Jul-2024	24-Jul-2024	28 days	7 days	✓	25-Jul-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW3-BR-13	E508	17-Jul-2024	24-Jul-2024	28 days	7 days	✓	25-Jul-2024	28 days	8 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW3-OB-13	E508	17-Jul-2024	24-Jul-2024	28 days	7 days	✓	25-Jul-2024	28 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) Duplicate 2	E420	17-Jul-2024	23-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW03-BR-18	E420	17-Jul-2024	23-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW03-OB-18	E420	17-Jul-2024	23-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW3-BR-13	E420	17-Jul-2024	23-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW3-OB-13	E420	17-Jul-2024	23-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) Travel Blank 1	E420	17-Jul-2024	23-Jul-2024	180 days	6 days	✓	23-Jul-2024	180 days	6 days	✓

Legend & Qualifier Definitions

EHTR: Exceeded ALS recommended hold time prior to sample receipt.

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1556585	1	15	6.6	5.0	✓
Alkalinity Species by Titration	E290	1556372	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1556522	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1556364	1	17	5.8	5.0	✓
Conductivity in Water	E100	1556371	1	18	5.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1561182	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1557300	1	16	6.2	5.0	✓
Fluoride in Water by IC	E235.F	1556359	1	17	5.8	5.0	✓
Free Cyanide	E339	1559996	1	16	6.2	5.0	✓
Nitrate in Water by IC	E235.NO3	1556360	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1556361	1	18	5.5	5.0	✓
pH by Meter	E108	1556370	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1556362	1	18	5.5	5.0	✓
TDS by Gravimetry	E162	1557297	1	19	5.2	5.0	✓
Total Cyanide	E333	1559997	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1556504	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1561119	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559118	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1563151	2	40	5.0	5.0	✓
TSS by Gravimetry	E160	1557288	1	19	5.2	5.0	✓
Turbidity by Nephelometry	E121	1556110	1	18	5.5	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1556585	1	15	6.6	5.0	✓
Alkalinity Species by Titration	E290	1556372	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1556522	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1556364	1	17	5.8	5.0	✓
Conductivity in Water	E100	1556371	1	18	5.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1561182	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1557300	1	16	6.2	5.0	✓
Fluoride in Water by IC	E235.F	1556359	1	17	5.8	5.0	✓
Free Cyanide	E339	1559996	1	16	6.2	5.0	✓
Nitrate in Water by IC	E235.NO3	1556360	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1556361	1	18	5.5	5.0	✓
pH by Meter	E108	1556370	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1556362	1	18	5.5	5.0	✓
TDS by Gravimetry	E162	1557297	1	19	5.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Cyanide	E333	1559997	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1556504	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1561119	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559118	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1563151	2	40	5.0	5.0	✓
TSS by Gravimetry	E160	1557288	1	19	5.2	5.0	✓
Turbidity by Nephelometry	E121	1556110	1	18	5.5	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1556585	1	15	6.6	5.0	✓
Alkalinity Species by Titration	E290	1556372	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1556522	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1556364	1	17	5.8	5.0	✓
Conductivity in Water	E100	1556371	1	18	5.5	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1561182	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1557300	1	16	6.2	5.0	✓
Fluoride in Water by IC	E235.F	1556359	1	17	5.8	5.0	✓
Free Cyanide	E339	1559996	1	16	6.2	5.0	✓
Nitrate in Water by IC	E235.NO3	1556360	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1556361	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1556362	1	18	5.5	5.0	✓
TDS by Gravimetry	E162	1557297	1	19	5.2	5.0	✓
Total Cyanide	E333	1559997	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1556504	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1561119	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559118	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1563151	2	40	5.0	5.0	✓
TSS by Gravimetry	E160	1557288	1	19	5.2	5.0	✓
Turbidity by Nephelometry	E121	1556110	1	18	5.5	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1556522	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1556364	1	17	5.8	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1561182	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1557300	1	16	6.2	5.0	✓
Fluoride in Water by IC	E235.F	1556359	1	17	5.8	5.0	✓
Free Cyanide	E339	1559996	1	16	6.2	5.0	✓
Nitrate in Water by IC	E235.NO3	1556360	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1556361	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1556362	1	18	5.5	5.0	✓
Total Cyanide	E333	1559997	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1556504	1	14	7.1	5.0	✓
Total Mercury in Water by CVAAS	E508	1561119	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1559118	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1563151	2	40	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report	☐ Yes ☑ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11	☑ Criteria on Report - provide details below if box checked		E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
	Geraldton, ON P0T 1M0	Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	807-853-1816	Email 1	environmental@ggmines.com, laura.vares@ggmines.com	Specify Date Required for E2,E or P:
		Email 2	see comments	

Invoice To		Invoice Distribution		Analysis Request
	Same as Report To ☐ Yes ☑ No	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
	Copy of Invoice with Report ☐ Yes ☑ No	Email 1 or Fax	ap@ggmines.com	
Company:	Greenstone Mine	Email 2	laura.vares@ggmines.com	
Contact:	Accounts Payable			

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only) TY2407793 **ALS Contact:** Christine Paradis **Sampler:** BM/TP

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox)	Chloride, fluoride, nitrate, nitrite, TKN, low level	Sulphate, cyanide (total/free), ammonia (total/u	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	MW03-OB-18	17-Jul-24	11:46	Water	x	x	x	x	x							7.09	13.90	6
	MW03-BR-18	17-Jul-24	12:18	Water	x	x	x	x	x							7.67	14.20	6
	MW3-OB-13	17-Jul-24	13:04	Water	x	x	x	x	x							7.24	7.10	6
	MW3-BR-13	17-Jul-24	13:26	Water	x	x	x	x	x							6.91	8.80	6
	Travel Blank 1	17-Jul-24	8:00	Water	x	x	x	x	x									6
	Duplicate 2	17-Jul-24	8:00	Water	x	x	x	x	x									6

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ Yes ☑ No

Are samples for human drinking water use? ☐ Yes ☑ No

Special Instructions / Specify Criteria to add on report (client Use)

EDD to be sent as a .csv to importer@greenstone.ehsdata.com
Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com

Please include PWQO criteria on the report.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice packs Yes ☒ No ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☒

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
5.3	7.3	7.5	7.8		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: AC	Date: 07-19-24	Time: 9:1F
Bernadine Mendowegan	18-Jul-24	7:00						

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

4x Coolers

Intake and Login Verification Form

SAMPLE INTAKE				
Priority/Emergency Service Requested			YES	(NO)
Time Sensitive Hold Time			YES	(NO)
Client:	Greenstone Mine			
SAMPLE RECEIPT INFORMATION				
Mode of Delivery:	(Courier)		Drop Off	
Courier	Courtesy			
Waybill Number	554238395			
Temperature	5.3, 7.3, 7.5, 4.8		Cooler Count	4
Cooling Method	None	Ice	(Ice Packs)	
SAMPLE MATRIX/BOTTLE INFORMATION				
Matrix:	(Water)	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?			Yes	~~No~~
~~DW Metals pH Check <2~~			Yes	No
~~Regulation~~ Circled, Works # present		Yes	No - Reject?	
# of Bottles:	6	Sample Count	6	
Green/white	6R			
Purple/white	~~4~~ 2X6 NUTS			
Warm red/white	6 TOT Met, 6 DISS Met			
Yellow/black	1			
Light blue/white	NA			
Orange/black	1			
Others (detail)	6 CYANIDE			
Comments on Samples and Bottles:	NA			
Samples Requiring Preservation or Filtering:	NA			
Layout Staff Initials	AC			
Date and Time of Layout	07-20-24 | 10:08			

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	(NO)
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client ✓	Work Contact ✓	Quote ✓
RECEIPT DETAIL		
Project ✓	PO ✓	Site/LSD ✓
Overall Description Entered	Yes	(NA)
Received date/time as per COC		✓
Recipients match CoC or Sample Remarks	(Yes)	No
Billing Instruction added to remarks	(Yes)	NA
Sample Remarks/Specification Doc checked		✓
Submission Issues communicated	Yes	(NA)
Sample Info communicated via Remarks	Yes	(NA)
VERIFICATION CHECKLIST		
Plannned Event Submission	(Yes)	No
Sample Name entered as per CoC		✓
Sampling Date and time entered as per CoC		✓
Containers selected in layout order		✓
Sales items entered from QUOTE ONLY (and/or verified as correct)		✓
Field Data/EC298A removed if not on COC	Yes	(NA)
Bottle Allocation Verified		✓
Guideline added or auto-allocated		✓
Due dates updated		✓
VALIDATION		
Validation errors resolved?	(Yes)	No
Internal Sublet CoC created	(Yes)	NA
Login Comments:	N/A	
Login Staff Initials:	AM	

CERTIFICATE OF ANALYSIS

Work Order	: **TY2407829**	Page	: 1 of 6
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 20-Jul-2024 09:11
PO	: 5500000426	Date Analysis Commenced	: 22-Jul-2024
C-O-C number	: ----	Issue Date	: 06-Aug-2024 12:15
Sampler	: BM/TP		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Inorganics, Thunder Bay, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Metals, Thunder Bay, Ontario
Taelur Kachur	Laboratory Analyst	Administration, Thunder Bay, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLDS	*Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
TMV	*Turbidity exceeded upper limit of the nephelometric method. Minimum value reported.*

Analytical Results

Sub-Matrix: **Groundwater** (Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: 23-14B	----	----	----	----
					Client sampling date / time: 18-Jul-2024 10:43	----	----	----	----
					TY2407829-001	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
pH, field	----	EF001/TY	0.10	pH units	7.00	----	----	----	----
Temperature, field	----	EF001/TY	0.10	°C	12.6	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L	39.0	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L	618	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L	618	----	----	----	----
Conductivity	----	E100/TY	1.0	µS/cm	2360	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L	1510	----	----	----	----
pH	----	E108/TY	0.10	pH units	7.41	----	----	----	----
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L	2000	----	----	----	----
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L	9880	----	----	----	----
Turbidity	----	E121/TY	0.10	NTU	>4000 TMV	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L	0.321	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L	38.5	----	----	----	----
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L	<0.200 DLDS	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L	0.936	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L	<0.200 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L	<0.100 DLDS	----	----	----	----
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L	2.93	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L	994	----	----	----	----
Cyanides									
Cyanide, free	----	E339/WT	0.0020	mg/L	<0.0200 DLM	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L	0.0829 DLM	----	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L	110	----	----	----	----
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L	0.0195	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	23-14B	----	----	----	----
					Client sampling date / time	18-Jul-2024 10:43	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2407829-001	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		9.09	----	----	----	----
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.695	----	----	----	----
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		0.00334	----	----	----	----
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.00500 DLM	----	----	----	----
Boron, total	7440-42-8	E420/TY	0.010	mg/L		<1.00 DLM	----	----	----	----
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		0.000681	----	----	----	----
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		1080	----	----	----	----
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.0147	----	----	----	----
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		0.407	----	----	----	----
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.115	----	----	----	----
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		0.197	----	----	----	----
Iron, total	7439-89-6	E420/TY	0.010	mg/L		274	----	----	----	----
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.0827	----	----	----	----
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.110	----	----	----	----
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		355	----	----	----	----
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		5.78	----	----	----	----
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		0.0000070	----	----	----	----
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		<0.00500 DLM	----	----	----	----
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.324	----	----	----	----
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		5.61	----	----	----	----
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		39.5	----	----	----	----
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.192	----	----	----	----
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		0.00503	----	----	----	----
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		206	----	----	----	----
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		<0.00100 DLM	----	----	----	----
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		54.3	----	----	----	----
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		1.72	----	----	----	----
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		379	----	----	----	----
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.0200 DLM	----	----	----	----
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		0.00241	----	----	----	----
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		0.0364	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	23-14B	----	----	----	----
					Client sampling date / time	18-Jul-2024 10:43	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2407829-001	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		<0.0100 DLM	----	----	----	----
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		5.29	----	----	----	----
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.0404	----	----	----	----
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.00575	----	----	----	----
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.296	----	----	----	----
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		1.51	----	----	----	----
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.0758	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.0017	----	----	----	----
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		0.00023	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		1.67	----	----	----	----
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.0455	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		0.010	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		408	----	----	----	----
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		0.000035	----	----	----	----
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.00799	----	----	----	----
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		<0.00020	----	----	----	----
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		14.2	----	----	----	----
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0051	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		119	----	----	----	----
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		1.81	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.00125	----	----	----	----
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		0.00868	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		8.12	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	23-14B	----	----	----	----
					Client sampling date / time	18-Jul-2024 10:43	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2407829-001	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00475	----	----	----	----
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		0.000100	----	----	----	----
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		9.30	----	----	----	----
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		41.7	----	----	----	----
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.882	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		362	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		<0.00010	----	----	----	----
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.00141	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.0323	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		0.00038	----	----	----	----
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	----	----	----	----
Dissolved metals filtration location	----	EP421/TY	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2407829**	Page	: 1 of 12
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 20-Jul-2024 09:11
PO	: 5500000426	Issue Date	: 06-Aug-2024 12:15
C-O-C number	: ----		
Sampler	: BM/TP		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Duplicate outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Total Metals	TY2407829-001	23-14B	Tungsten, total	7440-33-7	E420	0.0224 % DUP-H	Diff <2x LOR	Low Level DUP DQO exceeded (difference > 2 LOR).

Result Qualifiers

Qualifier	Description
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
23-14B	E298	18-Jul-2024	23-Jul-2024	28 days	5 days	✓	25-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
23-14B	E235.Cl-L	18-Jul-2024	23-Jul-2024	28 days	5 days	✓	23-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
23-14B	E235.F	18-Jul-2024	23-Jul-2024	28 days	5 days	✓	23-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
23-14B	E235.NO3	18-Jul-2024	23-Jul-2024	7 days	5 days	✓	23-Jul-2024	7 days	5 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
23-14B	E235.NO2	18-Jul-2024	23-Jul-2024	7 days	5 days	✓	23-Jul-2024	7 days	5 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
23-14B	E235.SO4	18-Jul-2024	23-Jul-2024	28 days	5 days	✓	23-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
23-14B	E318	18-Jul-2024	25-Jul-2024	28 days	7 days	✓	27-Jul-2024	28 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
23-14B	E372-S	18-Jul-2024	26-Jul-2024	3 days	8 days	× EHT	29-Jul-2024	3 days	11 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
23-14B	E339	18-Jul-2024	25-Jul-2024	14 days	7 days	✓	25-Jul-2024	14 days	7 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
23-14B	E333	18-Jul-2024	25-Jul-2024	14 days	7 days	✓	25-Jul-2024	14 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
23-14B	E509	18-Jul-2024	26-Jul-2024	28 days	8 days	✓	29-Jul-2024	28 days	11 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
23-14B	E421	18-Jul-2024	23-Jul-2024	180 days	5 days	✓	23-Jul-2024	180 days	5 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
23-14B	EF001	18-Jul-2024	----	----	----		22-Jul-2024	----	4 days	
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
23-14B	E283	18-Jul-2024	23-Jul-2024	14 days	5 days	✓	24-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
23-14B	E290	18-Jul-2024	23-Jul-2024	14 days	5 days	✓	23-Jul-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
23-14B	E100	18-Jul-2024	23-Jul-2024	28 days	5 days	✓	23-Jul-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] 23-14B	E108	18-Jul-2024	23-Jul-2024	14 days	5 days	✓	23-Jul-2024	14 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] 23-14B	E162	18-Jul-2024	----	----	----		22-Jul-2024	7 days	4 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] 23-14B	E160	18-Jul-2024	----	----	----		22-Jul-2024	7 days	4 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] 23-14B	E121	18-Jul-2024	----	----	----		22-Jul-2024	48 hrs	101 hrs	× EHTL
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] 23-14B	E508	18-Jul-2024	26-Jul-2024	28 days	8 days	✓	29-Jul-2024	28 days	11 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) 23-14B	E420	18-Jul-2024	25-Jul-2024	180 days	7 days	✓	25-Jul-2024	180 days	7 days	✓

Legend & Qualifier Definitions

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1559612	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1559615	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1560142	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1559601	1	6	16.6	5.0	✓
Conductivity in Water	E100	1559614	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1565404	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1559166	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	1559600	1	3	33.3	5.0	✓
Free Cyanide	E339	1564183	1	3	33.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1559596	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1559599	1	20	5.0	5.0	✓
pH by Meter	E108	1559613	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1559597	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1558006	1	8	12.5	5.0	✓
Total Cyanide	E333	1564182	1	14	7.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1560225	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1565402	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563621	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568935	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1558005	1	8	12.5	5.0	✓
Turbidity by Nephelometry	E121	1558039	1	3	33.3	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1559612	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1559615	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1560142	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1559601	1	6	16.6	5.0	✓
Conductivity in Water	E100	1559614	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1565404	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1559166	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	1559600	1	3	33.3	5.0	✓
Free Cyanide	E339	1564183	1	3	33.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1559596	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1559599	1	20	5.0	5.0	✓
pH by Meter	E108	1559613	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1559597	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1558006	1	8	12.5	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Cyanide	E333	1564182	1	14	7.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1560225	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1565402	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563621	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568935	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1558005	1	8	12.5	5.0	✓
Turbidity by Nephelometry	E121	1558039	1	3	33.3	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1559612	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1559615	1	19	5.2	5.0	✓
Ammonia by Fluorescence	E298	1560142	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1559601	1	6	16.6	5.0	✓
Conductivity in Water	E100	1559614	1	19	5.2	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1565404	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1559166	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	1559600	1	3	33.3	5.0	✓
Free Cyanide	E339	1564183	1	3	33.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1559596	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1559599	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1559597	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1558006	1	8	12.5	5.0	✓
Total Cyanide	E333	1564182	1	14	7.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1560225	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1565402	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563621	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568935	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1558005	1	8	12.5	5.0	✓
Turbidity by Nephelometry	E121	1558039	1	3	33.3	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1560142	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1559601	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1565404	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1559166	1	17	5.8	5.0	✓
Fluoride in Water by IC	E235.F	1559600	1	3	33.3	5.0	✓
Free Cyanide	E339	1564183	1	3	33.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1559596	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1559599	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1559597	1	20	5.0	5.0	✓
Total Cyanide	E333	1564182	1	14	7.1	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1560225	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1565402	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563621	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568935	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

Chain of Custody (COC) / Analytical Request Form

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Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 14 -

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Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report	☐ Yes ☑ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11 Geraldton, ON P0T 1M0	☑ Criteria on Report - provide details below if box checked Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	807-853-1816	Email 1	environmental@ggmines.com, laura.vares@ggmines.com	Specify Date Required for E2,E or P:
		Email 2	see comments	

Invoice To	Same as Report To ☐ Yes ☑ No	Invoice Distribution		Analysis Request
	Copy of Invoice with Report ☐ Yes ☑ No	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
Company:	Greenstone Mine	Email 1 or Fax	ap@ggmines.com	
Contact:	Accounts Payable	Email 2	laura.vares@ggmines.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): TY2407829 **ALS Contact:** Christine Paradis **Sampler:** BM/TP

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox	Chloride, fluoride, nitrate, nitrite, TKN, low lev	Sulphate, cyanide (total/free), ammonia (total/	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	23-14B	18-Jul-24	10:43	Water	x	x	x	x	x							7.00	12.60	6

Environmental Division
Thunder Bay
Work Order Reference
TY2407829

Telephone : +1 807 623 6463

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No Are samples for human drinking water use? ☐ Yes ☑ No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com Please include PWQO criteria on the report.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐		SIF Observations	Yes ☐	No ☐
Ice packs	Yes ☑	No ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated	☑				

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
4.1					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Bernadine Mendowegan	19-Jul-24	8:42				AC	07-20-24	9:11

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

1x Courtesy 5542383596

Intake and Login Verification Form

SAMPLE INTAKE			
Priority/Emergency Service Requested		YES	(NO)
Time Sensitive Hold Time		YES	(NO)
Client:	Greenstone		

SAMPLE RECEIPT INFORMATION			
Mode of Delivery:	(Courier)		Drop Off
Courier	Courtesy - After hours		
Waybill Number	552383596		
Temperature			Cooler Count 1
Cooling Method	None	Ice	(Ice Packs)

SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	(Water)	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?				~~Yes~~	~~No~~
DW Metals pH Check <2				~~Yes~~	~~No~~
Regulation Circled, Works # present			Yes	No - Reject?	
# of Bottles: 6	Sample Count			1	
Green/white	1 Routine				
Purple/white	LV ~~2 Nuts~~ 2 Nuts				
Warm red/white	1 Tot. Metals, 1 Diss Metals				
Yellow/black					
Light blue/white					
Orange/black					
Others (detail)	1 Cyanide				
Comments on Samples and Bottles:	–				
Samples Requiring Preservation or Filtering:	–				
Layout Staff Initials Date and Time of Layout	LV 7/22/24 12:50				

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	NO
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client / Work Contact / Quote		

RECEIPT DETAIL		
Project / PO / Site/LSD		
Overall Description Entered	Yes	NA
Received date/time as per COC		
Recipients match CoC or Sample Remarks	Yes	No
Billing Instruction added to remarks	Yes	NA
Sample Remarks/Specification Doc checked		
Submission Issues communicated	Yes	NA
Sample Info communicated via Remarks	Yes	NA

VERIFICATION CHECKLIST		
Plannned Event Submission	Yes	No
Sample Name entered as per CoC		
Sampling Date and time entered as per CoC		
Containers selected in layout order		
Sales items entered from QUOTE ONLY (and/or verified as correct)		
Field Data/EC298A removed if not on COC	Yes	NA
Bottle Allocation Verified		
Guideline added or auto-allocated		
Due dates updated		

VALIDATION		
Validation errors resolved?	Yes	No
Internal Sublet CoC created	Yes	NA
Login Comments:		

Login Staff Initials:	ANS

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **TY2407874**	Page	: 1 of 6
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 23-Jul-2024 09:17
PO	: 5500000426	Date Analysis Commenced	: 23-Jul-2024
C-O-C number	: ----	Issue Date	: 06-Aug-2024 12:16
Sampler	: BM		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cassandra Grzelewski	Team Leader - Inorganics	Administration, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Inorganics, Thunder Bay, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Metals, Thunder Bay, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLDS	*Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*

Analytical Results

Sub-Matrix: **Groundwater** (Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: BH14-15	----	----	----	----
					Client sampling date / time: 21-Jul-2024 09:27	----	----	----	----
					TY2407874-001	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
pH, field	----	EF001/TY	0.10	pH units	7.20	----	----	----	----
Temperature, field	----	EF001/TY	0.10	°C	5.70	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L	4.3	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L	435	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L	435	----	----	----	----
Conductivity	----	E100/TY	1.0	µS/cm	632	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L	280	----	----	----	----
pH	----	E108/TY	0.10	pH units	8.02	----	----	----	----
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L	411	----	----	----	----
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L	2900	----	----	----	----
Turbidity	----	E121/TY	0.10	NTU	2610	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L	0.351	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L	<0.0010	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L	1.10	----	----	----	----
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L	0.327	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L	1.02	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L	<0.040 DLDS	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L	<0.020 DLDS	----	----	----	----
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L	1.23	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L	1.89	----	----	----	----
Cyanides									
Cyanide, free	----	E339/WT	0.0020	mg/L	<0.0020	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L	<0.0020	----	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L	12.1	----	----	----	----
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L	<0.00100 DLM	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	BH14-15	----	----	----	----
					Client sampling date / time	21-Jul-2024 09:27	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2407874-001	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.00915	----	----	----	----
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.148	----	----	----	----
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		0.000436	----	----	----	----
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.000500 DLM	----	----	----	----
Boron, total	7440-42-8	E420/TY	0.010	mg/L		<0.100 DLM	----	----	----	----
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		0.000116	----	----	----	----
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		263	----	----	----	----
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.00115	----	----	----	----
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		0.0301	----	----	----	----
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.00835	----	----	----	----
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		0.0255	----	----	----	----
Iron, total	7439-89-6	E420/TY	0.010	mg/L		20.0	----	----	----	----
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.00828	----	----	----	----
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.0266	----	----	----	----
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		83.4	----	----	----	----
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		0.520	----	----	----	----
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.000828	----	----	----	----
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.0202	----	----	----	----
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		0.802	----	----	----	----
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		5.66	----	----	----	----
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.0167	----	----	----	----
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		<0.000500 DLM	----	----	----	----
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		31.9	----	----	----	----
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		0.000306	----	----	----	----
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		29.6	----	----	----	----
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		0.401	----	----	----	----
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		<5.00 DLM	----	----	----	----
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00200 DLM	----	----	----	----
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		0.000144	----	----	----	----
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		0.00455	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	BH14-15	----	----	----	----
					Client sampling date / time	21-Jul-2024 09:27	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2407874-001	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		<0.00100 DLM	----	----	----	----
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		0.787	----	----	----	----
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.00338	----	----	----	----
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.00129	----	----	----	----
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.0290	----	----	----	----
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		0.0344	----	----	----	----
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.00267	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.0015	----	----	----	----
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		<0.00010	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.00352	----	----	----	----
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.0556	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		0.053	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		69.9	----	----	----	----
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		<0.000010	----	----	----	----
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.00037	----	----	----	----
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		0.00049	----	----	----	----
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		2.88	----	----	----	----
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0110	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		25.6	----	----	----	----
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		0.0729	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.000500	----	----	----	----
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		<0.00050	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		0.071	----	----	----	----
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		2.79	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	BH14-15	----	----	----	----
					Client sampling date / time	21-Jul-2024 09:27	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2407874-001	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00146	----	----	----	----
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		0.000079	----	----	----	----
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		10.2	----	----	----	----
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		26.5	----	----	----	----
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.240	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		0.84	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		<0.00010	----	----	----	----
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		0.00175	----	----	----	----
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.000130	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		<0.0010	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		<0.00030	----	----	----	----
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	----	----	----	----
Dissolved metals filtration location	----	EP421/TY	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2407874**	Page	: 1 of 12
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 23-Jul-2024 09:17
PO	: 5500000426	Issue Date	: 06-Aug-2024 12:17
C-O-C number	: ----		
Sampler	: BM		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Duplicate outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Total Metals	Anonymous	Anonymous	Tungsten, total	7440-33-7	E420	0.0224 % DUP-H	Diff <2x LOR	Low Level DUP DQO exceeded (difference > 2 LOR).

Result Qualifiers

Qualifier	Description
DUP-H	*Duplicate results outside ALS DQO, due to sample heterogeneity.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water** Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-15	E298	21-Jul-2024	23-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
BH14-15	E235.Cl-L	21-Jul-2024	23-Jul-2024	28 days	2 days	✓	24-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH14-15	E235.F	21-Jul-2024	23-Jul-2024	28 days	2 days	✓	24-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH14-15	E235.NO3	21-Jul-2024	23-Jul-2024	7 days	2 days	✓	24-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH14-15	E235.NO2	21-Jul-2024	23-Jul-2024	7 days	2 days	✓	24-Jul-2024	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH14-15	E235.SO4	21-Jul-2024	23-Jul-2024	28 days	2 days	✓	24-Jul-2024	28 days	3 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-15	E318	21-Jul-2024	25-Jul-2024	28 days	4 days	✓	27-Jul-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-15	E372-S	21-Jul-2024	26-Jul-2024	3 days	5 days	× EHT	29-Jul-2024	3 days	8 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
BH14-15	E339	21-Jul-2024	25-Jul-2024	14 days	4 days	✓	25-Jul-2024	14 days	4 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
BH14-15	E333	21-Jul-2024	25-Jul-2024	14 days	4 days	✓	25-Jul-2024	14 days	4 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BH14-15	E509	21-Jul-2024	26-Jul-2024	28 days	5 days	✓	29-Jul-2024	28 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH14-15	E421	21-Jul-2024	25-Jul-2024	180 days	4 days	✓	25-Jul-2024	180 days	4 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
BH14-15	EF001	21-Jul-2024	----	----	----		23-Jul-2024	----	2 days	
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
BH14-15	E283	21-Jul-2024	23-Jul-2024	14 days	2 days	✓	24-Jul-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
BH14-15	E290	21-Jul-2024	23-Jul-2024	14 days	2 days	✓	25-Jul-2024	14 days	4 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH14-15	E100	21-Jul-2024	23-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH14-15	E108	21-Jul-2024	23-Jul-2024	14 days	2 days	✓	25-Jul-2024	14 days	4 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
BH14-15	E162	21-Jul-2024	----	----	----		24-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP]										
BH14-15	E160	21-Jul-2024	----	----	----		24-Jul-2024	7 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP]										
BH14-15	E121	21-Jul-2024	----	----	----		23-Jul-2024	48 hrs	54 hrs	× EHTL
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP]										
BH14-15	E508	21-Jul-2024	26-Jul-2024	28 days	5 days	✓	29-Jul-2024	28 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH14-15	E420	21-Jul-2024	25-Jul-2024	180 days	4 days	✓	25-Jul-2024	180 days	4 days	✓

Legend & Qualifier Definitions

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1560315	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1560232	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1560142	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1560238	1	1	100.0	5.0	✓
Conductivity in Water	E100	1560231	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1565404	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1563368	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1560237	1	2	50.0	5.0	✓
Free Cyanide	E339	1564183	1	3	33.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1560234	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1560233	1	13	7.6	5.0	✓
pH by Meter	E108	1560230	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1560235	1	18	5.5	5.0	✓
TDS by Gravimetry	E162	1561236	1	15	6.6	5.0	✓
Total Cyanide	E333	1564182	1	14	7.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1560225	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1565402	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563621	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568935	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1561233	1	15	6.6	5.0	✓
Turbidity by Nephelometry	E121	1560116	1	10	10.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1560315	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1560232	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1560142	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1560238	1	1	100.0	5.0	✓
Conductivity in Water	E100	1560231	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1565404	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1563368	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1560237	1	2	50.0	5.0	✓
Free Cyanide	E339	1564183	1	3	33.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1560234	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1560233	1	13	7.6	5.0	✓
pH by Meter	E108	1560230	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1560235	1	18	5.5	5.0	✓
TDS by Gravimetry	E162	1561236	1	15	6.6	5.0	✓

Matrix: **Water**

Evaluation: ✗ = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Cyanide	E333	1564182	1	14	7.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1560225	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1565402	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563621	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568935	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1561233	1	15	6.6	5.0	✓
Turbidity by Nephelometry	E121	1560116	1	10	10.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1560315	1	13	7.6	5.0	✓
Alkalinity Species by Titration	E290	1560232	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1560142	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1560238	1	1	100.0	5.0	✓
Conductivity in Water	E100	1560231	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1565404	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1563368	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1560237	1	2	50.0	5.0	✓
Free Cyanide	E339	1564183	1	3	33.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1560234	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1560233	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1560235	1	18	5.5	5.0	✓
TDS by Gravimetry	E162	1561236	1	15	6.6	5.0	✓
Total Cyanide	E333	1564182	1	14	7.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1560225	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1565402	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563621	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568935	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1561233	1	15	6.6	5.0	✓
Turbidity by Nephelometry	E121	1560116	1	10	10.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1560142	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1560238	0	1	0.0	5.0	✗
Dissolved Mercury in Water by CVAAS	E509	1565404	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1563368	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1560237	1	2	50.0	5.0	✓
Free Cyanide	E339	1564183	1	3	33.3	5.0	✓
Nitrate in Water by IC	E235.NO3	1560234	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1560233	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1560235	1	18	5.5	5.0	✓
Total Cyanide	E333	1564182	1	14	7.1	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1560225	1	8	12.5	5.0	✓
Total Mercury in Water by CVAAS	E508	1565402	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1563621	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568935	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

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5542383597

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Contact:	Environmental Coordinators	Quality Control (QC) Report with Report ☐ Yes ☑ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11 Geraldton, ON P0T 1M0	☑ Criteria on Report - provide details below if box checked Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
Phone:	807-853-1816	Email 1 environmental@ggmines.com, laura.vares@ggmines.com	E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
		Email 2 see comments	Specify Date Required for E2,E or P:

Invoice To		Invoice Distribution	Analysis Request
	Same as Report To ☐ Yes ☑ No	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
	Copy of Invoice with Report ☐ Yes ☑ No		
Company:	Greenstone Mine	Email 1 or Fax ap@ggmines.com	
Contact:	Accounts Payable	Email 2 laura.vares@ggmines.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): TY2407874 | ALS Contact: Christine Paradis | Sampler: BM

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox	Chloride, fluoride, nitrate, nitrite, TKN, low lev	Sulphate, cyanide (total/free), ammonia (total/	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	BH14-15	21-Jul-24	9:27	Water	x	x	x	x	x							7.20	5.70	6

Environmental Division
Thunder Bay
Work Order Reference
TY2407874

Telephone : +1 807 623 6463

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)	SAMPLE CONDITION AS RECEIVED (lab use only)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com	Frozen ☐ SIF Observations Yes ☐ No ☐
Are samples for human drinking water use? ☐ Yes ☑ No	Please include PWQO criteria on the report.	Ice packs Yes ☑ No ☐ Custody seal intact Yes ☐ No ☐ Cooling Initiated ☑

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
5.3					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: AC	Date: 07-23-24	Time: 9:17
Bernadine Mendowegan	22-Jul-24	6:55						

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0326e v09 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Courtesy

Intake and Login Verification Form

SAMPLE INTAKE					
Priority/Emergency Service Requested				YES	(NO)
Time Sensitive Hold Time				YES	(NO)
Client:	Greenstone Mine				
SAMPLE RECEIPT INFORMATION					
Mode of Delivery:		(Courier)		Drop Off	
Courier		Courtesy (After hours)			
Waybill Number		554238 3597			
Temperature	5.3			Cooler Count	1
Cooling Method		None	Ice	(Ice Packs)	
SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	(Water)	Soil	Air	Biota	Other
~~DW Schedule 24 Bottles Correct?~~				~~Yes~~	~~No~~
~~DW Metals pH Check <2~~				~~Yes~~	~~No~~
~~Regulation Circled, Works # present~~			Yes	No - Reject?	
# of Bottles:	6	Sample Count		1	
Green/white		1R			
Purple/white		1 NUT5, 1 LLP			
Warm red/white		1 TOT METALS, 1 DISS METALS			
Yellow/black					
Light blue/white					
Orange/black					
Others (detail)		1 CYANIDE			
Comments on Samples and Bottles:					
Samples Requiring Preservation or Filtering:					
Layout Staff Initials		AC			
Date and Time of Layout		07-23-24	1102		

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	NO
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client / Work Contact / Quote		
RECEIPT DETAIL		
Project / PO / Site/LSD		
Overall Description Entered	Yes	NA
Received date/time as per COC		
Recipients match CoC or Sample Remarks	Yes	No
Billing Instruction added to remarks	Yes	NA
Sample Remarks/Specification Doc checked		
Submission Issues communicated	Yes	NA
Sample Info communicated via Remarks	Yes	NA
VERIFICATION CHECKLIST		
Plannned Event Submission	Yes	No
Sample Name entered as per CoC		
Sampling Date and time entered as per CoC		
Containers selected in layout order		
Sales items entered from QUOTE ONLY (and/or verified as correct)		
Field Data/EC298A removed if not on COC	Yes	NA
Bottle Allocation Verified		
Guideline added or auto-allocated		
Due dates updated		
VALIDATION		
Validation errors resolved?	Yes	No
Internal Sublet CoC created	Yes	NA
Login Comments: Pour-off Mercury		
Login Staff Initials:	AT	

CERTIFICATE OF ANALYSIS

Work Order	: **TY2408000**		
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton Ontario Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 25-Jul-2024 08:45
PO	: 5500000426	Date Analysis Commenced	: 25-Jul-2024
C-O-C number	: ----	Issue Date	: 09-Aug-2024 13:28
Sampler	: BM/TP		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Ghanil Moradiya	Laboratory Assistant	Administration, Thunder Bay, Ontario
Jeremy Gingras	Supervisor - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Sarah Birch	VOC Section Supervisor	VOC, Waterloo, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Metals, Thunder Bay, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Inorganics, Thunder Bay, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

Unit	*Description*
mg/L	milligrams per litre
µg/L	micrograms per litre
-	no units
pH units	pH units
°C	degrees celsius
µS/cm	microsiemens per centimetre
NTU	nephelometric turbidity units

<: less than.
>: greater than.
Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	Description
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
TMV	Turbidity exceeded upper limit of the nephelometric method. Minimum value reported.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW28-BR-23 (MW-Q)	MW29-BR-23 (MW-R)	G7-OB2-14	G7-OB1-14	MW23-OB-21 (MW-G)
					Client sampling date / time	23-Jul-2024 10:26	23-Jul-2024 11:04	23-Jul-2024 12:41	23-Jul-2024 13:18	23-Jul-2024 15:36
						TY2408000-001	TY2408000-002	TY2408000-003	TY2408000-004	TY2408000-005
						Result	Result	Result	Result	Result
Field Tests										
pH, field	----	EF001/TY	0.10	pH units		7.03	6.84	7.55	7.52	7.22
Temperature, field	----	EF001/TY	0.10	°C		7.50	10.8	6.40	7.00	8.40
Physical Tests										
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L		3.2	6.4	<2.0	<2.0	2.3
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L		362	316	216	181	302
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	<2.0
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L		362	316	216	181	302
Conductivity	----	E100/TY	1.0	µS/cm		591	1360	331	287	501
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L		301	626	168	144	246
pH	----	E108/TY	0.10	pH units		8.20	8.00	8.14	8.21	8.12
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L		365	1220	442	207	358
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L		8.1	4.1	403000	101	2170
Turbidity	----	E121/TY	0.10	NTU		13.3	2.81	>4000 TMV	93.0	2310
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L		0.0571	0.0057	0.0540	0.0398	0.169
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L		9.39	269	0.25	0.22	2.72
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L		0.060	<0.200 DLDS	0.128	0.076	0.084
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L		0.131	0.268	0.369	0.146	0.718
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L		<0.020	<0.200 DLDS	<0.020	<0.020	<0.020
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L		<0.010	<0.100 DLDS	<0.010	<0.010	<0.010

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW28-BR-23 (MW-Q)	MW29-BR-23 (MW-R)	G7-OB2-14	G7-OB1-14	MW23-OB-21 (MW-G)
					Client sampling date / time	23-Jul-2024 10:26	23-Jul-2024 11:04	23-Jul-2024 12:41	23-Jul-2024 13:18	23-Jul-2024 15:36
						TY2408000-001	TY2408000-002	TY2408000-003	TY2408000-004	TY2408000-005
						Result	Result	Result	Result	Result
Anions and Nutrients										
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L		0.0125	0.0135	0.805	0.0584	1.84
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L		4.72	6.01	1.04	<0.30	10.2
Cyanides										
Cyanide, free	----	E339/WT	0.0020	mg/L		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L		<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		----	----	10.1	6.94	----
Total Metals										
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L		0.0759	0.0411	11.8	0.800	48.7
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		0.00040	0.00137	<0.00050 DLM	<0.00010	0.00171
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.00775	0.00368	0.00673	0.00127	0.0365
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.0966	0.220	0.102	0.0162	0.352
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		<0.000020	<0.000020	0.000524	0.000033	0.00200
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.000050	<0.000050	<0.000250 DLM	<0.000050	0.000738
Boron, total	7440-42-8	E420/TY	0.010	mg/L		0.014	<0.010	<0.050 DLM	<0.010	<0.050 DLM
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		<0.0000050	0.000340	0.000192	0.0000081	0.000888
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		91.8	213	364	61.2	286
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.000072	0.000116	0.00126	0.000079	0.00279
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		<0.00050	<0.00050	0.0323	0.00198	0.180
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.0161	0.108	0.0109	0.00054	0.0595
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		<0.00050	0.00291	0.0446	0.00137	0.214
Iron, total	7439-89-6	E420/TY	0.010	mg/L		0.518	0.064	17.6	1.56	85.7

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW28-BR-23 (MW-Q)	MW29-BR-23 (MW-R)	G7-OB2-14	G7-OB1-14	MW23-OB-21 (MW-G)
					Client sampling date / time	23-Jul-2024 10:26	23-Jul-2024 11:04	23-Jul-2024 12:41	23-Jul-2024 13:18	23-Jul-2024 15:36
						TY2408000-001	TY2408000-002	TY2408000-003	TY2408000-004	TY2408000-005
						Result	Result	Result	Result	Result
Total Metals										
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.000076	0.000192	0.0158	0.000509	0.0417
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.0033	0.0026	0.0179	0.0017	0.0491
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		20.0	38.3	102	10.4	85.2
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		0.938	2.76	0.614	0.101	2.10
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000062	<0.0000050	0.0000106
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.00216	0.00285	0.000367	0.000159	0.00525
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.0118	0.0529	0.0229	0.00126	0.148
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		<0.050	<0.050	1.08	0.066	1.81
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		0.873	0.654	3.33	0.852	6.56
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.00088	0.00108	0.0196	0.00239	0.0366
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		<0.000050	0.000088	<0.000250 DLM	<0.000050	0.000268
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		6.57	5.68	26.3	6.60	69.1
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		0.000019	0.000010	0.000153	<0.000010	0.00659
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		5.20	7.03	3.31	2.04	16.1
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		0.182	0.245	0.239	0.0572	0.398
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		2.01	3.96	<2.50 DLM	<0.50	4.09
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00020	<0.00020	<0.00100 DLM	<0.00020	<0.00100 DLM
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		<0.000010	0.000010	0.000325	<0.000010	0.000923
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		<0.00010	<0.00010	0.00667	0.00045	0.0140
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		0.00031	0.00108	<0.00050 DLM	<0.00010	0.00184
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		0.00165	0.00172	0.975	0.0598	2.77
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.00160	0.00122	<0.00050 DLM	<0.00010	0.0364

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW28-BR-23 (MW-Q)	MW29-BR-23 (MW-R)	G7-OB2-14	G7-OB1-14	MW23-OB-21 (MW-G)
					Client sampling date / time	23-Jul-2024 10:26	23-Jul-2024 11:04	23-Jul-2024 12:41	23-Jul-2024 13:18	23-Jul-2024 15:36
						TY2408000-001	TY2408000-002	TY2408000-003	TY2408000-004	TY2408000-005
						Result	Result	Result	Result	Result
Total Metals										
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.00158	0.00217	0.00288	0.000061	0.00369
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		<0.00050	0.00105	0.0355	0.00245	0.116
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		<0.0030	0.0358	0.0365	<0.0030	4.35
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.00096	0.00038	0.0129	0.00165	0.00994
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.0043	0.0035	0.0091	0.0016	0.0039
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		0.00025	0.00164	<0.00010	<0.00010	0.00013
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.0213 DTC	0.00325	0.00129	0.00090	0.00168
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.0950	0.224	0.0194	0.00895	0.0264
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		0.013	<0.010	<0.010	<0.010	<0.010
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	0.000351	<0.0000050	<0.0000050	<0.0000050
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		86.9	191	50.5	44.5	72.5
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		0.000066	0.000079	0.000011	<0.000010	0.000017
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.0313 DTC	0.0908	<0.00010	<0.00010	0.00063
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		<0.00020	0.00302	0.00063	<0.00020	0.00060
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		0.824 DTC	<0.010	0.749	0.407	0.636
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	0.000059	<0.000050	<0.000050	<0.000050
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0030	0.0025	0.0011	<0.0010	0.0022
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		20.4	36.1	10.2	7.98	15.7

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW28-BR-23 (MW-Q)	MW29-BR-23 (MW-R)	G7-OB2-14	G7-OB1-14	MW23-OB-21 (MW-G)
					Client sampling date / time	23-Jul-2024 10:26	23-Jul-2024 11:04	23-Jul-2024 12:41	23-Jul-2024 13:18	23-Jul-2024 15:36
						TY2408000-001	TY2408000-002	TY2408000-003	TY2408000-004	TY2408000-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		1.18	2.46	0.0454	0.0645	0.461
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.00170	0.00296	0.000136	0.000173	0.00164
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		0.0255 DTC	0.0522	<0.00050	<0.00050	0.00110
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		1.03	0.663	0.877	0.631	0.866
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00096	0.00093	0.00176	0.00106	0.00171
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		<0.000050	0.000078	0.000190	<0.000050	<0.000050
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		6.26	5.49	5.14	4.66	5.90
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		5.74	6.60	2.03	1.79	12.2
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.179	0.234	0.0602	0.0482	0.154
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		1.80	3.85	<0.50	<0.50	3.36
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		0.00016	0.00067	<0.00010	<0.00010	<0.00010
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00030	<0.00030	0.00154	<0.00030	<0.00030
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		0.00118	0.00145	<0.00010	<0.00010	0.00121
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.00171	0.00246	0.000044	<0.000010	0.000652
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00050	0.00107	0.00196	<0.00050	<0.00050
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.0103 DTC	0.0358	0.0014	0.0033	0.0039

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW28-BR-23 (MW-Q)	MW29-BR-23 (MW-R)	G7-OB2-14	G7-OB1-14	MW23-OB-21 (MW-G)
					Client sampling date / time	23-Jul-2024 10:26	23-Jul-2024 11:04	23-Jul-2024 12:41	23-Jul-2024 13:18	23-Jul-2024 15:36
						TY2408000-001	TY2408000-002	TY2408000-003	TY2408000-004	TY2408000-005
						Result	Result	Result	Result	Result
Dissolved Metals										
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		0.00046	0.00036	0.00231	0.00085	0.00048
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	Laboratory	Laboratory	Laboratory	Laboratory
Dissolved metals filtration location	----	EP421/TY	-	-		Field	Field	Field	Field	Field
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L		----	----	----	----	<20
Benzene	71-43-2	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Benzene	71-43-2	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Bromoform	75-25-2	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Bromomethane	74-83-9	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L		----	----	----	----	<0.20
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Chloroform	67-66-3	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L		----	----	----	----	<0.20
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		----	----	----	----	<0.50

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW28-BR-23 (MW-Q)	MW29-BR-23 (MW-R)	G7-OB2-14	G7-OB1-14	MW23-OB-21 (MW-G)
					Client sampling date / time	23-Jul-2024 10:26	23-Jul-2024 11:04	23-Jul-2024 12:41	23-Jul-2024 13:18	23-Jul-2024 15:36
						TY2408000-001	TY2408000-002	TY2408000-003	TY2408000-004	TY2408000-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		----	----	----	----	<1.0
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		----	----	----	----	<0.30
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		----	----	----	----	<0.30
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		----	----	----	----	<20
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		----	----	----	----	<20
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Styrene	100-42-5	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Toluene	108-88-3	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Toluene	108-88-3	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		----	----	----	----	<0.50

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW28-BR-23 (MW-Q)	MW29-BR-23 (MW-R)	G7-OB2-14	G7-OB1-14	MW23-OB-21 (MW-G)
					Client sampling date / time	23-Jul-2024 10:26	23-Jul-2024 11:04	23-Jul-2024 12:41	23-Jul-2024 13:18	23-Jul-2024 15:36
						TY2408000-001	TY2408000-002	TY2408000-003	TY2408000-004	TY2408000-005
						Result	Result	Result	Result	Result
Volatile Organic Compounds										
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Vinyl chloride	75-01-4	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		----	----	----	----	<0.40
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		----	----	<0.40	<0.40	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		----	----	----	----	<0.30
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		----	----	<0.30	<0.30	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		----	----	----	----	<0.50
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		----	----	<0.50	<0.50	----
BTEX, total	----	E611D/WT	1.0	µg/L		----	----	----	----	<1.0
BTEX, total	----	E611A/WT	1.0	µg/L		----	----	<1.0	<1.0	----
Volatile Organic Compounds [Fuels]										
Benzene	71-43-2	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		<0.40	<0.40	----	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		<0.30	<0.30	----	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		<0.50	<0.50	----	----	----
BTEX, total	----	E611A/WT	1.0	µg/L		<1.0	<1.0	----	----	----
Hydrocarbons										
F1 (C6-C10)	----	E581.F1-L/WT	25	µg/L		----	----	<25	<25	<25

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW28-BR-23 (MW-Q)	MW29-BR-23 (MW-R)	G7-OB2-14	G7-OB1-14	MW23-OB-21 (MW-G)
					Client sampling date / time	23-Jul-2024 10:26	23-Jul-2024 11:04	23-Jul-2024 12:41	23-Jul-2024 13:18	23-Jul-2024 15:36
						TY2408000-001	TY2408000-002	TY2408000-003	TY2408000-004	TY2408000-005
						Result	Result	Result	Result	Result
Hydrocarbons										
F2 (C10-C16)	----	E601.SG/WT	100	µg/L		----	----	<100	<100	<100
F3 (C16-C34)	----	E601.SG/WT	250	µg/L		----	----	<250	<250	800
F4 (C34-C50)	----	E601.SG/WT	250	µg/L		----	----	<250	<250	<250
F1-BTEX	----	EC580/WT	25	µg/L		----	----	<25	<25	<25
Hydrocarbons, total (C6-C50)	n/a	EC581SG/WT	240	µg/L		----	----	<370	<370	800
Chromatogram to baseline at nC50	n/a	E601.SG/WT	-	-		----	----	YES	YES	YES
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601.SG/WT	1.0	%		----	----	79.6	76.2	82.5
Dichlorotoluene, 3,4-	95-75-0	E581.F1-L/WT	1.0	%		----	----	71.8	93.9	77.9
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		----	----	----	----	98.5
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		99.7	102	98.8	100	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		----	----	----	----	97.4
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		97.1	97.9	97.6	97.7	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Duplicate 3 GW	----	----	----	----
					Client sampling date / time	23-Jul-2024 08:00	----	----	----	----
						TY2408000-006	----	----	----	----
						Result	----	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L		2.3	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Duplicate 3 GW	----	----	----	----
					Client sampling date / time	23-Jul-2024 08:00	----	----	----	----
						TY2408000-006	----	----	----	----
						Result	----	----	----	----
Physical Tests										
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L		348	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L		348	----	----	----	----
Conductivity	----	E100/TY	1.0	µS/cm		576	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L		310	----	----	----	----
pH	----	E108/TY	0.10	pH units		8.16	----	----	----	----
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L		364	----	----	----	----
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L		3.5	----	----	----	----
Turbidity	----	E121/TY	0.10	NTU		4.17	----	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L		0.0308	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L		8.36	----	----	----	----
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L		0.056	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L		0.122	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L		<0.020	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L		<0.010	----	----	----	----
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L		0.0067	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L		4.65	----	----	----	----
Cyanides										
Cyanide, free	----	E339/WT	0.0020	mg/L		<0.0020	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L		<0.0020	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Duplicate 3 GW	----	----	----	----
					Client sampling date / time	23-Jul-2024 08:00	----	----	----	----
						TY2408000-006	----	----	----	----
						Result	----	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L		0.0620	----	----	----	----
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		0.00038	----	----	----	----
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.00485	----	----	----	----
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.0843	----	----	----	----
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.000050	----	----	----	----
Boron, total	7440-42-8	E420/TY	0.010	mg/L		0.013	----	----	----	----
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		97.7	----	----	----	----
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.000059	----	----	----	----
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.0128	----	----	----	----
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		<0.00050	----	----	----	----
Iron, total	7439-89-6	E420/TY	0.010	mg/L		0.386	----	----	----	----
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.000069	----	----	----	----
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.0029	----	----	----	----
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		20.5	----	----	----	----
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		0.898	----	----	----	----
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.00197	----	----	----	----
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.00895	----	----	----	----
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		<0.050	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Duplicate 3 GW	----	----	----	----
					Client sampling date / time	23-Jul-2024 08:00	----	----	----	----
						TY2408000-006	----	----	----	----
						Result	----	----	----	----
Total Metals										
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		0.824	----	----	----	----
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.00089	----	----	----	----
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		<0.000050	----	----	----	----
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		6.36	----	----	----	----
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		0.000018	----	----	----	----
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		5.49	----	----	----	----
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		0.177	----	----	----	----
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		1.91	----	----	----	----
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		<0.00010	----	----	----	----
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		0.00019	----	----	----	----
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		0.00128	----	----	----	----
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.00161	----	----	----	----
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.00148	----	----	----	----
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		<0.0030	----	----	----	----
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.00104	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.0042	----	----	----	----
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		0.00025	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.0208 DTC	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Duplicate 3 GW	----	----	----	----
					Client sampling date / time	23-Jul-2024 08:00	----	----	----	----
						TY2408000-006	----	----	----	----
						Result	----	----	----	----
Dissolved Metals										
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.0934	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000020	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	----	----	----	----
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		0.013	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	----	----	----	----
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		90.4	----	----	----	----
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		0.000073	----	----	----	----
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.0312 DTC	----	----	----	----
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		<0.00020	----	----	----	----
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		0.798 DTC	----	----	----	----
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	----	----	----	----
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0030	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		20.4	----	----	----	----
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		1.20	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.00174	----	----	----	----
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		0.0252 DTC	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.050	----	----	----	----
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		1.03	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00094	----	----	----	----
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		0.000051	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater
(Matrix: Water)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	Duplicate 3 GW	----	----	----	----
					Client sampling date / time	23-Jul-2024 08:00	----	----	----	----
						TY2408000-006	----	----	----	----
						Result	----	----	----	----
Dissolved Metals										
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		6.28	----	----	----	----
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	----	----	----	----
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		5.76	----	----	----	----
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.186	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		1.85	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	----	----	----	----
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000010	----	----	----	----
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	----	----	----	----
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		0.00015	----	----	----	----
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00030	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		0.00117	----	----	----	----
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.00168	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00050	----	----	----	----
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.0100 DTC	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		0.00046	----	----	----	----
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	----	----	----	----
Dissolved metals filtration location	----	EP421/TY	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.
Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2408000**	Page	: 1 of 27
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 25-Jul-2024 08:45
PO	: 5500000426	Issue Date	: 08-Aug-2024 11:19
C-O-C number	: ----		
Sampler	: BM/TP		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 6		
No. of samples analysed	: 6		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] Duplicate 3 GW	E298	23-Jul-2024	26-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] G7-OB1-14	E298	23-Jul-2024	26-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] G7-OB2-14	E298	23-Jul-2024	26-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW23-OB-21 (MW-G)	E298	23-Jul-2024	26-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW28-BR-23 (MW-Q)	E298	23-Jul-2024	26-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW29-BR-23 (MW-R)	E298	23-Jul-2024	26-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] Duplicate 3 GW	E235.Cl-L	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] G7-OB1-14	E235.Cl-L	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] G7-OB2-14	E235.Cl-L	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW23-OB-21 (MW-G)	E235.Cl-L	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW28-BR-23 (MW-Q)	E235.Cl-L	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW29-BR-23 (MW-R)	E235.Cl-L	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] Duplicate 3 GW	E235.F	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] G7-OB1-14	E235.F	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] G7-OB2-14	E235.F	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] MW23-OB-21 (MW-G)	E235.F	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] MW28-BR-23 (MW-Q)	E235.F	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] MW29-BR-23 (MW-R)	E235.F	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] Duplicate 3 GW	E235.NO3	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] G7-OB1-14	E235.NO3	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] G7-OB2-14	E235.NO3	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MW23-OB-21 (MW-G)	E235.NO3	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MW28-BR-23 (MW-Q)	E235.NO3	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MW29-BR-23 (MW-R)	E235.NO3	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] Duplicate 3 GW	E235.NO2	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] G7-OB1-14	E235.NO2	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] G7-OB2-14	E235.NO2	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW23-OB-21 (MW-G)	E235.NO2	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW28-BR-23 (MW-Q)	E235.NO2	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW29-BR-23 (MW-R)	E235.NO2	23-Jul-2024	25-Jul-2024	7 days	2 days	✓	25-Jul-2024	7 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] Duplicate 3 GW	E235.SO4	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] G7-OB1-14	E235.SO4	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] G7-OB2-14	E235.SO4	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW23-OB-21 (MW-G)	E235.SO4	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW28-BR-23 (MW-Q)	E235.SO4	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW29-BR-23 (MW-R)	E235.SO4	23-Jul-2024	25-Jul-2024	28 days	2 days	✓	25-Jul-2024	28 days	2 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] Duplicate 3 GW	E318	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] G7-OB1-14	E318	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] G7-OB2-14	E318	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW23-OB-21 (MW-G)	E318	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW28-BR-23 (MW-Q)	E318	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW29-BR-23 (MW-R)	E318	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] Duplicate 3 GW	E372-S	23-Jul-2024	26-Jul-2024	3 days	3 days	✓	29-Jul-2024	3 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
G7-OB1-14	E372-S	23-Jul-2024	26-Jul-2024	3 days	3 days	✓	29-Jul-2024	3 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
G7-OB2-14	E372-S	23-Jul-2024	26-Jul-2024	3 days	3 days	✓	29-Jul-2024	3 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
MW23-OB-21 (MW-G)	E372-S	23-Jul-2024	26-Jul-2024	3 days	3 days	✓	29-Jul-2024	3 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
MW28-BR-23 (MW-Q)	E372-S	23-Jul-2024	26-Jul-2024	3 days	3 days	✓	29-Jul-2024	3 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
MW29-BR-23 (MW-R)	E372-S	23-Jul-2024	26-Jul-2024	3 days	3 days	✓	29-Jul-2024	3 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
Duplicate 3 GW	E339	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
G7-OB1-14	E339	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
G7-OB2-14	E339	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW23-OB-21 (MW-G)	E339	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW28-BR-23 (MW-Q)	E339	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW29-BR-23 (MW-R)	E339	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
Duplicate 3 GW	E333	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
G7-OB1-14	E333	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
G7-OB2-14	E333	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW23-OB-21 (MW-G)	E333	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW28-BR-23 (MW-Q)	E333	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW29-BR-23 (MW-R)	E333	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
Duplicate 3 GW	E509	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
G7-OB1-14	E509	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
G7-OB2-14	E509	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW23-OB-21 (MW-G)	E509	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW28-BR-23 (MW-Q)	E509	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW29-BR-23 (MW-R)	E509	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
Duplicate 3 GW	E421	23-Jul-2024	26-Jul-2024	180 days	3 days	✓	26-Jul-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
G7-OB1-14	E421	23-Jul-2024	26-Jul-2024	180 days	3 days	✓	26-Jul-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
G7-OB2-14	E421	23-Jul-2024	26-Jul-2024	180 days	3 days	✓	26-Jul-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW23-OB-21 (MW-G)	E421	23-Jul-2024	26-Jul-2024	180 days	3 days	✓	26-Jul-2024	180 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW28-BR-23 (MW-Q)	E421	23-Jul-2024	26-Jul-2024	180 days	3 days	✓	26-Jul-2024	180 days	3 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW29-BR-23 (MW-R)	E421	23-Jul-2024	26-Jul-2024	180 days	3 days	✓	26-Jul-2024	180 days	3 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
G7-OB1-14	EF001	23-Jul-2024	----	----	----		26-Jul-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
G7-OB2-14	EF001	23-Jul-2024	----	----	----		26-Jul-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW23-OB-21 (MW-G)	EF001	23-Jul-2024	----	----	----		26-Jul-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW28-BR-23 (MW-Q)	EF001	23-Jul-2024	----	----	----		26-Jul-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW29-BR-23 (MW-R)	EF001	23-Jul-2024	----	----	----		26-Jul-2024	----	3 days	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate)										
MW23-OB-21 (MW-G)	E581.F1-L	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate)										
G7-OB1-14	E581.F1-L	23-Jul-2024	01-Aug-2024	14 days	9 days	✓	01-Aug-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate) G7-OB2-14	E581.F1-L	23-Jul-2024	01-Aug-2024	14 days	9 days	✓	01-Aug-2024	14 days	9 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) [ON MECP] G7-OB1-14	E601.SG	23-Jul-2024	31-Jul-2024	40 days	8 days	✓	02-Aug-2024	40 days	2 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) [ON MECP] G7-OB2-14	E601.SG	23-Jul-2024	31-Jul-2024	40 days	8 days	✓	02-Aug-2024	40 days	2 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) [ON MECP] MW23-OB-21 (MW-G)	E601.SG	23-Jul-2024	31-Jul-2024	40 days	8 days	✓	02-Aug-2024	40 days	2 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] G7-OB1-14	E358-L	23-Jul-2024	26-Jul-2024	28 days	3 days	✓	31-Jul-2024	28 days	8 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] G7-OB2-14	E358-L	23-Jul-2024	26-Jul-2024	28 days	3 days	✓	31-Jul-2024	28 days	8 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] Duplicate 3 GW	E283	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	28-Jul-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] G7-OB1-14	E283	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	28-Jul-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] G7-OB2-14	E283	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	28-Jul-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW23-OB-21 (MW-G)	E283	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	28-Jul-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW28-BR-23 (MW-Q)	E283	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	28-Jul-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW29-BR-23 (MW-R)	E283	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	28-Jul-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] Duplicate 3 GW	E290	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] G7-OB1-14	E290	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] G7-OB2-14	E290	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW23-OB-21 (MW-G)	E290	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW28-BR-23 (MW-Q)	E290	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW29-BR-23 (MW-R)	E290	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] Duplicate 3 GW	E100	23-Jul-2024	27-Jul-2024	28 days	4 days	✓	29-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] G7-OB1-14	E100	23-Jul-2024	27-Jul-2024	28 days	4 days	✓	29-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] G7-OB2-14	E100	23-Jul-2024	27-Jul-2024	28 days	4 days	✓	29-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW23-OB-21 (MW-G)	E100	23-Jul-2024	27-Jul-2024	28 days	4 days	✓	29-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW28-BR-23 (MW-Q)	E100	23-Jul-2024	27-Jul-2024	28 days	4 days	✓	29-Jul-2024	28 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW29-BR-23 (MW-R)	E100	23-Jul-2024	27-Jul-2024	28 days	4 days	✓	29-Jul-2024	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] Duplicate 3 GW	E108	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] G7-OB1-14	E108	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] G7-OB2-14	E108	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP]										
MW23-OB-21 (MW-G)	E108	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
MW28-BR-23 (MW-Q)	E108	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
MW29-BR-23 (MW-R)	E108	23-Jul-2024	27-Jul-2024	14 days	4 days	✓	29-Jul-2024	14 days	6 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
Duplicate 3 GW	E162	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
G7-OB1-14	E162	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
G7-OB2-14	E162	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
MW23-OB-21 (MW-G)	E162	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
MW28-BR-23 (MW-Q)	E162	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
MW29-BR-23 (MW-R)	E162	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] Duplicate 3 GW	E160	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] G7-OB1-14	E160	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] G7-OB2-14	E160	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW23-OB-21 (MW-G)	E160	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW28-BR-23 (MW-Q)	E160	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW29-BR-23 (MW-R)	E160	23-Jul-2024	----	----	----		26-Jul-2024	7 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW23-OB-21 (MW-G)	E121	23-Jul-2024	----	----	----		25-Jul-2024	48 hrs	48 hrs	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] G7-OB1-14	E121	23-Jul-2024	----	----	----		25-Jul-2024	48 hrs	50 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] G7-OB2-14	E121	23-Jul-2024	----	----	----		25-Jul-2024	48 hrs	50 hrs	× EHTL

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW29-BR-23 (MW-R)	E121	23-Jul-2024	----	----	----		25-Jul-2024	48 hrs	52 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW28-BR-23 (MW-Q)	E121	23-Jul-2024	----	----	----		25-Jul-2024	48 hrs	53 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] Duplicate 3 GW	E121	23-Jul-2024	----	----	----		25-Jul-2024	48 hrs	55 hrs	× EHTL
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] Duplicate 3 GW	E508	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] G7-OB1-14	E508	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] G7-OB2-14	E508	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW23-OB-21 (MW-G)	E508	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW28-BR-23 (MW-Q)	E508	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW29-BR-23 (MW-R)	E508	23-Jul-2024	29-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) Duplicate 3 GW	E420	23-Jul-2024	29-Jul-2024	180 days	6 days	✓	31-Jul-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) G7-OB1-14	E420	23-Jul-2024	29-Jul-2024	180 days	6 days	✓	31-Jul-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) G7-OB2-14	E420	23-Jul-2024	29-Jul-2024	180 days	6 days	✓	31-Jul-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW23-OB-21 (MW-G)	E420	23-Jul-2024	29-Jul-2024	180 days	6 days	✓	31-Jul-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW28-BR-23 (MW-Q)	E420	23-Jul-2024	29-Jul-2024	180 days	6 days	✓	31-Jul-2024	180 days	8 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW29-BR-23 (MW-R)	E420	23-Jul-2024	29-Jul-2024	180 days	6 days	✓	31-Jul-2024	180 days	8 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) G7-OB1-14	E611A	23-Jul-2024	01-Aug-2024	14 days	9 days	✓	01-Aug-2024	14 days	9 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) G7-OB2-14	E611A	23-Jul-2024	01-Aug-2024	14 days	9 days	✓	01-Aug-2024	14 days	9 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) MW28-BR-23 (MW-Q)	E611A	23-Jul-2024	01-Aug-2024	14 days	9 days	✓	01-Aug-2024	14 days	9 days	✓

Matrix: **Water**

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Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
MW29-BR-23 (MW-R)	E611A	23-Jul-2024	01-Aug-2024	14 days	9 days	✓	01-Aug-2024	14 days	9 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
MW23-OB-21 (MW-G)	E611D	23-Jul-2024	29-Jul-2024	14 days	6 days	✓	29-Jul-2024	14 days	6 days	✓

Legend & Qualifier Definitions

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1567620	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1567599	1	16	6.2	5.0	✓
Ammonia by Fluorescence	E298	1566063	1	18	5.5	5.0	✓
BTEX by Headspace GC-MS	E611A	1575102	1	8	12.5	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1570017	2	9	22.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1564126	1	6	16.6	5.0	✓
Conductivity in Water	E100	1567601	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1568978	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1565700	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1566699	1	9	11.1	5.0	✓
Fluoride in Water by IC	E235.F	1564125	1	6	16.6	5.0	✓
Free Cyanide	E339	1569657	2	16	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1564121	1	16	6.2	5.0	✓
Nitrite in Water by IC	E235.NO2	1564124	1	16	6.2	5.0	✓
pH by Meter	E108	1567600	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1564122	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1565531	1	19	5.2	5.0	✓
Total Cyanide	E333	1569658	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1566062	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1568950	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1565595	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568936	1	19	5.2	5.0	✓
TSS by Gravimetry	E160	1565564	1	19	5.2	5.0	✓
Turbidity by Nephelometry	E121	1564412	1	7	14.2	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1570016	1	5	20.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1567620	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1567599	1	16	6.2	5.0	✓
Ammonia by Fluorescence	E298	1566063	1	18	5.5	5.0	✓
BTEX by Headspace GC-MS	E611A	1575102	1	8	12.5	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1570017	2	9	22.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1564126	1	6	16.6	5.0	✓
Conductivity in Water	E100	1567601	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1568978	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1565700	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1566699	1	9	11.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Fluoride in Water by IC	E235.F	1564125	1	6	16.6	5.0	✓
Free Cyanide	E339	1569657	2	16	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1564121	1	16	6.2	5.0	✓
Nitrite in Water by IC	E235.NO2	1564124	1	16	6.2	5.0	✓
pH by Meter	E108	1567600	1	16	6.2	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	1572554	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1564122	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1565531	1	19	5.2	5.0	✓
Total Cyanide	E333	1569658	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1566062	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1568950	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1565595	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568936	1	19	5.2	5.0	✓
TSS by Gravimetry	E160	1565564	1	19	5.2	5.0	✓
Turbidity by Nephelometry	E121	1564412	1	7	14.2	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1570016	1	5	20.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1567620	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1567599	1	16	6.2	5.0	✓
Ammonia by Fluorescence	E298	1566063	1	18	5.5	5.0	✓
BTEX by Headspace GC-MS	E611A	1575102	1	8	12.5	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1570017	2	9	22.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1564126	1	6	16.6	5.0	✓
Conductivity in Water	E100	1567601	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1568978	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1565700	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1566699	1	9	11.1	5.0	✓
Fluoride in Water by IC	E235.F	1564125	1	6	16.6	5.0	✓
Free Cyanide	E339	1569657	2	16	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1564121	1	16	6.2	5.0	✓
Nitrite in Water by IC	E235.NO2	1564124	1	16	6.2	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	1572554	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1564122	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1565531	1	19	5.2	5.0	✓
Total Cyanide	E333	1569658	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1566062	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1568950	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1565595	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568936	1	19	5.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Method Blanks (MB) - Continued							
TSS by Gravimetry	E160	1565564	1	19	5.2	5.0	✓
Turbidity by Nephelometry	E121	1564412	1	7	14.2	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1570016	1	5	20.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1566063	1	18	5.5	5.0	✓
BTEX by Headspace GC-MS	E611A	1575102	1	8	12.5	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1570017	2	9	22.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1564126	1	6	16.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1568978	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1565700	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1566699	1	9	11.1	5.0	✓
Fluoride in Water by IC	E235.F	1564125	1	6	16.6	5.0	✓
Free Cyanide	E339	1569657	2	16	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1564121	1	16	6.2	5.0	✓
Nitrite in Water by IC	E235.NO2	1564124	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1564122	1	16	6.2	5.0	✓
Total Cyanide	E333	1569658	2	40	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1566062	1	19	5.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1568950	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1565595	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1568936	1	19	5.2	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1570016	1	5	20.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	Sample extracts are subjected to in-situ silica gel treatment prior to analysis by GC-FID for CCME hydrocarbon fractions (F2-F4). Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
F1-BTEX	EC580 ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
SUM F1 to F4 where F2-F4 is SG treated	EC581SG ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fraction F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50), where F2-F4 have been treated with silica gel. F4G-sg is not used within this calculation due to overlap with other fractions.
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into the GC/MS-FID system.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Waterloo	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 14 -

Page 1 of 1

Report To		Report Format / Distribution	Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format: ☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report ☐ Yes ☑ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11 Geraldton, ON P0T 1M0	☑ Criteria on Report - provide details below if box checked Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	807-853-1816	Email 1: environmental@ggmines.com, laura.vares@ggmines.com Email 2: see comments	Specify Date Required for E2,E or P:

Invoice To		Invoice Distribution	Analysis Request
	Same as Report To ☐ Yes ☑ No	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
	Copy of Invoice with Report ☐ Yes ☑ No	Email 1 or Fax: ap@ggmines.com Email 2: laura.vares@ggmines.com	
Company:	Greenstone Mine		
Contact:	Accounts Payable		

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): TY2408000 | ALS Contact: Christine Paradis | Sampler: BM/TP

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox	Chloride, fluoride, nitrate, nitrite, TKN, low lev	Sulphate, cyanide (total/free), ammonia (total	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	MW28-BR-23	23-Jul-24	10:26	Water	x	x	x	x	x			x				7.03	7.50	8
	MW29-BR-23	23-Jul-24	11:04	Water	x	x	x	x	x			x				6.84	10.80	8
	G7-OB2-14	23-Jul-24	12:41	Water	x	x	x	x	x	x	x					7.55	6.40	11
	G7-OB1-14	23-Jul-24	13:18	Water	x	x	x	x	x	x	x					7.52	7.00	11
	MW23-OB-21	23-Jul-24	15:36	Water	x	x	x	x	x		x	x	x			7.22	8.40	10
	Duplicate 3	23-Jul-24	8:00	Water	x	x	x	x	x							0.00	0.00	6

Environmental Division
Thunder Bay
Work Order Reference
TY2408000

Telephone : +1 807 623 6463

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com
Are samples for human drinking water use? ☐ Yes ☑ No	Please include PWQO criteria on the report.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No ☐	
Ice packs	Yes ☒	No ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated	☒				

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
7.2	7.6	8.4			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
~~Released by~~	~~Date~~	~~Time~~	~~Received by~~	~~Date~~	~~Time~~	Received by: LV	Date: 7/25/24	Time: 8:45
Bernadine Mendowegan	23-Jul-24	18:44						

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0326e v09 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

554232303599

Courtesy 3X

Intake and Login Verification Form

SAMPLE INTAKE			
Priority/Emergency Service Requested		YES	NO
Time Sensitive Hold Time		YES	NO
Client:	Greenstone		

SAMPLE RECEIPT INFORMATION			
Mode of Delivery:	Courier		Drop Off
Courier	Courtesy		
Waybill Number	554238 3599		
Temperature	7.2, 7.6, 9.4		Cooler Count 3
Cooling Method	None	Ice	Ice Packs

SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	Water	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?				~~Yes~~	~~No~~
DW Metals pH Check <2				~~Yes~~	~~No~~
Regulation Circled, Works # present			Yes	~~No~~	~~Reject?~~
# of Bottles: 9	Sample Count			6	
Green/white	6 R				
Purple/white	6 NUT, 6 LLP, 2 DOC				
Warm red/white	6 tot. metals, 6 diss metals				
Yellow/black					
Light blue/white					
Orange/black					
Others (detail)	6x cyanide 5x2 blue/white vials 3x2 blue/white bottles				
Comments on Samples and Bottles:	N/A				
Samples Requiring Preservation or Filtering:	N/A				
Layout Staff Initials Date and Time of Layout	AM 25/Jul/24 0943				

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	NO
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client / Work Contact / Quote		

RECEIPT DETAIL			
Project	PO	Site/LSD	
Overall Description Entered		Yes	NA
Received date/time as per COC			
Recipients match CoC or Sample Remarks		Yes	No
Billing Instruction added to remarks		Yes	NA
Sample Remarks/Specification Doc checked			
Submission Issues communicated		Yes	NA
Sample Info communicated via Remarks		Yes	NA

VERIFICATION CHECKLIST		
Plannned Event Submission	Yes	No
Sample Name entered as per CoC		
Sampling Date and time entered as per CoC		
Containers selected in layout order		
Sales items entered from QUOTE ONLY (and/or verified as correct)		
Field Data/EC298A removed if not on COC	Yes	NA
Bottle Allocation Verified		
Guideline added or auto-allocated		
Due dates updated		

VALIDATION		
Validation errors resolved?	Yes	No
Internal Sublet CoC created	Yes	NA
Login Comments:		

Login Staff Initials:	RJS6

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **TY2408063**	Page	: 1 of 6
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 26-Jul-2024 09:09
PO	: 5500000426	Date Analysis Commenced	: 26-Jul-2024
C-O-C number	: ----	Issue Date	: 12-Aug-2024 09:54
Sampler	: AL, WM		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Ghanil Moradiya	Laboratory Assistant	Administration, Thunder Bay, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Inorganics, Thunder Bay, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLDS	*Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
DTS	*Dissolved Sulfur concentration exceeds total. Negative bias on Total Sulfur suspected due to presence of volatile sulfur species lost during digestion.*

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW07-18	MW08-18	MW09-18	Duplicate 5 GW	----
					Client sampling date / time	24-Jul-2024 15:07	24-Jul-2024 14:41	24-Jul-2024 14:10	24-Jul-2024 08:00	----
						TY2408063-001	TY2408063-002	TY2408063-003	TY2408063-004	--------
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/TY	0.10	pH units		6.90	7.12	6.92	----	----
Temperature, field	----	EF001/TY	0.10	°C		16.4	20.0	19.5	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L		45.1	10.3	17.6	12.3	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L		607	258	395	294	----
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	----
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L		607	258	395	294	----
Conductivity	----	E100/TY	1.0	µS/cm		1900	2590	2400	2690	----
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L		1350	1060	1410	1060	----
pH	----	E108/TY	0.10	pH units		7.51	7.75	7.73	7.88	----
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L		1650	2140	2160	2230	----
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L		3450	5170	1850	2890	----
Turbidity	----	E121/TY	0.10	NTU		3180	1660	802	897	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L		0.0914	2.02	0.498	2.02	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L		<0.0010	0.0105	0.0016	----	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L		12.3	15.6	4.82	15.5	----
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L		<0.200 DLDS	<0.400 DLDS	<0.400 DLDS	<0.400 DLDS	----
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L		0.738	2.45	1.59	4.74	----
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L		<0.200 DLDS	<0.400 DLDS	<0.400 DLDS	<0.400 DLDS	----
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L		<0.100 DLDS	<0.200 DLDS	<0.200 DLDS	<0.200 DLDS	----
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L		1.42	1.22	1.04	3.07	----
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L		640	1290	1080	1300	----
Cyanides										
Cyanide, free	----	E339/WT	0.0020	mg/L		<0.0020	<0.0020	<0.0020	<0.0020	----
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L		0.0213	0.0146	0.0285	0.0262	----
Total Metals										
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L		13.3	21.1	25.1	18.3	----
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		0.00354	0.00407	0.00056	0.00323	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	MW07-18	MW08-18	MW09-18	Duplicate 5 GW	----
					Client sampling date / time	24-Jul-2024 15:07	24-Jul-2024 14:41	24-Jul-2024 14:10	24-Jul-2024 08:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2408063-001	TY2408063-002	TY2408063-003	TY2408063-004	--------
						Result	Result	Result	Result	----
Total Metals										
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		3.44	18.1	2.36	16.0	----
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.205	0.102	0.288	0.0889	----
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		0.000484	0.000570	0.00288	0.000449	----
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.000250 DLM	0.000384	0.000929	0.000340	----
Boron, total	7440-42-8	E420/TY	0.010	mg/L		<0.050 DLM	0.140	0.060	0.133	----
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		0.000138	0.000174	0.000626	0.000142	----
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		456	359	467	330	----
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.00185	0.00323	0.00274	0.00290	----
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		0.0599	0.114	0.0655	0.0997	----
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.0248	0.0473	0.0183	0.0468	----
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		0.0499	0.0828	0.0540	0.0701	----
Iron, total	7439-89-6	E420/TY	0.010	mg/L		46.9	102	57.4	93.8	----
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.0132	0.0259	0.0601	0.0224	----
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.0240	0.152	0.196	0.157	----
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		120	152	247	140	----
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		1.72	2.19	1.63	2.04	----
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		0.0000063	<0.0000050	0.0000091	<0.0000050	----
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.000887	0.0104	0.00345	0.00987	----
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.0520	0.121	0.0561	0.113	----
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		0.860	1.02	1.58	1.01	----
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		11.0	43.0	33.9	41.8	----
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.0287	0.0490	0.0496	0.0443	----
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		0.000311	0.000522	0.000371	0.000562	----
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		30.6	36.0	61.1	32.2	----
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		0.000174	0.000230	0.000246	0.000225	----
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		18.2	312	135	325	----
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		0.903	2.40	2.39	2.34	----
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		168	544	459	530	----
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00100 DLM	<0.00100 DLM	<0.00100 DLM	<0.00100 DLM	----
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		0.000172	0.000268	0.000659	0.000242	----
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		0.00516	0.00640	0.0398	0.00572	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	MW07-18	MW08-18	MW09-18	Duplicate 5 GW	----
					Client sampling date / time	24-Jul-2024 15:07	24-Jul-2024 14:41	24-Jul-2024 14:10	24-Jul-2024 08:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2408063-001	TY2408063-002	TY2408063-003	TY2408063-004	--------
						Result	Result	Result	Result	----
Total Metals										
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		0.00165	0.00084	0.00087	0.00079	----
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		0.874	0.903	0.352	0.784	----
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.00368	0.0161	0.00113	0.00848	----
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.00185	0.00375	0.0226	0.00365	----
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.0415	0.0723	0.0621	0.0637	----
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		0.0896	0.118	0.145	0.109	----
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.00744	0.0116	0.00417	0.0113	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.0018	0.0080	0.0027	0.0014	----
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		0.00072	0.00049	0.00028	0.00082	----
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		1.93	12.2	1.20	12.0	----
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.118	0.0188	0.0467	0.0187	----
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	----
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		0.021	0.117	0.041	0.118	----
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		382	250	271	254	----
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		0.000062	0.000043	0.000096	0.000045	----
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	----
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.00968	0.00327	0.00163	0.00341	----
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		0.00046	0.00025	0.00031	<0.00020	----
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		12.6	18.8	6.55	18.8	----
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	<0.000050	0.000055	<0.000050	----
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0114	0.118	0.130	0.114	----
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		96.9	105	178	104	----
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		1.28	0.754	0.529	0.746	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.000479	0.00919	0.00430	0.00929	----
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		0.00990	0.00294	0.00693	0.00496	----
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		13.4	35.4	28.4	35.8	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	MW07-18	MW08-18	MW09-18	Duplicate 5 GW	----
					Client sampling date / time	24-Jul-2024 15:07	24-Jul-2024 14:41	24-Jul-2024 14:10	24-Jul-2024 08:00	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2408063-001	TY2408063-002	TY2408063-003	TY2408063-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00850	0.00986	0.0128	0.00991	----
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		0.000073	<0.000050	0.000084	<0.000050	----
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		10.8	5.63	12.8	5.67	----
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		23.3	305	141	308	----
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		1.13	2.04	2.14	2.07	----
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		266 DTS	514	499	512	----
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000010	<0.000010	0.000016	<0.000010	----
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		0.00014	<0.00010	<0.00010	<0.00010	----
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00030	<0.00129 DLM	<0.00030	<0.00030	----
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		<0.00010	0.00054	0.00068	0.00052	----
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.00203	0.00211	0.0109	0.00206	----
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00050	<0.00050	0.00070	<0.00050	----
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.0069	0.0028	0.0144	0.0024	----
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		0.00037	<0.00030	0.00032	<0.00030	----
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	Laboratory	Laboratory	Laboratory	----
Dissolved metals filtration location	----	EP421/TY	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2408063**	Page	: 1 of 18
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 26-Jul-2024 09:09
PO	: 5500000426	Issue Date	: 12-Aug-2024 09:54
C-O-C number	: ----		
Sampler	: AL, WM		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] Duplicate 5 GW	E298	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW07-18	E298	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW08-18	E298	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW09-18	E298	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] Duplicate 5 GW	E235.Cl-L	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW07-18	E235.Cl-L	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW08-18	E235.Cl-L	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
MW09-18	E235.Cl-L	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
Duplicate 5 GW	E235.F	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW07-18	E235.F	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW08-18	E235.F	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
MW09-18	E235.F	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
Duplicate 5 GW	E235.NO3	24-Jul-2024	27-Jul-2024	7 days	3 days	✓	28-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
MW07-18	E235.NO3	24-Jul-2024	27-Jul-2024	7 days	3 days	✓	28-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
MW08-18	E235.NO3	24-Jul-2024	27-Jul-2024	7 days	3 days	✓	28-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
MW09-18	E235.NO3	24-Jul-2024	27-Jul-2024	7 days	3 days	✓	28-Jul-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] Duplicate 5 GW	E235.NO2	24-Jul-2024	27-Jul-2024	7 days	3 days	✓	28-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW07-18	E235.NO2	24-Jul-2024	27-Jul-2024	7 days	3 days	✓	28-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW08-18	E235.NO2	24-Jul-2024	27-Jul-2024	7 days	3 days	✓	28-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MW09-18	E235.NO2	24-Jul-2024	27-Jul-2024	7 days	3 days	✓	28-Jul-2024	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] Duplicate 5 GW	E235.SO4	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW07-18	E235.SO4	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW08-18	E235.SO4	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MW09-18	E235.SO4	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	28-Jul-2024	28 days	4 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] Duplicate 5 GW	E318	24-Jul-2024	29-Jul-2024	28 days	5 days	✓	30-Jul-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW07-18	E318	24-Jul-2024	29-Jul-2024	28 days	5 days	✓	30-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW08-18	E318	24-Jul-2024	29-Jul-2024	28 days	5 days	✓	30-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MW09-18	E318	24-Jul-2024	29-Jul-2024	28 days	5 days	✓	30-Jul-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] Duplicate 5 GW	E372-S	24-Jul-2024	02-Aug-2024	3 days	9 days	× EHT	06-Aug-2024	3 days	13 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW07-18	E372-S	24-Jul-2024	02-Aug-2024	3 days	9 days	× EHT	06-Aug-2024	3 days	13 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW08-18	E372-S	24-Jul-2024	02-Aug-2024	3 days	9 days	× EHT	06-Aug-2024	3 days	13 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MW09-18	E372-S	24-Jul-2024	02-Aug-2024	3 days	9 days	× EHT	06-Aug-2024	3 days	13 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) Duplicate 5 GW	E339	24-Jul-2024	29-Jul-2024	14 days	5 days	✓	29-Jul-2024	14 days	5 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW07-18	E339	24-Jul-2024	29-Jul-2024	14 days	5 days	✓	29-Jul-2024	14 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW08-18	E339	24-Jul-2024	29-Jul-2024	14 days	5 days	✓	29-Jul-2024	14 days	5 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW09-18	E339	24-Jul-2024	29-Jul-2024	14 days	5 days	✓	29-Jul-2024	14 days	5 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) Duplicate 5 GW	E333	24-Jul-2024	29-Jul-2024	14 days	5 days	✓	29-Jul-2024	14 days	5 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW07-18	E333	24-Jul-2024	29-Jul-2024	14 days	5 days	✓	29-Jul-2024	14 days	5 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW08-18	E333	24-Jul-2024	29-Jul-2024	14 days	5 days	✓	29-Jul-2024	14 days	5 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MW09-18	E333	24-Jul-2024	29-Jul-2024	14 days	5 days	✓	29-Jul-2024	14 days	5 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab filtered) MW07-18	E509	24-Jul-2024	30-Jul-2024	0 hrs	139 hrs	× UCP	30-Jul-2024	0 hrs	141 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab filtered) MW08-18	E509	24-Jul-2024	30-Jul-2024	0 hrs	139 hrs	× UCP	30-Jul-2024	0 hrs	141 hrs	× UCP
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab filtered) MW09-18	E509	24-Jul-2024	30-Jul-2024	0 hrs	140 hrs	× UCP	30-Jul-2024	0 hrs	142 hrs	× UCP

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial - dissolved (lab filtered)										
Duplicate 5 GW	E509	24-Jul-2024	30-Jul-2024	0 hrs	146 hrs	× UCP	30-Jul-2024	0 hrs	148 hrs	× UCP
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
Duplicate 5 GW	E421	24-Jul-2024	01-Aug-2024	180 days	8 days	✓	01-Aug-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW07-18	E421	24-Jul-2024	01-Aug-2024	180 days	8 days	✓	01-Aug-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW08-18	E421	24-Jul-2024	01-Aug-2024	180 days	8 days	✓	01-Aug-2024	180 days	8 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW09-18	E421	24-Jul-2024	01-Aug-2024	180 days	8 days	✓	01-Aug-2024	180 days	8 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW07-18	EF001	24-Jul-2024	----	----	----		26-Jul-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW08-18	EF001	24-Jul-2024	----	----	----		26-Jul-2024	----	2 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW09-18	EF001	24-Jul-2024	----	----	----		26-Jul-2024	----	2 days	
Physical Tests : Acidity by Titration										
HDPE [ON MECP]										
Duplicate 5 GW	E283	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	28-Jul-2024	14 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW07-18	E283	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	28-Jul-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW08-18	E283	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	28-Jul-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW09-18	E283	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	28-Jul-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] Duplicate 5 GW	E290	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	29-Jul-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW07-18	E290	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	29-Jul-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW08-18	E290	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	29-Jul-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW09-18	E290	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	29-Jul-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] Duplicate 5 GW	E100	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW07-18	E100	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW08-18	E100	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW09-18	E100	24-Jul-2024	27-Jul-2024	28 days	3 days	✓	29-Jul-2024	28 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] Duplicate 5 GW	E108	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	29-Jul-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW07-18	E108	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	29-Jul-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW08-18	E108	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	29-Jul-2024	14 days	5 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW09-18	E108	24-Jul-2024	27-Jul-2024	14 days	3 days	✓	29-Jul-2024	14 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] Duplicate 5 GW	E162	24-Jul-2024	----	----	----		27-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MW07-18	E162	24-Jul-2024	----	----	----		27-Jul-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MW08-18	E162	24-Jul-2024	----	----	----		27-Jul-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MW09-18	E162	24-Jul-2024	----	----	----		27-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] Duplicate 5 GW	E160	24-Jul-2024	----	----	----		27-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW07-18	E160	24-Jul-2024	----	----	----		27-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW08-18	E160	24-Jul-2024	----	----	----		27-Jul-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW09-18	E160	24-Jul-2024	----	----	----		27-Jul-2024	7 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW07-18	E121	24-Jul-2024	----	----	----		26-Jul-2024	48 hrs	46 hrs	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW08-18	E121	24-Jul-2024	----	----	----		26-Jul-2024	48 hrs	46 hrs	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW09-18	E121	24-Jul-2024	----	----	----		26-Jul-2024	48 hrs	47 hrs	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] Duplicate 5 GW	E121	24-Jul-2024	----	----	----		26-Jul-2024	48 hrs	53 hrs	× EHTR

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times* Rec	*Holding Times* Actual	*Eval*	*Analysis Date*	*Holding Times* Rec	*Holding Times* Actual	*Eval*
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] Duplicate 5 GW	E508	24-Jul-2024	30-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW07-18	E508	24-Jul-2024	30-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW08-18	E508	24-Jul-2024	30-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	6 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW09-18	E508	24-Jul-2024	30-Jul-2024	28 days	6 days	✓	30-Jul-2024	28 days	6 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) Duplicate 5 GW	E420	24-Jul-2024	29-Jul-2024	180 days	5 days	✓	31-Jul-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW07-18	E420	24-Jul-2024	29-Jul-2024	180 days	5 days	✓	31-Jul-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW08-18	E420	24-Jul-2024	29-Jul-2024	180 days	5 days	✓	31-Jul-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW09-18	E420	24-Jul-2024	29-Jul-2024	180 days	5 days	✓	31-Jul-2024	180 days	7 days	✓

Legend & Qualifier Definitions

EHTR: Exceeded ALS recommended hold time prior to sample receipt.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1567454	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1567457	2	38	5.2	5.0	✓
Ammonia by Fluorescence	E298	1567877	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1567452	1	12	8.3	5.0	✓
Conductivity in Water	E100	1567456	2	35	5.7	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1570816	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1574931	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1567451	1	12	8.3	5.0	✓
Free Cyanide	E339	1569662	2	21	9.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1567449	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1567453	1	12	8.3	5.0	✓
pH by Meter	E108	1567455	2	38	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1567450	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	1567371	2	38	5.2	5.0	✓
Total Cyanide	E333	1569663	2	38	5.2	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1567799	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1570819	1	14	7.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1569297	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1578363	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1567372	2	38	5.2	5.0	✓
Turbidity by Nephelometry	E121	1565944	2	40	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1567454	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1567457	2	38	5.2	5.0	✓
Ammonia by Fluorescence	E298	1567877	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1567452	1	12	8.3	5.0	✓
Conductivity in Water	E100	1567456	2	35	5.7	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1570816	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1574931	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1567451	1	12	8.3	5.0	✓
Free Cyanide	E339	1569662	2	21	9.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1567449	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1567453	1	12	8.3	5.0	✓
pH by Meter	E108	1567455	2	38	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1567450	1	19	5.2	5.0	✓
TDS by Gravimetry	E162	1567371	2	38	5.2	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Cyanide	E333	1569663	2	38	5.2	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1567799	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1570819	1	14	7.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1569297	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1578363	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1567372	2	38	5.2	5.0	✓
Turbidity by Nephelometry	E121	1565944	2	40	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1567454	1	20	5.0	5.0	✓
Alkalinity Species by Titration	E290	1567457	2	38	5.2	5.0	✓
Ammonia by Fluorescence	E298	1567877	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1567452	1	12	8.3	5.0	✓
Conductivity in Water	E100	1567456	2	35	5.7	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1570816	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1574931	1	20	5.0	5.0	✓
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Sulfate in Water by IC	E235.SO4	1567450	1	19	5.2	5.0	✓
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Total Cyanide	E333	1569663	2	38	5.2	5.0	✓
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TSS by Gravimetry	E160	1567372	2	38	5.2	5.0	✓
Turbidity by Nephelometry	E121	1565944	2	40	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1567877	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1567452	1	12	8.3	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1570816	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1574931	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1567451	1	12	8.3	5.0	✓
Free Cyanide	E339	1569662	2	21	9.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1567449	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1567453	1	12	8.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1567450	1	19	5.2	5.0	✓
Total Cyanide	E333	1569663	2	38	5.2	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1567799	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1570819	1	14	7.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1569297	1	19	5.2	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1578363	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

COURTESY FREIGHT 1-800-267-0593 5542383600

Canada Toll Free: 1 800 668 9878

Affix

Telephone : +1 807 623 8463

COC Number: 14 -

Page ____ of ____

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report	☐ Yes ☑ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11	☑ Criteria on Report - provide details below if box checked		E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
	Geraldton, ON P0T 1M0	Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	807-853-1816	Email 1	environmental@ggmines.com, laura.vares@ggmines.com	Specify Date Required for E2,E or P:
		Email 2	see comments	

Invoice To			Invoice Distribution	
	Same as Report To	☐ Yes ☑ No	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
	Copy of Invoice with Report	☐ Yes ☑ No		
Company:	Greenstone Mine		Email 1 or Fax	ap@ggmines.com
Contact:	Accounts Payable		Email 2	laura.vares@ggmines.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): 8063 **ALS Contact:** Christine Paradis **Sampler:** WM/AL

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox)	Chloride, fluoride, nitrate, nitrite, TKN, low level P	Sulphate, cyanide (total/free), ammonia (total/un	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	MW07-18	24-Jul-24	15:07	Water	x	x	x	x	x							6.90	16.40	6
	MW08-18	24-Jul-24	14:41	Water	x	x	x	x	x							7.12	20.00	6
	MW09-18	24-Jul-24	14:10	Water	x	x	x	x	x							6.92	19.50	6
	Duplicate 5	24-Jul-24	8:00	Water	x	x	x	x	x									

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com
Are samples for human drinking water use? ☐ Yes ☑ No	Please include PWQO criteria on the report.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No ☐	
Ice packs	Yes ☑	No ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated	☑				

INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C		
8.1	8.0			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Rebecca Donovan	25-Jul-24	8:41					26 JUL 24	0909

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0325a v09 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

courtesy (2)

Intake and Login Verification Form

SAMPLE INTAKE			
Priority/Emergency Service Requested		YES	(NO)
Time Sensitive Hold Time		YES	(NO)
Client:	Greenstone Mine		

SAMPLE RECEIPT INFORMATION			
Mode of Delivery:	(Courier)		Drop Off
Courier	Courtesy		
Waybill Number	554238836000		
Temperature	8.5, 8.0		Cooler Count 2
Cooling Method	None	Ice	(Ice Packs)

SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	(Water)	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?				~~Yes~~	~~No~~
DW Metals pH Check <2				~~Yes~~	~~No~~
Regulation Circled, Works # present			Yes	~~No~~	~~Reject?~~
# of Bottles: 5	Sample Count 4				
Green/white	5R				
Purple/white	5x2 NUTS				
Warm red/white	5+ metals, 5 diss metals				
Yellow/black					
Light blue/white					
Orange/black					

Others (detail): 5x cyanide

Comments on Samples and Bottles: N/A

Samples Requiring Preservation or Filtering: N/A

Layout Staff Initials Date and Time of Layout	AM 26JUN24 0945

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	(NO)
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client ✓	Work Contact ✓	Quote ✓

RECEIPT DETAIL			
Project ✓	PO ✓	Site/LSD ✓	
Overall Description Entered		Yes	(NA)
Received date/time as per COC		✓	
Recipients match CoC or Sample Remarks		(Yes)	No
Billing Instruction added to remarks		(Yes)	NA
Sample Remarks/Specification Doc checked		✓	
Submission Issues communicated		Yes	(NA)
Sample Info communicated via Remarks		(Yes)	~~NA~~

VERIFICATION CHECKLIST		
Plannned Event Submission	(Yes)	No
Sample Name entered as per CoC	✓	
Sampling Date and time entered as per CoC	✓	
Containers selected in layout order	✓	
Sales items entered from QUOTE ONLY (and/or verified as correct)	✓	
Field Data/EC298A removed if not on COC	Yes	(NA)
Bottle Allocation Verified	✓	
Guideline added or auto-allocated	✓ PWQO	
Due dates updated	✓	

VALIDATION		
Validation errors resolved?	(Yes)	No
Internal Sublet CoC created	(Yes)	NA

Login Comments: pour off T+D Hg.

Login Staff Initials:	MM

MM 26/7/24 low wa volume

CERTIFICATE OF ANALYSIS

Work Order	: **TY2408373**	Page	: 1 of 7
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 02-Aug-2024 09:13
PO	: 5500000426	Date Analysis Commenced	: 02-Aug-2024
C-O-C number	: ----	Issue Date	: 19-Aug-2024 11:03
Sampler	: JC/SP		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Jeremy Gingras	Supervisor - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Rhiannon Scheffee	Project Manager	Metals, Thunder Bay, Ontario
Sarah Birch	VOC Section Supervisor	VOC, Waterloo, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Inorganics, Thunder Bay, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Metals, Thunder Bay, Ontario
Viola Grebowicz	Laboratory Analyst	Administration, Thunder Bay, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
TMV	*Turbidity exceeded upper limit of the nephelometric method. Minimum value reported.*

Analytical Results

Sub-Matrix: **Groundwater** (Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW15-OB-14	MW15-BR-14	----	----	----
					Client sampling date / time	31-Jul-2024 13:46	31-Jul-2024 14:04	----	----	----
						TY2408373-001	TY2408373-002	--------	--------	--------
						Result	Result	----	----	----
Field Tests										
pH, field	----	EF001/TY	0.10	pH units		7.45	7.49	----	----	----
Temperature, field	----	EF001/TY	0.10	°C		11.3	11.9	----	----	----
Physical Tests										
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L		4.0	<2.0	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L		268	208	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	7.6	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	<2.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L		268	216	----	----	----
Conductivity	----	E100/TY	1.0	µS/cm		385	350	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L		218	174	----	----	----
pH	----	E108/TY	0.10	pH units		8.00	8.36	----	----	----
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L		263	198	----	----	----
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L		27400	8.6	----	----	----
Turbidity	----	E121/TY	0.10	NTU		>4000 TMV	4.52	----	----	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L		0.0533	0.0822	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L		<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L		1.36	0.34	----	----	----
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L		0.026	0.084	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L		1.43	0.128	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L		<0.020	<0.020	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L		<0.010	<0.010	----	----	----
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L		0.126	0.0075	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L		7.99	11.8	----	----	----
Cyanides										
Cyanide, free	----	E339/WT	0.0020	mg/L		<0.0020	<0.0020	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L		<0.0020	<0.0020	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		6.50	----	----	----	----
Total Metals										

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MW15-OB-14	MW15-BR-14	----	----	----
					Client sampling date / time	31-Jul-2024 13:46	31-Jul-2024 14:04	----	----	----
						TY2408373-001	TY2408373-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L		77.1	0.177	----	----	----
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		0.00178	0.00025	----	----	----
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.0323	0.00166	----	----	----
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.663	0.0178	----	----	----
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		0.00294	<0.000020	----	----	----
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		0.000610	<0.000050	----	----	----
Boron, total	7440-42-8	E420/TY	0.010	mg/L		0.125	0.012	----	----	----
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		0.000946	0.0000078	----	----	----
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		1530	54.4	----	----	----
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.00706	0.000082	----	----	----
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		0.188	0.00110	----	----	----
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.0449	0.00037	----	----	----
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		0.177	0.00055	----	----	----
Iron, total	7439-89-6	E420/TY	0.010	mg/L		91.2	0.718	----	----	----
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.0424	0.000132	----	----	----
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.0959	0.0010	----	----	----
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		390	11.3	----	----	----
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		2.30	0.0958	----	----	----
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.00158	0.000654	----	----	----
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.123	0.00053	----	----	----
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		5.42	<0.050	----	----	----
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		21.4	1.60	----	----	----
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.116	0.00312	----	----	----
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		0.000774	<0.000050	----	----	----
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		160	7.69	----	----	----
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		0.000555	<0.000010	----	----	----
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		12.0	3.09	----	----	----
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		1.09	0.162	----	----	----
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		<5.00 DLM	3.90	----	----	----
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00200 DLM	<0.00020	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	MW15-OB-14	MW15-BR-14	----	----	----
					Client sampling date / time	31-Jul-2024 13:46	31-Jul-2024 14:04	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2408373-001	TY2408373-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		0.000929	<0.000010	----	----	----
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		0.0414	<0.00010	----	----	----
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		0.00284	0.00012	----	----	----
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		6.05	0.0174	----	----	----
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.00205	0.00071	----	----	----
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.00626	0.000278	----	----	----
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.186	0.00092	----	----	----
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		0.448	0.0058	----	----	----
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.0606	0.00040	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.0029	0.0034	----	----	----
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.00088	0.00084	----	----	----
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.0322	0.0119	----	----	----
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		<0.010	0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		64.5	50.9	----	----	----
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		<0.000010	0.000055	----	----	----
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.00050	0.00024	----	----	----
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		0.00080	0.00078	----	----	----
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		<0.010	0.289	----	----	----
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0013	0.0010	----	----	----
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		13.9	11.5	----	----	----
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		0.0397	0.0858	----	----	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.000434	0.000579	----	----	----
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		<0.00050	<0.00050	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	MW15-OB-14	MW15-BR-14	----	----	----
					Client sampling date / time	31-Jul-2024 13:46	31-Jul-2024 14:04	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2408373-001	TY2408373-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		1.62	1.59	----	----	----
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00286	0.00306	----	----	----
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		0.000052	<0.000050	----	----	----
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		4.77	7.04	----	----	----
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		1.72	3.03	----	----	----
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.0651	0.157	----	----	----
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		2.91	3.96	----	----	----
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		0.000012	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		0.00037	0.00062	----	----	----
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.000646	0.000266	----	----	----
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00050	<0.00050	----	----	----
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.0015	0.0032	----	----	----
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		<0.00030	<0.00030	----	----	----
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	Laboratory	----	----	----
Dissolved metals filtration location	----	EP421/TY	-	-		Field	Field	----	----	----
Volatile Organic Compounds										
Benzene	71-43-2	E611A/WT	0.50	µg/L		<0.50	----	----	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		<0.50	----	----	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L		<0.50	----	----	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		<0.40	----	----	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		<0.30	----	----	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		<0.50	----	----	----	----
BTEX, total	----	E611A/WT	1.0	µg/L		<1.0	----	----	----	----
Hydrocarbons										
F1 (C6-C10)	----	E581.F1-L/WT	25	µg/L		<25	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	MW15-OB-14	MW15-BR-14	----	----	----
					Client sampling date / time	31-Jul-2024 13:46	31-Jul-2024 14:04	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2408373-001	TY2408373-002	--------	--------	--------
						Result	Result	----	----	----
Hydrocarbons										
F2 (C10-C16)	----	E601.SG/WT	100	µg/L		<100	----	----	----	----
F3 (C16-C34)	----	E601.SG/WT	250	µg/L		<250	----	----	----	----
F4 (C34-C50)	----	E601.SG/WT	250	µg/L		<250	----	----	----	----
F1-BTEX	----	EC580/WT	25	µg/L		<25	----	----	----	----
Hydrocarbons, total (C6-C50)	n/a	EC581SG/WT	240	µg/L		<370	----	----	----	----
Chromatogram to baseline at nC50	n/a	E601.SG/WT	-	-		YES	----	----	----	----
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601.SG/WT	1.0	%		72.2	----	----	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.F1-L/WT	1.0	%		91.2	----	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		114	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		105	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2408373**	Page	: 1 of 17
Client	: **Greenstone Gold Mines GP Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 02-Aug-2024 09:13
PO	: 5500000426	Issue Date	: 19-Aug-2024 11:03
C-O-C number	: ----		
Sampler	: JC/SP		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Method Blank value outliers occur - please see following pages for full details.
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Method Blank (MB) Values								
Total Metals	QC-1580563-001	----	Arsenic, total	7440-38-2	E420	0.00031 MB-LOR mg/L	0.0001 mg/L	Blank result exceeds permitted value

Result Qualifiers

Qualifier	Description
MB-LOR	*Method Blank exceeds ALS DQO. Limits of Reporting have been adjusted for samples with positive hits below 5x blank level.*

Matrix Spike (MS) Recoveries								
Total Metals	TY2408373-001	MW15-OB-14	Potassium, total	7440-09-7	E420	140 % K	70.0-130%	Recovery greater than upper data quality objective
Total Metals	TY2408373-001	MW15-OB-14	Sodium, total	7440-23-5	E420	168 % K	70.0-130%	Recovery greater than upper data quality objective
Total Metals	TY2408373-001	MW15-OB-14	Zirconium, total	7440-67-7	E420	156 % K	70.0-130%	Recovery greater than upper data quality objective

Result Qualifiers

Qualifier	Description
K	*Matrix Spike recovery outside ALS DQO due to sample matrix effects.*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW15-BR-14	E298	31-Jul-2024	02-Aug-2024	28 days	2 days	✓	02-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MW15-OB-14	E298	31-Jul-2024	02-Aug-2024	28 days	2 days	✓	02-Aug-2024	28 days	2 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW15-BR-14	E235.Cl-L	31-Jul-2024	03-Aug-2024	28 days	3 days	✓	04-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MW15-OB-14	E235.Cl-L	31-Jul-2024	03-Aug-2024	28 days	3 days	✓	04-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] MW15-BR-14	E235.F	31-Jul-2024	03-Aug-2024	28 days	3 days	✓	04-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] MW15-OB-14	E235.F	31-Jul-2024	03-Aug-2024	28 days	3 days	✓	04-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MW15-BR-14	E235.NO3	31-Jul-2024	03-Aug-2024	7 days	3 days	✓	04-Aug-2024	7 days	4 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
MW15-OB-14	E235.NO3	31-Jul-2024	03-Aug-2024	7 days	3 days	✓	04-Aug-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
MW15-BR-14	E235.NO2	31-Jul-2024	03-Aug-2024	7 days	3 days	✓	04-Aug-2024	7 days	4 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
MW15-OB-14	E235.NO2	31-Jul-2024	03-Aug-2024	7 days	3 days	✓	04-Aug-2024	7 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
MW15-BR-14	E235.SO4	31-Jul-2024	03-Aug-2024	28 days	3 days	✓	04-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
MW15-OB-14	E235.SO4	31-Jul-2024	03-Aug-2024	28 days	3 days	✓	04-Aug-2024	28 days	4 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
MW15-BR-14	E318	31-Jul-2024	06-Aug-2024	28 days	6 days	✓	06-Aug-2024	28 days	6 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
MW15-OB-14	E318	31-Jul-2024	06-Aug-2024	28 days	6 days	✓	06-Aug-2024	28 days	6 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
MW15-BR-14	E372-S	31-Jul-2024	06-Aug-2024	3 days	6 days	× EHT	07-Aug-2024	3 days	7 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
MW15-OB-14	E372-S	31-Jul-2024	06-Aug-2024	3 days	6 days	× EHT	07-Aug-2024	3 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW15-BR-14	E339	31-Jul-2024	06-Aug-2024	14 days	6 days	✓	06-Aug-2024	14 days	6 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW15-OB-14	E339	31-Jul-2024	06-Aug-2024	14 days	6 days	✓	06-Aug-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW15-BR-14	E333	31-Jul-2024	06-Aug-2024	14 days	6 days	✓	06-Aug-2024	14 days	6 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
MW15-OB-14	E333	31-Jul-2024	06-Aug-2024	14 days	6 days	✓	06-Aug-2024	14 days	6 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW15-BR-14	E509	31-Jul-2024	06-Aug-2024	28 days	6 days	✓	07-Aug-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MW15-OB-14	E509	31-Jul-2024	06-Aug-2024	28 days	6 days	✓	07-Aug-2024	28 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW15-BR-14	E421	31-Jul-2024	09-Aug-2024	180 days	9 days	✓	09-Aug-2024	180 days	9 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MW15-OB-14	E421	31-Jul-2024	09-Aug-2024	180 days	9 days	✓	09-Aug-2024	180 days	9 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MW15-BR-14	EF001	31-Jul-2024	----	----	----		06-Aug-2024	----	6 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid) MW15-OB-14	EF001	31-Jul-2024	----	----	----		06-Aug-2024	----	6 days	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate) MW15-OB-14	E581.F1-L	31-Jul-2024	12-Aug-2024	14 days	12 days	✓	12-Aug-2024	14 days	12 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) [ON MECP] MW15-OB-14	E601.SG	31-Jul-2024	07-Aug-2024	40 days	7 days	✓	07-Aug-2024	40 days	1 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (sulfuric acid) [ON MECP] MW15-OB-14	E358-L	31-Jul-2024	07-Aug-2024	28 days	7 days	✓	09-Aug-2024	28 days	9 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW15-BR-14	E283	31-Jul-2024	03-Aug-2024	14 days	3 days	✓	03-Aug-2024	14 days	3 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MW15-OB-14	E283	31-Jul-2024	03-Aug-2024	14 days	3 days	✓	03-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW15-BR-14	E290	31-Jul-2024	03-Aug-2024	14 days	3 days	✓	06-Aug-2024	14 days	6 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MW15-OB-14	E290	31-Jul-2024	03-Aug-2024	14 days	3 days	✓	06-Aug-2024	14 days	6 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW15-BR-14	E100	31-Jul-2024	03-Aug-2024	28 days	3 days	✓	06-Aug-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MW15-OB-14	E100	31-Jul-2024	03-Aug-2024	28 days	3 days	✓	06-Aug-2024	28 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW15-BR-14	E108	31-Jul-2024	03-Aug-2024	14 days	3 days	✓	06-Aug-2024	14 days	6 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MW15-OB-14	E108	31-Jul-2024	03-Aug-2024	14 days	3 days	✓	06-Aug-2024	14 days	6 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MW15-OB-14	E162	31-Jul-2024	----	----	----		02-Aug-2024	7 days	2 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MW15-BR-14	E162	31-Jul-2024	----	----	----		07-Aug-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW15-BR-14	E160	31-Jul-2024	----	----	----		02-Aug-2024	7 days	2 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MW15-OB-14	E160	31-Jul-2024	----	----	----		02-Aug-2024	7 days	2 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW15-BR-14	E121	31-Jul-2024	----	----	----		02-Aug-2024	48 hrs	47 hrs	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MW15-OB-14	E121	31-Jul-2024	----	----	----		02-Aug-2024	48 hrs	47 hrs	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW15-BR-14	E508	31-Jul-2024	06-Aug-2024	28 days	6 days	✓	07-Aug-2024	28 days	7 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] MW15-OB-14	E508	31-Jul-2024	06-Aug-2024	28 days	6 days	✓	07-Aug-2024	28 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW15-BR-14	E420	31-Jul-2024	06-Aug-2024	180 days	6 days	✓	07-Aug-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) MW15-OB-14	E420	31-Jul-2024	06-Aug-2024	180 days	6 days	✓	07-Aug-2024	180 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate) MW15-OB-14	E611A	31-Jul-2024	12-Aug-2024	14 days	12 days	✓	12-Aug-2024	14 days	12 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1578939	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1578934	1	13	7.6	5.0	✓
Ammonia by Fluorescence	E298	1578077	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1590405	2	20	10.0	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1590404	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1578917	1	13	7.6	5.0	✓
Conductivity in Water	E100	1578936	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1580634	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1583082	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1582837	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1578919	1	3	33.3	5.0	✓
Free Cyanide	E339	1580301	1	14	7.1	5.0	✓
Nitrate in Water by IC	E235.NO3	1578918	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1578915	1	15	6.6	5.0	✓
pH by Meter	E108	1578935	1	15	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1578916	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1577469	1	19	5.2	5.0	✓
Total Cyanide	E333	1580302	1	14	7.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1577452	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1580632	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1580563	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1582208	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1577472	1	18	5.5	5.0	✓
Turbidity by Nephelometry	E121	1577576	1	4	25.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1578939	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1578934	1	13	7.6	5.0	✓
Ammonia by Fluorescence	E298	1578077	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1590405	1	20	5.0	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1590404	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1578917	1	13	7.6	5.0	✓
Conductivity in Water	E100	1578936	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1580634	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1583082	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1582837	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1578919	1	3	33.3	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Free Cyanide	E339	1580301	1	14	7.1	5.0	✓
Nitrate in Water by IC	E235.NO3	1578918	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1578915	1	15	6.6	5.0	✓
pH by Meter	E108	1578935	1	15	6.6	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	1581763	1	6	16.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1578916	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1577469	1	19	5.2	5.0	✓
Total Cyanide	E333	1580302	1	14	7.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1577452	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1580632	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1580563	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1582208	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1577472	1	18	5.5	5.0	✓
Turbidity by Nephelometry	E121	1577576	1	4	25.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1578939	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1578934	1	13	7.6	5.0	✓
Ammonia by Fluorescence	E298	1578077	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1590405	1	20	5.0	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1590404	1	16	6.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1578917	1	13	7.6	5.0	✓
Conductivity in Water	E100	1578936	1	9	11.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1580634	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1583082	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1582837	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1578919	1	3	33.3	5.0	✓
Free Cyanide	E339	1580301	1	14	7.1	5.0	✓
Nitrate in Water by IC	E235.NO3	1578918	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1578915	1	15	6.6	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	1581763	1	6	16.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1578916	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	1577469	1	19	5.2	5.0	✓
Total Cyanide	E333	1580302	1	14	7.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1577452	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1580632	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1580563	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1582208	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1577472	1	18	5.5	5.0	✓
Turbidity by Nephelometry	E121	1577576	1	4	25.0	5.0	✓

Matrix: **Water**

Evaluation: ✗ = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1578077	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1590405	1	20	5.0	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1590404	0	16	0.0	5.0	✗
Chloride in Water by IC (Low Level)	E235.Cl-L	1578917	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1580634	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1583082	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1582837	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1578919	1	3	33.3	5.0	✓
Free Cyanide	E339	1580301	1	14	7.1	5.0	✓
Nitrate in Water by IC	E235.NO3	1578918	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1578915	1	15	6.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1578916	1	20	5.0	5.0	✓
Total Cyanide	E333	1580302	1	14	7.1	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1577452	1	11	9.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1580632	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1580563	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1582208	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	Sample extracts are subjected to in-situ silica gel treatment prior to analysis by GC-FID for CCME hydrocarbon fractions (F2-F4). Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in $CaCO_3$ equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
F1-BTEX	EC580 ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
SUM F1 to F4 where F2-F4 is SG treated	EC581SG ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fraction F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50), where F2-F4 have been treated with silica gel. F4G-sg is not used within this calculation due to overlap with other fractions.
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into the GC/MS-FID system.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Waterloo	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.

COURTESY FREIGHT 1-800-267-0598
5542382358

www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 14 -

Page ____ of ____

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format:	PDF EXCEL EDD (DIGITAL)	R Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report	Yes No	P Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11	Criteria on Report - provide details below if box checked		E Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
	Geraldton, ON P0T 1M0	Select Distribution:	EMAIL MAIL FAX	E2 Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	807-853-1816	Email 1	environmental@ggmines.com, laura.vares@ggmines.com	Specify Date Required for E2,E or P:
		Email 2	see comments	

Invoice To		Invoice Distribution		Analysis Request
	Same as Report To Yes No	Select Invoice Distribution:	EMAIL MAIL FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
	Copy of Invoice with Report Yes No			
Company:	Greenstone Mine	Email 1 or Fax	ap@ggmines.com	
Contact:	Accounts Payable	Email 2	laura.vares@ggmines.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): TY2408373 **ALS Contact:** Christine Paradis **Sampler:** JC/SP

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox)	Chloride, fluoride, nitrate, nitrite, TKN, low level	Sulphate, cyanide (total/free), ammonia (total/u	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	MW15-OB-14	31-Jul-24	13:46	Water	x	x	x	x	x	x	x					7.45	11.30	11
	MW15-BR-14	31-Jul-24	14:04	Water	x	x	x	x	x							7.49	11.90	6

Environmental Division
Thunder Bay
Work Order Reference
TY2408373

Telephone : +1 807 623 6463

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? Yes No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com
Are samples for human drinking water use? Yes No	Please include PWQO criteria on the report.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐
Ice packs Yes ☒ No ☐ Custody seal intact Yes ☐ No ☐
Cooling Initiated ☒

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
5	8				

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Sophia Park-Jean	1-Aug-24	7:33				AC	08-02-24	9:13

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0329e v09 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Intake and Login Verification Form

SAMPLE INTAKE					
Priority/Emergency Service Requested				YES	(NO)
Time Sensitive Hold Time				YES	(NO)
Client:	Greenstone Mine				
SAMPLE RECEIPT INFORMATION					
Mode of Delivery:		(Courier)		Drop Off	
Courier		Courtesy			
Waybill Number		554238235 8			
Temperature	5.8			Cooler Count	1
Cooling Method		None	Ice	(Ice Packs)	
SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	(Water)	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?				Yes	~~No~~
DW Metals pH Check <2				Yes	No
~~Regulation Circled, Works~~ # present			Yes	No - Reject?	
# of Bottles:	9	Sample Count		2	
Green/white		2 R			
Purple/white		2 NUTS, 2 CLP, 1 DOC			
Warm red/white		2 TOT MET, 2 DISS MET			
Yellow/black					
Light blue/white					
Orange/black					
Others (detail)	2 CYANIDE 2 Dark Blue Bottles 2 Dark Blue Vials				
Comments on Samples and Bottles:					
Samples Requiring Preservation or Filtering:					
Layout Staff Initials	AC				
Date and Time of Layout	08-02-24 | 9:41				

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	NO
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client / Work Contact / Quote		
RECEIPT DETAIL		
Project / PO / Site/LSD		
Overall Description Entered	Yes	NA
Received date/time as per COC		
Recipients match CoC or Sample Remarks	Yes	No
Billing Instruction added to remarks	Yes	NA
Sample Remarks/Specification Doc checked		
Submission Issues communicated	Yes	NA
Sample Info communicated via Remarks	Yes	NA
VERIFICATION CHECKLIST		
Plannned Event Submission	Yes	No
Sample Name entered as per CoC		
Sampling Date and time entered as per CoC		
Containers selected in layout order		
Sales items entered from QUOTE ONLY (and/or verified as correct)		
Field Data/EC298A removed if not on COC	Yes	NA
Bottle Allocation Verified		
Guideline added or auto-allocated		
Due dates updated		
VALIDATION		
Validation errors resolved?	Yes	No
Internal Sublet CoC created	Yes	NA
Login Comments: Pour off Hg Tot + Diss		
Login Staff Initials:	ANS	

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **TY2409199**	Page	: 1 of 6
Client	: **Greenstone Gold Mines Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 21-Aug-2024 09:15
PO	: 5500000948	Date Analysis Commenced	: 22-Aug-2024
C-O-C number	: ----	Issue Date	: 04-Sep-2024 17:47
Sampler	: JC/WM		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cassandra Grzelewski	Team Leader - Inorganics	Administration, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Rhiannon Scheffee	Project Manager	Metals, Thunder Bay, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Inorganics, Thunder Bay, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MWS-14-02 BR	MWS-14-02 OB	G6-OB-14	G6-BR-14	----
					Client sampling date / time	19-Aug-2024 10:43	19-Aug-2024 10:54	19-Aug-2024 14:19	19-Aug-2024 14:28	----
						TY2409199-001	TY2409199-002	TY2409199-003	TY2409199-004	--------
						Result	Result	Result	Result	----
Field Tests										
pH, field	----	EF001/TY	0.10	pH units		7.28	7.30	7.99	7.42	----
Temperature, field	----	EF001/TY	0.10	°C		9.80	8.40	14.2	7.70	----
Physical Tests										
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L		2.4	4.1	<2.0	3.0	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L		300	302	147	328	----
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	----
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L		<2.0	<2.0	<2.0	<2.0	----
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L		300	302	147	328	----
Conductivity	----	E100/TY	1.0	µS/cm		522	491	223	516	----
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L		277	270	118	271	----
pH	----	E108/TY	0.10	pH units		8.08	7.85	8.06	8.02	----
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L		288	335	150	302	----
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L		16.3	3810	2210	488	----
Turbidity	----	E121/TY	0.10	NTU		18.7	2080	959	218	----
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L		0.219	0.0541	0.0181	0.428	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L		<0.0010	<0.0010	<0.0010	0.0017	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L		0.40	0.28	0.22	0.39	----
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L		0.233	0.228	0.037	0.221	----
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L		0.287	0.380	0.224	0.552	----
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L		<0.020	<0.020	<0.020	<0.020	----
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L		<0.010	<0.010	<0.010	<0.010	----
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L		0.0339	1.12	1.44	0.229	----
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L		5.60	9.12	1.31	<0.30	----
Cyanides										
Cyanide, free	----	E339/WT	0.0020	mg/L		<0.0020	<0.0020	<0.0020	<0.0020	----
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L		<0.0020	<0.0020	<0.0020	<0.0020	----
Total Metals										
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L		0.404	7.96	2.25	0.301	----

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MWS-14-02 BR	MWS-14-02 OB	G6-OB-14	G6-BR-14	----
					Client sampling date / time	19-Aug-2024 10:43	19-Aug-2024 10:54	19-Aug-2024 14:19	19-Aug-2024 14:28	----
						TY2409199-001	TY2409199-002	TY2409199-003	TY2409199-004	--------
						Result	Result	Result	Result	----
Total Metals										
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		0.00072	<0.00050	0.00064	<0.00010	----
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.0116	0.00309	0.00243	0.00158	----
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.0491	0.0986	0.0347	0.0553	----
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		0.000026	0.000383	0.000082	0.000027	----
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.000050	<0.000250	<0.000100	<0.000050	----
Boron, total	7440-42-8	E420/TY	0.010	mg/L		0.020	<0.050	<0.020	0.029	----
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		0.0000231	0.0000854	0.0000261	0.0000181	----
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		80.9	277	74.4	75.0	----
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.000146	0.000658	0.000200	0.000605	----
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		0.00228	0.0198	0.00769	0.00097	----
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.00038	0.00493	0.00160	0.00022	----
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		0.00322	0.0137	0.00525	0.00092	----
Iron, total	7439-89-6	E420/TY	0.010	mg/L		4.67	10.3	3.68	1.32	----
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.000763	0.00543	0.00274	0.000540	----
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.0075	0.0151	0.0027	0.0070	----
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		22.8	85.2	18.3	25.3	----
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		0.130	0.410	0.105	0.0580	----
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		<0.0000050	<0.0000050	0.0000138	<0.0000050	----
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.00851	0.00198	0.000286	0.000651	----
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.00109	0.0118	0.00470	0.00154	----
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		0.094	0.772	0.227	0.095	----
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		2.27	4.24	0.834	2.22	----
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.00182	0.0126	0.00328	0.00127	----
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		<0.000050	<0.000250	<0.000100	<0.000050	----
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		8.87	20.8	9.11	9.99	----
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		0.000020	<0.000050	<0.000020	0.000066	----
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		20.0	10.5	1.90	13.6	----
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		0.174	0.239	0.0531	0.288	----
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		2.23	2.79	<1.00	<0.50	----
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00020	<0.00100	<0.00040	<0.00020	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	MWS-14-02 BR	MWS-14-02 OB	G6-OB-14	G6-BR-14	----
					Client sampling date / time	19-Aug-2024 10:43	19-Aug-2024 10:54	19-Aug-2024 14:19	19-Aug-2024 14:28	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2409199-001	TY2409199-002	TY2409199-003	TY2409199-004	--------
						Result	Result	Result	Result	----
Total Metals										
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		<0.000010	0.000122	0.000037	<0.000010	----
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		0.00018	0.00396	0.00071	0.00013	----
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		0.00039	0.00052	0.00049	0.00011	----
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		0.0229	0.683	0.140	0.0214	----
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.00116	<0.00050	<0.00020	0.00112	----
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.000310	0.00302	0.000236	0.000060	----
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.00286	0.0191	0.00627	0.00089	----
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		0.0191	0.0265	0.0136	0.0151	----
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.00050	0.00447	0.00064	0.00100	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.0025	0.0012	0.0051	0.0032	----
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.00247	0.00063	0.00039	0.00100	----
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.0324	0.0333	0.00508	0.0519	----
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000020	<0.000020	<0.000020	<0.000020	----
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		0.020	0.013	<0.010	0.031	----
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		75.5	75.3	33.0	69.5	----
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		0.000024	<0.000010	<0.000010	0.000619	----
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	<0.00050	0.00069	<0.00050	----
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.00010	0.00013	<0.00010	<0.00010	----
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		0.00080	0.00069	0.00108	0.00049	----
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		1.47	0.361	<0.010	0.836	----
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	----
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		0.0070	0.0060	<0.0010	0.0073	----
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		21.6	20.0	8.53	23.7	----
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		0.120	0.0558	0.00382	0.0469	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	----
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.00111	0.00168	0.000114	0.000424	----

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	MWS-14-02 BR	MWS-14-02 OB	G6-OB-14	G6-BR-14	----
					Client sampling date / time	19-Aug-2024 10:43	19-Aug-2024 10:54	19-Aug-2024 14:19	19-Aug-2024 14:28	----
						TY2409199-001	TY2409199-002	TY2409199-003	TY2409199-004	--------
						Result	Result	Result	Result	----
Dissolved Metals										
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	----
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.050	<0.050	<0.050	<0.050	----
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		2.05	2.17	0.302	2.20	----
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00106	0.00150	0.00034	0.00084	----
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		0.000070	<0.000050	0.000094	<0.000050	----
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		7.98	6.74	5.31	9.71	----
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		6.02	8.09	1.83	13.8	----
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.158	0.111	0.0300	0.306	----
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		2.30	3.30	<0.50	0.63	----
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	----
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	----
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	----
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		<0.00010	<0.00010	0.00010	<0.00010	----
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	----
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		0.00047	<0.00010	<0.00010	0.00066	----
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.000226	0.00160	0.000119	0.000024	----
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00050	<0.00050	0.00102	<0.00050	----
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.0027	0.0026	0.0027	0.0083	----
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		<0.00030	<0.00030	<0.00030	0.00044	----
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	Laboratory	Laboratory	Laboratory	----
Dissolved metals filtration location	----	EP421/TY	-	-		Field	Field	Field	Field	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2409199**	Page	: 1 of 20
Client	: **Greenstone Gold Mines Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 8000 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 21-Aug-2024 09:15
PO	: 5500000948	Issue Date	: 04-Sep-2024 17:47
C-O-C number	: ----		
Sampler	: JC/WM		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 4		
No. of samples analysed	: 4		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- Matrix Spike outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Matrix Spike (MS) Recoveries								
Total Metals	TY2409199-001	MWS-14-02 BR	Titanium, total	7440-32-6	E420	137 % MES	70.0-130%	Recovery greater than upper data quality objective

Result Qualifiers

Qualifier	*Description*
MES	*Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).*

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] G6-BR-14	E298	19-Aug-2024	23-Aug-2024	28 days	4 days	✓	26-Aug-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] G6-OB-14	E298	19-Aug-2024	23-Aug-2024	28 days	4 days	✓	26-Aug-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-02 BR	E298	19-Aug-2024	23-Aug-2024	28 days	4 days	✓	26-Aug-2024	28 days	7 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-02 OB	E298	19-Aug-2024	23-Aug-2024	28 days	4 days	✓	26-Aug-2024	28 days	7 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] G6-BR-14	E235.Cl-L	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] G6-OB-14	E235.Cl-L	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MWS-14-02 BR	E235.Cl-L	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] MWS-14-02 OB	E235.Cl-L	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] G6-BR-14	E235.F	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] G6-OB-14	E235.F	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] MWS-14-02 BR	E235.F	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] MWS-14-02 OB	E235.F	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] G6-BR-14	E235.NO3	19-Aug-2024	22-Aug-2024	7 days	3 days	✓	22-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] G6-OB-14	E235.NO3	19-Aug-2024	22-Aug-2024	7 days	3 days	✓	22-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MWS-14-02 BR	E235.NO3	19-Aug-2024	22-Aug-2024	7 days	3 days	✓	22-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] MWS-14-02 OB	E235.NO3	19-Aug-2024	22-Aug-2024	7 days	3 days	✓	22-Aug-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] G6-BR-14	E235.NO2	19-Aug-2024	22-Aug-2024	7 days	3 days	✓	22-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] G6-OB-14	E235.NO2	19-Aug-2024	22-Aug-2024	7 days	3 days	✓	22-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MWS-14-02 BR	E235.NO2	19-Aug-2024	22-Aug-2024	7 days	3 days	✓	22-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] MWS-14-02 OB	E235.NO2	19-Aug-2024	22-Aug-2024	7 days	3 days	✓	22-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] G6-BR-14	E235.SO4	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] G6-OB-14	E235.SO4	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MWS-14-02 BR	E235.SO4	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] MWS-14-02 OB	E235.SO4	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] G6-BR-14	E318	19-Aug-2024	26-Aug-2024	28 days	7 days	✓	27-Aug-2024	28 days	8 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] G6-OB-14	E318	19-Aug-2024	26-Aug-2024	28 days	7 days	✓	27-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-02 BR	E318	19-Aug-2024	26-Aug-2024	28 days	7 days	✓	27-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-02 OB	E318	19-Aug-2024	26-Aug-2024	28 days	7 days	✓	27-Aug-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] G6-BR-14	E372-S	19-Aug-2024	03-Sep-2024	3 days	15 days	× EHT	04-Sep-2024	3 days	16 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] G6-OB-14	E372-S	19-Aug-2024	03-Sep-2024	3 days	15 days	× EHT	04-Sep-2024	3 days	16 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-02 BR	E372-S	19-Aug-2024	03-Sep-2024	3 days	15 days	× EHT	04-Sep-2024	3 days	16 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] MWS-14-02 OB	E372-S	19-Aug-2024	03-Sep-2024	3 days	15 days	× EHT	04-Sep-2024	3 days	16 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) G6-BR-14	E339	19-Aug-2024	28-Aug-2024	14 days	9 days	✓	28-Aug-2024	14 days	9 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) G6-OB-14	E339	19-Aug-2024	28-Aug-2024	14 days	9 days	✓	28-Aug-2024	14 days	9 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MWS-14-02 BR	E339	19-Aug-2024	28-Aug-2024	14 days	9 days	✓	28-Aug-2024	14 days	9 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MWS-14-02 OB	E339	19-Aug-2024	28-Aug-2024	14 days	9 days	✓	28-Aug-2024	14 days	9 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) G6-BR-14	E333	19-Aug-2024	28-Aug-2024	14 days	9 days	✓	28-Aug-2024	14 days	9 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) G6-OB-14	E333	19-Aug-2024	28-Aug-2024	14 days	9 days	✓	28-Aug-2024	14 days	9 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MWS-14-02 BR	E333	19-Aug-2024	28-Aug-2024	14 days	9 days	✓	28-Aug-2024	14 days	9 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) MWS-14-02 OB	E333	19-Aug-2024	28-Aug-2024	14 days	9 days	✓	28-Aug-2024	14 days	9 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) G6-BR-14	E509	19-Aug-2024	28-Aug-2024	28 days	9 days	✓	29-Aug-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) G6-OB-14	E509	19-Aug-2024	28-Aug-2024	28 days	9 days	✓	29-Aug-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) MWS-14-02 BR	E509	19-Aug-2024	28-Aug-2024	28 days	9 days	✓	29-Aug-2024	28 days	10 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
MWS-14-02 OB	E509	19-Aug-2024	28-Aug-2024	28 days	9 days	✓	29-Aug-2024	28 days	10 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
G6-BR-14	E421	19-Aug-2024	23-Aug-2024	180 days	4 days	✓	23-Aug-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
G6-OB-14	E421	19-Aug-2024	23-Aug-2024	180 days	4 days	✓	23-Aug-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MWS-14-02 BR	E421	19-Aug-2024	23-Aug-2024	180 days	4 days	✓	23-Aug-2024	180 days	4 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
MWS-14-02 OB	E421	19-Aug-2024	23-Aug-2024	180 days	4 days	✓	23-Aug-2024	180 days	4 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
G6-BR-14	EF001	19-Aug-2024	----	----	----		22-Aug-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
G6-OB-14	EF001	19-Aug-2024	----	----	----		22-Aug-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MWS-14-02 BR	EF001	19-Aug-2024	----	----	----		22-Aug-2024	----	3 days	
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
MWS-14-02 OB	EF001	19-Aug-2024	----	----	----		22-Aug-2024	----	3 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Acidity by Titration										
HDPE [ON MECP] G6-BR-14	E283	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	24-Aug-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] G6-OB-14	E283	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	24-Aug-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MWS-14-02 BR	E283	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	24-Aug-2024	14 days	5 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] MWS-14-02 OB	E283	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	24-Aug-2024	14 days	5 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] G6-BR-14	E290	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	22-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] G6-OB-14	E290	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	22-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MWS-14-02 BR	E290	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	22-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] MWS-14-02 OB	E290	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	22-Aug-2024	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] G6-BR-14	E100	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Conductivity in Water										
HDPE [ON MECP] G6-OB-14	E100	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MWS-14-02 BR	E100	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] MWS-14-02 OB	E100	19-Aug-2024	22-Aug-2024	28 days	3 days	✓	22-Aug-2024	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] G6-BR-14	E108	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	22-Aug-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] G6-OB-14	E108	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	22-Aug-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MWS-14-02 BR	E108	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	22-Aug-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP] MWS-14-02 OB	E108	19-Aug-2024	22-Aug-2024	14 days	3 days	✓	22-Aug-2024	14 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] G6-BR-14	E162	19-Aug-2024	----	----	----		22-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] G6-OB-14	E162	19-Aug-2024	----	----	----		22-Aug-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MWS-14-02 BR	E162	19-Aug-2024	----	----	----		22-Aug-2024	7 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] MWS-14-02 OB	E162	19-Aug-2024	----	----	----		22-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] G6-BR-14	E160	19-Aug-2024	----	----	----		22-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] G6-OB-14	E160	19-Aug-2024	----	----	----		22-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MWS-14-02 BR	E160	19-Aug-2024	----	----	----		22-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] MWS-14-02 OB	E160	19-Aug-2024	----	----	----		22-Aug-2024	7 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] G6-BR-14	E121	19-Aug-2024	----	----	----		22-Aug-2024	48 hrs	70 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] G6-OB-14	E121	19-Aug-2024	----	----	----		22-Aug-2024	48 hrs	70 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] MWS-14-02 BR	E121	19-Aug-2024	----	----	----		22-Aug-2024	48 hrs	73 hrs	× EHTL

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP]										
MWS-14-02 OB	E121	19-Aug-2024	----	----	----		22-Aug-2024	48 hrs	73 hrs	× EHTL
Total Metals : Total Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
G6-OB-14	E508	19-Aug-2024	27-Aug-2024	0 hrs	189 hrs	× UCP	28-Aug-2024	0 hrs	212 hrs	× UCP
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP]										
G6-BR-14	E508	19-Aug-2024	28-Aug-2024	28 days	9 days	✓	28-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP]										
MWS-14-02 BR	E508	19-Aug-2024	28-Aug-2024	28 days	9 days	✓	28-Aug-2024	28 days	9 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP]										
MWS-14-02 OB	E508	19-Aug-2024	28-Aug-2024	28 days	9 days	✓	28-Aug-2024	28 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
G6-BR-14	E420	19-Aug-2024	22-Aug-2024	180 days	3 days	✓	23-Aug-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
G6-OB-14	E420	19-Aug-2024	22-Aug-2024	180 days	3 days	✓	23-Aug-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
MWS-14-02 BR	E420	19-Aug-2024	22-Aug-2024	180 days	3 days	✓	23-Aug-2024	180 days	4 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
MWS-14-02 OB	E420	19-Aug-2024	22-Aug-2024	180 days	3 days	✓	23-Aug-2024	180 days	4 days	✓

Legend & Qualifier Definitions

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

UCP: Unsuitable Container and/or Preservative used (invalidates standard hold time). Maximum hold time of zero applied. Test results may be biased low / unreliable, and may not meet regulatory requirements.

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1610375	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1610378	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1612293	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1610385	1	4	25.0	5.0	✓
Conductivity in Water	E100	1610377	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1618207	1	18	5.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1610926	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1610382	1	13	7.6	5.0	✓
Free Cyanide	E339	1618308	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1610380	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1610379	1	17	5.8	5.0	✓
pH by Meter	E108	1610376	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1610383	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1609749	1	11	9.0	5.0	✓
Total Cyanide	E333	1618309	1	19	5.2	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1612291	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1617914	2	39	5.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1609862	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1631261	1	12	8.3	5.0	✓
TSS by Gravimetry	E160	1609751	1	11	9.0	5.0	✓
Turbidity by Nephelometry	E121	1610278	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1610375	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1610378	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1612293	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1610385	1	4	25.0	5.0	✓
Conductivity in Water	E100	1610377	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1618207	1	18	5.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1610926	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1610382	1	13	7.6	5.0	✓
Free Cyanide	E339	1618308	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1610380	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1610379	1	17	5.8	5.0	✓
pH by Meter	E108	1610376	1	18	5.5	5.0	✓
Sulfate in Water by IC	E235.SO4	1610383	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1609749	1	11	9.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Cyanide	E333	1618309	1	19	5.2	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1612291	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1617914	2	39	5.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1609862	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1631261	1	12	8.3	5.0	✓
TSS by Gravimetry	E160	1609751	1	11	9.0	5.0	✓
Turbidity by Nephelometry	E121	1610278	1	13	7.6	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1610375	1	19	5.2	5.0	✓
Alkalinity Species by Titration	E290	1610378	1	14	7.1	5.0	✓
Ammonia by Fluorescence	E298	1612293	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1610385	1	4	25.0	5.0	✓
Conductivity in Water	E100	1610377	1	14	7.1	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1618207	1	18	5.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1610926	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1610382	1	13	7.6	5.0	✓
Free Cyanide	E339	1618308	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1610380	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1610379	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1610383	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1609749	1	11	9.0	5.0	✓
Total Cyanide	E333	1618309	1	19	5.2	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1612291	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1617914	2	39	5.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1609862	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1631261	1	12	8.3	5.0	✓
TSS by Gravimetry	E160	1609751	1	11	9.0	5.0	✓
Turbidity by Nephelometry	E121	1610278	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1612293	1	19	5.2	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1610385	1	4	25.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1618207	1	18	5.5	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1610926	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1610382	1	13	7.6	5.0	✓
Free Cyanide	E339	1618308	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1610380	1	17	5.8	5.0	✓
Nitrite in Water by IC	E235.NO2	1610379	1	17	5.8	5.0	✓
Sulfate in Water by IC	E235.SO4	1610383	1	16	6.2	5.0	✓
Total Cyanide	E333	1618309	1	19	5.2	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1612291	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1617914	2	39	5.1	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1609862	1	6	16.6	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1631261	1	12	8.3	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

COURTESY FREIGHT 800.267.0598
5542382370

Chain of Custody (COC) / Analytical Request Form

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Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here
(lab use only)

COC Number: 14 -

Page ____ of ____

Report To		Report Format / Distribution	Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format: ☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report ☐ Yes ☑ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11 Geraldton, ON P0T 1M0	☑ Criteria on Report - provide details below if box checked Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
Phone:	807-853-1816	Email 1 environmental@ggmines.com, laura.vares@ggmines.com	E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
		Email 2 see comments	Specify Date Required for E2,E or P:

Invoice To		Invoice Distribution	
	Same as Report To ☐ Yes ☑ No	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
	Copy of Invoice with Report ☐ Yes ☑ No		
Company:	Greenstone Mine	Email 1 or Fax ap@ggmines.com	
Contact:	Accounts Payable	Email 2 laura.vares@ggmines.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): TY2409199 **ALS Contact:** Christine Paradis **Sampler:** JC/WM

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox)	Chloride, fluoride, nitrate, nitrite, TKN, low level	Sulphate, cyanide (total/free), ammonia (total/f	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	MWS-14-02 BR	19-Aug-24	10:43	Water	x	x	x	x	x							7.28	9.80	6
	MWS-14-02 OB	19-Aug-24	10:54	Water	x	x	x	x	x							7.30	8.40	6
	G6-OB-14	19-Aug-24	14:19	Water	x	x	x	x	x							7.99	14.20	6
	G6-BR-14	19-Aug-24	14:28	Water	x	x	x	x	x							7.42	7.70	6

Environmental Division
Thunder Bay
Work Order Reference
TY2409199

Telephone : +1 807 623 6463

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com
Are samples for human drinking water use? ☐ Yes ☑ No	Please include PWQO criteria on the report.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations Yes	☐ No ☐
Ice packs Yes	☑ No ☐	Custody seal intact Yes	☐ No ☐
Cooling Initiated	☐		

INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C	
	6.5		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Jason Chapais	20-Aug-24	11:00					21 AUG 24	0915

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-02288 V09 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Intake and Login Verification Form

SAMPLE INTAKE			
Priority/Emergency Service Requested		YES	NO
Time Sensitive Hold Time		YES	NO
Client:	Greenstone		
SAMPLE RECEIPT INFORMATION			
Mode of Delivery:	Courier		Drop Off
Courier	Courtesy		
Waybill Number	554236237O		
Temperature	15-C	Cooler Count	1
Cooling Method	None	Ice	Ice Packs
SAMPLE MATRIX/BOTTLE INFORMATION			
Matrix:	Water	Soil / Air / Biota / Other	
DW Schedule 24 Bottles Correct?		~~Yes~~	~~No~~
DW Metals pH Check <2		~~Yes~~	~~No~~
Regulation Circled, Works # present		~~Yes~~	~~No Reject?~~
# of Bottles: 5	Sample Count	4	
Green/white	4R		
Purple/white	4x2 INTS		
Warm red/white	4 tot mt, 4 diss met		
Yellow/black			
Light blue/white			
Orange/black			
Others (detail)	4x cyanide		
Comments on Samples and Bottles:	N/A		
Samples Requiring Preservation or Filtering:	N/A		
Layout Staff Initials	Am		
Date and Time of Layout	21 Aug 24	1600	

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	NO
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client / Work Contact / Quote		
RECEIPT DETAIL		
Project / PO / Site/LSD		
Overall Description Entered	Yes	NA
Received date/time as per COC		
Recipients match CoC or Sample Remarks	Yes	No
Billing Instruction added to remarks	Yes	NA
Sample Remarks/Specification Doc checked		
Submission Issues communicated	Yes	NA
Sample Info communicated via Remarks	Yes	NA
VERIFICATION CHECKLIST		
Plannned Event Submission	Yes	No
Sample Name entered as per CoC		
Sampling Date and time entered as per CoC		
Containers selected in layout order		
Sales items entered from QUOTE ONLY (and/or verified as correct)		
Field Data/EC298A removed if not on COC	Yes	NA
Bottle Allocation Verified		
Guideline added or auto-allocated		
Due dates updated		
VALIDATION		
Validation errors resolved?	Yes	No
Internal Sublet CoC created	Yes	NA
Login Comments: Pour off Hg-T, Hg-D		
Login Staff Initials:	APS	

Chain of Custody (COC) / Analytical Request Form

COURTESY FREIGHT 1-800-267-0595

5542382370

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Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 14 -

Page ____ of ____

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format: ☐ PDF ☐ EXCEL ☑ EDD (DIGITAL)		R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report ☐ Yes ☑ No		P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11 Geraldton, ON P0T 1M0	☑ Criteria on Report - provide details below if box checked Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX		E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
Phone:	807-853-1816	Email 1	environmental@ggmines.com, laura.vares@ggmines.com	E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
		Email 2	see comments	Specify Date Required for E2,E or P:

Invoice To	Same as Report To ☐ Yes ☑ No	Invoice Distribution	
	Copy of Invoice with Report ☐ Yes ☑ No	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Company:	Greenstone Mine	Email 1 or Fax	ap@ggmines.com
Contact:	Accounts Payable	Email 2	laura.vares@ggmines.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): TY2409199 **ALS Contact:** Christine Paradis **Sampler:** JC/WM

Analysis Request — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox)	Chloride, fluoride, nitrate, nitrite, TKN, low level	Sulphate, cyanide (total/free), ammonia (total/u	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	MWS-14-02 BR	19-Aug-24	10:43	Water	x	x	x	x	x							7.28	9.80	6
	MWS-14-02 OB	19-Aug-24	10:54	Water	x	x	x	x	x							7.30	8.40	6
	G6-OB-14	19-Aug-24	14:19	Water	x	x	x	x	x							7.99	14.20	6
	G6-BR-14	19-Aug-24	14:28	Water	x	x	x	x	x							7.42	7.70	6

Environmental Division
Thunder Bay
Work Order Reference
TY2409199

Telephone : +1 807 623 6463

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com
Are samples for human drinking water use? ☐ Yes ☑ No	Please include PWQO criteria on the report.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No ☐
Ice packs	Yes ☑	No ☐	Custody seal intact	Yes ☐ No ☐
Cooling Initiated	☐			

INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C	
	5.5		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Jason Chapais	20-Aug-24	11:00					21 AUG 24	0915

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0326E v09 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Intake and Login Verification Form

SAMPLE INTAKE					
Priority/Emergency Service Requested			YES	NO	
Time Sensitive Hold Time			YES	NO	
Client:	Greenstone				
SAMPLE RECEIPT INFORMATION					
Mode of Delivery:	Courier		Drop Off		
Courier	Courtesy				
Waybill Number	552360237				
Temperature	15-C		Cooler Count	1	
Cooling Method	None	Ice	Ice Packs		
SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	Water	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?				~~Yes~~	~~No~~
DW Metals pH Check <2				~~Yes~~	~~No~~
Regulation Circled, Works # present			~~Yes~~	~~No - Reject?~~	
# of Bottles:	5	Sample Count	4		
Green/white	4R				
Purple/white	4x2 nuts				
Warm red/white	4 tot mt; 4 diss met				
Yellow/black					
Light blue/white					
Orange/black					
Others (detail)	4x cyanide				
Comments on Samples and Bottles:	N/A				
Samples Requiring Preservation or Filtering:	N/A				
Layout Staff Initials Date and Time of Layout	AM 21 Aug 24	1600			

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	NO
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client / Work Contact / Quote		
RECEIPT DETAIL		
Project / PO / Site/LSD		
Overall Description Entered	Yes	NA
Received date/time as per COC		
Recipients match CoC or Sample Remarks	Yes	No
Billing Instruction added to remarks	Yes	NA
Sample Remarks/Specification Doc checked		
Submission Issues communicated	Yes	NA
Sample Info communicated via Remarks	Yes	NA
VERIFICATION CHECKLIST		
Plannned Event Submission	Yes	No
Sample Name entered as per CoC		
Sampling Date and time entered as per CoC		
Containers selected in layout order		
Sales items entered from QUOTE ONLY (and/or verified as correct)		
Field Data/EC298A removed if not on COC	Yes	NA
Bottle Allocation Verified		
Guideline added or auto-allocated		
Due dates updated		
VALIDATION		
~~Validation errors resolved?~~	~~Yes~~	~~No~~
Internal Sublet CoC created	Yes	NA
Login Comments: Pour off Hg-T, Hg-D		
Login Staff Initials:	APS	

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **TY2409344**	Page	: 1 of 6
Client	: **Greenstone Gold Mines Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 7921 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 23-Aug-2024 09:22
PO	: 5500000948	Date Analysis Commenced	: 23-Aug-2024
C-O-C number	: ----	Issue Date	: 09-Sep-2024 09:58
Sampler	: ----		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Daron Mooney	Laboratory Assistant	Administration, Thunder Bay, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Rhiannon Scheffee	Project Manager	Metals, Thunder Bay, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Metals, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
TMV	*Turbidity exceeded upper limit of the nephelometric method. Minimum value reported.*

Analytical Results

Sub-Matrix: **Groundwater** (Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID: DP-C	----	----	----	----
					Client sampling date / time: 21-Aug-2024 11:57	----	----	----	----
					TY2409344-001	--------	--------	--------	--------
					Result	----	----	----	----
Field Tests									
pH, field	----	EF001/TY	0.10	pH units	7.44	----	----	----	----
Temperature, field	----	EF001/TY	0.10	°C	19.7	----	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L	4.8	----	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L	288	----	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L	<2.0	----	----	----	----
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L	288	----	----	----	----
Conductivity	----	E100/TY	1.0	µS/cm	436	----	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L	851	----	----	----	----
pH	----	E108/TY	0.10	pH units	7.90	----	----	----	----
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L	326	----	----	----	----
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L	68100	----	----	----	----
Turbidity	----	E121/TY	0.10	NTU	>4000 TMV	----	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L	1.22	----	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L	0.0129	----	----	----	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L	1.23	----	----	----	----
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L	0.044	----	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L	3.29	----	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L	<0.020	----	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L	<0.010	----	----	----	----
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L	0.271	----	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L	2.98	----	----	----	----
Cyanides									
Cyanide, free	----	E339/WT	0.0020	mg/L	<0.0020	----	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L	<0.0020	----	----	----	----
Total Metals									
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L	360	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	DP-C	----	----	----	----
					Client sampling date / time	21-Aug-2024 11:57	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2409344-001	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		0.00414	----	----	----	----
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.103	----	----	----	----
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		4.03	----	----	----	----
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		0.0130	----	----	----	----
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		0.00288	----	----	----	----
Boron, total	7440-42-8	E420/TY	0.010	mg/L		0.521	----	----	----	----
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		0.00463	----	----	----	----
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		7510	----	----	----	----
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.0313	----	----	----	----
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		1.03	----	----	----	----
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.239	----	----	----	----
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		0.603	----	----	----	----
Iron, total	7439-89-6	E420/TY	0.010	mg/L		582	----	----	----	----
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.227	----	----	----	----
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		0.514	----	----	----	----
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		1920	----	----	----	----
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		16.7	----	----	----	----
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		0.0000098	----	----	----	----
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.00746	----	----	----	----
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.603	----	----	----	----
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		24.6	----	----	----	----
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		74.7	----	----	----	----
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.466	----	----	----	----
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		0.00232	----	----	----	----
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		622	----	----	----	----
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		0.00186	----	----	----	----
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		45.0	----	----	----	----
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		5.15	----	----	----	----
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		14.8	----	----	----	----
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00400 DLM	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	DP-C	----	----	----	----
					Client sampling date / time	21-Aug-2024 11:57	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2409344-001	--------	--------	--------	--------
						Result	----	----	----	----
Total Metals										
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		0.00476	----	----	----	----
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		0.188	----	----	----	----
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		0.00980	----	----	----	----
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		28.2	----	----	----	----
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		<0.00200 DLM	----	----	----	----
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.0390	----	----	----	----
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.940	----	----	----	----
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		8.82	----	----	----	----
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.105	----	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		2.71	----	----	----	----
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		<0.00100	----	----	----	----
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.00213	----	----	----	----
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.595	----	----	----	----
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000200	----	----	----	----
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000500	----	----	----	----
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		<0.100	----	----	----	----
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		0.0000928	----	----	----	----
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		241	----	----	----	----
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		0.000302	----	----	----	----
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		0.0137	----	----	----	----
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.00341	----	----	----	----
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		0.0108	----	----	----	----
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		8.33	----	----	----	----
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		0.00510	----	----	----	----
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		<0.0100	----	----	----	----
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		60.5	----	----	----	----
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		0.365	----	----	----	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	----	----	----	----
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		<0.000500	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	DP-C	----	----	----	----
					Client sampling date / time	21-Aug-2024 11:57	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2409344-001	--------	--------	--------	--------
						Result	----	----	----	----
Dissolved Metals										
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		0.00843	----	----	----	----
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		0.523	----	----	----	----
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		4.36	----	----	----	----
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00771	----	----	----	----
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		<0.000500	----	----	----	----
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		10.0	----	----	----	----
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000100	----	----	----	----
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		5.48	----	----	----	----
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.278	----	----	----	----
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		<5.00	----	----	----	----
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00200	----	----	----	----
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		<0.000100	----	----	----	----
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		0.00202	----	----	----	----
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		<0.00100	----	----	----	----
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		0.123	----	----	----	----
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		<0.00100	----	----	----	----
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.000913	----	----	----	----
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		0.00893	----	----	----	----
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.499	----	----	----	----
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		<0.00300	----	----	----	----
Dissolved mercury filtration location	----	EP509/WT	-	-		Laboratory	----	----	----	----
Dissolved metals filtration location	----	EP421/TY	-	-		Field	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2409344**	Page	: 1 of 11
Client	: **Greenstone Gold Mines Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 7921 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 23-Aug-2024 09:22
PO	: 5500000948	Issue Date	: 09-Sep-2024 09:58
C-O-C number	: ----		
Sampler	: ----		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP] DP-C	E298	21-Aug-2024	24-Aug-2024	28 days	3 days	✓	26-Aug-2024	28 days	5 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP] DP-C	E235.Cl-L	21-Aug-2024	24-Aug-2024	28 days	3 days	✓	24-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP] DP-C	E235.F	21-Aug-2024	24-Aug-2024	28 days	3 days	✓	24-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP] DP-C	E235.NO3	21-Aug-2024	24-Aug-2024	7 days	3 days	✓	24-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP] DP-C	E235.NO2	21-Aug-2024	24-Aug-2024	7 days	3 days	✓	24-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP] DP-C	E235.SO4	21-Aug-2024	24-Aug-2024	28 days	3 days	✓	24-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP] DP-C	E318	21-Aug-2024	26-Aug-2024	28 days	5 days	✓	27-Aug-2024	28 days	6 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP] DP-C	E372-S	21-Aug-2024	05-Sep-2024	3 days	15 days	× EHT	06-Sep-2024	3 days	16 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) DP-C	E339	21-Aug-2024	29-Aug-2024	14 days	8 days	✓	29-Aug-2024	14 days	8 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide) DP-C	E333	21-Aug-2024	29-Aug-2024	14 days	8 days	✓	29-Aug-2024	14 days	8 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid) DP-C	E509	21-Aug-2024	03-Sep-2024	28 days	13 days	✓	04-Sep-2024	28 days	14 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid) DP-C	E421	21-Aug-2024	28-Aug-2024	180 days	7 days	✓	28-Aug-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid) DP-C	EF001	21-Aug-2024	----	----	----		26-Aug-2024	----	5 days	
Physical Tests : Acidity by Titration										
HDPE [ON MECP] DP-C	E283	21-Aug-2024	23-Aug-2024	14 days	2 days	✓	24-Aug-2024	14 days	3 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] DP-C	E290	21-Aug-2024	24-Aug-2024	14 days	3 days	✓	26-Aug-2024	14 days	5 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP] DP-C	E100	21-Aug-2024	24-Aug-2024	28 days	3 days	✓	26-Aug-2024	28 days	5 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : pH by Meter										
HDPE [ON MECP] DP-C	E108	21-Aug-2024	24-Aug-2024	14 days	3 days	✓	26-Aug-2024	14 days	5 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP] DP-C	E162	21-Aug-2024	----	----	----		24-Aug-2024	7 days	3 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP] DP-C	E160	21-Aug-2024	----	----	----		24-Aug-2024	7 days	3 days	✓
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP] DP-C	E121	21-Aug-2024	----	----	----		24-Aug-2024	48 hrs	76 hrs	× EHTL
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP] DP-C	E508	21-Aug-2024	05-Sep-2024	28 days	15 days	✓	05-Sep-2024	28 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) DP-C	E420	21-Aug-2024	27-Aug-2024	180 days	6 days	✓	28-Aug-2024	180 days	7 days	✓

Legend & Qualifier Definitions

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1613453	1	14	7.1	5.0	✓
Alkalinity Species by Titration	E290	1614415	1	13	7.6	5.0	✓
Ammonia by Fluorescence	E298	1614472	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1614422	1	10	10.0	5.0	✓
Conductivity in Water	E100	1614414	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1629596	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1620757	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1614417	1	3	33.3	5.0	✓
Free Cyanide	E339	1620658	1	10	10.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1614418	1	3	33.3	5.0	✓
Nitrite in Water by IC	E235.NO2	1614419	1	3	33.3	5.0	✓
pH by Meter	E108	1614413	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1614421	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1614176	1	12	8.3	5.0	✓
Total Cyanide	E333	1620657	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1614473	1	16	6.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1631999	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1617931	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1635427	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1618773	1	8	12.5	5.0	✓
Turbidity by Nephelometry	E121	1614884	1	5	20.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1613453	1	14	7.1	5.0	✓
Alkalinity Species by Titration	E290	1614415	1	13	7.6	5.0	✓
Ammonia by Fluorescence	E298	1614472	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1614422	1	10	10.0	5.0	✓
Conductivity in Water	E100	1614414	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1629596	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1620757	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1614417	1	3	33.3	5.0	✓
Free Cyanide	E339	1620658	1	10	10.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1614418	1	3	33.3	5.0	✓
Nitrite in Water by IC	E235.NO2	1614419	1	3	33.3	5.0	✓
pH by Meter	E108	1614413	1	13	7.6	5.0	✓
Sulfate in Water by IC	E235.SO4	1614421	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1614176	1	12	8.3	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Total Cyanide	E333	1620657	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1614473	1	16	6.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1631999	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1617931	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1635427	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1618773	1	8	12.5	5.0	✓
Turbidity by Nephelometry	E121	1614884	1	5	20.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1613453	1	14	7.1	5.0	✓
Alkalinity Species by Titration	E290	1614415	1	13	7.6	5.0	✓
Ammonia by Fluorescence	E298	1614472	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1614422	1	10	10.0	5.0	✓
Conductivity in Water	E100	1614414	1	13	7.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1629596	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1620757	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1614417	1	3	33.3	5.0	✓
Free Cyanide	E339	1620658	1	10	10.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1614418	1	3	33.3	5.0	✓
Nitrite in Water by IC	E235.NO2	1614419	1	3	33.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1614421	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1614176	1	12	8.3	5.0	✓
Total Cyanide	E333	1620657	1	20	5.0	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1614473	1	16	6.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1631999	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1617931	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1635427	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1618773	1	8	12.5	5.0	✓
Turbidity by Nephelometry	E121	1614884	1	5	20.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1614472	1	20	5.0	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1614422	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1629596	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1620757	1	20	5.0	5.0	✓
Fluoride in Water by IC	E235.F	1614417	1	3	33.3	5.0	✓
Free Cyanide	E339	1620658	1	10	10.0	5.0	✓
Nitrate in Water by IC	E235.NO3	1614418	1	3	33.3	5.0	✓
Nitrite in Water by IC	E235.NO2	1614419	1	3	33.3	5.0	✓
Sulfate in Water by IC	E235.SO4	1614421	1	16	6.2	5.0	✓
Total Cyanide	E333	1620657	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Matrix Spikes (MS) - Continued							
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1614473	1	16	6.2	5.0	✓
Total Mercury in Water by CVAAS	E508	1631999	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1617931	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1635427	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Telephone : +1 807 629 6463

COC Number: 14 -

Page of

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format:	☐ PDF ☐ EXCEL ☑ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report	☐ Yes ☑ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11 Geraldton, ON P0T 1M0	☑ Criteria on Report - provide details below if box checked		E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
		Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	807-853-1816	Email 1	environmental@ggmines.com, laura.vares@ggmines.com	Specify Date Required for E2,E or P:
		Email 2	see comments	

Invoice To	Same as Report To ☐ Yes ☑ No	Invoice Distribution		Analysis Request
	Copy of Invoice with Report ☐ Yes ☑ No	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
Company:	Greenstone Mine	Email 1 or Fax	ap@ggmines.com	
Contact:	Accounts Payable	Email 2	laura.vares@ggmines.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): TY2409344 **ALS Contact:** Christine Paradis **Sampler:** JC/SP

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox)	Chloride, fluoride, nitrate, nitrite, TKN, low level	Sulphate, cyanide (total/free), ammonia (total/u	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	DP-C	21-Aug-24	11:57	Water	x	x	x	x	x							7.44	19.70	6

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com
Are samples for human drinking water use? ☐ Yes ☑ No	Please include PWQO criteria on the report.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐		SIF Observations	Yes ☐	No ☐	
Ice packs	Yes ☑	No ☐	Custody seal intact	Yes ☐	No ☐	
Cooling Initiated	☐					

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
9.9	8.5	10.2			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Sophia Park-Jean	22-Aug-24	10:00				MM	8/23/24	9:29

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

ALS-FM-CT2250-V09 Effective 04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

(3) Gardewine SS14063613

Intake and Login Verification Form

SAMPLE INTAKE		
Priority/Emergency Service Requested	YES	(NO)
Time Sensitive Hold Time	YES	(NO)
Client:	GGM	

SAMPLE RECEIPT INFORMATION			
Mode of Delivery:	(Courier)		Drop Off
Courier	Gardewine		
Waybill Number	SS1466 3613		
~~Temperature~~	9.9 8.5 10.2		~~Cooler Count~~ 3
~~Cooling Method~~	None	Ice	(Ice Packs)

SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	(Water)	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?				~~Yes~~	~~No~~
DW Metals pH Check <2				~~Yes~~	~~No~~
Regulation Circled, Works # present			Yes	~~No - Reject?~~	
# of Bottles: 5	Sample Count			1	
Green/white	1WQ				
Purple/white	2nuts				
Warm red/white	1Tnet 1Dnet				
Yellow/black					
Light blue/white					
Orange/black					
Others (detail)	ICN				

Comments on Samples and Bottles: —

Samples Requiring Preservation or ~~Filtering~~:

Layout Staff Initials Date and Time of Layout	MM 8/23/24 1002

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	(NO)
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client ✓	Work Contact ✓	Quote ✓

RECEIPT DETAIL		
Project ✓	PO ✓	Site/LSD ✓
Overall Description Entered	Yes	(NA)
Received date/time as per COC	✓	
~~Recipients match CoC or Sample Remarks~~	(Yes)	No
Billing Instruction added to remarks	(Yes)	NA
Sample Remarks/Specification Doc checked	NA	
Submission Issues communicated	(Yes)	~~NA~~ AC
Sample Info communicated via Remarks	Yes	(NA)

VERIFICATION CHECKLIST		
Plannned Event Submission	(Yes)	No
Sample Name entered as per CoC	✓	
Sampling Date and time entered as per CoC	✓	
Containers selected in layout order	✓	
Sales items entered from QUOTE ONLY (and/or verified as correct)	✓	
Field Data/EC298A removed if not on COC	Yes	(NA)
Bottle Allocation Verified	✓	
Guideline added or auto-allocated	✓	
Due dates updated	✓	

VALIDATION		
Validation errors resolved?	(Yes)	No
Internal Sublet CoC created	(Yes)	NA

Login Comments: Pooling NJ for DISS & TOT METALS

Login Staff Initials:	AC

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **TY2409569**	Page	: 1 of 10
Client	: **Greenstone Gold Mines Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 7921 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 29-Aug-2024 09:17
PO	: 5500000948	Date Analysis Commenced	: 29-Aug-2024
C-O-C number	: ----	Issue Date	: 13-Sep-2024 15:50
Sampler	: ----		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Cassandra Grzelewski	Team Leader - Inorganics	Inorganics, Thunder Bay, Ontario
Cassandra Grzelewski	Team Leader - Inorganics	Metals, Thunder Bay, Ontario
Daron Mooney	Laboratory Assistant	Inorganics, Thunder Bay, Ontario
Jeremy Gingras	Supervisor - Semi-Volatile Instrumentation	Organics, Waterloo, Ontario
Julie Ruoho	Teamleader Wet Chem	Inorganics, Thunder Bay, Ontario
Lee McTavish		Inorganics, Winnipeg, Manitoba
Madison Mancusa	Laboratory Analyst	Administration, Thunder Bay, Ontario
Nik Perkio	Senior Analyst	Inorganics, Waterloo, Ontario
Nik Perkio	Senior Analyst	Metals, Waterloo, Ontario
Rhiannon Scheffee	Project Manager	Metals, Thunder Bay, Ontario
Sarah Birch	VOC Section Supervisor	VOC, Waterloo, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Inorganics, Thunder Bay, Ontario
Shannon Veltri	Supervisor - Water Chemistry	Metals, Thunder Bay, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Inorganics, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
-	no units
°C	degrees celsius
µg/L	micrograms per litre
µS/cm	microsiemens per centimetre
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

Qualifier	*Description*
DLM	*Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).*
DTMF	*Dissolved concentration exceeds total for field-filtered metals sample. Metallic contaminants may have been introduced to dissolved sample during field filtration.*
DTSE	*Dissolved Se concentration exceeds total. Positive bias on D-Se suspected due to signal enhancement from volatile selenium species. Contact ALS if an alternative test to address this interference is needed.*

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)				Client sample ID	M1 Drainage	BH14-02A	----	----	----
				Client sampling date / time	27-Aug-2024 14:46	27-Aug-2024 14:09	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	TY2409569-001	TY2409569-002	--------	--------	--------
					Result	Result	----	----	----
Field Tests									
pH, field	----	EF001/TY	0.10	pH units	7.19	7.02	----	----	----
Temperature, field	----	EF001/TY	0.10	°C	13.9	10.2	----	----	----
Physical Tests									
Acidity (as CaCO3)	----	E283/TY	2.0	mg/L	<2.0	2.1	----	----	----
Alkalinity, bicarbonate (as CaCO3)	----	E290/TY	2.0	mg/L	324	379	----	----	----
Alkalinity, carbonate (as CaCO3)	----	E290/TY	2.0	mg/L	<2.0	<2.0	----	----	----
Alkalinity, hydroxide (as CaCO3)	----	E290/TY	2.0	mg/L	<2.0	<2.0	----	----	----
Alkalinity, total (as CaCO3)	----	E290/TY	2.0	mg/L	324	379	----	----	----
Conductivity	----	E100/TY	1.0	µS/cm	574	654	----	----	----
Hardness (as CaCO3), dissolved	----	EC100/TY	0.50	mg/L	330	354	----	----	----
pH	----	E108/TY	0.10	pH units	8.06	7.83	----	----	----
Solids, total dissolved [TDS]	----	E162/TY	10	mg/L	368	380	----	----	----
Solids, total suspended [TSS]	----	E160-L/TY	1.0	mg/L	----	201	----	----	----
Solids, total suspended [TSS]	----	E160/TY	3.0	mg/L	8.5	----	----	----	----
Turbidity	----	E121/TY	0.10	NTU	7.88	136	----	----	----
Anions and Nutrients									
Ammonia, total (as N)	7664-41-7	E298/TY	0.0050	mg/L	0.218	0.100	----	----	----
Ammonia, un-ionized (as N), field	7664-41-7	EC298A/TY	0.0010	mg/L	<0.0010	<0.0010	----	----	----
Chloride	16887-00-6	E235.Cl-L/TY	0.10	mg/L	14.0	2.29	----	----	----
Fluoride	16984-48-8	E235.F/TY	0.020	mg/L	0.031	<0.020	----	----	----
Kjeldahl nitrogen, total [TKN]	----	E318/TY	0.050	mg/L	0.537	0.409	----	----	----
Nitrate (as N)	14797-55-8	E235.NO3/TY	0.020	mg/L	0.024	<0.020	----	----	----
Nitrite (as N)	14797-65-0	E235.NO2/TY	0.010	mg/L	<0.010	<0.010	----	----	----
Phosphorus, total	7723-14-0	E372-S/WP	0.0010	mg/L	0.0150	<0.0050 DLM	----	----	----
Sulfate (as SO4)	14808-79-8	E235.SO4/TY	0.30	mg/L	1.49	13.9	----	----	----
Cyanides									
Cyanide, free	----	E339/WT	0.0020	mg/L	<0.0020	<0.0020	----	----	----
Cyanide, strong acid dissociable (Total)	----	E333/WT	0.0020	mg/L	<0.0020	<0.0020	----	----	----
Organic / Inorganic Carbon									

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	M1 Drainage	BH14-02A	----	----	----
					Client sampling date / time	27-Aug-2024 14:46	27-Aug-2024 14:09	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2409569-001	TY2409569-002	--------	--------	--------
						Result	Result	----	----	----
Organic / Inorganic Carbon										
Carbon, dissolved organic [DOC]	----	E358-L/WT	0.50	mg/L		----	14.9	----	----	----
Total Metals										
Aluminum, total	7429-90-5	E420/TY	0.0030	mg/L		0.0783	2.52	----	----	----
Antimony, total	7440-36-0	E420/TY	0.00010	mg/L		0.00023	0.00026	----	----	----
Arsenic, total	7440-38-2	E420/TY	0.00010	mg/L		0.0136	0.0198	----	----	----
Barium, total	7440-39-3	E420/TY	0.00010	mg/L		0.0261	0.0340	----	----	----
Beryllium, total	7440-41-7	E420/TY	0.000020	mg/L		<0.000020	0.000061	----	----	----
Bismuth, total	7440-69-9	E420/TY	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, total	7440-42-8	E420/TY	0.010	mg/L		0.013	<0.010	----	----	----
Cadmium, total	7440-43-9	E420/TY	0.0000050	mg/L		0.0000099	0.0000080	----	----	----
Calcium, total	7440-70-2	E420/TY	0.050	mg/L		106	109	----	----	----
Cesium, total	7440-46-2	E420/TY	0.000010	mg/L		0.000084	0.000472	----	----	----
Chromium, total	7440-47-3	E420/TY	0.00050	mg/L		0.00055	0.00806	----	----	----
Cobalt, total	7440-48-4	E420/TY	0.00010	mg/L		0.00167	0.00189	----	----	----
Copper, total	7440-50-8	E420/TY	0.00050	mg/L		0.00236	0.00584	----	----	----
Iron, total	7439-89-6	E420/TY	0.010	mg/L		0.997	9.65	----	----	----
Lead, total	7439-92-1	E420/TY	0.000050	mg/L		0.000238	0.00311	----	----	----
Lithium, total	7439-93-2	E420/TY	0.0010	mg/L		<0.0010	0.0068	----	----	----
Magnesium, total	7439-95-4	E420/TY	0.0050	mg/L		15.3	19.5	----	----	----
Manganese, total	7439-96-5	E420/TY	0.00010	mg/L		0.510	1.65	----	----	----
Mercury, total	7439-97-6	E508/WT	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, total	7439-98-7	E420/TY	0.000050	mg/L		0.00254	0.000522	----	----	----
Nickel, total	7440-02-0	E420/TY	0.00050	mg/L		0.00242	0.00599	----	----	----
Phosphorus, total	7723-14-0	E420/TY	0.050	mg/L		<0.050	0.063	----	----	----
Potassium, total	7440-09-7	E420/TY	0.050	mg/L		4.52	1.47	----	----	----
Rubidium, total	7440-17-7	E420/TY	0.00020	mg/L		0.00133	0.00396	----	----	----
Selenium, total	7782-49-2	E420/TY	0.000050	mg/L		0.000070	0.000051	----	----	----
Silicon, total	7440-21-3	E420/TY	0.10	mg/L		5.70	11.7	----	----	----
Silver, total	7440-22-4	E420/TY	0.000010	mg/L		<0.000010	0.000608	----	----	----
Sodium, total	7440-23-5	E420/TY	0.050	mg/L		8.59	20.0	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	M1 Drainage	BH14-02A	----	----	----
					Client sampling date / time	27-Aug-2024 14:46	27-Aug-2024 14:09	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2409569-001	TY2409569-002	--------	--------	--------
						Result	Result	----	----	----
Total Metals										
Strontium, total	7440-24-6	E420/TY	0.00020	mg/L		0.157	0.278	----	----	----
Sulfur, total	7704-34-9	E420/TY	0.50	mg/L		0.63	5.16	----	----	----
Tellurium, total	13494-80-9	E420/TY	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, total	7440-28-0	E420/TY	0.000010	mg/L		0.000018	0.000013	----	----	----
Thorium, total	7440-29-1	E420/TY	0.00010	mg/L		<0.00010	0.00074	----	----	----
Tin, total	7440-31-5	E420/TY	0.00010	mg/L		<0.00010	0.00038	----	----	----
Titanium, total	7440-32-6	E420/TY	0.00030	mg/L		0.00257	0.161	----	----	----
Tungsten, total	7440-33-7	E420/TY	0.00010	mg/L		0.00016	0.00226	----	----	----
Uranium, total	7440-61-1	E420/TY	0.000010	mg/L		0.00118	0.000596	----	----	----
Vanadium, total	7440-62-2	E420/TY	0.00050	mg/L		0.00083	0.00676	----	----	----
Zinc, total	7440-66-6	E420/TY	0.0030	mg/L		0.0069	0.0189	----	----	----
Zirconium, total	7440-67-7	E420/TY	0.00020	mg/L		0.00053	0.00208	----	----	----
Dissolved Metals										
Aluminum, dissolved	7429-90-5	E421/TY	0.0010	mg/L		0.0065	0.0060	----	----	----
Antimony, dissolved	7440-36-0	E421/TY	0.00010	mg/L		0.00012	<0.00010	----	----	----
Arsenic, dissolved	7440-38-2	E421/TY	0.00010	mg/L		0.0124	0.0163	----	----	----
Barium, dissolved	7440-39-3	E421/TY	0.00010	mg/L		0.0250	0.0209	----	----	----
Beryllium, dissolved	7440-41-7	E421/TY	0.000020	mg/L		<0.000020	<0.000020	----	----	----
Bismuth, dissolved	7440-69-9	E421/TY	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Boron, dissolved	7440-42-8	E421/TY	0.010	mg/L		0.012	<0.010	----	----	----
Cadmium, dissolved	7440-43-9	E421/TY	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Calcium, dissolved	7440-70-2	E421/TY	0.050	mg/L		107	110	----	----	----
Cesium, dissolved	7440-46-2	E421/TY	0.000010	mg/L		0.000083	0.000212	----	----	----
Chromium, dissolved	7440-47-3	E421/TY	0.00050	mg/L		<0.00050	0.00614	----	----	----
Cobalt, dissolved	7440-48-4	E421/TY	0.00010	mg/L		0.00166	<0.00010	----	----	----
Copper, dissolved	7440-50-8	E421/TY	0.00020	mg/L		0.00049	0.00080	----	----	----
Iron, dissolved	7439-89-6	E421/TY	0.010	mg/L		0.743	5.94	----	----	----
Lead, dissolved	7439-92-1	E421/TY	0.000050	mg/L		<0.000050	<0.000050	----	----	----
Lithium, dissolved	7439-93-2	E421/TY	0.0010	mg/L		<0.0010	0.0040	----	----	----
Magnesium, dissolved	7439-95-4	E421/TY	0.0050	mg/L		15.2	19.3	----	----	----

Analytical Results

Sub-Matrix: **Groundwater** (Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	M1 Drainage	BH14-02A	----	----	----
					Client sampling date / time	27-Aug-2024 14:46	27-Aug-2024 14:09	----	----	----
						TY2409569-001	TY2409569-002	--------	--------	--------
						Result	Result	----	----	----
Dissolved Metals										
Manganese, dissolved	7439-96-5	E421/TY	0.00010	mg/L		0.593	1.66	----	----	----
Mercury, dissolved	7439-97-6	E509/WT	0.0000050	mg/L		<0.0000050	<0.0000050	----	----	----
Molybdenum, dissolved	7439-98-7	E421/TY	0.000050	mg/L		0.00237	0.000863 DTMF	----	----	----
Nickel, dissolved	7440-02-0	E421/TY	0.00050	mg/L		0.00226	0.00088	----	----	----
Phosphorus, dissolved	7723-14-0	E421/TY	0.050	mg/L		<0.050	<0.050	----	----	----
Potassium, dissolved	7440-09-7	E421/TY	0.050	mg/L		4.48	1.23	----	----	----
Rubidium, dissolved	7440-17-7	E421/TY	0.00020	mg/L		0.00138	0.00239	----	----	----
Selenium, dissolved	7782-49-2	E421/TY	0.000050	mg/L		0.000197 DTSE	0.000210 DTSE	----	----	----
Silicon, dissolved	7440-21-3	E421/TY	0.050	mg/L		5.64	7.90	----	----	----
Silver, dissolved	7440-22-4	E421/TY	0.000010	mg/L		<0.000010	<0.000010	----	----	----
Sodium, dissolved	7440-23-5	E421/TY	0.050	mg/L		9.20	20.9	----	----	----
Strontium, dissolved	7440-24-6	E421/TY	0.00020	mg/L		0.155	0.267	----	----	----
Sulfur, dissolved	7704-34-9	E421/TY	0.50	mg/L		0.63	4.97	----	----	----
Tellurium, dissolved	13494-80-9	E421/TY	0.00020	mg/L		<0.00020	<0.00020	----	----	----
Thallium, dissolved	7440-28-0	E421/TY	0.000010	mg/L		0.000010	<0.000010	----	----	----
Thorium, dissolved	7440-29-1	E421/TY	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Tin, dissolved	7440-31-5	E421/TY	0.00010	mg/L		<0.00010	<0.00010	----	----	----
Titanium, dissolved	7440-32-6	E421/TY	0.00030	mg/L		<0.00030	0.00036	----	----	----
Tungsten, dissolved	7440-33-7	E421/TY	0.00010	mg/L		0.00014	0.00351 DTMF	----	----	----
Uranium, dissolved	7440-61-1	E421/TY	0.000010	mg/L		0.00116	0.000391	----	----	----
Vanadium, dissolved	7440-62-2	E421/TY	0.00050	mg/L		<0.00050	0.00112	----	----	----
Zinc, dissolved	7440-66-6	E421/TY	0.0010	mg/L		0.0012	0.0022	----	----	----
Zirconium, dissolved	7440-67-7	E421/TY	0.00030	mg/L		0.00043	0.00103	----	----	----
Dissolved mercury filtration location	----	EP509/WT	-	-		Field	Field	----	----	----
Dissolved metals filtration location	----	EP421/TY	-	-		Field	Field	----	----	----
Volatile Organic Compounds										
Acetone	67-64-1	E611D/WT	20	µg/L		<20	----	----	----	----
Benzene	71-43-2	E611A/WT	0.50	µg/L		----	<0.50	----	----	----
Benzene	71-43-2	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Bromodichloromethane	75-27-4	E611D/WT	0.50	µg/L		<0.50	----	----	----	----

Analytical Results

Sub-Matrix: **Groundwater** (Matrix: **Water**)

Analyte	CAS Number	Method/Lab	LOR	Unit	Client sample ID	M1 Drainage	BH14-02A	----	----	----
					Client sampling date / time	27-Aug-2024 14:46	27-Aug-2024 14:09	----	----	----
						TY2409569-001	TY2409569-002	--------	--------	--------
						Result	Result	----	----	----
Volatile Organic Compounds										
Bromoform	75-25-2	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Bromomethane	74-83-9	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Carbon tetrachloride	56-23-5	E611D/WT	0.20	µg/L		<0.20	----	----	----	----
Chlorobenzene	108-90-7	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Chloroform	67-66-3	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dibromochloromethane	124-48-1	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dibromoethane, 1,2-	106-93-4	E611D/WT	0.20	µg/L		<0.20	----	----	----	----
Dichlorobenzene, 1,2-	95-50-1	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichlorobenzene, 1,3-	541-73-1	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichlorobenzene, 1,4-	106-46-7	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichlorodifluoromethane	75-71-8	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichloroethane, 1,1-	75-34-3	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichloroethane, 1,2-	107-06-2	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichloroethylene, 1,1-	75-35-4	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichloroethylene, cis-1,2-	156-59-2	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichloroethylene, trans-1,2-	156-60-5	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichloromethane	75-09-2	E611D/WT	1.0	µg/L		<1.0	----	----	----	----
Dichloropropane, 1,2-	78-87-5	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichloropropylene, cis+trans-1,3-	542-75-6	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Dichloropropylene, cis-1,3-	10061-01-5	E611D/WT	0.30	µg/L		<0.30	----	----	----	----
Dichloropropylene, trans-1,3-	10061-02-6	E611D/WT	0.30	µg/L		<0.30	----	----	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L		----	<0.50	----	----	----
Ethylbenzene	100-41-4	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Hexane, n-	110-54-3	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Methyl ethyl ketone [MEK]	78-93-3	E611D/WT	20	µg/L		<20	----	----	----	----
Methyl isobutyl ketone [MIBK]	108-10-1	E611D/WT	20	µg/L		<20	----	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Styrene	100-42-5	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Tetrachloroethane, 1,1,1,2-	630-20-6	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Tetrachloroethane, 1,1,2,2-	79-34-5	E611D/WT	0.50	µg/L		<0.50	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	M1 Drainage	BH14-02A	----	----	----
					Client sampling date / time	27-Aug-2024 14:46	27-Aug-2024 14:09	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2409569-001	TY2409569-002	--------	--------	--------
						Result	Result	----	----	----
Volatile Organic Compounds										
Tetrachloroethylene	127-18-4	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L		----	<0.50	----	----	----
Toluene	108-88-3	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Trichloroethane, 1,1,1-	71-55-6	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Trichloroethane, 1,1,2-	79-00-5	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Trichloroethylene	79-01-6	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Trichlorofluoromethane	75-69-4	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Vinyl chloride	75-01-4	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L		----	<0.40	----	----	----
Xylene, m+p-	179601-23-1	E611D/WT	0.40	µg/L		<0.40	----	----	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L		----	<0.30	----	----	----
Xylene, o-	95-47-6	E611D/WT	0.30	µg/L		<0.30	----	----	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L		----	<0.50	----	----	----
Xylenes, total	1330-20-7	E611D/WT	0.50	µg/L		<0.50	----	----	----	----
BTEX, total	----	E611A/WT	1.0	µg/L		----	<1.0	----	----	----
BTEX, total	----	E611D/WT	1.0	µg/L		<1.0	----	----	----	----
Hydrocarbons										
F1 (C6-C10)	----	E581.F1-L/WT	25	µg/L		<25	<25	----	----	----
F2 (C10-C16)	----	E601.SG/WT	100	µg/L		<100	<100	----	----	----
F3 (C16-C34)	----	E601.SG/WT	250	µg/L		<250	<250	----	----	----
F4 (C34-C50)	----	E601.SG/WT	250	µg/L		<250	<250	----	----	----
F1-BTEX	----	EC580/WT	25	µg/L		<25	<25	----	----	----
Hydrocarbons, total (C6-C50)	n/a	EC581SG/WT	240	µg/L		<370	<370	----	----	----
Chromatogram to baseline at nC50	n/a	E601.SG/WT	-	-		YES	YES	----	----	----
Hydrocarbons Surrogates										
Bromobenzotrifluoride, 2- (F2-F4 surrogate)	392-83-6	E601.SG/WT	1.0	%		92.4	81.6	----	----	----
Dichlorotoluene, 3,4-	95-75-0	E581.F1-L/WT	1.0	%		88.5	80.6	----	----	----
Volatile Organic Compounds Surrogates										
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%		----	97.3	----	----	----
Bromofluorobenzene, 4-	460-00-4	E611D/WT	1.0	%		112	----	----	----	----

Analytical Results

Sub-Matrix: Groundwater (Matrix: Water)					Client sample ID	M1 Drainage	BH14-02A	----	----	----
					Client sampling date / time	27-Aug-2024 14:46	27-Aug-2024 14:09	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit		TY2409569-001	TY2409569-002	--------	--------	--------
						Result	Result	----	----	----
Volatile Organic Compounds Surrogates										
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%		----	100	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611D/WT	1.0	%		102	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2409569**	Page	: 1 of 16
Client	: **Greenstone Gold Mines Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 7921 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 29-Aug-2024 09:17
PO	: 5500000948	Issue Date	: 13-Sep-2024 15:50
C-O-C number	: ----		
Sampler	: ----		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers occur - please see following pages for full details.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-02A	E298	27-Aug-2024	30-Aug-2024	28 days	3 days	✓	30-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) [ON MECP]										
M1 Drainage	E298	27-Aug-2024	30-Aug-2024	28 days	3 days	✓	30-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
BH14-02A	E235.Cl-L	27-Aug-2024	30-Aug-2024	28 days	3 days	✓	30-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Chloride in Water by IC (Low Level)										
HDPE [ON MECP]										
M1 Drainage	E235.Cl-L	27-Aug-2024	30-Aug-2024	28 days	3 days	✓	30-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
BH14-02A	E235.F	27-Aug-2024	30-Aug-2024	28 days	3 days	✓	30-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE [ON MECP]										
M1 Drainage	E235.F	27-Aug-2024	30-Aug-2024	28 days	3 days	✓	30-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
BH14-02A	E235.NO3	27-Aug-2024	30-Aug-2024	7 days	3 days	✓	30-Aug-2024	7 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Anions and Nutrients : Nitrate in Water by IC										
HDPE [ON MECP]										
M1 Drainage	E235.NO3	27-Aug-2024	30-Aug-2024	7 days	3 days	✓	30-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
BH14-02A	E235.NO2	27-Aug-2024	30-Aug-2024	7 days	3 days	✓	30-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Nitrite in Water by IC										
HDPE [ON MECP]										
M1 Drainage	E235.NO2	27-Aug-2024	30-Aug-2024	7 days	3 days	✓	30-Aug-2024	7 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
BH14-02A	E235.SO4	27-Aug-2024	30-Aug-2024	28 days	3 days	✓	30-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Sulfate in Water by IC										
HDPE [ON MECP]										
M1 Drainage	E235.SO4	27-Aug-2024	30-Aug-2024	28 days	3 days	✓	30-Aug-2024	28 days	3 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-02A	E318	27-Aug-2024	03-Sep-2024	28 days	7 days	✓	04-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Kjeldahl Nitrogen by Fluorescence (Low Level)										
Amber glass total (sulfuric acid) [ON MECP]										
M1 Drainage	E318	27-Aug-2024	03-Sep-2024	28 days	7 days	✓	04-Sep-2024	28 days	8 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
BH14-02A	E372-S	27-Aug-2024	11-Sep-2024	3 days	15 days	× EHT	12-Sep-2024	3 days	16 days	✓
Anions and Nutrients : Total Phosphorus by Colourimetry (0.001 mg/L)										
Amber glass total (sulfuric acid) [ON MECP]										
M1 Drainage	E372-S	27-Aug-2024	11-Sep-2024	3 days	15 days	× EHT	12-Sep-2024	3 days	16 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
BH14-02A	E339	27-Aug-2024	10-Sep-2024	14 days	14 days	✓	10-Sep-2024	14 days	14 days	✓
Cyanides : Free Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
M1 Drainage	E339	27-Aug-2024	10-Sep-2024	14 days	14 days	✓	10-Sep-2024	14 days	14 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
BH14-02A	E333	27-Aug-2024	10-Sep-2024	14 days	14 days	✓	10-Sep-2024	14 days	14 days	✓
Cyanides : Total Cyanide										
UV-inhibited HDPE - total (sodium hydroxide)										
M1 Drainage	E333	27-Aug-2024	10-Sep-2024	14 days	14 days	✓	10-Sep-2024	14 days	14 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
BH14-02A	E509	27-Aug-2024	11-Sep-2024	28 days	15 days	✓	13-Sep-2024	28 days	17 days	✓
Dissolved Metals : Dissolved Mercury in Water by CVAAS										
Glass vial dissolved (hydrochloric acid)										
M1 Drainage	E509	27-Aug-2024	11-Sep-2024	28 days	15 days	✓	13-Sep-2024	28 days	17 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
BH14-02A	E421	27-Aug-2024	03-Sep-2024	180 days	7 days	✓	03-Sep-2024	180 days	7 days	✓
Dissolved Metals : Dissolved Metals in Water by CRC ICPMS										
HDPE dissolved (nitric acid)										
M1 Drainage	E421	27-Aug-2024	03-Sep-2024	180 days	7 days	✓	03-Sep-2024	180 days	7 days	✓
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid)										
BH14-02A	EF001	27-Aug-2024	----	----	----		29-Aug-2024	----	2 days	

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Field Tests : Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine										
HDPE total (nitric acid) M1 Drainage	EF001	27-Aug-2024	----	----	----		29-Aug-2024	----	2 days	
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate) BH14-02A	E581.F1-L	27-Aug-2024	09-Sep-2024	14 days	13 days	✓	09-Sep-2024	14 days	13 days	✓
Hydrocarbons : CCME PHC - F1 by Headspace GC-FID (Low Level)										
Glass vial (sodium bisulfate) M1 Drainage	E581.F1-L	27-Aug-2024	09-Sep-2024	14 days	13 days	✓	09-Sep-2024	14 days	13 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) [ON MECP] BH14-02A	E601.SG	27-Aug-2024	09-Sep-2024	40 days	13 days	✓	12-Sep-2024	40 days	3 days	✓
Hydrocarbons : Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID										
Amber glass/Teflon lined cap (sodium bisulfate) [ON MECP] M1 Drainage	E601.SG	27-Aug-2024	09-Sep-2024	40 days	13 days	✓	12-Sep-2024	40 days	3 days	✓
Organic / Inorganic Carbon : Dissolved Organic Carbon by Combustion (Low Level)										
Amber glass dissolved (lab preserved) [ON MECP] BH14-02A	E358-L	27-Aug-2024	29-Aug-2024	3 days	2 days	✓	04-Sep-2024	28 days	6 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] BH14-02A	E283	27-Aug-2024	30-Aug-2024	14 days	3 days	✓	31-Aug-2024	14 days	4 days	✓
Physical Tests : Acidity by Titration										
HDPE [ON MECP] M1 Drainage	E283	27-Aug-2024	30-Aug-2024	14 days	3 days	✓	31-Aug-2024	14 days	4 days	✓
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP] BH14-02A	E290	27-Aug-2024	30-Aug-2024	14 days	3 days	✓	30-Aug-2024	14 days	3 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Alkalinity Species by Titration										
HDPE [ON MECP]										
M1 Drainage	E290	27-Aug-2024	30-Aug-2024	14 days	3 days	✓	30-Aug-2024	14 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
BH14-02A	E100	27-Aug-2024	30-Aug-2024	28 days	3 days	✓	30-Aug-2024	28 days	3 days	✓
Physical Tests : Conductivity in Water										
HDPE [ON MECP]										
M1 Drainage	E100	27-Aug-2024	30-Aug-2024	28 days	3 days	✓	30-Aug-2024	28 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
BH14-02A	E108	27-Aug-2024	30-Aug-2024	14 days	3 days	✓	30-Aug-2024	14 days	3 days	✓
Physical Tests : pH by Meter										
HDPE [ON MECP]										
M1 Drainage	E108	27-Aug-2024	30-Aug-2024	14 days	3 days	✓	30-Aug-2024	14 days	3 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
BH14-02A	E162	27-Aug-2024	----	----	----		29-Aug-2024	7 days	2 days	✓
Physical Tests : TDS by Gravimetry										
HDPE [ON MECP]										
M1 Drainage	E162	27-Aug-2024	----	----	----		03-Sep-2024	7 days	7 days	✓
Physical Tests : TSS by Gravimetry (Low Level)										
HDPE [TSS-WB]										
BH14-02A	E160-L	27-Aug-2024	----	----	----		29-Aug-2024	7 days	2 days	✓
Physical Tests : TSS by Gravimetry										
HDPE [ON MECP]										
M1 Drainage	E160	27-Aug-2024	----	----	----		03-Sep-2024	7 days	7 days	✓

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times Rec	Holding Times Actual	Eval	Analysis Date	Holding Times Rec	Holding Times Actual	Eval
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP]										
BH14-02A	E121	27-Aug-2024	----	----	----		29-Aug-2024	48 hrs	49 hrs	× EHTL
Physical Tests : Turbidity by Nephelometry										
HDPE [ON MECP]										
M1 Drainage	E121	27-Aug-2024	----	----	----		29-Aug-2024	48 hrs	49 hrs	× EHTL
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP]										
BH14-02A	E508	27-Aug-2024	11-Sep-2024	28 days	15 days	✓	11-Sep-2024	28 days	15 days	✓
Total Metals : Total Mercury in Water by CVAAS										
Glass vial total (hydrochloric acid) [ON MECP]										
M1 Drainage	E508	27-Aug-2024	11-Sep-2024	28 days	15 days	✓	11-Sep-2024	28 days	15 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
BH14-02A	E420	27-Aug-2024	30-Aug-2024	180 days	3 days	✓	03-Sep-2024	180 days	7 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid)										
M1 Drainage	E420	27-Aug-2024	30-Aug-2024	180 days	3 days	✓	03-Sep-2024	180 days	7 days	✓
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
BH14-02A	E611A	27-Aug-2024	09-Sep-2024	14 days	13 days	✓	09-Sep-2024	14 days	13 days	✓
Volatile Organic Compounds : VOCs (Eastern Canada List) by Headspace GC-MS										
Glass vial (sodium bisulfate)										
M1 Drainage	E611D	27-Aug-2024	09-Sep-2024	14 days	13 days	✓	09-Sep-2024	14 days	13 days	✓

Legend & Qualifier Definitions

EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
Acidity by Titration	E283	1626148	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1626151	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1625716	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1639866	1	18	5.5	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1639865	2	30	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1626136	1	10	10.0	5.0	✓
Conductivity in Water	E100	1626150	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1644132	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1629499	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1631227	1	14	7.1	5.0	✓
Fluoride in Water by IC	E235.F	1626135	1	5	20.0	5.0	✓
Free Cyanide	E339	1641032	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1626131	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1626132	1	20	5.0	5.0	✓
pH by Meter	E108	1626149	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1626133	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1624006	1	20	5.0	5.0	✓
Total Cyanide	E333	1641033	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1625718	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1644130	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1625780	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1645706	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1625442	0	19	0.0	5.0	×
Turbidity by Nephelometry	E121	1624005	1	10	10.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1640358	1	20	5.0	5.0	✓
Laboratory Control Samples (LCS)							
Acidity by Titration	E283	1626148	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1626151	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1625716	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1639866	1	18	5.5	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1639865	2	30	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1626136	1	10	10.0	5.0	✓
Conductivity in Water	E100	1626150	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1644132	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1629499	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1631227	1	14	7.1	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Control Samples (LCS) - Continued							
Fluoride in Water by IC	E235.F	1626135	1	5	20.0	5.0	✓
Free Cyanide	E339	1641032	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1626131	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1626132	1	20	5.0	5.0	✓
pH by Meter	E108	1626149	1	19	5.2	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	1640712	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1626133	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1624006	2	20	10.0	5.0	✓
Total Cyanide	E333	1641033	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1625718	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1644130	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1625780	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1645706	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1625442	1	19	5.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1624004	1	7	14.2	5.0	✓
Turbidity by Nephelometry	E121	1624005	1	10	10.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1640358	1	20	5.0	5.0	✓
Method Blanks (MB)							
Acidity by Titration	E283	1626148	1	12	8.3	5.0	✓
Alkalinity Species by Titration	E290	1626151	1	15	6.6	5.0	✓
Ammonia by Fluorescence	E298	1625716	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1639866	1	18	5.5	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1639865	2	30	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1626136	1	10	10.0	5.0	✓
Conductivity in Water	E100	1626150	1	15	6.6	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1644132	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1629499	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1631227	1	14	7.1	5.0	✓
Fluoride in Water by IC	E235.F	1626135	1	5	20.0	5.0	✓
Free Cyanide	E339	1641032	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1626131	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1626132	1	20	5.0	5.0	✓
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG	1640712	1	16	6.2	5.0	✓
Sulfate in Water by IC	E235.SO4	1626133	1	16	6.2	5.0	✓
TDS by Gravimetry	E162	1624006	2	20	10.0	5.0	✓
Total Cyanide	E333	1641033	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1625718	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1644130	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1625780	1	20	5.0	5.0	✓

Matrix: **Water**

Evaluation: × = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Method Blanks (MB) - Continued							
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1645706	1	20	5.0	5.0	✓
TSS by Gravimetry	E160	1625442	1	19	5.2	5.0	✓
TSS by Gravimetry (Low Level)	E160-L	1624004	1	7	14.2	5.0	✓
Turbidity by Nephelometry	E121	1624005	1	10	10.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1640358	1	20	5.0	5.0	✓
Matrix Spikes (MS)							
Ammonia by Fluorescence	E298	1625716	1	20	5.0	5.0	✓
BTEX by Headspace GC-MS	E611A	1639866	1	18	5.5	5.0	✓
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L	1639865	2	30	6.6	5.0	✓
Chloride in Water by IC (Low Level)	E235.Cl-L	1626136	1	10	10.0	5.0	✓
Dissolved Mercury in Water by CVAAS	E509	1644132	1	20	5.0	5.0	✓
Dissolved Metals in Water by CRC ICPMS	E421	1629499	1	20	5.0	5.0	✓
Dissolved Organic Carbon by Combustion (Low Level)	E358-L	1631227	1	14	7.1	5.0	✓
Fluoride in Water by IC	E235.F	1626135	1	5	20.0	5.0	✓
Free Cyanide	E339	1641032	1	8	12.5	5.0	✓
Nitrate in Water by IC	E235.NO3	1626131	1	20	5.0	5.0	✓
Nitrite in Water by IC	E235.NO2	1626132	1	20	5.0	5.0	✓
Sulfate in Water by IC	E235.SO4	1626133	1	16	6.2	5.0	✓
Total Cyanide	E333	1641033	1	15	6.6	5.0	✓
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318	1625718	1	20	5.0	5.0	✓
Total Mercury in Water by CVAAS	E508	1644130	1	20	5.0	5.0	✓
Total Metals in Water by CRC ICPMS	E420	1625780	1	20	5.0	5.0	✓
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S	1645706	1	20	5.0	5.0	✓
VOCs (Eastern Canada List) by Headspace GC-MS	E611D	1640358	1	20	5.0	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Conductivity in Water	E100 ALS Environmental - Thunder Bay	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Thunder Bay	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Thunder Bay	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.
TSS by Gravimetry	E160 ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TSS by Gravimetry (Low Level)	E160-L ALS Environmental - Thunder Bay	Water	APHA 2540 D (mod)	Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, following by drying of the filter at 104 ± 1°C, with gravimetric measurement of the filtered solids. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.
TDS by Gravimetry	E162 ALS Environmental - Thunder Bay	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at 180 ± 2°C for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC (Low Level)	E235.Cl-L ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Nitrate in Water by IC	E235.NO3 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Thunder Bay	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Acidity by Titration	E283 ALS Environmental - Thunder Bay	Water	APHA 2310 B (mod)	Acidity is determined by potentiometric titration to pH endpoint of 8.3
Alkalinity Species by Titration	E290 ALS Environmental - Thunder Bay	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Total Kjeldahl Nitrogen by Fluorescence (Low Level)	E318 ALS Environmental - Thunder Bay	Water	Method Fialab 100, 2018	TKN in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021).
Total Cyanide	E333 ALS Environmental - Waterloo	Water	ISO 14403 (mod)	Total or Strong Acid Dissociable (SAD) Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line UV digestion followed by colourmetric analysis. Method Limitation: High levels of thiocyanate (SCN) may cause positive interference (up to 0.5% of SCN concentration).
Free Cyanide	E339 ALS Environmental - Waterloo	Water	ASTM D7237 (mod)	Free Cyanide is determined by Continuous Flow Analyzer (CFA) with in-line gas diffusion followed by colourmetric analysis.
Dissolved Organic Carbon by Combustion (Low Level)	E358-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Dissolved Organic Carbon (Non-Purgeable), also known as NPOC (dissolved), is a direct measurement of DOC after a filtered (0.45 micron) sample has been acidified and purged to remove inorganic carbon (IC). Analysis is by high temperature combustion with infrared detection of CO2. NPOC does not include volatile organic species that are purged off with IC. For samples where the majority of DC (dissolved carbon) is comprised of IC (which is common), this method is more accurate and more reliable than the DOC by subtraction method (i.e. DC minus DIC).
Total Phosphorus by Colourimetry (0.001 mg/L)	E372-S ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Total Phosphorus is determined colourimetrically after heated persulfate digestion of the sample.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Thunder Bay	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Dissolved Metals in Water by CRC ICPMS	E421 ALS Environmental - Thunder Bay	Water	APHA 3030B/EPA 6020B (mod)	Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Total Mercury in Water by CVAAS	E508 ALS Environmental - Waterloo	Water	EPA 1631E (mod)	Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS
Dissolved Mercury in Water by CVAAS	E509 ALS Environmental - Waterloo	Water	APHA 3030B/EPA 1631E (mod)	Water samples are filtered (0.45 um), preserved with HCl, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.
CCME PHC - F1 by Headspace GC-FID (Low Level)	E581.F1-L ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	CCME Fraction 1 (F1) is analyzed by static headspace GC-FID. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law. Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
Silica Gel Treated CCME PHCs - F2-F4sg by GC-FID	E601.SG ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1 (mod)	Sample extracts are subjected to in-situ silica gel treatment prior to analysis by GC-FID for CCME hydrocarbon fractions (F2-F4). Analytical methods for CCME Petroleum Hydrocarbons (PHCs) are validated to comply fully with the Reference Method for the Canada-Wide Standard for PHC. Unless qualified, all required quality control criteria of the CCME PHC method have been met, including response factor and linearity requirements.
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.
VOCs (Eastern Canada List) by Headspace GC-MS	E611D ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Hardness (Calculated)	EC100 ALS Environmental - Thunder Bay	Water	APHA 2340B	"Hardness (as CaCO3), dissolved" is calculated from the sum of dissolved Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because it is a property of water due to dissolved divalent cations.
Un-ionized and Ionized Ammonia (Calculation) (Field Temperature and pH)	EC298A ALS Environmental - Thunder Bay	Water	CCME CWQG Ammonia	Un-ionized ammonia is calculated from test results for total ammonia, field temperature and pH, and is expressed in units of mg/L "as N".
F1-BTEX	EC580 ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	F1-BTEX is calculated as follows: F1-BTEX = F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).
SUM F1 to F4 where F2-F4 is SG treated	EC581SG ALS Environmental - Waterloo	Water	CCME PHC in Soil - Tier 1	Hydrocarbons, total (C6-C50) is the sum of CCME Fraction F1(C6-C10), F2(C10-C16), F3(C16-C34), and F4(C34-C50), where F2-F4 have been treated with silica gel. F4G-sg is not used within this calculation due to overlap with other fractions.
Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3,Chloramine	EF001 ALS Environmental - Thunder Bay	Water	Field Measurement (Client Supplied)	Field pH,EC,Salinity, TDS, Cl2,ClO2,ORP,DO, Turbidity,T,T-P,o-PO4,NH3 or Chloramine measurements provided by client and recorded on ALS report may affect the validity of results.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Preparation for Ammonia	EP298 ALS Environmental - Thunder Bay	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Digestion for TKN in water	EP318 ALS Environmental - Thunder Bay	Water	APHA 4500-Norg D (mod)	Samples are digested at high temperature using Sulfuric Acid with Copper catalyst, which converts organic nitrogen sources to Ammonia, which is then quantified by the analytical method as TKN. This method is unsuitable for samples containing high levels of nitrate. If nitrate exceeds TKN concentration by ten times or more, results may be biased low.
Preparation for Dissolved Organic Carbon for Combustion	EP358 ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Preparation for Dissolved Organic Carbon
Digestion for Total Phosphorus in water	EP372 ALS Environmental - Winnipeg	Water	APHA 4500-P E (mod).	Samples are heated with a persulfate digestion reagent.
Dissolved Metals Water Filtration	EP421 ALS Environmental - Thunder Bay	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HNO3.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Dissolved Mercury Water Filtration	EP509 ALS Environmental - Waterloo	Water	APHA 3030B	Water samples are filtered (0.45 um), and preserved with HCl.
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.
PHCs and PAHs Hexane Extraction	EP601 ALS Environmental - Waterloo	Water	EPA 3511 (mod)	Petroleum Hydrocarbons (PHCs) and Polycyclic Aromatic Hydrocarbons (PAHs) are extracted using a hexane liquid-liquid extraction.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here (lab use only)

COC Number: 14 -

Page ____ of ____

Report To		Report Format / Distribution	Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format: ☑ PDF ☐ EXCEL ☑ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report ☐ Yes ☑ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11 Geraldton, ON P0T 1M0	☑ Criteria on Report - provide details below if box checked Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	807-853-1816	Email 1 environmental@ggmines.com, laura.vares@ggmines.com	Specify Date Required for E2,E or P:
		Email 2 see comments	

Invoice To	Same as Report To ☐ Yes ☑ No	Invoice Distribution	Analysis Request
	Copy of Invoice with Report ☐ Yes ☑ No	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
Company:	Greenstone Mine	Email 1 or Fax ap@ggmines.com	
Contact:	Accounts Payable	Email 2 laura.vares@ggmines.com	

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): TY2409569 **ALS Contact:** Christine Paradis **Sampler:** SP/JC

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox)	Chloride, fluoride, nitrate, nitrite, TKN, low level	Sulphate, cyanide (total/free), ammonia (total)	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	M1 Drainage	27-Aug-24	14:46	Water	x	x	x	x	x		x	x				7.19	13.90	10
	BH14-02A	27-Aug-24	14:09	Water	x	x	x	x	x	x	x					7.02	10.20	11

Environmental Division
Thunder Bay
Work Order Reference
TY2409569

Telephone : +1 807 623 6463

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)	SAMPLE CONDITION AS RECEIVED (lab use only)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com	Frozen ☐ SIF Observations Yes ☐ No ☐
Are samples for human drinking water use? ☐ Yes ☑ No	Please include PWQO criteria on the report.	Ice packs Yes ☑ No ☐ Custody seal intact Yes ☐ No ☐ Cooling Initiated ☑

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
10.1					

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
Sophia Park-Jean	28-Aug-24	10:00					27AUG24	0917

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION WHITE - LABORATORY COPY YELLOW - CLIENT COPY

WA-FM-0266 v06 Front/04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form.**

Turbidity

Intake and Login Verification Form

SAMPLE INTAKE		
Priority/Emergency Service Requested	YES	NO
Time Sensitive Hold Time	YES	NO
Client:	Greenstone	

SAMPLE RECEIPT INFORMATION			
Mode of Delivery:	Courier		Drop Off
Courier	Gardewine		
Waybill Number	551400326114		
Temperature	10.1		Cooler Count 1
Cooling Method	None	Ice	Ice Packs

SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	Water	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?				~~Yes~~	~~No~~
DW Metals pH Check <2				~~Yes~~	~~No~~
Regulation Circled, Works # present			~~Yes~~	~~No Reject?~~	
# of Bottles: 9	Sample Count			2	
Green/white	2R, 1 TSS				
Purple/white	2 nuts, 2 diss nutr				
Warm red/white	2 total met, 2 diss met				
Yellow/black					
Light blue/white					
Orange/black					
Others (detail)	2x2 blue/white bottles 2x2 blue/white vials 2x cyanide				

Comments on Samples and Bottles:
Fr 1 has the TSS

Samples Requiring Preservation or Filtering:
N/A

Layout Staff Initials	AM
Date and Time of Layout	29Aug24 1046

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	NO
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client ✓	Work Contact ✓	Quote ✓

RECEIPT DETAIL		
Project ✓	PO ✓	Site/LSD ✓
Overall Description Entered	Yes	NA
Received date/time as per COC		✓
Recipients match CoC or Sample Remarks	Yes	No
Billing Instruction added to remarks	Yes	NA ✓
Sample Remarks/Specification Doc checked		✓
Submission Issues communicated	Yes	~~NA~~
Sample Info communicated via Remarks	Yes	~~NA~~

VERIFICATION CHECKLIST		
Plannned Event Submission	Yes	No ✓
Sample Name entered as per CoC		✓
Sampling Date and time entered as per CoC		✓
Containers selected in layout order		✓
Sales items entered from QUOTE ONLY (and/or verified as correct)		✓
Field Data/EC298A removed if not on COC	Yes	~~NA~~ ✓
Bottle Allocation Verified		✓
Guideline added or auto-allocated		✓
Due dates updated		✓

VALIDATION		
Validation errors resolved?	~~Yes~~ ✓	~~No~~
Internal Sublet CoC created	Yes	NA

Login Comments:
pour off DOC from routine for fr. 2, pour off tot and diss Hg for both fractions (from routine)

Login Staff Initials:	DE

~~fr. 2 - pour off T~~

ALS Canada Ltd.

right solutions. right partner.

CERTIFICATE OF ANALYSIS

Work Order	: **TY2410224**	Page	: 1 of 3
Client	: **Greenstone Gold Mines Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 7921 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay ON Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 11-Sep-2024 09:12
PO	: 5500000948	Date Analysis Commenced	: 19-Sep-2024
C-O-C number	: ----	Issue Date	: 20-Sep-2024 14:31
Sampler	: ----		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

Signatories	*Position*	*Laboratory Department*
Sarah Birch	VOC Section Supervisor	VOC, Waterloo, Ontario

General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances

LOR: Limit of Reporting (detection limit).

Unit	*Description*
µg/L	micrograms per litre

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: **Groundwater**
(Matrix: **Water**)

				Client sample ID	**MWS-14-04**	**----**	**----**	**----**	**----**
				Client sampling date / time	09-Sep-2024 12:51	----	----	----	----
Analyte	*CAS Number*	*Method/Lab*	*LOR*	*Unit*	**TY2410224-001**	--------	--------	--------	--------
					Result	----	----	----	----
Volatile Organic Compounds [Fuels]									
Benzene	71-43-2	E611A/WT	0.50	µg/L	<0.50	----	----	----	----
Ethylbenzene	100-41-4	E611A/WT	0.50	µg/L	<0.50	----	----	----	----
Methyl-tert-butyl ether [MTBE]	1634-04-4	E611A/WT	0.50	µg/L	<0.50	----	----	----	----
Styrene	100-42-5	E611A/WT	0.50	µg/L	<0.50	----	----	----	----
Toluene	108-88-3	E611A/WT	0.50	µg/L	<0.50	----	----	----	----
Xylene, m+p-	179601-23-1	E611A/WT	0.40	µg/L	<0.40	----	----	----	----
Xylene, o-	95-47-6	E611A/WT	0.30	µg/L	<0.30	----	----	----	----
Xylenes, total	1330-20-7	E611A/WT	0.50	µg/L	<0.50	----	----	----	----
BTEX, total	----	E611A/WT	1.0	µg/L	<1.0	----	----	----	----
Volatile Organic Compounds Surrogates									
Bromofluorobenzene, 4-	460-00-4	E611A/WT	1.0	%	82.8	----	----	----	----
Difluorobenzene, 1,4-	540-36-3	E611A/WT	1.0	%	100	----	----	----	----

Please refer to the General Comments section for an explanation of any result qualifiers detected.

Please refer to the Accreditation section for an explanation of analyte accreditations.

ALS Canada Ltd.

QUALITY CONTROL INTERPRETIVE REPORT

Work Order	: **TY2410224**	Page	: 1 of 5
Client	: **Greenstone Gold Mines Inc.**	Laboratory	: ALS Environmental - Thunder Bay
Contact	: Laura Vares	Account Manager	: Christine Paradis
Address	: 7921 Highway 11 Geraldton ON Canada P0T 1M0	Address	: 1081 Barton Street Thunder Bay, Ontario Canada P7B 5N3
Telephone	: 807 854 1886, Ext. 4	Telephone	: +1 807 623 6463
Project	: Groundwater	Date Samples Received	: 11-Sep-2024 09:12
PO	: 5500000948	Issue Date	: 20-Sep-2024 14:31
C-O-C number	: ----		
Sampler	: ----		
Site	: Greenstone Mine		
Quote number	: Groundwater		
No. of samples received	: 1		
No. of samples analysed	: 1		

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
DQO: Data Quality Objective.
LOR: Limit of Reporting (detection limit).
RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Duplicate outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.

Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Water**

Evaluation: × = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method / **Container / Client Sample ID(s)**	*Method*	*Sampling Date*	*Extraction / Preparation*				*Analysis*			
			Preparation Date	*Holding Times*		*Eval*	*Analysis Date*	*Holding Times*		*Eval*
				Rec	*Actual*			*Rec*	*Actual*	
Volatile Organic Compounds : BTEX by Headspace GC-MS										
Glass vial (sodium bisulfate)										
MWS-14-04	E611A	09-Sep-2024	19-Sep-2024	14 days	10 days	✓	19-Sep-2024	14 days	10 days	✓

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).

Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Water**

Evaluation: × = *QC frequency outside specification*; ✓ = *QC frequency within specification.*

Quality Control Sample Type			Count		Frequency (%)		
Analytical Methods	*Method*	*QC Lot #*	*QC*	*Regular*	*Actual*	*Expected*	*Evaluation*
Laboratory Duplicates (DUP)							
BTEX by Headspace GC-MS	E611A	1660592	1	13	7.6	5.0	✓
Laboratory Control Samples (LCS)							
BTEX by Headspace GC-MS	E611A	1660592	1	13	7.6	5.0	✓
Method Blanks (MB)							
BTEX by Headspace GC-MS	E611A	1660592	1	13	7.6	5.0	✓
Matrix Spikes (MS)							
BTEX by Headspace GC-MS	E611A	1660592	1	13	7.6	5.0	✓

Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
BTEX by Headspace GC-MS	E611A ALS Environmental - Waterloo	Water	EPA 8260D (mod)	Volatile Organic Compounds (VOCs) are analyzed by static headspace GC-MS. Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler, causing VOCs to partition between the aqueous phase and the headspace in accordance with Henry's law.

Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
VOCs Preparation for Headspace Analysis	EP581 ALS Environmental - Waterloo	Water	EPA 5021A (mod)	Samples are prepared in headspace vials and are heated and agitated on the headspace autosampler. An aliquot of the headspace is then injected into a GC-MS-FID.

CARDEWINE 1-800-243-5244 5515099679

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

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Affix ALS barcode label here (lab use only)

COC Number: 14 -

Page ____ of ____

Report To		Report Format / Distribution		Select Service Level Below (Rush Turnaround Time (TAT) is not available for all tests)
Company:	Greenstone Mine	Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)	R ☑ Regular (Standard TAT if received by 3 pm - business days)
Contact:	Environmental Coordinators	Quality Control (QC) Report with Report	☐ Yes ☑ No	P ☐ Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT
Address:	8000 Highway 11	☑ Criteria on Report - provide details below if box checked		E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT
	Geraldton, ON P0T 1M0	Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX	E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge
Phone:	807-853-1816	Email 1	environmental@ggmines.com, laura.vares@ggmines.com	Specify Date Required for E2,E or P:
		Email 2	see comments	

Invoice To		Invoice Distribution	
	Same as Report To ☐ Yes ☑ No	Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
	Copy of Invoice with Report ☐ Yes ☑ No		
Company:	Greenstone Mine	Email 1 or Fax	ap@ggmines.com
Contact:	Accounts Payable	Email 2	laura.vares@ggmines.com

Project Information		Oil and Gas Required Fields (client use)	
ALS Quote #:		Approver ID:	Cost Center:
Job #:	Groundwater	GL Account:	Routing Code:
PO / AFE:		Activity Code:	
LSD:		Location:	

ALS Lab Work Order # (lab use only): TY2410224 **ALS Contact:** Christine Paradis **Sampler:** R.D/T.P

Analysis Request — Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Conductivity, hardness, acidity, pH, TSS, TDS	Turbidity, alkalinity (total, bicarb, carb, hydrox)	Chloride, fluoride, nitrate, nitrite, TKN, low level	Sulphate, cyanide (total/free), ammonia (total/un	Total and dissolved metals	DOC	PHCs (Fractions F1 - F4)	BTEX	VOCs			Field pH	Field temperature	Number of Containers
	MWS-14-04	09-Sep-24	12:51	Water								X						2

Environmental Division
Thunder Bay
Work Order Reference
TY2410224

Telephone : +1 807 623 6463

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report (client Use)
Are samples taken from a Regulated DW System? ☐ Yes ☑ No	EDD to be sent as a .csv to importer@greenstone.ehsdata.com Results also to be sent to ryan.dong@stantec.com, KrupaaVani.Podhala@stantec.com
Are samples for human drinking water use? ☐ Yes ☑ No	Please include PWQO criteria on the report.

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐		SIF Observations	Yes	☐	No	☐
Ice packs	Yes	☒	No ☐	Custody seal intact	Yes	☐	No ☐
Cooling Initiated	☒						

INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C			
6.9	7.8				

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by: AZ	Date: 09-11-24	Time: 9:12
Rebecca Donovan	09-Sep-24	13:00						

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

Intake and Login Verification Form

SAMPLE INTAKE			
Priority/Emergency Service Requested		YES	(NO)
Time Sensitive Hold Time		YES	(NO)
Client:	Greenstone		

SAMPLE RECEIPT INFORMATION			
Mode of Delivery:	(Courier)		Drop Off
Courier	Gardewine		
Waybill Number	5515099679		
Temperature	6.9, 7.6		Cooler Count 2
Cooling Method	None	Ice	(Ice Packs)

SAMPLE MATRIX/BOTTLE INFORMATION					
Matrix:	(Water)	Soil	Air	Biota	Other
DW Schedule 24 Bottles Correct?				~~Yes~~	~~No~~
DW Metals pH Check <2				~~Yes~~	No
Regulation Circled, Works # present			Yes	~~No~~	~~Reject~~?
# of Bottles: 1		Sample Count		1	
Green/white					
Purple/white					
Warm red/white					
Yellow/black					
Light blue/white					
Orange/black					
Others (detail)	2 blue vials				

Comments on Samples and Bottles:	-
Samples Requiring Preservation or Filtering:	-
Layout Staff Initials Date and Time of Layout	LV 9/12/24 2:35

ACCOUNT INFO VERIFICATION		
Priority/Emergency Service Requested	YES	NO
Confirmed all as accurate as per COC, Sample Remarks or PM		
Client / Work Contact / Quote		

RECEIPT DETAIL		
Project / PO / Site/LSD		
Overall Description Entered	Yes	NA
Received date/time as per COC		
Recipients match CoC or Sample Remarks	Yes	No
Billing Instruction added to remarks	Yes	NA
Sample Remarks/Specification Doc checked		
Submission Issues communicated	Yes	NA
Sample Info communicated via Remarks	Yes	NA

VERIFICATION CHECKLIST		
Plannned Event Submission	Yes	No
Sample Name entered as per CoC		
Sampling Date and time entered as per CoC		
Containers selected in layout order		
Sales items entered from QUOTE ONLY (and/or verified as correct)		
Field Data/EC298A removed if not on COC	Yes	NA
Bottle Allocation Verified		
Guideline added or auto-allocated		
Due dates updated		

VALIDATION		
Validation errors resolved?	Yes	No
Internal Sublet CoC created	Yes	NA
Login Comments:		
Login Staff Initials:		

Appendix D Blast Monitoring Data

Blast ID	Date	Time	Total Charge (Kgs)	Maximum Charge in a hole (Kgs)	Center of blast (x)	Center of blast (y)	Center of blast (z)	FH02 Lake Hydrophone (kPa)	FH01 Lake Hydrophone (kPa)	FH02 Lake Vibration PPV (mm/s)	FH01 Lake Vibration PPV (mm/s)	Distance To Monitoring Location FH02 (m)	Distance To Monitoring Location FH01 (m)	Calculated Setback Distance for 13 mm/s PPV (minimum distance needed) (m)	Calculated Setback Distance for 50 kPa (minimum distance needed) (m)
P1-10330-029	10/4/2023	14:15	32,685	287	504,988	5,502,767	335	0.03	Monitor not installed	8.46	Monitor not installed				
P1-10330-029 B	10/4/2023	14:15	20,369	193	504,957	5,502,828	335	0.03	Monitor not installed	8.46	Monitor not installed				
P1-10290-035	10/7/2023	18:15	75,794	429	504,354	5,502,716	295	0.1	Monitor not installed	11.49	Monitor not installed				
P1-10310-020	10/10/2023	10:15	49,914	317	504,717	5,502,857	315	0.3	Monitor not installed	8.61	Monitor not installed				
TMF Trench T001 ; T003	10/12/2023	17:00	4,860	28	499,848	5,500,482	336	0.15	Monitor not installed	0.11	Monitor not installed				
P1-10330-030	10/13/2023	14:15	40,208	362	504,909	5,502,792	335	0.03	Monitor not installed	7.14	Monitor not installed				
P1-10330-031	10/19/2023	14:15	25,383	183	504,860	5,502,793	335	0.03	Monitor not installed	2.74	Monitor not installed				
TMF Trench T002 ; T003 ; T004	10/19/2023	17:00	2,892	29	500,384	5,500,140	336	0.14	Monitor not installed	0.12	Monitor not installed				
P1-10330-032	10/28/2023	10:15	27,319	136	504,811	5,502,785	335	0.04	Monitor not installed	3.09	Monitor not installed				
P1-10310-019A	10/28/2023	14:15	18,658	231	504,488	5,502,896	315	0.08	Monitor not installed	10.94	Monitor not installed				
P1-10320-024 VC	10/30/2023	14:15	49,767	573	504,964	5,502,779	325	0.04	Monitor not installed	3.13	Monitor not installed				
P1-10330-033	11/2/2023	14:15	8,637	133	504,983	5,502,861	335	0.02	Monitor not installed	2.09	Monitor not installed				
P1-10330-034	11/2/2023	14:15	7,640	169	504,869	5,502,867	335	0.02	Monitor not installed	2.09	Monitor not installed				
P1-10320-025 VC	11/4/2023	16:00	47,066	438	504,905	5,502,777	325	0.03	Monitor not installed	3.12	Monitor not installed				
P1-10320-026 VC	11/8/2023	14:15	36,490	348	504,851	5,502,772	326	0.05	Monitor not installed	1.97	Monitor not installed				
P1-10330-035	11/9/2023	15:15	11,462	70	504,928	5,502,806	335	0.02	Monitor not installed	1.39	Monitor not installed				
P1-10320-027 VC	11/13/2023	14:15	30,942	330	504,803	552,770	325	0.05	Monitor not installed	7.18	Monitor not installed				
P1-10310-019 B	11/14/2023	14:15	27,198	395	504,523	5,502,686	315	0.09	Monitor not installed	7.21	Monitor not installed				
P1-10320-028	11/15/2023	14:15	32,030	341	504,955	5,502,841	325	0.04	Monitor not installed	3.60	Monitor not installed				
P1-10310-021 A VC	11/20/2023	14:15		386	504,935	5,502,741	315	0.04	Monitor not installed	4.81	Monitor not installed				
P1-10310-021 B VC	11/20/2023	14:15	63,314	413	504,935	5,502,741	315	0.04	Monitor not installed	4.81	Monitor not installed				
P1-10310-022 VC	11/22/2023	14:15	49,408	353	504,864	5,502,732	315	0.04	Monitor not installed	1.32	Monitor not installed				
P1-10310-023 VC	11/27/2023	14:15	79,334	416	504,748	5,502,702	315	0.04	Monitor not installed	1.48	Monitor not installed				
P1-10310-024	11/29/2023	14:15	41,531	408	504,600	5,502,659	315	0.04	Monitor not installed	5.32	Monitor not installed				
P1-10320-029	12/1/2023	14:15	33,402	459	504,962	5,502,906	325	0.04	Monitor not installed	2.09	Monitor not installed				
P1-10320-030	12/4/2023	14:15	45,634	497	504,938	5,502,906	325	0.04	Monitor not installed	1.39	Monitor not installed				
P1-10320-033 A	12/7/2023	14:15		483	505,039	5,502,903	325	0.04	Monitor not installed	4.45	Monitor not installed				
P1-10320-033 B	12/9/2023	14:15	85,650	471	505,039	5,502,903	325	0.04	Monitor not installed	2.51	Monitor not installed				
P1-10320-034	12/11/2023	14:15	54,020	409	504,979	5,502,974	325	0.04	Monitor not installed	1.91	Monitor not installed				
P1-10320-031	12/14/2023	14:15	59,366	466	504,887	5,502,887	325	0.04	Monitor not installed	3.31	Monitor not installed				
P1-10290-006	12/16/2023	17:00	77,115	401	504,242	5,502,748	295	0.04	Monitor not installed	2.35	Monitor not installed				
P1-10290-007	12/19/2023	14:17	87,422	438	504,216	5,502,766	295	0.04	Monitor not installed	2.44	Monitor not installed				
P1-10320-035	12/22/2023	14:15	48,144	345	504,983	5,503,016	325	0.04	Monitor not installed	0.10	Monitor not installed				
P1-10320-032	12/27/2023	14:15	59,023	371	504,839	5,502,883	325	0.04	Monitor not installed	2.21	Monitor not installed				
P1-10320-037	12/30/2023	15:15	69,660	341	504,887	5,502,895	325	0.04	Monitor not installed	1.19	Monitor not installed				
P1-10320-036	1/4/2024	14:15	38,650	361	504,974	5,503,056	325	0.04	Monitor not installed	2.41	Monitor not installed				
P1-10310-025	1/4/2024	14:15	27,904	377	504,962	5,502,818	315	0.04	Monitor not installed	2.41	Monitor not installed				
P1-10280-001	1/4/2024	14:15	44,167	417	504,389	5,502,736	285	0.04	Monitor not installed	2.41	Monitor not installed				
P1-10310-026 VC	1/12/2024	10:15	50,402	367	504,911	5,502,818	315	0.04	Monitor not installed	0.11	Monitor not installed				
P1-10310-027 VC	1/22/2024	10:15	52,482	380	504,844	5,502,815	315	0.04	Monitor not installed	0.11	Monitor not installed				
P1-10310-028 VC	1/15/2024	10:38	37,103	374	504,961	5,502,909	315	0.04	Monitor not installed	1.62	Monitor not installed				
P1-10310-029 VC	1/18/2024	14:15	74,055	431	504,914	5,502,922	315	0.04	Monitor not installed	2.45	Monitor not installed				
A2A-001A	1/20/2024	14:15	1,227	37	505,990	5,503,217	329	0.04	Monitor not installed	0.18	Monitor not installed				
P1-10280-002	1/22/2024	10:15	66,184	461	504,396	5,502,811	285	0.05	Monitor not installed	0.11	Monitor not installed				
A2A-001B	1/22/2024	15:15	1,412	33	505,990	5,503,217	329	0.04	Monitor not installed	0.13	Monitor not installed				
A2A-002A	1/24/2024	15:15	1,484	35	505,904	5,503,155	329	0.05	Monitor not installed	0.19	Monitor not installed				
P1-10280-003	1/26/2024	10:15	70,014	428	504,324	5,502,747	285	0.39	Monitor not installed	2.89	Monitor not installed				
A2A-002B	1/26/2024	15:15	1,491	36	505,904	5,503,155	329	0.00	Monitor not installed	0.11	Monitor not installed				
P1-10320-052	1/29/2024	15:15	23,409	284	505,077	5,502,882	325	0.10	Monitor not installed	1.93	Monitor not installed				
A2A-001A	1/30/2024	15:15	1,255	44	505,765	5,503,153	329	0.00	Monitor not installed	0.11	Monitor not installed				
GFC-001	1/31/2024	14:15	1,400	27	500,817	5,501,454	331	0.00	Monitor not installed	0.12	Monitor not installed				
A2A-001B	2/2/2024	16:15	2,059	31	505,765	5,503,153	329	0.011	Monitor not installed	0.16	Monitor not installed				
A2A-001C	2/3/2024	16:15	1,914	32	505,765	5,503,153	329	0.010	Monitor not installed	0.12	Monitor not installed				
P1-10300-010	2/5/2024	10:15	30,042	371	504,892	5,502,833	305	0.24	Monitor not installed	2.64	Monitor not installed				
GFC-002	2/6/2024	15:15	4,054	31	500,633	5,501,301	333	0.006	Monitor not installed	0.10	Monitor not installed				
P1-10280-004	2/8/2024	14:15	55871	401	504,259	5,502,749	285	0.22	Monitor not installed	2.49	Monitor not installed				
P1-10280-005	2/8/2024	14:15	65,871	420	504,197	5,502,750	285	0.22	Monitor not installed	2.49	Monitor not installed				
P1-10300-011	2/8/2024	14:15	40,697	484	504,891	5,502,700	305	0.22	Monitor not installed	2.49	Monitor not installed				
GFC-003	2/9/2024	14:15	2,648	30	500,591	5,501,255	332	0.007	Monitor not installed	0.12	Monitor not installed				
GFC-004A	2/14/2024	10:15	5,412	37	500,450	5,501,128	334	0.005	Monitor not installed	0.11	Monitor not installed				
GFC-005	2/14/2024	10:15	3,478	32	500,527	5,501,194	332	0.005	Monitor not installed	0.11	Monitor not installed				
GFC-004B	2/16/2024	14:15	3,283	30	500,450	5,501,128	334	0.005	Monitor not installed	0.11	Monitor not installed				
P1-10300-012	2/23/2024	14:15	67,445	368	504,831	5,502,668	305	0.33	Monitor not installed	0.11	Monitor not installed				
P1-10300-013	2/23/2024	14:15	44,794	389	504,777	5,502,647	305	0.33	Monitor not installed	0.11	Monitor not installed				
P1-10320-039	2/23/2024	14:15	83,732	247	504,788	5,502,077	325	0.33	Monitor not installed	0.11	Monitor not installed				
GFC-004C	2/24/2024	14:15	2373	25	500,450	5,501,128	334	0.022	Monitor not installed	0.11	Monitor not installed				
GFC-006	2/27/2024	14:15	951	48	500,238	5,500,955	333	0.054	Monitor not installed	0.14	Monitor not installed				
GFC-006B	2/27/2024	14:15	362	22	500,271	5,500,881	335	0.054	Monitor not installed	0.14	Monitor not installed				
GFC-007	2/27/2024	14:15	615	32	500,892	5,501,533	328	0.054	Monitor not installed	0.14	Monitor not installed				
P1-10300-015	3/4/2024	14:15	24,584	405	504,907	5,502,776	305	0.1	Monitor not installed	2.33	Monitor not installed				
P1-10310-031	3/4/2024	14:15	31,802	374	504,990	5,502,915	315	0.1	Monitor not installed	2.33	Monitor not installed				
P1-10280-006	3/9/2024	14:15	50,229	398	504,261	5,502,817	285	0.15	Monitor not installed	1.48	Monitor not installed				
P1-10310-032	3/11/2024	14:15	51,001	273	504,861	5,502,919	315	0.36	Monitor not installed	0.11	Monitor not installed				
P1-10300-014	3/11/2024	14:15	67,150	553	504,830	5,502,757	305	0.35	Monitor not installed	0.11	Monitor not installed				
P1-10300-014B	3/11/2024	14:15	9,385	505	504,830	5,502,757	305	0.35	Monitor not installed	0.11	Monitor not installed				
GFC-008	3/12/2024	10:15	444	18	499,334	5,500,685	338	0.003	Monitor not installed	0.11	Monitor not installed				
Orb h-B1-002	3/18/2024	18:15	16,702	30	503,824	5,501,872	329	0.04	Monitor not installed	0.50	Monitor not installed				
P1-10270-001	3/22/2024	14:15	30,720	419	504,327	5,502,741	275	0.19	Monitor not installed	2.54	Monitor not installed				
P1-10270-002	3/30/2024	14:15	28,602	404	504,382	5,502,744	275	0.18	Monitor not installed	1.58	Monitor not installed				
P1-10270-003	3/30/2024	14:15	58,647	444	504,249	5,502,731	275	0.18	Monitor not installed	1.58	Monitor not installed				
P1-10320-040	4/1/2024	14:15	28,164	321	504,769	5,502,979	325	0.1	Monitor not installed	0.11	Monitor not installed				
P1-10320-041	4/1/2024	14:15	14,864	351	504,707	5,503,056	325	0.1	Monitor not installed	0.11	Monitor not installed				
P1-10320-042	4/1/2024	14:15	58,124	426	504,831	5,503,015	325	0.1	Monitor not installed	0.11	Monitor not installed				
P1-10320-043	4/1/2024	14:15	52,739	541	504,569	5,503,031	325	0.1	Monitor not installed	0.11	Monitor not installed				
P1-10270-004	4/11/2024	14:15	80,123	470	504,285	5,502,781	275	0.19	Monitor not installed	1.94	Monitor not installed				
P1-10320-044	4/13/2024	14:15	77,606	318	504,653	5,503,110	325	0.05	Monitor not installed	1.00	Monitor not installed				
P1-10320-045	4/13/2024	14:15	40,470	326				0.05	Monitor not installed	1.00	Monitor not installed				
P1-10320-046	4/15/2024	14:15	15,245	217	504,786	5,503,077	325	Monitor not functional	Monitor not installed	Monitor not functional	Monitor not installed	1044		222	115
P1-10320-050	4/19/2024	14:15	45,594	357	504,872	5,503,050	325	0.07	Monitor not installed	1.08	Monitor not installed				
P1-10320-049 A	4/29/2024	14:15	40,241	387	504,858	5,503,102	325	0.06	Monitor not installed	2.07	Monitor not installed				
P1-10260-001	5/1/2024	14:15	76,397	399	504,246.62	5,502,764.55	265	0.16	Monitor not installed	3.52	Monitor not installed				
P1-10310-P5 01	5/4/2024	14:15	367	32	504,795.07	5,502,939.85	315	0.03	Monitor not installed	2.38	Monitor not installed				
P1-10310-033	5/6/2024	14:15	76,364	385	504,835.95	5,502,879.47	315	0.11	Monitor not installed	2.46	Monitor not installed				
P1-10310-034	5/9/2024	14:15	100,041	470	504,715.64	5,502,991.23	315	0.07	Monitor not installed	2.48	Monitor not installed				
P1-10260-001 B	5/11/2024	10:15	19,345	363	504,246.62	5,502,764.55	265	0.12	Monitor not installed	2.43	Monitor not installed				
P1-10260-002	5/11/2024	10:15	21,865	368	504,289.78	5,502,783.27	265	0.12	Monitor not installed	2.43	Monitor not installed				
P1-10320-047	5/14/2024	18:00	36,381	302	504,769.65	5,503,173.20	325	0.02	Monitor not installed	1.51	Monitor not installed				
P1-10300-016A	5/16/2024	14:15	87,195	415	504,947.44	5,502,711.07	305	0.34	Monitor not installed	15.06	Monitor not installed	655		308	158
P1-10300-016B	5/18/2024	14:15	72,812	387	504,940.45	5,502,584.55	305	0.42	Monitor not installed	14.09	Monitor not installed	555		395	203
P1-10300-016C	5/18/2024	14:15	9,185	296				0.42	Monitor not installed		Monitor not installed	555		395	203
P1-10310-035	5/21/2024	14:15	47,662	408	504,670.09	5,503,065.66	315	0.08	Monitor not installed	2.86	Monitor not installed				
P1-10310-036	5/29/2024	10:15	64,140	362	504,619.67	5,503,056.38	315	0.08	Monitor not installed	2.09	Monitor not installed				
P1-10310-036 P5	5/29/2024	10:15	367	32				0.06	Monitor not installed	2.09	Monitor not installed				
P1-10320-048	5/31/2024	14:15	68,075	389	504,878.39	5503158.37	325	0.09	Monitor not installed	5.87	Monitor not installed				
P1-10320-049B	5/31/2024	14:15	76,587	492				0.09	Monitor not installed	5.87	Monitor not installed				
P1-10300-018	6/3/2024	14:15	71,170	476	504,894	5,502,848	305	0.13	Monitor not installed	2.80	Monitor not installed				
P1-10300-019 A	6/3/2024	14:15	30,977	363	504,963	5,502,915	305	0.13	Monitor not installed	2.80	Monitor not installed				
P1-10300-017	6/5/2024	18:00	90,123	354	504,716	5,502,673	305	0.21	Monitor not installed	4.13	Monitor not installed				
P1-10320-051 P5	6/11/2024	11:00	2,464	32	504,975	5,503,150	325	0.04	Monitor not installed	3.21	Monitor not installed				
P1-10320-051	6/11/2024	11:00	69,278	395	504,975	5,503,150	325	0.04	Monitor not installed	3.21	Monitor not installed				
P1-10320-055	6/11/2024	11:00	2,720	470	504,935	5,503,500	325	0.04	Monitor not installed	3.21	Monitor not installed				
P1-10300-019 B	6/13/2024	10:15	95,020	383	504,887	5,502,914	305	0.15	Monitor not installed	5.34	Monitor not installed				
P1-10310-037	6/15/2024	14:15	103,589	505	504,750	5,503,075	315	0.07	Monitor not installed	3.04	Monitor not installed				
P1-10290-008	6/17/2024	14:16	131,365	296	504,885	5,502,625	295	fort	Monitor not installed	6.00	Monitor not installed				
P1-10310-030	6/24/2024	10:15	66,541	302	505,050	5,502,960	315	0.11	0.150	2.03	3.56				
P1-10320-056	6/24/2024	10:15	37,768	415	504,625	5,503,160	325	0.11	0.150	3.56	2.03				
P1-10310-038 A	6/28/2024	12:00	62,771	387	504,850	5,503,085	315	6.53	0.058	2.67	Monitor not functional		1095	297	153
P1-10310-041 A	6/28/2024	12:00	59,988	296	504,959	5,503,110	315	6.53	0.058	2.67	Monitor not functional		1010	280	134
P1-10310-035 B	7/6/2024	14:15	30,579	336	504,665	5,503,125	315	Monitor not functional	0.033	Monitor not functional	Monitor not functional	1127	1283	277	143
P1-10310-036 B	7/6/2024	14:15	34,506	388	504,600	5,503,100	315	Monitor not functional	0.033	Monitor not functional	Monitor not functional	1120	1335	278	143
P1-10310-038	7/12/2024	14:29	43,317	336	504,700	5,503,160	315	Monitor not functional	0.057	Monitor not functional	Monitor not functional	1133	1123	227	143
P1-10320-054	7/12/2024	14:29	92,818	668	504,550	5,503,000	325	Monitor not functional	0.057	Monitor not functional	Monitor not functional	1044	1356	390	201
P1-10320-057 A	7/12/2024	14:29	59,506	194	505,050	5,503,100	325	Monitor not functional	0.057	Monitor not functional	Monitor not functional	1042	916	210	108
P1-10290-009	7/18/2024	16:01	41,101	354	504,923	5,502,750	295	0.13	0.095	Monitor not functional	5.85	701		264	146
P1-10320-057 B	7/18/2024	16:01	36,482	194	505,050	5,503,125	325	0.13	0.095	Monitor not functional	5.85	1067		210	108
P1-10310-038 B	7/18/2024	16:01	38,040	380	504,850	5,503,125	315	0.13	0.095	Monitor not functional	5.85	1081		294	152
P1-10290-010 A	7/22/2024	10:15	42,601	333	504,875	5,502,750	295	0.13	Monitor not functional	1.61	Monitor not functional		1001	245	142
P1-10320-053	7/26/2024	14:15	56,938	354	504,625	5,502,875	325	0.11	0.065	4.87	1.26				
P1-10290-010 B	7/26/2024	14:15	95,605	333	504,875	5,502,800	295	0.11	0.065	4.87	1.26				
P1-10310-041B	8/3/2024	14:15	64,646	336	504,950	5,503,125	315	0.13	0.094	2.75	1.50				
P1-10310-043	8/3/2024	14:15	132,608	337	505,000	5,503,000	315	0.13	0.094	2.75	1.50				
P1-10310-038C	8/3/2024	14:15	1,425	336	504,875	5,503,025	315	0.13	0.094	2.75	1.50				
P1-10320-058	8/10/2024	14:16	57,041	336	504,770	5,502,900	325	0.22	0.17	6.40	2.56				
P1-10300-021	8/10/2024	14:16	46,379	337	505,009	5,502,900	305	0.22	0.17	6.40	2.56				
P1-10320-059	8/18/2024	14:45	83,656	516	504,750	5,502,800	325	0.09	0.021	5.37	1.83				
P1-10300-020	8/16/2024	14:15	103,368	324	504,900	5,503,025	305	0.1	0.084	2.14	1.83				
P1-10300-022	8/23/2024	14:15	69,432	338	505,000	5,502,975	305	0.35	0.114	10.51	7.25				
P1-10320-065	8/23/2024	14:15	64,455	324	505,123	5,502,700	325	0.35	0.114	10.51	7.25				
P1-10290-011PS	8/27/2024	11:21	12		504,775	5,502,675	295	0.21	0.064	2.96	1.17				
P1-10290-011	8/27/2024	11:21	62,738	336				0.23	0.064	2.96	1.17				
P1-10300-023	8/29/2024	12:04	91,718	336	504,800	5,503,025	305	0.14	0.036	9.16	2.80				
P1-10320-064	8/31/2024	10:45	125,954	333	505,045	5,502,700	325	0.4	0.057	24.92	7.66	639		275	142
P1-10310-024	9/4/2024	14:27	28,500	336	504,900	5,503,075	305	0.09	0.041	6.69	3.17				
P1-10300-025	9/4/2024	14:27	33,133	336	504,800	5,503,075	305	0.09	0.041	6.69	3.17				
P1-10310-044	9/4/2024	14:27	37,731	325	505,050	5,503,125	315	0.09	0.041	6.69	3.17				
P1-10320-059B	9/4/2024	14:27	20,049	202	504,725	5,502,725	325	0.09	0.041	6.69	3.17				
P1-10320-062A	9/4/2024	14:27	24,969	182	504,825	5,503,250	325	0.09	0.041	6.69	3.17				
P1-10290-012	9/6/2024	14:15	36,956	333	504,875	5,502,900	295	0.08	0.066	4.00	2.36				
P1-10310-045	9/6/2024	14:15	60,733	550	504,750	5,503,225	315	0.08	0.066	4.00	2.36				
P1-10310-062B	9/11/2024	10:46	20,933	162	504,900	5,503,250	325	0.14	0.086	5.46	2.68				
P1-10320-063	9/11/2024	10:46	21,304	145	505,050	5,503,225	325	0.14	0.086	5.46	2.68				
P1-10310-042	9/11/2024	10:46	35,809	336	504,950	5,503,175	315	0.14	0.086	5.46	2.68				
P1-10310-040	9/11/2024	10:46	45,404	336	504,850	5,503,175	315	0.14	0.086	5.46	2.68				
P1-10290-013	9/11/2024	10:46	59,261	318	504,925	5,502,900	295	0.14	0.086	5.46	2.68				
P1-10300-026	9/12/2024	16:00	66,021	336	505,000	5,503,050	305	0.07	0.071	1.86	2.42				
P1-10300-027	9/12/2024	16:00	31,402	325	504,725	5,503,025	305	0.07	0.071	1.86	2.42				
P1-10320-059C	9/17/2024	14:15	25,621	54	504,725	5,502,825	325	0.1	0.022	4.58	0.81				
P1-10320-060	9/17/2024	14:15	134,982	223	504,650	5,502,775	325	0.1	0.022	4.58	0.81				
P1-10310-037B	9/18/2024	14:15	1,083	43	504,700	5,503,125	315	0.076	0.016	0.23	0.11				
P1-10300-032	9/20/2024	14:15	53,384	336	505,075	5,503,000	305	0.11	0.083	3.39	1.99				
P1-10310-048	9/20/2024	14:15	126,287	337	504,750	5,503,000	315	0.11	0.083	3.39	1.99				
P1-10310-045B	9/23/2024	16:09	23,204	394	504,750	5,503,250	315	0.05	0.026	6.94	1.96				
P1-10310-046	9/23/2024	16:09	61,306	339	504,900	5,503,225	315	0.05	0.026	6.94	1.96				
P1-10310-047	9/23/2024	16:09	47,516	339	505,050	5,503,175	315	0.05	0.026	6.94	1.96				
P1-10320-062C	9/23/2024	16:09	315	65	504,930	5,503,250	325	0.05	0.026	6.94	1.96				
P1-10320-061	9/28/2024	10:15	90,722	303	505,175	5,502,700	325	0.58	0.119			666		262	135
P1-10320-066	9/28/2024	10:15	56,284	301	505,175	5,502,700	325	0.58	0.119	17.84	7.69	666		262	135
P1-10320-071	9/28/2024	10:15	24,217	447	505,175	5,502,650	325	0.58	0.119			619		319	164
P1-10320-072	9/28/2024	10:15	53,514	486	505,050	5,502,650	325	0.58	0.119			592		333	171

Table Notes :

Exceedance due to blast

Appendix E Morphometric and Catch Summary Data

Appendix E.1 Goldfield Creek Realignment Catch Results

Table E1: Summary of Boat Electrofishing Catch Records from Sampling Areas Between 2018 and 2024

Sampling Area	Year	Total Catch	Species Diversity	Total CPUE (fish/ minute)	Northern Pike	White Sucker	Blacknose Shiner	Spottail Shiner	Fathead Minnow	Burbot	Yellow Perch	Walleye	Iowa Darter	Lake Chub	Logperch	Mottled Sculpin
Area 5/Southwest Arm	2018 [1]	185	7	2.18	9	18	2				133	1	1		21	
	2021	140	4	2.04	8	18	9				105					
	2023	244	6	3.00	1		2	157			82			1	1	
	2024	212	5	3.19		3		125			81	2	1			
Gambsy Lake/Area 1B	2018	943	8	3.99	52	31	90	269			494	5	1			1
	2019	398	5	3.66	18	26	29	219			106					
	2021	232	4	3.95	50	10	50				122					
	2023	162	6	1.59	3		30	31		1	96				1	
	2024	114	4	2.50	5	3	4				102					
Area 3	2019	178	4	1.68	11	6	79				82					
	2021	133	2	1.84	7						126					
	2023	97	6	0.87	6	12	2		6		69	2				
	2024	798	8	11.9	1	23	1	8	5		758	1	1			
South Magnet Lake	2023	195	5	1.79	1	1	75			1	117					
	2024	103	3	4.78		1	15				87					

[1] Age 1 Yellow Perch Could not be collected from Area 5 in 2018, so sampling effort was extended into the Southwest Arm of Kenogamisis Lake

Appendix E.2 Goldfield Creek Realignment Fish Morphometric Data

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
Area 3	-	-	YLPR-001	6/8/2024	Yellow Perch	5.5	5.2	1.49		Whole Body		A3-YLPR-01
Area 3	-	-	YLPR-002	6/8/2024	Yellow Perch	5.6	5.3	1.76		Whole Body		A3-YLPR-01
Area 3	-	-	YLPR-003	6/8/2024	Yellow Perch	5.7	5.3	1.92		Whole Body		A3-YLPR-01
Area 3	-	-	YLPR-004	6/8/2024	Yellow Perch	5.6	5.3	1.61		Whole Body		A3-YLPR-01
Area 3	-	-	YLPR-005	6/8/2024	Yellow Perch	6.1	5.7	2.18		Whole Body		A3-YLPR-01
Area 3	-	-	YLPR-006	6/8/2024	Yellow Perch	5.6	5.3	1.83		Whole Body		A3-YLPR-01
Area 3	-	-	YLPR-007	6/8/2024	Yellow Perch	5.6	5.3	1.77		Whole Body	12.56	A3-YLPR-01
Area 3	-	-	YLPR-008	6/8/2024	Yellow Perch	5.2	4.9	1.58	Whole Body			
Area 3	-	-	YLPR-009	6/8/2024	Yellow Perch	5.4	5.0	1.32	Whole Body			
Area 3	-	-	YLPR-010	6/8/2024	Yellow Perch	5.7	5.4	1.96		Whole Body		A3-YLPR-02
Area 3	-	-	YLPR-011	6/8/2024	Yellow Perch	5.7	5.3	2.06		Whole Body		A3-YLPR-02
Area 3	-	-	YLPR-012	6/8/2024	Yellow Perch	5.8	5.4	1.96		Whole Body		A3-YLPR-02
Area 3	-	-	YLPR-013	6/8/2024	Yellow Perch	5.7	5.3	1.63		Whole Body		A3-YLPR-02
Area 3	-	-	YLPR-014	6/8/2024	Yellow Perch	5.6	5.3	1.82		Whole Body		A3-YLPR-02
Area 3	-	-	YLPR-015	6/8/2024	Yellow Perch	5.6	5.2	1.74		Whole Body		A3-YLPR-02
Area 3	-	-	YLPR-016	6/8/2024	Yellow Perch	5.9	5.5	2.00		Whole Body	13.17	A3-YLPR-02
Area 3	-	-	YLPR-017	6/8/2024	Yellow Perch	5.7	5.4	1.89	Whole Body			
Area 3	-	-	YLPR-018	6/8/2024	Yellow Perch	5.9	5.6	2.10	Whole Body			
Area 3	-	-	YLPR-019	6/8/2024	Yellow Perch	5.7	5.4	1.93		Whole Body		A3-YLPR-03
Area 3	-	-	YLPR-020	6/8/2024	Yellow Perch	5.9	5.5	2.02		Whole Body		A3-YLPR-03
Area 3	-	-	YLPR-021	6/8/2024	Yellow Perch	6.1	5.7	2.20		Whole Body		A3-YLPR-03
Area 3	-	-	YLPR-022	6/8/2024	Yellow Perch	6.0	5.7	2.15		Whole Body		A3-YLPR-03
Area 3	-	-	YLPR-023	6/8/2024	Yellow Perch	6.0	5.6	2.10		Whole Body		A3-YLPR-03
Area 3	-	-	YLPR-024	6/8/2024	Yellow Perch	6.1	5.7	2.14		Whole Body	12.44	A3-YLPR-03
Area 3	-	-	YLPR-025	6/8/2024	Yellow Perch	6.1	5.8	2.41	Whole Body			
Area 3	-	-	YLPR-026	6/8/2024	Yellow Perch	6.4	6.0	2.54	Whole Body			
Area 3	-	-	YLPR-027	6/8/2024	Yellow Perch	6.0	5.7	2.07		Whole Body		A3-YLPR-04
Area 3	-	-	YLPR-028	6/8/2024	Yellow Perch	6.0	5.7	2.05		Whole Body		A3-YLPR-04
Area 3	-	-	YLPR-029	6/8/2024	Yellow Perch	5.8	5.5	2.02		Whole Body		A3-YLPR-04
Area 3	-	-	YLPR-030	6/8/2024	Yellow Perch	6.1	5.8	2.51		Whole Body		A3-YLPR-04
Area 3	-	-	YLPR-031	6/8/2024	Yellow Perch	6.1	5.7	2.34		Whole Body		A3-YLPR-04
Area 3	-	-	YLPR-032	6/8/2024	Yellow Perch	6.1	5.7	2.30		Whole Body	13.39	A3-YLPR-04
Area 3	-	-	YLPR-033	6/8/2024	Yellow Perch	6.2	5.9	2.89	Whole Body			

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
Area 3	-	-	YLPR-034	6/8/2024	Yellow Perch	6.0	5.7	2.20		Whole Body		A3-YLPR-05
Area 3	-	-	YLPR-035	6/8/2024	Yellow Perch	6.0	5.7	2.18		Whole Body		A3-YLPR-05
Area 3	-	-	YLPR-036	6/8/2024	Yellow Perch	6.0	5.7	2.64		Whole Body		A3-YLPR-05
Area 3	-	-	YLPR-037	6/8/2024	Yellow Perch	5.8	5.5	2.08		Whole Body		A3-YLPR-05
Area 3	-	-	YLPR-038	6/8/2024	Yellow Perch	6.0	5.7	2.31		Whole Body		A3-YLPR-05
Area 3	-	-	YLPR-039	6/8/2024	Yellow Perch	6.0	5.7	2.25		Whole Body		A3-YLPR-05
Area 3	-	-	YLPR-040	6/8/2024	Yellow Perch	6.1	5.8	2.28		Whole Body		A3-YLPR-05
Area 3	-	-	YLPR-041	6/8/2024	Yellow Perch	5.8	5.4	2.29		Whole Body		A3-YLPR-05
Area 3	-	-	YLPR-042	6/8/2024	Yellow Perch	6.0	5.7	2.38		Whole Body		A3-YLPR-05
Area 3	-	-	YLPR-043	6/8/2024	Yellow Perch	6.2	5.9	2.42		Whole Body		A3-YLPR-05
Area 3	-	-	YLPR-044	6/8/2024	Yellow Perch	5.7	5.4	1.94		Whole Body	24.97	A3-YLPR-05
Area 3	-	-	YLPR-045	6/8/2024	Yellow Perch	6.2	5.9	2.78	Whole Body			
Area 3	-	-	YLPR-046	6/8/2024	Yellow Perch	6.1	5.8	2.32		Whole Body		A3-YLPR-06
Area 3	-	-	YLPR-047	6/8/2024	Yellow Perch	5.7	5.4	2.37		Whole Body		A3-YLPR-06
Area 3	-	-	YLPR-048	6/8/2024	Yellow Perch	6.1	5.8	2.44		Whole Body		A3-YLPR-06
Area 3	-	-	YLPR-049	6/8/2024	Yellow Perch	6.3	5.8	3.18		Whole Body		A3-YLPR-06
Area 3	-	-	YLPR-050	6/8/2024	Yellow Perch	6.0	5.7	2.28		Whole Body	12.59	A3-YLPR-06
Area 3	-	-	YLPR-051	6/8/2024	Yellow Perch	6.2	5.9	2.74	Whole Body			
Area 3	-	-	YLPR-052	6/8/2024	Yellow Perch	6.0	5.7	2.65		Whole Body		A3-YLPR-07
Area 3	-	-	YLPR-053	6/8/2024	Yellow Perch	6.0	5.7	2.32		Whole Body		A3-YLPR-07
Area 3	-	-	YLPR-054	6/8/2024	Yellow Perch	6.2	5.9	2.43		Whole Body		A3-YLPR-07
Area 3	-	-	YLPR-055	6/8/2024	Yellow Perch	6.0	5.7	2.48		Whole Body		A3-YLPR-07
Area 3	-	-	YLPR-056	6/8/2024	Yellow Perch	5.9	5.6	2.52		Whole Body		A3-YLPR-07
Area 3	-	-	YLPR-057	6/8/2024	Yellow Perch	6.0	5.7	2.47		Whole Body		A3-YLPR-07
Area 3	-	-	YLPR-058	6/8/2024	Yellow Perch	6.0	5.7	2.43		Whole Body		A3-YLPR-07
Area 3	-	-	YLPR-059	6/8/2024	Yellow Perch	6.0	5.7	2.40		Whole Body		A3-YLPR-07
Area 3	-	-	YLPR-060	6/8/2024	Yellow Perch	6.1	5.8	2.83		Whole Body		A3-YLPR-07
Area 3	-	-	YLPR-061	6/8/2024	Yellow Perch	6.2	5.9	2.30		Whole Body	24.83	A3-YLPR-07
Area 3	-	-	YLPR-062	6/8/2024	Yellow Perch	6.5	6.2	2.80	Whole Body			
Area 3	-	-	YLPR-063	6/8/2024	Yellow Perch	6.1	5.8	2.58		Whole Body		A3-YLPR-08
Area 3	-	-	YLPR-064	6/8/2024	Yellow Perch	6.2	5.9	2.91		Whole Body		A3-YLPR-08
Area 3	-	-	YLPR-065	6/8/2024	Yellow Perch	6.7	6.3	3.05		Whole Body		A3-YLPR-08
Area 3	-	-	YLPR-066	6/8/2024	Yellow Perch	6.5	6.0	2.47		Whole Body		A3-YLPR-08
Area 3	-	-	YLPR-067	6/8/2024	Yellow Perch	6.4	6.0	2.44		Whole Body	13.45	A3-YLPR-08
Area 3	-	-	YLPR-068	6/8/2024	Yellow Perch	6.7	6.3	3.08	Whole Body			

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
Area 3	-	-	YLPR-069	6/8/2024	Yellow Perch	6.8	6.4	3.34		Whole Body		A3-YLPR-09
Area 3	-	-	YLPR-070	6/8/2024	Yellow Perch	6.8	6.4	3.10		Whole Body		A3-YLPR-09
Area 3	-	-	YLPR-071	6/8/2024	Yellow Perch	6.7	6.3	3.15		Whole Body		A3-YLPR-09
Area 3	-	-	YLPR-072	6/8/2024	Yellow Perch	6.6	6.3	3.07		Whole Body	12.66	A3-YLPR-09
Area 3	-	-	YLPR-073	6/8/2024	Yellow Perch	6.7	6.3	3.11	Whole Body			
Area 3	-	-	YLPR-074	6/8/2024	Yellow Perch	6.3	6.0	2.69		Whole Body		A3-YLPR-10
Area 3	-	-	YLPR-075	6/8/2024	Yellow Perch	6.6	6.2	2.98		Whole Body		A3-YLPR-10
Area 3	-	-	YLPR-076	6/8/2024	Yellow Perch	6.6	6.3	2.89		Whole Body		A3-YLPR-10
Area 3	-	-	YLPR-077	6/8/2024	Yellow Perch	6.6	6.2	3.41		Whole Body	11.97	A3-YLPR-10
Area 3	-	-	YLPR-078	6/8/2024	Yellow Perch	6.7	6.3	3.29	Whole Body			
Area 3	-	-	YLPR-079	6/8/2024	Yellow Perch	6.8	6.4	3.31	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-001	6/5/2024	Yellow Perch	5.5	5.0	2.03		Whole Body		A5-YLPR-01
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-002	6/5/2024	Yellow Perch	5.9	5.3	2.23		Whole Body		A5-YLPR-01
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-003	6/5/2024	Yellow Perch	6.0	5.5	2.89		Whole Body		A5-YLPR-01
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-004	6/5/2024	Yellow Perch	6.0	5.5	2.23		Whole Body		A5-YLPR-01
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-005	6/5/2024	Yellow Perch	5.8	5.4	1.87		Whole Body		A5-YLPR-01
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-006	6/5/2024	Yellow Perch	6.0	5.5	2.54		Whole Body	13.79	A5-YLPR-01
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-007	6/5/2024	Yellow Perch	5.9	5.3	1.96	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-008	6/5/2024	Yellow Perch	5.7	5.3	2.04	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-009	6/5/2024	Yellow Perch	5.8	5.3	2.22		Whole Body		A5-YLPR-02
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-010	6/5/2024	Yellow Perch	6.2	5.7	2.78		Whole Body		A5-YLPR-02
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-011	6/5/2024	Yellow Perch	5.9	5.5	2.36		Whole Body		A5-YLPR-02
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-012	6/5/2024	Yellow Perch	5.8	5.3	2.04		Whole Body		A5-YLPR-02
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-013	6/5/2024	Yellow Perch	6.2	5.7	2.72		Whole Body	12.12	A5-YLPR-02

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-014	6/5/2024	Yellow Perch	5.8	5.4	2.28	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-015	6/5/2024	Yellow Perch	5.8	5.4	2.35	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-016	6/5/2024	Yellow Perch	5.9	5.5	2.44		Whole Body		A5-YLPR-03
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-017	6/5/2024	Yellow Perch	5.8	5.4	2.48		Whole Body		A5-YLPR-03
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-018	6/5/2024	Yellow Perch	5.8	5.3	2.16		Whole Body		A5-YLPR-03
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-019	6/5/2024	Yellow Perch	6.2	5.7	2.47		Whole Body		A5-YLPR-03
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-020	6/5/2024	Yellow Perch	6.0	5.5	2.40		Whole Body		A5-YLPR-03
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-021	6/5/2024	Yellow Perch	6.1	5.6	2.51		Whole Body		A5-YLPR-03
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-022	6/5/2024	Yellow Perch	6.3	5.8	2.93		Whole Body		A5-YLPR-03
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-023	6/5/2024	Yellow Perch	5.9	5.4	2.75		Whole Body		A5-YLPR-03
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-024	6/5/2024	Yellow Perch	6.3	5.8	2.72		Whole Body		A5-YLPR-03
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-025	6/5/2024	Yellow Perch	6.2	5.8	2.98		Whole Body	25.82	A5-YLPR-03
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-026	6/5/2024	Yellow Perch	6.0	5.6	2.61	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-027	6/5/2024	Yellow Perch	5.6	5.2	2.02	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-028	6/5/2024	Yellow Perch	6.2	5.7	2.81		Whole Body		A5-YLPR-04
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-029	6/5/2024	Yellow Perch	5.8	5.5	2.32		Whole Body		A5-YLPR-04
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-030	6/5/2024	Yellow Perch	6.1	5.7	2.55		Whole Body		A5-YLPR-04
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-031	6/5/2024	Yellow Perch	6.4	6.0	2.95		Whole Body		A5-YLPR-04
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-032	6/5/2024	Yellow Perch	6.1	5.7	2.63		Whole Body		A5-YLPR-04
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-033	6/5/2024	Yellow Perch	6.2	5.8	3.12		Whole Body		A5-YLPR-04
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-034	6/5/2024	Yellow Perch	6.1	5.7	2.79		Whole Body		A5-YLPR-04

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-035	6/5/2024	Yellow Perch	6.2	5.7	3.11		Whole Body		A5-YLPR-04
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-036	6/5/2024	Yellow Perch	6.1	5.7	3.14		Whole Body	25.42	A5-YLPR-04
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-037	6/5/2024	Yellow Perch	6.4	6.0	3.07	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-038	6/5/2024	Yellow Perch	6.2	5.7	3.11	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-039	6/5/2024	Yellow Perch	6.9	6.4	2.96		Whole Body		A5-YLPR-05
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-040	6/5/2024	Yellow Perch	6.4	5.8	2.82		Whole Body		A5-YLPR-05
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-041	6/5/2024	Yellow Perch	6.5	6.1	2.78		Whole Body		A5-YLPR-05
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-042	6/5/2024	Yellow Perch	6.6	6.2	3.26		Whole Body		A5-YLPR-05
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-043	6/5/2024	Yellow Perch	6.5	6.0	3.10		Whole Body		A5-YLPR-05
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-044	6/5/2024	Yellow Perch	6.6	6.1	3.38		Whole Body		A5-YLPR-05
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-045	6/5/2024	Yellow Perch	6.5	6.0	3.60		Whole Body		A5-YLPR-05
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-046	6/5/2024	Yellow Perch	6.1	5.7	3.23		Whole Body	25.13	A5-YLPR-05
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-047	6/5/2024	Yellow Perch	6.4	6.0	3.27	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-048	6/5/2024	Yellow Perch	6.3	5.9	2.97	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-049	6/5/2024	Yellow Perch	6.6	6.1	3.56		Whole Body		A5-YLPR-06
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-050	6/5/2024	Yellow Perch	6.8	6.3	3.48		Whole Body		A5-YLPR-06
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-051	6/5/2024	Yellow Perch	6.6	6.2	3.21		Whole Body		A5-YLPR-06
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-052	6/5/2024	Yellow Perch	6.0	5.6	2.61		Whole Body	12.86	A5-YLPR-06
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-053	6/5/2024	Yellow Perch	6.8	6.4	3.87	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-054	6/5/2024	Yellow Perch	6.7	6.2	3.56	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-055	6/5/2024	Yellow Perch	7.0	6.5	4.16		Whole Body		A5-YLPR-07

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-056	6/5/2024	Yellow Perch	6.5	6.1	3.07		Whole Body		A5-YLPR-07
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-057	6/5/2024	Yellow Perch	6.5	6.1	3.34		Whole Body		A5-YLPR-07
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-058	6/5/2024	Yellow Perch	6.5	6.1	3.17		Whole Body	13.71	A5-YLPR-07
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-059	6/5/2024	Yellow Perch	6.3	5.9	2.78	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-060	6/5/2024	Yellow Perch	6.5	6.0	3.01	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-061	6/5/2024	Yellow Perch	6.7	6.3	3.33		Whole Body		A5-YLPR-08
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-062	6/5/2024	Yellow Perch	6.6	6.2	3.43		Whole Body		A5-YLPR-08
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-063	6/5/2024	Yellow Perch	6.6	6.2	3.42		Whole Body		A5-YLPR-08
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-064	6/5/2024	Yellow Perch	6.9	6.4	3.79		Whole Body	13.97	A5-YLPR-08
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-065	6/5/2024	Yellow Perch	6.9	6.4	3.84	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-066	6/5/2024	Yellow Perch	6.7	6.3	3.16	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-067	6/5/2024	Yellow Perch	6.4	6.0	2.98		Whole Body		A5-YLPR-09
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-068	6/5/2024	Yellow Perch	6.5	6.1	3.33		Whole Body		A5-YLPR-09
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-069	6/5/2024	Yellow Perch	6.8	6.3	3.61		Whole Body		A5-YLPR-09
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-070	6/5/2024	Yellow Perch	6.8	6.4	3.68		Whole Body	13.60	A5-YLPR-09
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-071	6/5/2024	Yellow Perch	7.2	6.8	4.78	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-072	6/5/2024	Yellow Perch	7.1	6.8	4.40	Whole Body			
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-073	6/5/2024	Yellow Perch	7.3	6.8	4.47		Whole Body		A5-YLPR-10
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-074	6/5/2024	Yellow Perch	7.2	6.8	5.43		Whole Body		A5-YLPR-10
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-075	6/5/2024	Yellow Perch	7.0	6.6	3.96		Whole Body	13.86	A5-YLPR-10
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-076	6/5/2024	Yellow Perch	6.7	6.3	3.77	Whole Body			

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
Southwest Arm Tributary	Area 5	A5-BEF-01	YLPR-077	6/5/2024	Yellow Perch	6.9	6.4	4.01	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-001	6/7/2024	Yellow Perch	5.7	5.4	1.90		Whole Body		SMLK-YLPR-01
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-002	6/7/2024	Yellow Perch	5.8	5.4	1.85		Whole Body		SMLK-YLPR-01
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-003	6/7/2024	Yellow Perch	5.6	5.3	1.65		Whole Body		SMLK-YLPR-01
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-004	6/7/2024	Yellow Perch	4.7	4.4	1.23		Whole Body		SMLK-YLPR-01
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-005	6/7/2024	Yellow Perch	5.6	5.3	1.97		Whole Body		SMLK-YLPR-01
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-006	6/7/2024	Yellow Perch	5.2	4.8	1.54		Whole Body		SMLK-YLPR-01
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-007	6/7/2024	Yellow Perch	5.4	5.0	1.33		Whole Body		SMLK-YLPR-01
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-008	6/7/2024	Yellow Perch	5.4	5.0	1.83		Whole Body	13.30	SMLK-YLPR-01
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-009	6/7/2024	Yellow Perch	5.1	4.7	1.26	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-010	6/7/2024	Yellow Perch	5.4	5.1	1.61	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-011	6/7/2024	Yellow Perch	5.9	5.5	1.84		Whole Body		SMLK-YLPR-02
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-012	6/7/2024	Yellow Perch	5.8	5.5	1.88		Whole Body		SMLK-YLPR-02
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-013	6/7/2024	Yellow Perch	5.3	4.9	1.34		Whole Body		SMLK-YLPR-02
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-014	6/7/2024	Yellow Perch	5.9	5.5	1.92		Whole Body		SMLK-YLPR-02
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-015	6/7/2024	Yellow Perch	5.5	5.2	1.48		Whole Body		SMLK-YLPR-02
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-016	6/7/2024	Yellow Perch	6.1	5.7	2.46		Whole Body		SMLK-YLPR-02
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-017	6/7/2024	Yellow Perch	5.6	5.2	1.94		Whole Body	12.86	SMLK-YLPR-02
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-018	6/7/2024	Yellow Perch	6.4	6.0	2.37	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-019	6/7/2024	Yellow Perch	5.8	5.5	2.14	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-020	6/7/2024	Yellow Perch	5.8	5.5	2.04		Whole Body		SMLK-YLPR-03

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-021	6/7/2024	Yellow Perch	6.1	5.7	2.51		Whole Body		SMLK-YLPR-03
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-022	6/7/2024	Yellow Perch	6.0	5.7	2.32		Whole Body		SMLK-YLPR-03
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-023	6/7/2024	Yellow Perch	6.0	5.7	2.33		Whole Body		SMLK-YLPR-03
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-024	6/7/2024	Yellow Perch	6.0	5.6	2.24		Whole Body		SMLK-YLPR-03
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-025	6/7/2024	Yellow Perch	5.9	5.6	2.07		Whole Body	13.51	SMLK-YLPR-03
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-026	6/7/2024	Yellow Perch	5.6	5.3	1.71	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-027	6/7/2024	Yellow Perch	5.9	5.5	2.03	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-028	6/7/2024	Yellow Perch	5.9	5.5	2.02		Whole Body		SMLK-YLPR-04
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-029	6/7/2024	Yellow Perch	5.9	5.6	2.27		Whole Body		SMLK-YLPR-04
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-030	6/7/2024	Yellow Perch	6.0	5.7	2.24		Whole Body		SMLK-YLPR-04
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-031	6/7/2024	Yellow Perch	6.1	5.8	2.42		Whole Body		SMLK-YLPR-04
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-032	6/7/2024	Yellow Perch	6.1	5.7	2.41		Whole Body		SMLK-YLPR-04
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-033	6/7/2024	Yellow Perch	6.2	5.9	2.44		Whole Body	13.80	SMLK-YLPR-04
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-034	6/7/2024	Yellow Perch	6.2	5.9	2.25	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-035	6/7/2024	Yellow Perch	5.8	5.5	2.01	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-036	6/7/2024	Yellow Perch	6.2	5.9	2.48		Whole Body		SMLK-YLPR-05
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-037	6/7/2024	Yellow Perch	6.2	5.8	2.45		Whole Body		SMLK-YLPR-05
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-038	6/7/2024	Yellow Perch	6.1	5.8	2.61		Whole Body		SMLK-YLPR-05
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-039	6/7/2024	Yellow Perch	6.0	5.7	2.48		Whole Body		SMLK-YLPR-05
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-040	6/7/2024	Yellow Perch	5.6	5.3	1.89		Whole Body	11.91	SMLK-YLPR-05
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-041	6/7/2024	Yellow Perch	6.0	5.7	2.28	Whole Body			

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-042	6/7/2024	Yellow Perch	6.2	5.9	2.50		Whole Body		SMLK-YLPR-06
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-043	6/7/2024	Yellow Perch	5.9	5.5	2.15		Whole Body		SMLK-YLPR-06
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-044	6/7/2024	Yellow Perch	5.6	5.3	2.06		Whole Body		SMLK-YLPR-06
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-045	6/7/2024	Yellow Perch	6.0	5.7	2.42		Whole Body		SMLK-YLPR-06
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-046	6/7/2024	Yellow Perch	5.6	5.3	2.12		Whole Body		SMLK-YLPR-06
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-047	6/7/2024	Yellow Perch	5.9	5.5	2.24		Whole Body	13.49	SMLK-YLPR-06
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-048	6/7/2024	Yellow Perch	6.2	5.8	2.47	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-049	6/7/2024	Yellow Perch	5.7	5.3	2.13		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-050	6/7/2024	Yellow Perch	5.6	5.3	1.91		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-051	6/7/2024	Yellow Perch	5.6	5.3	2.06		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-052	6/7/2024	Yellow Perch	5.3	5.0	1.68		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-053	6/7/2024	Yellow Perch	5.7	5.3	1.57		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-054	6/7/2024	Yellow Perch	5.7	5.4	1.90		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-055	6/7/2024	Yellow Perch	5.9	5.6	2.08		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-056	6/7/2024	Yellow Perch	5.8	5.4	1.89		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-057	6/7/2024	Yellow Perch	5.1	4.8	1.46		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-058	6/7/2024	Yellow Perch	5.7	5.4	1.85		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-059	6/7/2024	Yellow Perch	5.9	5.6	2.16		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-060	6/7/2024	Yellow Perch	5.9	5.6	2.47		Whole Body		SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-061	6/7/2024	Yellow Perch	5.9	5.5	2.47		Whole Body	25.63	SMLK-YLPR-07
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-062	6/7/2024	Yellow Perch	5.9	5.6	2.49	Whole Body			

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-063	6/7/2024	Yellow Perch	6.0	5.7	2.75		Whole Body		SMLK-YLPR-08
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-064	6/7/2024	Yellow Perch	6.0	5.7	2.75		Whole Body		SMLK-YLPR-08
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-065	6/7/2024	Yellow Perch	6.1	5.8	2.32		Whole Body		SMLK-YLPR-08
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-066	6/7/2024	Yellow Perch	6.1	5.8	2.37		Whole Body		SMLK-YLPR-08
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-067	6/7/2024	Yellow Perch	6.1	5.7	2.45		Whole Body		SMLK-YLPR-08
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-068	6/7/2024	Yellow Perch	6.2	5.8	2.62		Whole Body		SMLK-YLPR-08
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-069	6/7/2024	Yellow Perch	6.1	5.7	2.52		Whole Body		SMLK-YLPR-08
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-070	6/7/2024	Yellow Perch	6.1	5.8	2.50		Whole Body		SMLK-YLPR-08
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-071	6/7/2024	Yellow Perch	6.3	5.9	2.72		Whole Body		SMLK-YLPR-08
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-072	6/7/2024	Yellow Perch	6.0	5.7	2.24		Whole Body	25.24	SMLK-YLPR-08
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-073	6/7/2024	Yellow Perch	6.2	5.8	2.96	Whole Body			
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-074	6/7/2024	Yellow Perch	6.3	6.0	2.74		Whole Body		SMLK-YLPR-09
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-075	6/7/2024	Yellow Perch	6.2	5.9	2.45		Whole Body		SMLK-YLPR-09
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-076	6/7/2024	Yellow Perch	6.3	6.0	2.88		Whole Body		SMLK-YLPR-09
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-077	6/7/2024	Yellow Perch	6.4	6.0	2.82		Whole Body		SMLK-YLPR-09
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-078	6/7/2024	Yellow Perch	6.3	5.9	2.80		Whole Body		SMLK-YLPR-09
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-079	6/7/2024	Yellow Perch	6.3	6.0	2.66		Whole Body		SMLK-YLPR-09
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-080	6/7/2024	Yellow Perch	6.3	6.0	2.61		Whole Body		SMLK-YLPR-09
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-081	6/7/2024	Yellow Perch	6.5	6.1	2.56		Whole Body		SMLK-YLPR-09
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-082	6/7/2024	Yellow Perch	6.4	6.0	2.78		Whole Body	24.30	SMLK-YLPR-09
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-083	6/7/2024	Yellow Perch	6.6	6.2	2.75	Whole Body			

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-084	6/7/2024	Yellow Perch	6.6	6.2	3.06		Whole Body		SMLK-YLPR-10
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-085	6/7/2024	Yellow Perch	6.7	6.4	3.08		Whole Body		SMLK-YLPR-10
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-086	6/7/2024	Yellow Perch	6.7	6.3	3.37		Whole Body		SMLK-YLPR-10
South Magnet Lake (SMLK)	SMLK	SMLK-BEF-01	YLPR-087	6/7/2024	Yellow Perch	6.7	6.4	3.10		Whole Body	12.61	SMLK-YLPR-10
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-001	6/10/2024	Yellow Perch	5.1	4.6	1.55		Whole Body		A1B-YLPR-01
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-002	6/10/2024	Yellow Perch	5.0	4.5	1.43		Whole Body		A1B-YLPR-01
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-003	6/10/2024	Yellow Perch	5.3	4.9	1.69		Whole Body		A1B-YLPR-01
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-004	6/10/2024	Yellow Perch	5.4	5.0	1.95		Whole Body		A1B-YLPR-01
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-005	6/10/2024	Yellow Perch	5.4	5.0	1.99		Whole Body		A1B-YLPR-01
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-006	6/10/2024	Yellow Perch	5.7	5.3	2.17		Whole Body		A1B-YLPR-01
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-007	6/10/2024	Yellow Perch	5.7	5.3	2.03		Whole Body	12.81	A1B-YLPR-01
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-008	6/10/2024	Yellow Perch	5.1	4.7	1.38	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-009	6/10/2024	Yellow Perch	5.3	4.9	1.77	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-010	6/10/2024	Yellow Perch	5.1	4.8	1.47		Whole Body		A1B-YLPR-02
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-011	6/10/2024	Yellow Perch	5.5	5.2	2.09		Whole Body		A1B-YLPR-02
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-012	6/10/2024	Yellow Perch	5.5	5.2	2.13		Whole Body		A1B-YLPR-02
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-013	6/10/2024	Yellow Perch	5.8	5.5	2.13		Whole Body		A1B-YLPR-02
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-014	6/10/2024	Yellow Perch	5.7	5.4	2.07		Whole Body		A1B-YLPR-02
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-015	6/10/2024	Yellow Perch	5.5	5.2	2.07		Whole Body	11.96	A1B-YLPR-02
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-016	6/10/2024	Yellow Perch	5.9	5.5	2.16	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-017	6/10/2024	Yellow Perch	5.3	5.0	1.62		Whole Body		A1B-YLPR-03

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-018	6/10/2024	Yellow Perch	5.7	5.4	2.20		Whole Body		A1B-YLPR-03
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-019	6/10/2024	Yellow Perch	5.7	5.4	2.22		Whole Body		A1B-YLPR-03
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-020	6/10/2024	Yellow Perch	5.8	5.4	2.30		Whole Body		A1B-YLPR-03
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-021	6/10/2024	Yellow Perch	5.9	5.5	2.22		Whole Body		A1B-YLPR-03
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-022	6/10/2024	Yellow Perch	5.7	5.4	2.27		Whole Body	12.83	A1B-YLPR-03
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-023	6/10/2024	Yellow Perch	5.9	5.5	2.33	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-024	6/10/2024	Yellow Perch	5.8	5.0	2.21		Whole Body		A1B-YLPR-04
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-025	6/10/2024	Yellow Perch	6.0	5.7	2.38		Whole Body		A1B-YLPR-04
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-026	6/10/2024	Yellow Perch	6.2	5.9	2.91		Whole Body		A1B-YLPR-04
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-027	6/10/2024	Yellow Perch	5.8	5.5	2.41		Whole Body		A1B-YLPR-04
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-028	6/10/2024	Yellow Perch	5.9	5.5	2.48		Whole Body	12.39	A1B-YLPR-04
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-029	6/10/2024	Yellow Perch	6.1	5.8	2.89	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-030	6/10/2024	Yellow Perch	5.8	5.5	2.18		Whole Body		A1B-YLPR-05
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-031	6/10/2024	Yellow Perch	5.7	5.4	2.42		Whole Body		A1B-YLPR-05
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-032	6/10/2024	Yellow Perch	6.0	5.6	2.35		Whole Body		A1B-YLPR-05
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-033	6/10/2024	Yellow Perch	5.7	5.4	2.25		Whole Body		A1B-YLPR-05
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-034	6/10/2024	Yellow Perch	6.0	5.7	2.33		Whole Body		A1B-YLPR-05
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-035	6/10/2024	Yellow Perch	5.8	5.5	2.20		Whole Body	13.76	A1B-YLPR-05
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-036	6/10/2024	Yellow Perch	6.5	6.2	3.34	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-037	6/10/2024	Yellow Perch	6.1	5.8	3.01		Whole Body		A1B-YLPR-06
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-038	6/10/2024	Yellow Perch	6.3	6.0	3.17		Whole Body		A1B-YLPR-06

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-039	6/10/2024	Yellow Perch	6.2	5.9	2.88		Whole Body		A1B-YLPR-06
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-040	6/10/2024	Yellow Perch	6.2	5.9	2.62		Whole Body		A1B-YLPR-06
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-041	6/10/2024	Yellow Perch	6.2	5.9	2.91		Whole Body		A1B-YLPR-06
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-042	6/10/2024	Yellow Perch	6.2	5.9	3.12		Whole Body	14.70	A1B-YLPR-06
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-043	6/10/2024	Yellow Perch	6.4	6.1	3.53	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-044	6/10/2024	Yellow Perch	6.2	5.9	2.81	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-045	6/10/2024	Yellow Perch	5.8	5.5	2.77		Whole Body		A1B-YLPR-07
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-046	6/10/2024	Yellow Perch	6.3	6.0	3.44		Whole Body		A1B-YLPR-07
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-047	6/10/2024	Yellow Perch	6.2	5.9	2.71		Whole Body		A1B-YLPR-07
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-048	6/10/2024	Yellow Perch	6.4	6.1	3.19		Whole Body	12.11	A1B-YLPR-07
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-049	6/10/2024	Yellow Perch	6.5	6.2	3.72	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-050	6/10/2024	Yellow Perch	6.6	6.3	3.85		Whole Body		A1B-YLPR-08
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-051	6/10/2024	Yellow Perch	6.5	6.2	3.59		Whole Body		A1B-YLPR-08
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-052	6/10/2024	Yellow Perch	6.9	6.5	3.94		Whole Body		A1B-YLPR-08
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-053	6/10/2024	Yellow Perch	6.5	6.2	3.52		Whole Body	14.90	A1B-YLPR-08
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-054	6/10/2024	Yellow Perch	6.8	6.5	4.23	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-055	6/10/2024	Yellow Perch	7.0	6.7	4.31		Whole Body		A1B-YLPR-09
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-056	6/10/2024	Yellow Perch	7.1	6.8	4.64		Whole Body		A1B-YLPR-09
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-057	6/10/2024	Yellow Perch	7.4	7.0	4.96		Whole Body	13.91	A1B-YLPR-09
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-058	6/10/2024	Yellow Perch	7.4	7.0	4.94	Whole Body			
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-059	6/10/2024	Yellow Perch	7.6	7.2	5.86		Whole Body		A1B-YLPR-10

Waterbody	Sub-Location	Station Name	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Wt (g)	Ageing Structure	Type of Tissue Sample	Tissue Sample Weight (g)	Composite/Tissue ID
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-060	6/10/2024	Yellow Perch	7.8	7.4	6.17		Whole Body		A1B-YLPR-10
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-061	6/10/2024	Yellow Perch	7.4	7.0	5.56		Whole Body	17.59	A1B-YLPR-10
Unnamed Tributary to Gamsby Lake	Area 1B	A1B-BEF-01	YLPR-062	6/10/2024	Yellow Perch	7.4	7.0	5.29	Whole Body			

Appendix E.3 Goldfield Creek Realignment Fish Tissue Laboratory Data

Your P.O. #: 300.108.999
Your Project #: 160901121
Your C.O.C. #: 994554-03-01

Attention: Nathan Burnett

Stantec Consulting Ltd
300 Hagey Blvd
Suite 100
Waterloo, ON
CANADA N2L 0A4

Report Date: 2024/10/08
Report #: R8352920
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4I7374
Received: 2024/06/20, 09:29

Sample Matrix: Tissue
Samples Received: 66

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mercury in Tissue by CVAF - Wet Wt (1)	57	N/A	2024/07/25	BBY7SOP-00012	EPA 245.7
Mercury in Tissue by CVAF - Wet Wt (1)	9	N/A	2024/07/30	BBY7SOP-00012	EPA 245.7
Elements by ICPMS - Tissue Plug Wet Wt (1)	6	2024/06/25	2024/07/17	BBY7SOP-00021 / BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS - Tissue Plug Wet Wt (1)	8	2024/06/25	2024/07/03	BBY7SOP-00021 / BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS - Tissue Plug Wet Wt (1)	31	2024/06/25	2024/07/04	BBY7SOP-00021 / BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS - Tissue Plug Wet Wt (1)	1	2024/06/25	2024/07/06	BBY7SOP-00021 / BBY7SOP-00002	EPA 6020b R2 m
Elements by ICPMS - Tissue Plug Wet Wt (1)	20	2024/06/26	2024/07/17	BBY7SOP-00021 / BBY7SOP-00002	EPA 6020b R2 m
Moisture in Tissue-Freeze Drying (1, 3)	24	2024/06/25	2024/06/25	BBY7SOP-00021	BCMOE BCLM Aug 2014
Moisture in Tissue-Freeze Drying (1, 3)	1	2024/06/25	2024/06/27	BBY7SOP-00021	BCMOE BCLM Aug 2014
Moisture in Tissue-Freeze Drying (1, 3)	21	2024/06/25	2024/06/28	BBY7SOP-00021	BCMOE BCLM Aug 2014
Moisture in Tissue-Freeze Drying (1, 3)	19	2024/06/26	2024/06/27	BBY7SOP-00021	BCMOE BCLM Aug 2014
Moisture in Tissue-Freeze Drying (1, 3)	1	2024/06/26	2024/06/28	BBY7SOP-00021	BCMOE BCLM Aug 2014
Methyl Mercury (2)	66	N/A	N/A		EPA 1630

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless

Your P.O. #: 300.108.999
Your Project #: 160901121
Your C.O.C. #: 994554-03-01

Attention: Nathan Burnett

Stantec Consulting Ltd
300 Hagey Blvd
Suite 100
Waterloo, ON
CANADA N2L 0A4

Report Date: 2024/10/08
Report #: R8352920
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4I7374
Received: 2024/06/20, 09:29

otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) This test was performed by Bureau Veritas Burnaby, 4606 Canada Way , Burnaby, BC, V5G 1K5
(2) This test was performed by Flett Research Ltd., 440 DeSalaberry Ave. , Winnipeg, MB, R2L 0Y7
(3) Offsite analysis requires that subcontracted moisture be reported.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Julie Clement, Technical Account Manager
Email: Julie.CLEMENT@bureauveritas.com
Phone# (613)868-6079

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Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX897	ZMX898	ZMX899	ZMX900	ZMX901			
Sampling Date		2024/06/05	2024/06/05	2024/06/05	2024/06/05	2024/06/05			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	A5-YLPR-01	A5-YLPR-02	A5-YLPR-03	A5-YLPR-04	A5-YLPR-05	RDL	MDL	QC Batch
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	2.77	2.01	2.24	4.28	1.10	0.50	N/A	9547566
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0112	0.0024	0.0035	0.0046	0.0040	0.0020	N/A	9547566
Total (Wet Wt) Arsenic (As)	mg/kg	0.178	0.163	0.195	0.189	0.185	0.0050	N/A	9547566
Total (Wet Wt) Barium (Ba)	mg/kg	0.767	0.734	0.686	0.742	0.627	0.010	N/A	9547566
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547566
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547566
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	N/A	9547566
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0061	0.0083	0.0074	0.0082	0.0056	0.0013	N/A	9547566
Total (Wet Wt) Calcium (Ca)	mg/kg	10900	12100	14400	14700	15600	4.0	N/A	9547566
Total (Wet Wt) Chromium (Cr)	mg/kg	0.053	0.042	0.027	0.030	0.028	0.025	N/A	9547566
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0091	0.0087	0.0089	0.0107	0.0818	0.0013	N/A	9547566
Total (Wet Wt) Copper (Cu)	mg/kg	0.522	0.531	0.510	0.489	0.495	0.013	N/A	9547566
Total (Wet Wt) Iron (Fe)	mg/kg	13.1	12.9	12.9	20.3	12.2	0.25	N/A	9547566
Total (Wet Wt) Lead (Pb)	mg/kg	0.0115	0.0112	0.0171	0.0188	0.0080	0.0013	N/A	9547566
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	N/A	9547566
Total (Wet Wt) Magnesium (Mg)	mg/kg	374	386	418	416	388	0.40	N/A	9547566
Total (Wet Wt) Manganese (Mn)	mg/kg	7.71	6.02	6.15	5.51	8.85	0.010	N/A	9547566
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0157	0.0183	0.0144	0.0164	0.0157	0.0080	N/A	9547566
Total (Wet Wt) Nickel (Ni)	mg/kg	0.063	0.034	0.024	0.025	0.028	0.010	N/A	9547566
Total (Wet Wt) Phosphorus (P)	mg/kg	7260	7860	9210	9240	9540	2.0	N/A	9547566
Total (Wet Wt) Potassium (K)	mg/kg	3290	3160	3290	3110	3050	2.5	N/A	9547566
Total (Wet Wt) Selenium (Se)	mg/kg	0.217	0.248	0.245	0.253	0.241	0.010	N/A	9547566
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	<50	<50	50	N/A	9547566
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	0.0037	<0.0013	<0.0013	0.0013	N/A	9547566
Total (Wet Wt) Sodium (Na)	mg/kg	1060	1020	988	936	1070	2.5	N/A	9547566
Total (Wet Wt) Strontium (Sr)	mg/kg	1.72	1.81	2.06	2.40	2.27	0.013	N/A	9547566
Total (Wet Wt) Sulphur (S)	mg/kg	2210	1750	2200	1960	2090	50	N/A	9547566
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547566
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00349	0.00358	0.00422	0.00434	0.00444	0.00040	N/A	9547566
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	0.0025	9547566

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX897	ZMX898	ZMX899	ZMX900	ZMX901			
Sampling Date		2024/06/05	2024/06/05	2024/06/05	2024/06/05	2024/06/05			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	A5-YLPR-01	A5-YLPR-02	A5-YLPR-03	A5-YLPR-04	A5-YLPR-05	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	0.022	0.028	0.020	N/A	9547566
Total (Wet Wt) Titanium (Ti)	mg/kg	0.21	0.21	0.25	0.29	0.23	0.13	N/A	9547566
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	N/A	9547566
Total (Wet Wt) Uranium (U)	mg/kg	0.00142	0.00128	0.00142	0.00192	0.00093	0.00040	N/A	9547566
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	0.022	0.026	<0.020	0.020	N/A	9547566
Total (Wet Wt) Zinc (Zn)	mg/kg	23.5	22.4	26.4	25.4	23.5	0.20	N/A	9547566
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	N/A	9547566
Mercury (Hg)	mg/kg	0.0960	0.0836	0.0785	0.0525	0.0752	0.0010	0.0010	9547563
PHYSICAL PROPERTIES									
Sample Weight (as received)	%	0.22	0.29	0.21	0.36	0.28	N/A	N/A	9547565
Moisture-Subcontracted	%	79	78	78	78	76	0.30	N/A	9547565

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX902	ZMX903	ZMX904			ZMX905			
Sampling Date		2024/06/05	2024/06/05	2024/06/08			2024/06/08			
COC Number		994554-03-01	994554-03-01	994554-03-01			994554-03-01			
	UNITS	A5-YLPR-07	A5-YLPR-08	A3-YLPR-01	RDL	MDL	A3-YLPR-02	RDL	MDL	QC Batch
Metals										
Total (Wet Wt) Aluminum (Al)	mg/kg	0.70	0.85	5.04	0.50	N/A	1.42	0.50	N/A	9547566
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0042	0.0028	0.0027	0.0020	N/A	0.0037	0.0020	N/A	9547566
Total (Wet Wt) Arsenic (As)	mg/kg	0.0819	0.108	0.201	0.0050	N/A	0.153	0.0050	N/A	9547566
Total (Wet Wt) Barium (Ba)	mg/kg	0.061	0.176	0.801	0.010	N/A	0.365	0.010	N/A	9547566
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	0.0020	N/A	<0.0020	0.0020	N/A	9547566
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	0.0013	N/A	<0.0013	0.0013	N/A	9547566
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	0.20	N/A	<0.20	0.20	N/A	9547566
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0016	0.0020	0.0050	0.0013	N/A	0.0038	0.0013	N/A	9547566
Total (Wet Wt) Calcium (Ca)	mg/kg	1560	3410	17400	4.0	N/A	8910	4.0	N/A	9547566
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.025	0.072	0.048	0.025	N/A	0.033	0.025	N/A	9547566
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0041	0.0052	0.0333	0.0013	N/A	0.0226	0.0013	N/A	9547566
Total (Wet Wt) Copper (Cu)	mg/kg	0.276	0.292	0.589	0.013	N/A	0.408	0.013	N/A	9547566
Total (Wet Wt) Iron (Fe)	mg/kg	3.64	4.66	23.5	0.25	N/A	7.00	0.25	N/A	9547566
Total (Wet Wt) Lead (Pb)	mg/kg	0.0025	0.0622	0.0163	0.0013	N/A	0.0109	0.0013	N/A	9547566
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	0.10	N/A	<0.10	0.10	N/A	9547566
Total (Wet Wt) Magnesium (Mg)	mg/kg	196	222	427	0.40	N/A	308	0.40	N/A	9547566
Total (Wet Wt) Manganese (Mn)	mg/kg	0.362	1.11	8.27	0.010	N/A	3.33	0.010	N/A	9547566
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0080	0.0145	0.0157	0.0080	N/A	<0.0080	0.0080	N/A	9547566
Total (Wet Wt) Nickel (Ni)	mg/kg	0.018	0.042	0.056	0.010	N/A	0.028	0.010	N/A	9547566
Total (Wet Wt) Phosphorus (P)	mg/kg	2440	3360	10100	2.0	N/A	6280	2.0	N/A	9547566
Total (Wet Wt) Potassium (K)	mg/kg	3440	3490	3090	2.5	N/A	3340	2.5	N/A	9547566
Total (Wet Wt) Selenium (Se)	mg/kg	0.213	0.196	0.287	0.010	N/A	0.214	0.010	N/A	9547566
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	50	N/A	<50	50	N/A	9547566
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	0.0013	N/A	<0.0013	0.0013	N/A	9547566
Total (Wet Wt) Sodium (Na)	mg/kg	815	796	1070	2.5	N/A	877	2.5	N/A	9547566
Total (Wet Wt) Strontium (Sr)	mg/kg	0.230	0.594	3.03	0.013	N/A	1.69	0.013	N/A	9547566
Total (Wet Wt) Sulphur (S)	mg/kg	2530	2330	2100	50	N/A	2040	50	N/A	9547566
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	0.0040	N/A	<0.0040	0.0040	N/A	9547566
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00274	0.00212	0.00765	0.00040	N/A	0.00734	0.00040	N/A	9547566
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	0.025	0.0025	<0.025	0.025	0.0025	9547566

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX902	ZMX903	ZMX904			ZMX905			
Sampling Date		2024/06/05	2024/06/05	2024/06/08			2024/06/08			
COC Number		994554-03-01	994554-03-01	994554-03-01			994554-03-01			
	UNITS	A5-YLPR-07	A5-YLPR-08	A3-YLPR-01	RDL	MDL	A3-YLPR-02	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	0.020	N/A	<0.020	0.020	N/A	9547566
Total (Wet Wt) Titanium (Ti)	mg/kg	<0.13	<0.13	0.43	0.13	N/A	0.13	0.13	N/A	9547566
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	<0.0050	0.0050	N/A	<0.0050	0.0050	N/A	9547566
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	0.00173	0.00040	N/A	0.00060	0.00040	N/A	9547566
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	0.038	0.020	N/A	<0.020	0.020	N/A	9547566
Total (Wet Wt) Zinc (Zn)	mg/kg	9.44	13.3	39.8	0.20	N/A	19.2	0.20	N/A	9547566
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	0.040	N/A	<0.040	0.040	N/A	9547566
Mercury (Hg)	mg/kg	0.104	0.0980	0.165	0.0010	0.0010	0.262 (1)	0.0020	0.0020	9547563
PHYSICAL PROPERTIES										
Sample Weight (as received)	%	0.43	0.28	0.25	N/A	N/A	0.22	N/A	N/A	9547565
Moisture-Subcontracted	%	80	80	75	0.30	N/A	78	0.30	N/A	9547565

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) RDL raised due to concentration over linear range, sample dilution required.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX906	ZMX907	ZMX908	ZMX909			
Sampling Date		2024/06/08	2024/06/08	2024/06/08	2024/06/08			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	A3-YLPR-03	A3-YLPR-05	A3-YLPR-06	A3-YLPR-08	RDL	MDL	QC Batch
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	2.49	2.38	<0.50	2.14	0.50	N/A	9547566
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0020	0.0022	<0.0020	0.0053	0.0020	N/A	9547566
Total (Wet Wt) Arsenic (As)	mg/kg	0.0977	0.129	0.120	0.150	0.0050	N/A	9547566
Total (Wet Wt) Barium (Ba)	mg/kg	0.213	0.207	0.166	0.396	0.010	N/A	9547566
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547566
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547566
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	0.20	N/A	9547566
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0028	0.0037	<0.0013	0.0040	0.0013	N/A	9547566
Total (Wet Wt) Calcium (Ca)	mg/kg	4980	5480	4450	8780	4.0	N/A	9547566
Total (Wet Wt) Chromium (Cr)	mg/kg	0.049	<0.025	0.030	0.743	0.025	N/A	9547566
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0246	0.0346	0.0168	0.0348	0.0013	N/A	9547566
Total (Wet Wt) Copper (Cu)	mg/kg	0.410	0.389	0.287	0.425	0.013	N/A	9547566
Total (Wet Wt) Iron (Fe)	mg/kg	10.1	11.0	4.89	22.6	0.25	N/A	9547566
Total (Wet Wt) Lead (Pb)	mg/kg	0.0102	0.0113	0.0046	0.0355	0.0013	N/A	9547566
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	<0.10	0.10	N/A	9547566
Total (Wet Wt) Magnesium (Mg)	mg/kg	303	257	247	387	0.40	N/A	9547566
Total (Wet Wt) Manganese (Mn)	mg/kg	2.09	2.12	1.75	3.55	0.010	N/A	9547566
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0080	0.0094	<0.0080	0.0194	0.0080	N/A	9547566
Total (Wet Wt) Nickel (Ni)	mg/kg	0.033	0.028	0.021	0.683	0.010	N/A	9547566
Total (Wet Wt) Phosphorus (P)	mg/kg	4350	3960	4080	6510	2.0	N/A	9547566
Total (Wet Wt) Potassium (K)	mg/kg	3500	3150	3460	3290	2.5	N/A	9547566
Total (Wet Wt) Selenium (Se)	mg/kg	0.240	0.263	0.226	0.254	0.010	N/A	9547566
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	<50	50	N/A	9547566
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547566
Total (Wet Wt) Sodium (Na)	mg/kg	713	864	723	800	2.5	N/A	9547566
Total (Wet Wt) Strontium (Sr)	mg/kg	0.965	1.14	0.903	1.94	0.013	N/A	9547566
Total (Wet Wt) Sulphur (S)	mg/kg	2120	2150	2110	1990	50	N/A	9547566
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547566
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00499	0.00527	0.00523	0.00848	0.00040	N/A	9547566
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	<0.025	0.025	0.0025	9547566

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX906	ZMX907	ZMX908	ZMX909			
Sampling Date		2024/06/08	2024/06/08	2024/06/08	2024/06/08			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	A3-YLPR-03	A3-YLPR-05	A3-YLPR-06	A3-YLPR-08	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	0.089	<0.020	<0.020	<0.020	0.020	N/A	9547566
Total (Wet Wt) Titanium (Ti)	mg/kg	0.16	0.14	<0.13	0.17	0.13	N/A	9547566
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	N/A	9547566
Total (Wet Wt) Uranium (U)	mg/kg	0.00057	0.00046	<0.00040	0.00055	0.00040	N/A	9547566
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	0.022	0.020	N/A	9547566
Total (Wet Wt) Zinc (Zn)	mg/kg	16.0	20.0	15.1	26.2	0.20	N/A	9547566
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	<0.040	0.040	N/A	9547566
Mercury (Hg)	mg/kg	0.337 (1)	0.300 (1)	0.429 (1)	0.319 (1)	0.0050	0.0050	9547563
PHYSICAL PROPERTIES								
Sample Weight (as received)	%	0.40	0.37	0.37	0.36	N/A	N/A	9547565
Moisture-Subcontracted	%	80	80	78	78	0.30	N/A	9547565

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) RDL raised due to concentration over linear range, sample dilution required.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX910			ZMX911	ZMX912			
Sampling Date		2024/06/08			2024/06/10	2024/06/10			
COC Number		994554-03-01			994554-03-01	994554-03-01			
	UNITS	A3-YLPR-09	RDL	MDL	GMLK-YLPR-01	GMLK-YLPR-02	RDL	MDL	QC Batch
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	14.5	0.50	N/A	2.83	2.70	0.50	N/A	9547566
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0020	0.0020	N/A	<0.0020	<0.0020	0.0020	N/A	9547566
Total (Wet Wt) Arsenic (As)	mg/kg	0.180	0.0050	N/A	0.0801	0.0709	0.0050	N/A	9547566
Total (Wet Wt) Barium (Ba)	mg/kg	0.297	0.010	N/A	0.819	0.341	0.010	N/A	9547566
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	0.0020	N/A	<0.0020	<0.0020	0.0020	N/A	9547566
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	0.0013	N/A	<0.0013	<0.0013	0.0013	N/A	9547566
Total (Wet Wt) Boron (B)	mg/kg	<0.20	0.20	N/A	<0.20	<0.20	0.20	N/A	9547566
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0067	0.0013	N/A	0.0107	0.0085	0.0013	N/A	9547566
Total (Wet Wt) Calcium (Ca)	mg/kg	3580	4.0	N/A	10100	5120	4.0	N/A	9547566
Total (Wet Wt) Chromium (Cr)	mg/kg	0.062	0.025	N/A	0.043	0.037	0.025	N/A	9547566
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0548	0.0013	N/A	0.0085	0.0087	0.0013	N/A	9547566
Total (Wet Wt) Copper (Cu)	mg/kg	0.571	0.013	N/A	0.596	0.631	0.013	N/A	9547566
Total (Wet Wt) Iron (Fe)	mg/kg	40.4	0.25	N/A	18.6	15.1	0.25	N/A	9547566
Total (Wet Wt) Lead (Pb)	mg/kg	0.0692	0.0013	N/A	0.0112	0.0107	0.0013	N/A	9547566
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	0.10	N/A	<0.10	<0.10	0.10	N/A	9547566
Total (Wet Wt) Magnesium (Mg)	mg/kg	259	0.40	N/A	388	235	0.40	N/A	9547566
Total (Wet Wt) Manganese (Mn)	mg/kg	6.55	0.010	N/A	3.67	1.62	0.010	N/A	9547566
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0178	0.0080	N/A	0.0268	0.0219	0.0080	N/A	9547566
Total (Wet Wt) Nickel (Ni)	mg/kg	0.053	0.010	N/A	0.027	0.023	0.010	N/A	9547566
Total (Wet Wt) Phosphorus (P)	mg/kg	3690	2.0	N/A	6780	3560	2.0	N/A	9547566
Total (Wet Wt) Potassium (K)	mg/kg	3550	2.5	N/A	3140	3220	2.5	N/A	9547566
Total (Wet Wt) Selenium (Se)	mg/kg	0.282	0.010	N/A	0.207	0.183	0.010	N/A	9547566
Total (Wet Wt) Silicon (Si)	mg/kg	<50	50	N/A	<50	<50	50	N/A	9547566
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	0.0013	N/A	<0.0013	<0.0013	0.0013	N/A	9547566
Total (Wet Wt) Sodium (Na)	mg/kg	724	2.5	N/A	1020	953	2.5	N/A	9547566
Total (Wet Wt) Strontium (Sr)	mg/kg	0.986	0.013	N/A	2.18	1.36	0.013	N/A	9547566
Total (Wet Wt) Sulphur (S)	mg/kg	1790	50	N/A	1980	1990	50	N/A	9547566
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	0.0040	N/A	<0.0040	<0.0040	0.0040	N/A	9547566
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00710	0.00040	N/A	0.00500	0.00379	0.00040	N/A	9547566
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	0.025	0.0025	<0.025	<0.025	0.025	0.0025	9547566

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX910			ZMX911	ZMX912			
Sampling Date		2024/06/08			2024/06/10	2024/06/10			
COC Number		994554-03-01			994554-03-01	994554-03-01			
	UNITS	A3-YLPR-09	RDL	MDL	GMLK-YLPR-01	GMLK-YLPR-02	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	0.020	N/A	<0.020	<0.020	0.020	N/A	9547566
Total (Wet Wt) Titanium (Ti)	mg/kg	0.65	0.13	N/A	0.38	0.19	0.13	N/A	9547566
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	0.0050	N/A	<0.0050	<0.0050	0.0050	N/A	9547566
Total (Wet Wt) Uranium (U)	mg/kg	0.00220	0.00040	N/A	0.00147	0.00217	0.00040	N/A	9547566
Total (Wet Wt) Vanadium (V)	mg/kg	0.037	0.020	N/A	<0.020	<0.020	0.020	N/A	9547566
Total (Wet Wt) Zinc (Zn)	mg/kg	18.3	0.20	N/A	25.7	18.1	0.20	N/A	9547566
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	0.040	N/A	<0.040	<0.040	0.040	N/A	9547566
Mercury (Hg)	mg/kg	0.270 (1)	0.0020	0.0020	0.0779	0.0545	0.0010	0.0010	9547563
PHYSICAL PROPERTIES									
Sample Weight (as received)	%	0.30	N/A	N/A	0.27	0.31	N/A	N/A	9547565
Moisture-Subcontracted	%	79	0.30	N/A	77	80	0.30	N/A	9547565

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) RDL raised due to concentration over linear range, sample dilution required.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX913	ZMX914	ZMX915	ZMX916			
Sampling Date		2024/06/10	2024/06/10	2024/06/10	2024/06/10			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	GMLK-YLPR-03	GMLK-YLPR-04	GMLK-YLPR-05	GMLK-YLPR-06	RDL	MDL	QC Batch
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	2.17	1.55	2.24	1.71	0.50	N/A	9547566
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547566
Total (Wet Wt) Arsenic (As)	mg/kg	0.0788	0.145	0.131	0.0620	0.0050	N/A	9547566
Total (Wet Wt) Barium (Ba)	mg/kg	0.450	0.534	0.306	0.638	0.010	N/A	9547566
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547566
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547566
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	0.20	N/A	9547566
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0110	0.0038	0.0039	0.0078	0.0013	N/A	9547566
Total (Wet Wt) Calcium (Ca)	mg/kg	7740	10900	6240	10700	4.0	N/A	9547566
Total (Wet Wt) Chromium (Cr)	mg/kg	0.070	0.037	0.046	0.026	0.025	N/A	9547566
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0117	0.0065	0.0052	0.0075	0.0013	N/A	9547566
Total (Wet Wt) Copper (Cu)	mg/kg	0.655	0.444	0.450	0.600	0.013	N/A	9547566
Total (Wet Wt) Iron (Fe)	mg/kg	19.8	11.2	11.0	14.0	0.25	N/A	9547566
Total (Wet Wt) Lead (Pb)	mg/kg	0.0093	0.0052	0.0066	0.0095	0.0013	N/A	9547566
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	<0.10	0.10	N/A	9547566
Total (Wet Wt) Magnesium (Mg)	mg/kg	300	324	296	341	0.40	N/A	9547566
Total (Wet Wt) Manganese (Mn)	mg/kg	2.05	2.48	2.62	4.21	0.010	N/A	9547566
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0227	0.0195	0.0128	0.0267	0.0080	N/A	9547566
Total (Wet Wt) Nickel (Ni)	mg/kg	0.040	0.022	0.029	0.024	0.010	N/A	9547566
Total (Wet Wt) Phosphorus (P)	mg/kg	5830	7340	5040	7220	2.0	N/A	9547566
Total (Wet Wt) Potassium (K)	mg/kg	3350	3330	3430	3120	2.5	N/A	9547566
Total (Wet Wt) Selenium (Se)	mg/kg	0.268	0.180	0.214	0.194	0.010	N/A	9547566
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	<50	50	N/A	9547566
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547566
Total (Wet Wt) Sodium (Na)	mg/kg	978	981	801	941	2.5	N/A	9547566
Total (Wet Wt) Strontium (Sr)	mg/kg	1.50	2.07	0.818	1.66	0.013	N/A	9547566
Total (Wet Wt) Sulphur (S)	mg/kg	2060	2040	2170	1940	50	N/A	9547566
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547566
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00534	0.00415	0.00379	0.00508	0.00040	N/A	9547566
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	<0.025	0.025	0.0025	9547566

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX913	ZMX914	ZMX915	ZMX916			
Sampling Date		2024/06/10	2024/06/10	2024/06/10	2024/06/10			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	GMLK-YLPR-03	GMLK-YLPR-04	GMLK-YLPR-05	GMLK-YLPR-06	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	N/A	9547566
Total (Wet Wt) Titanium (Ti)	mg/kg	0.23	0.20	0.21	0.18	0.13	N/A	9547566
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	N/A	9547566
Total (Wet Wt) Uranium (U)	mg/kg	0.00132	0.00126	0.00102	0.00165	0.00040	N/A	9547566
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	N/A	9547566
Total (Wet Wt) Zinc (Zn)	mg/kg	19.0	18.1	23.6	21.1	0.20	N/A	9547566
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	<0.040	0.040	N/A	9547566
Mercury (Hg)	mg/kg	0.0461	0.0482	0.0461	0.0404	0.0010	0.0010	9547563
PHYSICAL PROPERTIES								
Sample Weight (as received)	%	0.22	0.32	0.36	0.37	N/A	N/A	9547565
Moisture-Subcontracted	%	79	77	79	76	0.30	N/A	9547565

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX916		ZMX917	ZMX917			
Sampling Date		2024/06/10		2024/06/10	2024/06/10			
COC Number		994554-03-01		994554-03-01	994554-03-01			
	UNITS	GMLK-YLPR-06 Lab-Dup	QC Batch	GMLK-YLPR-07	GMLK-YLPR-07 Lab-Dup	RDL	MDL	QC Batch
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	1.79	9547566	1.76	1.86	0.50	N/A	9547570
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0025	9547566	0.0028	0.0028	0.0020	N/A	9547570
Total (Wet Wt) Arsenic (As)	mg/kg	0.0635	9547566	0.0462	0.0461	0.0050	N/A	9547570
Total (Wet Wt) Barium (Ba)	mg/kg	0.671	9547566	0.462	0.491	0.010	N/A	9547570
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	9547566	<0.0020	<0.0020	0.0020	N/A	9547570
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	9547566	<0.0013	<0.0013	0.0013	N/A	9547570
Total (Wet Wt) Boron (B)	mg/kg	<0.20	9547566	<0.20	<0.20	0.20	N/A	9547570
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0079	9547566	0.0039	0.0050	0.0013	N/A	9547570
Total (Wet Wt) Calcium (Ca)	mg/kg	11300	9547566	8280	8250	4.0	N/A	9547570
Total (Wet Wt) Chromium (Cr)	mg/kg	0.025	9547566	0.062	0.055	0.025	N/A	9547570
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0073	9547566	0.0053	0.0053	0.0013	N/A	9547570
Total (Wet Wt) Copper (Cu)	mg/kg	0.613	9547566	0.503	0.497	0.013	N/A	9547570
Total (Wet Wt) Iron (Fe)	mg/kg	14.5	9547566	10.6	10.6	0.25	N/A	9547570
Total (Wet Wt) Lead (Pb)	mg/kg	0.0089	9547566	0.0153	0.0114	0.0013	N/A	9547570
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	9547566	<0.10	<0.10	0.10	N/A	9547570
Total (Wet Wt) Magnesium (Mg)	mg/kg	359	9547566	331	328	0.40	N/A	9547570
Total (Wet Wt) Manganese (Mn)	mg/kg	4.35	9547566	3.80	3.75	0.010	N/A	9547570
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0293	9547566	0.0224	0.0175	0.0080	N/A	9547570
Total (Wet Wt) Nickel (Ni)	mg/kg	0.027	9547566	0.045	0.044	0.010	N/A	9547570
Total (Wet Wt) Phosphorus (P)	mg/kg	7550	9547566	5960	5910	2.0	N/A	9547570
Total (Wet Wt) Potassium (K)	mg/kg	3290	9547566	3540	3460	2.5	N/A	9547570
Total (Wet Wt) Selenium (Se)	mg/kg	0.197	9547566	0.174	0.170	0.010	N/A	9547570
Total (Wet Wt) Silicon (Si)	mg/kg	<50	9547566	<50	<50	50	N/A	9547570
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	9547566	0.0100	0.0101	0.0013	N/A	9547570
Total (Wet Wt) Sodium (Na)	mg/kg	964	9547566	962	930	2.5	N/A	9547570
Total (Wet Wt) Strontium (Sr)	mg/kg	1.74	9547566	1.10	1.18	0.013	N/A	9547570
Total (Wet Wt) Sulphur (S)	mg/kg	2010	9547566	2400	2180	50	N/A	9547570
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	9547566	<0.0040	<0.0040	0.0040	N/A	9547570
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00517	9547566	0.00471	0.00481	0.00040	N/A	9547570

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX916		ZMX917	ZMX917			
Sampling Date		2024/06/10		2024/06/10	2024/06/10			
COC Number		994554-03-01		994554-03-01	994554-03-01			
	UNITS	GMLK-YLPR-06 Lab-Dup	QC Batch	GMLK-YLPR-07	GMLK-YLPR-07 Lab-Dup	RDL	MDL	QC Batch
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	9547566	<0.025	<0.025	0.025	0.0025	9547570
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	9547566	0.057	0.052	0.020	N/A	9547570
Total (Wet Wt) Titanium (Ti)	mg/kg	0.22	9547566	0.15	0.14	0.13	N/A	9547570
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	9547566	<0.0050	<0.0050	0.0050	N/A	9547570
Total (Wet Wt) Uranium (U)	mg/kg	0.00168	9547566	0.00103	0.00114	0.00040	N/A	9547570
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	9547566	<0.020	<0.020	0.020	N/A	9547570
Total (Wet Wt) Zinc (Zn)	mg/kg	22.0	9547566	17.0	16.9	0.20	N/A	9547570
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	9547566	<0.040	<0.040	0.040	N/A	9547570
Mercury (Hg)	mg/kg	0.0418	9547563	0.0455	0.0442	0.0010	0.0010	9547568
PHYSICAL PROPERTIES								
Sample Weight (as received)	%	0.36	9547565	0.20	0.21	N/A	N/A	9547569
Moisture-Subcontracted	%	76	9547565	77	76	0.30	N/A	9547569

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX918		ZMX919	ZMX920	ZMX921			
Sampling Date		2024/06/07		2024/06/07	2024/06/07	2024/06/07			
COC Number		994554-03-01		994554-03-01	994554-03-01	994554-03-01			
	UNITS	SMLK-YLPR-01	RDL	SMLK-YLPR-02	SMLK-YLPR-03	SMLK-YLPR-04	RDL	MDL	QC Batch
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	3.90	0.50	0.61	2.22	1.08	0.50	N/A	9547570
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0060	0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547570
Total (Wet Wt) Arsenic (As)	mg/kg	0.172	0.0050	0.0777	0.0656	0.0640	0.0050	N/A	9547570
Total (Wet Wt) Barium (Ba)	mg/kg	2.31	0.010	0.622	0.348	0.249	0.010	N/A	9547570
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547570
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547570
Total (Wet Wt) Boron (B)	mg/kg	<0.20	0.20	<0.20	<0.20	<0.20	0.20	N/A	9547570
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0149	0.0013	0.0044	0.0035	0.0023	0.0013	N/A	9547570
Total (Wet Wt) Calcium (Ca)	mg/kg	19500	4.0	4960	3270	4460	4.0	N/A	9547570
Total (Wet Wt) Chromium (Cr)	mg/kg	0.045	0.025	<0.025	0.047	0.043	0.025	N/A	9547570
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0171	0.0013	0.0061	0.0093	0.0080	0.0013	N/A	9547570
Total (Wet Wt) Copper (Cu)	mg/kg	0.687	0.013	0.448	0.476	0.380	0.013	N/A	9547570
Total (Wet Wt) Iron (Fe)	mg/kg	27.8	0.25	5.35	15.0	4.82	0.25	N/A	9547570
Total (Wet Wt) Lead (Pb)	mg/kg	0.0258	0.0013	0.0085	0.0081	0.0131	0.0013	N/A	9547570
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	0.10	<0.10	<0.10	<0.10	0.10	N/A	9547570
Total (Wet Wt) Magnesium (Mg)	mg/kg	469	0.40	322	250	267	0.40	N/A	9547570
Total (Wet Wt) Manganese (Mn)	mg/kg	7.96	0.010	3.64	1.30	2.60	0.010	N/A	9547570
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0221	0.0080	0.0107	0.0147	0.0091	0.0080	N/A	9547570
Total (Wet Wt) Nickel (Ni)	mg/kg	0.048	0.010	0.025	0.050	0.040	0.010	N/A	9547570
Total (Wet Wt) Phosphorus (P)	mg/kg	11300	2.0	4510	3510	4140	2.0	N/A	9547570
Total (Wet Wt) Potassium (K)	mg/kg	3190	2.5	3290	3360	3660	2.5	N/A	9547570
Total (Wet Wt) Selenium (Se)	mg/kg	0.319	0.010	0.201	0.221	0.193	0.010	N/A	9547570
Total (Wet Wt) Silicon (Si)	mg/kg	<50	50	<50	<50	<50	50	N/A	9547570
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547570
Total (Wet Wt) Sodium (Na)	mg/kg	1100	2.5	893	889	807	2.5	N/A	9547570
Total (Wet Wt) Strontium (Sr)	mg/kg	3.19	0.013	0.643	0.503	0.487	0.013	N/A	9547570
Total (Wet Wt) Sulphur (S)	mg/kg	1710	50	2800	2590	2090	50	N/A	9547570
Total (Wet Wt) Tellurium (Te)	mg/kg	0.0080	0.0040	<0.0040	<0.0040	0.0044	0.0040	N/A	9547570
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00969	0.00040	0.00563	0.00360	0.00335	0.00040	N/A	9547570
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	0.025	<0.025	<0.025	<0.025	0.025	0.0025	9547570

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX918		ZMX919	ZMX920	ZMX921			
Sampling Date		2024/06/07		2024/06/07	2024/06/07	2024/06/07			
COC Number		994554-03-01		994554-03-01	994554-03-01	994554-03-01			
	UNITS	SMLK-YLPR-01	RDL	SMLK-YLPR-02	SMLK-YLPR-03	SMLK-YLPR-04	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	62.3	0.040	4.86	49.9	38.3	0.020	N/A	9547570
Total (Wet Wt) Titanium (Ti)	mg/kg	0.25	0.13	<0.13	0.16	<0.13	0.13	N/A	9547570
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	0.0050	<0.0050	<0.0050	<0.0050	0.0050	N/A	9547570
Total (Wet Wt) Uranium (U)	mg/kg	0.00175	0.00040	0.00060	0.00105	<0.00040	0.00040	N/A	9547570
Total (Wet Wt) Vanadium (V)	mg/kg	0.043	0.020	<0.020	<0.020	<0.020	0.020	N/A	9547570
Total (Wet Wt) Zinc (Zn)	mg/kg	42.6	0.20	23.7	13.9	14.7	0.20	N/A	9547570
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	0.040	<0.040	<0.040	<0.040	0.040	N/A	9547570
Mercury (Hg)	mg/kg	0.0337	0.0010	0.0383	0.0532	0.0766	0.0010	0.0010	9547568
PHYSICAL PROPERTIES									
Sample Weight (as received)	%	0.19	N/A	0.22	0.23	0.23	N/A	N/A	9547569
Moisture-Subcontracted	%	77	0.30	78	76	78	0.30	N/A	9547569

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N/A = Not Applicable

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Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX922	ZMX923	ZMX924	ZMX925	ZMX926			
Sampling Date		2024/06/07	2024/06/07	2024/06/07	2024/06/05	2024/06/05			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	SMLK-YLPR-06	SMLK-YLPR-07	SMLK-YLPR-08	A5-SPSH-01	A5-SPSH-02	RDL	MDL	QC Batch
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	1.24	0.63	1.17	2.71	1.02	0.50	N/A	9547570
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547570
Total (Wet Wt) Arsenic (As)	mg/kg	0.0735	0.0712	0.118	0.309	0.234	0.0050	N/A	9547570
Total (Wet Wt) Barium (Ba)	mg/kg	0.097	0.641	0.530	1.10	0.754	0.010	N/A	9547570
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547570
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547570
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	N/A	9547570
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0029	0.0032	0.0073	0.0082	0.0025	0.0013	N/A	9547570
Total (Wet Wt) Calcium (Ca)	mg/kg	1100	4660	7860	11900	6330	4.0	N/A	9547570
Total (Wet Wt) Chromium (Cr)	mg/kg	0.044	0.027	0.032	0.069	0.049	0.025	N/A	9547570
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0062	0.0067	0.0099	0.0088	0.0057	0.0013	N/A	9547570
Total (Wet Wt) Copper (Cu)	mg/kg	0.291	0.341	0.610	0.705	0.561	0.013	N/A	9547570
Total (Wet Wt) Iron (Fe)	mg/kg	6.15	7.03	14.8	15.8	7.67	0.25	N/A	9547570
Total (Wet Wt) Lead (Pb)	mg/kg	0.0086	0.0091	0.0064	0.0110	0.0069	0.0013	N/A	9547570
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	N/A	9547570
Total (Wet Wt) Magnesium (Mg)	mg/kg	244	264	228	463	339	0.40	N/A	9547570
Total (Wet Wt) Manganese (Mn)	mg/kg	0.265	2.58	2.01	5.47	1.91	0.010	N/A	9547570
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0080	0.0099	0.0161	0.0188	0.0108	0.0080	N/A	9547570
Total (Wet Wt) Nickel (Ni)	mg/kg	0.036	0.018	0.027	0.047	0.035	0.010	N/A	9547570
Total (Wet Wt) Phosphorus (P)	mg/kg	2350	4210	3900	8070	4670	2.0	N/A	9547570
Total (Wet Wt) Potassium (K)	mg/kg	3520	3250	3240	3380	3300	2.5	N/A	9547570
Total (Wet Wt) Selenium (Se)	mg/kg	0.216	0.203	0.255	0.300	0.248	0.010	N/A	9547570
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	<50	<50	50	N/A	9547570
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547570
Total (Wet Wt) Sodium (Na)	mg/kg	838	895	950	667	591	2.5	N/A	9547570
Total (Wet Wt) Strontium (Sr)	mg/kg	0.219	0.632	1.27	3.88	1.80	0.013	N/A	9547570
Total (Wet Wt) Sulphur (S)	mg/kg	2260	2270	1890	1950	2580	50	N/A	9547570
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	0.0070	<0.0040	0.0040	N/A	9547570
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00538	0.00472	0.00660	0.00477	0.00366	0.00040	N/A	9547570
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	0.0025	9547570

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX922	ZMX923	ZMX924	ZMX925	ZMX926			
Sampling Date		2024/06/07	2024/06/07	2024/06/07	2024/06/05	2024/06/05			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	SMLK-YLPR-06	SMLK-YLPR-07	SMLK-YLPR-08	A5-SPSH-01	A5-SPSH-02	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	4.67	6.66	0.684	1.63	2.50	0.020	N/A	9547570
Total (Wet Wt) Titanium (Ti)	mg/kg	<0.13	<0.13	<0.13	0.28	<0.13	0.13	N/A	9547570
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	0.0337	<0.0050	<0.0050	<0.0050	0.0050	N/A	9547570
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	0.00051	0.00049	0.00084	<0.00040	0.00040	N/A	9547570
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	N/A	9547570
Total (Wet Wt) Zinc (Zn)	mg/kg	13.2	16.3	23.1	52.1	52.3	0.20	N/A	9547570
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	N/A	9547570
Mercury (Hg)	mg/kg	0.0812	0.0743	0.0327	0.119	0.0831	0.0010	0.0010	9547568
PHYSICAL PROPERTIES									
Sample Weight (as received)	%	0.24	0.19	0.25	0.21	0.22	N/A	N/A	9547569
Moisture-Subcontracted	%	77	74	78	76	78	0.30	N/A	9547569

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N/A = Not Applicable

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Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX927	ZMX928	ZMX929	ZMX930	ZMX931			
Sampling Date		2024/06/05	2024/06/05	2024/06/05	2024/06/05	2024/06/05			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	A5-SPSH-03	A5-SPSH-05	A5-SPSH-06	A5-SPSH-07	A5-SPSH-09	RDL	MDL	QC Batch
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	0.79	0.89	0.72	<0.50	1.05	0.50	N/A	9547570
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547570
Total (Wet Wt) Arsenic (As)	mg/kg	0.179	0.168	0.162	0.207	0.173	0.0050	N/A	9547570
Total (Wet Wt) Barium (Ba)	mg/kg	0.482	0.300	0.288	0.518	0.543	0.010	N/A	9547570
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547570
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547570
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	N/A	9547570
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0038	0.0048	0.0033	0.0041	0.0050	0.0013	N/A	9547570
Total (Wet Wt) Calcium (Ca)	mg/kg	4310	1780	2110	2720	5270	4.0	N/A	9547570
Total (Wet Wt) Chromium (Cr)	mg/kg	0.029	0.035	0.038	0.033	0.037	0.025	N/A	9547570
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0062	0.0064	0.0073	0.0051	0.0051	0.0013	N/A	9547570
Total (Wet Wt) Copper (Cu)	mg/kg	0.505	0.565	0.505	0.491	0.541	0.013	N/A	9547570
Total (Wet Wt) Iron (Fe)	mg/kg	6.57	7.01	5.59	5.45	7.76	0.25	N/A	9547570
Total (Wet Wt) Lead (Pb)	mg/kg	0.0257	0.0084	0.0085	0.0041	0.0071	0.0013	N/A	9547570
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	N/A	9547570
Total (Wet Wt) Magnesium (Mg)	mg/kg	355	240	259	282	381	0.40	N/A	9547570
Total (Wet Wt) Manganese (Mn)	mg/kg	1.83	0.862	0.810	1.66	2.37	0.010	N/A	9547570
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0098	0.0103	0.0095	0.0116	0.0117	0.0080	N/A	9547570
Total (Wet Wt) Nickel (Ni)	mg/kg	0.031	0.031	0.028	0.020	0.025	0.010	N/A	9547570
Total (Wet Wt) Phosphorus (P)	mg/kg	4320	2750	2920	3350	4450	2.0	N/A	9547570
Total (Wet Wt) Potassium (K)	mg/kg	3270	3260	3060	3000	2930	2.5	N/A	9547570
Total (Wet Wt) Selenium (Se)	mg/kg	0.240	0.234	0.222	0.228	0.243	0.010	N/A	9547570
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	<50	<50	50	N/A	9547570
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547570
Total (Wet Wt) Sodium (Na)	mg/kg	516	557	514	544	514	2.5	N/A	9547570
Total (Wet Wt) Strontium (Sr)	mg/kg	1.25	0.560	0.608	0.852	1.34	0.013	N/A	9547570
Total (Wet Wt) Sulphur (S)	mg/kg	2460	2080	1970	2050	1890	50	N/A	9547570
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547570
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00354	0.00231	0.00251	0.00327	0.00345	0.00040	N/A	9547570
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	0.0025	9547570

RDL = Reportable Detection Limit
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N/A = Not Applicable

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Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX927	ZMX928	ZMX929	ZMX930	ZMX931			
Sampling Date		2024/06/05	2024/06/05	2024/06/05	2024/06/05	2024/06/05			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	A5-SPSH-03	A5-SPSH-05	A5-SPSH-06	A5-SPSH-07	A5-SPSH-09	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	0.219	1.02	0.424	0.026	0.563	0.020	N/A	9547570
Total (Wet Wt) Titanium (Ti)	mg/kg	<0.13	<0.13	<0.13	<0.13	0.13	0.13	N/A	9547570
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	N/A	9547570
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	N/A	9547570
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	N/A	9547570
Total (Wet Wt) Zinc (Zn)	mg/kg	29.2	24.0	25.9	27.9	34.8	0.20	N/A	9547570
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	N/A	9547570
Mercury (Hg)	mg/kg	0.131	0.0892	0.0863	0.140	0.120	0.0010	0.0010	9547568
PHYSICAL PROPERTIES									
Sample Weight (as received)	%	0.24	0.20	0.21	0.23	0.22	N/A	N/A	9547569
Moisture-Subcontracted	%	84	81	80	91	81	0.30	N/A	9547569

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N/A = Not Applicable

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RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX932	ZMX933	ZMX934	ZMX935			
Sampling Date		2024/06/05	2024/06/10	2024/06/10	2024/06/10			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	A5-SPSH-10	GMLK-SPSH-01	GMLK-SPSH-02	GMLK-SPSH-03	RDL	MDL	QC Batch
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	0.62	<0.50	0.89	<0.50	0.50	N/A	9547570
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0020	<0.0020	<0.0020	0.0020	0.0020	N/A	9547570
Total (Wet Wt) Arsenic (As)	mg/kg	0.170	0.0762	0.103	0.0474	0.0050	N/A	9547570
Total (Wet Wt) Barium (Ba)	mg/kg	0.467	0.428	1.24	0.566	0.010	N/A	9547570
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547570
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547570
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	0.20	N/A	9547570
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0034	0.0037	0.0106	0.0064	0.0013	N/A	9547570
Total (Wet Wt) Calcium (Ca)	mg/kg	4160	5250	13200	6660	4.0	N/A	9547570
Total (Wet Wt) Chromium (Cr)	mg/kg	0.047	0.041	0.037	0.057	0.025	N/A	9547570
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0060	0.0045	0.0057	0.0062	0.0013	N/A	9547570
Total (Wet Wt) Copper (Cu)	mg/kg	0.420	0.671	0.933	0.703	0.013	N/A	9547570
Total (Wet Wt) Iron (Fe)	mg/kg	5.53	4.75	17.8	7.07	0.25	N/A	9547570
Total (Wet Wt) Lead (Pb)	mg/kg	0.0158	0.0039	0.0071	0.0056	0.0013	N/A	9547570
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	<0.10	0.10	N/A	9547570
Total (Wet Wt) Magnesium (Mg)	mg/kg	299	266	411	301	0.40	N/A	9547570
Total (Wet Wt) Manganese (Mn)	mg/kg	2.02	1.46	4.44	1.79	0.010	N/A	9547570
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0080	0.0088	0.0198	0.0120	0.0080	N/A	9547570
Total (Wet Wt) Nickel (Ni)	mg/kg	0.030	0.031	0.029	0.024	0.010	N/A	9547570
Total (Wet Wt) Phosphorus (P)	mg/kg	3990	3980	8470	4590	2.0	N/A	9547570
Total (Wet Wt) Potassium (K)	mg/kg	2890	2950	2710	2640	2.5	N/A	9547570
Total (Wet Wt) Selenium (Se)	mg/kg	0.204	0.252	0.354	0.244	0.010	N/A	9547570
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	<50	50	N/A	9547570
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547570
Total (Wet Wt) Sodium (Na)	mg/kg	511	566	553	514	2.5	N/A	9547570
Total (Wet Wt) Strontium (Sr)	mg/kg	1.22	1.27	3.37	1.75	0.013	N/A	9547570
Total (Wet Wt) Sulphur (S)	mg/kg	1940	2020	1700	1700	50	N/A	9547570
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547570
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00262	0.00219	0.00484	0.00307	0.00040	N/A	9547570
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	<0.025	0.025	0.0025	9547570

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX932	ZMX933	ZMX934	ZMX935			
Sampling Date		2024/06/05	2024/06/10	2024/06/10	2024/06/10			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	A5-SPSH-10	GMLK-SPSH-01	GMLK-SPSH-02	GMLK-SPSH-03	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	0.974	1.64	1.29	0.063	0.020	N/A	9547570
Total (Wet Wt) Titanium (Ti)	mg/kg	0.13	<0.13	0.15	<0.13	0.13	N/A	9547570
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	N/A	9547570
Total (Wet Wt) Uranium (U)	mg/kg	0.00043	<0.00040	0.00087	<0.00040	0.00040	N/A	9547570
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	N/A	9547570
Total (Wet Wt) Zinc (Zn)	mg/kg	30.0	26.1	74.5	30.9	0.20	N/A	9547570
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	<0.040	0.040	N/A	9547570
Mercury (Hg)	mg/kg	0.110	0.0687	0.0492	0.0759	0.0010	0.0010	9547568
PHYSICAL PROPERTIES								
Sample Weight (as received)	%	0.23	0.24	0.22	0.21	N/A	N/A	9547569
Moisture-Subcontracted	%	82	80	77	80	0.30	N/A	9547569

RDL = Reportable Detection Limit
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N/A = Not Applicable

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Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX936		ZMX937	ZMX937	ZMX938			
Sampling Date		2024/06/10		2024/06/10	2024/06/10	2024/06/10			
COC Number		994554-03-01		994554-03-01	994554-03-01	994554-03-01			
	UNITS	GMLK-SPSH-04	QC Batch	GMLK-SPSH-05	GMLK-SPSH-05 Lab-Dup	GMLK-SPSH-06	RDL	MDL	QC Batch
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	<0.50	9547570	0.77	0.88	0.75	0.50	N/A	9547574
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0020	9547570	0.0029	0.0029	0.0038	0.0020	N/A	9547574
Total (Wet Wt) Arsenic (As)	mg/kg	0.0794	9547570	0.0977	0.0994	0.102	0.0050	N/A	9547574
Total (Wet Wt) Barium (Ba)	mg/kg	1.59	9547570	0.682	0.719	1.25	0.010	N/A	9547574
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	9547570	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547574
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	9547570	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547574
Total (Wet Wt) Boron (B)	mg/kg	<0.20	9547570	<0.20	<0.20	<0.20	0.20	N/A	9547574
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0069	9547570	0.0086	0.0080	0.0059	0.0013	N/A	9547574
Total (Wet Wt) Calcium (Ca)	mg/kg	15800	9547570	7140	7260	14600	4.0	N/A	9547574
Total (Wet Wt) Chromium (Cr)	mg/kg	0.042	9547570	0.031	0.031	0.031	0.025	N/A	9547574
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0058	9547570	0.0063	0.0060	0.0054	0.0013	N/A	9547574
Total (Wet Wt) Copper (Cu)	mg/kg	0.663	9547570	0.794	0.848	0.633	0.013	N/A	9547574
Total (Wet Wt) Iron (Fe)	mg/kg	14.5	9547570	10.5	11.1	10.6	0.25	N/A	9547574
Total (Wet Wt) Lead (Pb)	mg/kg	0.0058	9547570	0.0048	0.0060	0.0161	0.0013	N/A	9547574
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	9547570	<0.10	<0.10	<0.10	0.10	N/A	9547574
Total (Wet Wt) Magnesium (Mg)	mg/kg	429	9547570	340	340	449	0.40	N/A	9547574
Total (Wet Wt) Manganese (Mn)	mg/kg	3.58	9547570	2.53	2.59	3.47	0.010	N/A	9547574
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0201	9547570	0.0138	0.0166	0.0123	0.0080	N/A	9547574
Total (Wet Wt) Nickel (Ni)	mg/kg	0.027	9547570	0.017	0.025	0.022	0.010	N/A	9547574
Total (Wet Wt) Phosphorus (P)	mg/kg	9260	9547570	5300	5500	8640	2.0	N/A	9547574
Total (Wet Wt) Potassium (K)	mg/kg	2840	9547570	2910	2990	2780	2.5	N/A	9547574
Total (Wet Wt) Selenium (Se)	mg/kg	0.317	9547570	0.276	0.279	0.285	0.010	N/A	9547574
Total (Wet Wt) Silicon (Si)	mg/kg	<50	9547570	<50	<50	<50	50	N/A	9547574
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	9547570	0.0016	0.0014	<0.0013	0.0013	N/A	9547574
Total (Wet Wt) Sodium (Na)	mg/kg	615	9547570	540	566	615	2.5	N/A	9547574
Total (Wet Wt) Strontium (Sr)	mg/kg	3.86	9547570	2.00	2.05	3.85	0.013	N/A	9547574
Total (Wet Wt) Sulphur (S)	mg/kg	1480	9547570	2070	2000	1910	50	N/A	9547574
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	9547570	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547574
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00467	9547570	0.00390	0.00420	0.00450	0.00040	N/A	9547574

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX936		ZMX937	ZMX937	ZMX938			
Sampling Date		2024/06/10		2024/06/10	2024/06/10	2024/06/10			
COC Number		994554-03-01		994554-03-01	994554-03-01	994554-03-01			
	UNITS	GMLK-SPSH-04	QC Batch	GMLK-SPSH-05	GMLK-SPSH-05 Lab-Dup	GMLK-SPSH-06	RDL	MDL	QC Batch
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	9547570	<0.025	<0.025	<0.025	0.025	0.0025	9547574
Total (Wet Wt) Tin (Sn)	mg/kg	0.116	9547570	<0.020	<0.020	<0.020	0.020	N/A	9547574
Total (Wet Wt) Titanium (Ti)	mg/kg	0.17	9547570	0.25	0.26	0.41	0.13	N/A	9547574
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	9547570	<0.0050	<0.0050	<0.0050	0.0050	N/A	9547574
Total (Wet Wt) Uranium (U)	mg/kg	0.00044	9547570	0.00052	0.00057	0.00045	0.00040	N/A	9547574
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	9547570	<0.020	<0.020	<0.020	0.020	N/A	9547574
Total (Wet Wt) Zinc (Zn)	mg/kg	66.9	9547570	41.9	42.8	58.1	0.20	N/A	9547574
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	9547570	<0.040	<0.040	<0.040	0.040	N/A	9547574
Mercury (Hg)	mg/kg	0.0464	9547568	0.0682	0.0724	0.0597	0.0010	0.0010	9547571
PHYSICAL PROPERTIES									
Sample Weight (as received)	%	0.23	9547569	0.24	0.23	0.23	N/A	N/A	9547573
Moisture-Subcontracted	%	76	9547569	79	80	78	0.30	N/A	9547573

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Lab-Dup = Laboratory Initiated Duplicate
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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX939	ZMX940	ZMX941	ZMX942	ZMX943			
Sampling Date		2024/06/10	2024/06/10	2024/06/06	2024/06/06	2024/06/06			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	GMLK-SPSH-07	GMLK-SPSH-08	MHT-SPSH-01	MHT-SPSH-02	MHT-SPSH-03	RDL	MDL	QC Batch
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	<0.50	0.70	6.03	6.30	3.52	0.50	N/A	9547574
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0020	0.0021	0.0039	0.0063	0.0049	0.0020	N/A	9547574
Total (Wet Wt) Arsenic (As)	mg/kg	0.0949	0.0864	0.639	0.662	0.535	0.0050	N/A	9547574
Total (Wet Wt) Barium (Ba)	mg/kg	0.452	0.797	0.716	0.512	0.570	0.010	N/A	9547574
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547574
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547574
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	N/A	9547574
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0059	0.0085	0.0095	0.0081	0.0080	0.0013	N/A	9547574
Total (Wet Wt) Calcium (Ca)	mg/kg	4380	7740	7220	5680	6620	4.0	N/A	9547574
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.025	0.031	0.045	0.057	0.053	0.025	N/A	9547574
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0066	0.0061	0.0122	0.0139	0.0115	0.0013	N/A	9547574
Total (Wet Wt) Copper (Cu)	mg/kg	0.686	0.543	0.510	0.554	0.527	0.013	N/A	9547574
Total (Wet Wt) Iron (Fe)	mg/kg	7.41	11.8	21.7	22.9	16.2	0.25	N/A	9547574
Total (Wet Wt) Lead (Pb)	mg/kg	0.0039	0.0097	0.0141	0.0178	0.0293	0.0013	N/A	9547574
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	N/A	9547574
Total (Wet Wt) Magnesium (Mg)	mg/kg	313	411	384	378	332	0.40	N/A	9547574
Total (Wet Wt) Manganese (Mn)	mg/kg	1.53	2.79	2.38	2.54	2.32	0.010	N/A	9547574
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0129	0.0155	0.0136	0.0130	0.0124	0.0080	N/A	9547574
Total (Wet Wt) Nickel (Ni)	mg/kg	0.015	0.020	0.040	0.034	0.029	0.010	N/A	9547574
Total (Wet Wt) Phosphorus (P)	mg/kg	4040	5890	5550	4880	4980	2.0	N/A	9547574
Total (Wet Wt) Potassium (K)	mg/kg	2950	2800	3120	3120	3160	2.5	N/A	9547574
Total (Wet Wt) Selenium (Se)	mg/kg	0.276	0.291	0.240	0.237	0.246	0.010	N/A	9547574
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	<50	<50	50	N/A	9547574
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	0.0018	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547574
Total (Wet Wt) Sodium (Na)	mg/kg	534	537	598	562	630	2.5	N/A	9547574
Total (Wet Wt) Strontium (Sr)	mg/kg	1.21	2.17	3.02	2.65	2.77	0.013	N/A	9547574
Total (Wet Wt) Sulphur (S)	mg/kg	2220	1830	1920	2170	2090	50	N/A	9547574
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547574
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00302	0.00423	0.00333	0.00217	0.00249	0.00040	N/A	9547574
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	0.0025	9547574

RDL = Reportable Detection Limit
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N/A = Not Applicable

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Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX939	ZMX940	ZMX941	ZMX942	ZMX943			
Sampling Date		2024/06/10	2024/06/10	2024/06/06	2024/06/06	2024/06/06			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	GMLK-SPSH-07	GMLK-SPSH-08	MHT-SPSH-01	MHT-SPSH-02	MHT-SPSH-03	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	N/A	9547574
Total (Wet Wt) Titanium (Ti)	mg/kg	0.21	0.27	0.41	0.52	0.33	0.13	N/A	9547574
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	0.0113	0.0135	0.0108	0.0050	N/A	9547574
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	0.00066	0.00050	<0.00040	0.00040	N/A	9547574
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	0.022	<0.020	<0.020	0.020	N/A	9547574
Total (Wet Wt) Zinc (Zn)	mg/kg	34.3	44.6	47.0	35.7	36.5	0.20	N/A	9547574
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	N/A	9547574
Mercury (Hg)	mg/kg	0.120	0.0556	0.0970	0.0719	0.0767	0.0010	0.0010	9547571
PHYSICAL PROPERTIES									
Sample Weight (as received)	%	0.22	0.31	0.21	0.28	0.23	N/A	N/A	9547573
Moisture-Subcontracted	%	78	78	76	78	78	0.30	N/A	9547573

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N/A = Not Applicable

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Bureau Veritas Job #: C4I7374
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Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX944	ZMX945	ZMX946	ZMX947	ZMX948			
Sampling Date		2024/06/06	2024/06/06	2024/06/06	2024/06/06	2024/06/06			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	MHT-SPSH-04	MHT-SPSH-07	MHT-SPSH-08	MHT-SPSH-09	MHT-SPSH-10	RDL	MDL	QC Batch
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	2.20	1.49	1.74	6.02	13.6	0.50	N/A	9547574
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0038	0.0040	0.0041	0.0058	0.0065	0.0020	N/A	9547574
Total (Wet Wt) Arsenic (As)	mg/kg	0.717	0.476	0.605	0.684	0.708	0.0050	N/A	9547574
Total (Wet Wt) Barium (Ba)	mg/kg	1.28	0.551	0.938	0.664	0.834	0.010	N/A	9547574
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547574
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547574
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	N/A	9547574
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0072	0.0074	0.0098	0.0088	0.0102	0.0013	N/A	9547574
Total (Wet Wt) Calcium (Ca)	mg/kg	13200	5710	11500	6470	6770	4.0	N/A	9547574
Total (Wet Wt) Chromium (Cr)	mg/kg	0.042	0.031	0.042	0.041	0.069	0.025	N/A	9547574
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0105	0.0107	0.0117	0.0126	0.0180	0.0013	N/A	9547574
Total (Wet Wt) Copper (Cu)	mg/kg	0.569	0.657	0.562	0.492	0.524	0.013	N/A	9547574
Total (Wet Wt) Iron (Fe)	mg/kg	13.5	11.1	14.1	23.3	41.3	0.25	N/A	9547574
Total (Wet Wt) Lead (Pb)	mg/kg	0.0119	0.0203	0.0225	0.0267	0.0291	0.0013	N/A	9547574
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	N/A	9547574
Total (Wet Wt) Magnesium (Mg)	mg/kg	430	351	450	336	338	0.40	N/A	9547574
Total (Wet Wt) Manganese (Mn)	mg/kg	3.83	2.17	3.32	2.61	3.29	0.010	N/A	9547574
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0153	0.0118	0.0188	0.0142	0.0154	0.0080	N/A	9547574
Total (Wet Wt) Nickel (Ni)	mg/kg	0.032	0.108	0.034	0.036	0.062	0.010	N/A	9547574
Total (Wet Wt) Phosphorus (P)	mg/kg	8880	4910	7900	4890	5320	2.0	N/A	9547574
Total (Wet Wt) Potassium (K)	mg/kg	3010	3140	3170	2920	2870	2.5	N/A	9547574
Total (Wet Wt) Selenium (Se)	mg/kg	0.265	0.224	0.256	0.224	0.231	0.010	N/A	9547574
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	<50	<50	50	N/A	9547574
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	0.0022	<0.0013	0.0013	N/A	9547574
Total (Wet Wt) Sodium (Na)	mg/kg	624	620	695	551	574	2.5	N/A	9547574
Total (Wet Wt) Strontium (Sr)	mg/kg	5.36	2.48	5.01	3.13	3.12	0.013	N/A	9547574
Total (Wet Wt) Sulphur (S)	mg/kg	1980	2070	1990	1760	1800	50	N/A	9547574
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547574
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00395	0.00249	0.00329	0.00259	0.00268	0.00040	N/A	9547574
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	0.0025	9547574

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX944	ZMX945	ZMX946	ZMX947	ZMX948			
Sampling Date		2024/06/06	2024/06/06	2024/06/06	2024/06/06	2024/06/06			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	MHT-SPSH-04	MHT-SPSH-07	MHT-SPSH-08	MHT-SPSH-09	MHT-SPSH-10	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	N/A	9547574
Total (Wet Wt) Titanium (Ti)	mg/kg	0.40	0.29	0.39	0.37	0.60	0.13	N/A	9547574
Total (Wet Wt) Tungsten (W)	mg/kg	0.0074	0.0175	0.0078	0.0104	0.0249	0.0050	N/A	9547574
Total (Wet Wt) Uranium (U)	mg/kg	0.00046	<0.00040	<0.00040	0.00047	0.00079	0.00040	N/A	9547574
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	<0.020	0.036	0.020	N/A	9547574
Total (Wet Wt) Zinc (Zn)	mg/kg	65.6	38.6	50.0	38.6	38.0	0.20	N/A	9547574
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	N/A	9547574
Mercury (Hg)	mg/kg	0.0613	0.0755	0.0923	0.0862	0.0660	0.0010	0.0010	9547571
PHYSICAL PROPERTIES									
Sample Weight (as received)	%	0.27	0.31	0.21	0.22	0.29	N/A	N/A	9547573
Moisture-Subcontracted	%	78	78	77	79	77	0.30	N/A	9547573

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N/A = Not Applicable

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Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX949	ZMX950	ZMX951	ZMX952	ZMX953			
Sampling Date		2024/06/06	2024/06/06	2024/06/06	2024/06/06	2024/06/06			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	HRT-SPSH-01	HRT-SPSH-03	HRT-SPSH-04	HRT-SPSH-06	HRT-SPSH-07	RDL	MDL	QC Batch
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	1.70	4.87	11.1	4.46	1.57	0.50	N/A	9547574
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0038	0.0032	0.0895	0.0027	0.0052	0.0020	N/A	9547574
Total (Wet Wt) Arsenic (As)	mg/kg	0.457	0.476	0.461	0.468	0.524	0.0050	N/A	9547574
Total (Wet Wt) Barium (Ba)	mg/kg	0.716	0.797	0.968	0.629	0.524	0.010	N/A	9547574
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547574
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547574
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	N/A	9547574
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0073	0.0115	0.0109	0.0104	0.0093	0.0013	N/A	9547574
Total (Wet Wt) Calcium (Ca)	mg/kg	7360	7580	7620	5650	5100	4.0	N/A	9547574
Total (Wet Wt) Chromium (Cr)	mg/kg	0.031	0.033	0.077	0.025	0.045	0.025	N/A	9547574
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0097	0.0132	0.0143	0.0113	0.0085	0.0013	N/A	9547574
Total (Wet Wt) Copper (Cu)	mg/kg	0.557	0.583	0.571	0.545	0.575	0.013	N/A	9547574
Total (Wet Wt) Iron (Fe)	mg/kg	12.2	18.3	38.6	20.3	11.9	0.25	N/A	9547574
Total (Wet Wt) Lead (Pb)	mg/kg	0.0102	0.0102	0.0181	0.0129	0.0069	0.0013	N/A	9547574
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	N/A	9547574
Total (Wet Wt) Magnesium (Mg)	mg/kg	357	395	371	355	317	0.40	N/A	9547574
Total (Wet Wt) Manganese (Mn)	mg/kg	2.83	3.04	3.23	2.75	2.12	0.010	N/A	9547574
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0138	0.0167	0.0154	0.0155	0.0169	0.0080	N/A	9547574
Total (Wet Wt) Nickel (Ni)	mg/kg	0.037	0.069	0.063	0.016	0.027	0.010	N/A	9547574
Total (Wet Wt) Phosphorus (P)	mg/kg	5680	6120	5690	4960	4220	2.0	N/A	9547574
Total (Wet Wt) Potassium (K)	mg/kg	3240	3510	3170	3190	3130	2.5	N/A	9547574
Total (Wet Wt) Selenium (Se)	mg/kg	0.239	0.270	0.253	0.246	0.250	0.010	N/A	9547574
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	<50	<50	50	N/A	9547574
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	<0.0013	0.0468	0.0013	N/A	9547574
Total (Wet Wt) Sodium (Na)	mg/kg	634	663	633	643	606	2.5	N/A	9547574
Total (Wet Wt) Strontium (Sr)	mg/kg	2.52	2.68	2.76	2.14	1.74	0.013	N/A	9547574
Total (Wet Wt) Sulphur (S)	mg/kg	2140	2100	1780	2010	1850	50	N/A	9547574
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547574
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00298	0.00328	0.00352	0.00301	0.00313	0.00040	N/A	9547574
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	0.0025	9547574

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX949	ZMX950	ZMX951	ZMX952	ZMX953			
Sampling Date		2024/06/06	2024/06/06	2024/06/06	2024/06/06	2024/06/06			
COC Number		994554-03-01	994554-03-01	994554-03-01	994554-03-01	994554-03-01			
	UNITS	**HRT-SPSH-01**	**HRT-SPSH-03**	**HRT-SPSH-04**	**HRT-SPSH-06**	**HRT-SPSH-07**	**RDL**	**MDL**	**QC Batch**
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	N/A	9547574
Total (Wet Wt) Titanium (Ti)	mg/kg	0.29	0.36	0.56	0.33	0.23	0.13	N/A	9547574
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	0.0083	0.0053	<0.0050	0.0050	N/A	9547574
Total (Wet Wt) Uranium (U)	mg/kg	0.00043	0.00069	0.00105	0.00043	<0.00040	0.00040	N/A	9547574
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	0.032	<0.020	<0.020	0.020	N/A	9547574
Total (Wet Wt) Zinc (Zn)	mg/kg	38.0	36.6	39.0	34.9	35.6	0.20	N/A	9547574
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	N/A	9547574
Mercury (Hg)	mg/kg	0.0753	0.0724	0.0590	0.0921	0.0583	0.0010	0.0010	9547571
PHYSICAL PROPERTIES									
Sample Weight (as received)	%	0.25	0.25	0.28	0.26	0.29	N/A	N/A	9547573
Moisture-Subcontracted	%	76	74	78	77	76	0.30	N/A	9547573

RDL = Reportable Detection Limit
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N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX954	ZMX955	ZMX956			
Sampling Date		2024/06/06	2024/06/06	2024/06/06			
COC Number		994554-03-01	994554-03-01	994554-03-01			
	UNITS	HRT-SPSH-08	HRT-SPSH-09	HRT-SPSH-10	RDL	MDL	QC Batch
Metals							
Total (Wet Wt) Aluminum (Al)	mg/kg	1.34	1.64	2.99	0.50	N/A	9547574
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0042	0.0030	0.0036	0.0020	N/A	9547574
Total (Wet Wt) Arsenic (As)	mg/kg	0.387	0.450	0.377	0.0050	N/A	9547574
Total (Wet Wt) Barium (Ba)	mg/kg	0.708	0.665	0.869	0.010	N/A	9547574
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547574
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547574
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	0.20	N/A	9547574
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0081	0.0091	0.0112	0.0013	N/A	9547574
Total (Wet Wt) Calcium (Ca)	mg/kg	5760	5990	7500	4.0	N/A	9547574
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.025	0.043	0.038	0.025	N/A	9547574
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0094	0.0100	0.0099	0.0013	N/A	9547574
Total (Wet Wt) Copper (Cu)	mg/kg	0.571	0.559	0.630	0.013	N/A	9547574
Total (Wet Wt) Iron (Fe)	mg/kg	8.45	12.7	14.1	0.25	N/A	9547574
Total (Wet Wt) Lead (Pb)	mg/kg	0.0155	0.0101	0.0342	0.0013	N/A	9547574
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	0.10	N/A	9547574
Total (Wet Wt) Magnesium (Mg)	mg/kg	355	351	397	0.40	N/A	9547574
Total (Wet Wt) Manganese (Mn)	mg/kg	2.38	2.44	3.26	0.010	N/A	9547574
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0150	0.0166	0.0182	0.0080	N/A	9547574
Total (Wet Wt) Nickel (Ni)	mg/kg	0.022	0.042	0.083	0.010	N/A	9547574
Total (Wet Wt) Phosphorus (P)	mg/kg	4950	5090	5920	2.0	N/A	9547574
Total (Wet Wt) Potassium (K)	mg/kg	3200	3160	3160	2.5	N/A	9547574
Total (Wet Wt) Selenium (Se)	mg/kg	0.265	0.251	0.248	0.010	N/A	9547574
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	50	N/A	9547574
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547574
Total (Wet Wt) Sodium (Na)	mg/kg	641	599	615	2.5	N/A	9547574
Total (Wet Wt) Strontium (Sr)	mg/kg	1.99	2.07	2.44	0.013	N/A	9547574
Total (Wet Wt) Sulphur (S)	mg/kg	2120	1980	1900	50	N/A	9547574
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547574
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00312	0.00321	0.00336	0.00040	N/A	9547574
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	0.025	0.0025	9547574

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMX954	ZMX955	ZMX956			
Sampling Date		2024/06/06	2024/06/06	2024/06/06			
COC Number		994554-03-01	994554-03-01	994554-03-01			
	UNITS	HRT-SPSH-08	HRT-SPSH-09	HRT-SPSH-10	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	0.020	N/A	9547574
Total (Wet Wt) Titanium (Ti)	mg/kg	0.28	0.27	0.31	0.13	N/A	9547574
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	<0.0050	0.0050	N/A	9547574
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	0.00095	0.00040	N/A	9547574
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	0.020	N/A	9547574
Total (Wet Wt) Zinc (Zn)	mg/kg	35.6	38.0	37.3	0.20	N/A	9547574
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	0.040	N/A	9547574
Mercury (Hg)	mg/kg	0.0729	0.0839	0.0607	0.0010	0.0010	9547571
PHYSICAL PROPERTIES							
Sample Weight (as received)	%	0.28	0.21	0.31	N/A	N/A	9547573
Moisture-Subcontracted	%	77	77	77	0.30	N/A	9547573

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMZ258	ZMZ259	ZMZ260			
Sampling Date		2024/06/05	2024/06/05	2024/06/05			
COC Number		994554-03-01	994554-03-01	994554-03-01			
	UNITS	A5-YLPR-03 NEW/SPLIT	A5-YLPR-04 NEW/SPLIT	A5-YLPR-05 NEW/SPLIT	RDL	MDL	QC Batch
Metals							
Total (Wet Wt) Aluminum (Al)	mg/kg	2.54	3.57	2.67	0.50	N/A	9547580
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0037	0.0022	0.0046	0.0020	N/A	9547580
Total (Wet Wt) Arsenic (As)	mg/kg	0.212	0.165	0.140	0.0050	N/A	9547580
Total (Wet Wt) Barium (Ba)	mg/kg	0.802	0.419	0.370	0.010	N/A	9547580
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	0.0020	N/A	9547580
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547580
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	0.20	N/A	9547580
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0075	0.0068	0.0048	0.0013	N/A	9547580
Total (Wet Wt) Calcium (Ca)	mg/kg	13100	9370	10300	4.0	N/A	9547580
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.025	<0.025	<0.025	0.025	N/A	9547580
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0073	0.0093	0.0074	0.0013	N/A	9547580
Total (Wet Wt) Copper (Cu)	mg/kg	0.519	0.480	0.471	0.013	N/A	9547580
Total (Wet Wt) Iron (Fe)	mg/kg	16.8	12.5	10.5	0.25	N/A	9547580
Total (Wet Wt) Lead (Pb)	mg/kg	0.0094	0.0113	0.0095	0.0013	N/A	9547580
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	<0.10	0.10	N/A	9547580
Total (Wet Wt) Magnesium (Mg)	mg/kg	380	347	328	0.40	N/A	9547580
Total (Wet Wt) Manganese (Mn)	mg/kg	6.05	3.12	2.77	0.010	N/A	9547580
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0147	0.0130	0.0118	0.0080	N/A	9547580
Total (Wet Wt) Nickel (Ni)	mg/kg	0.026	0.096	0.033	0.010	N/A	9547580
Total (Wet Wt) Phosphorus (P)	mg/kg	7750	6460	6820	2.0	N/A	9547580
Total (Wet Wt) Potassium (K)	mg/kg	3210	3220	3250	2.5	N/A	9547580
Total (Wet Wt) Selenium (Se)	mg/kg	0.248	0.241	0.227	0.010	N/A	9547580
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	<50	50	N/A	9547580
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	0.0013	N/A	9547580
Total (Wet Wt) Sodium (Na)	mg/kg	942	926	958	2.5	N/A	9547580
Total (Wet Wt) Strontium (Sr)	mg/kg	2.40	1.54	1.85	0.013	N/A	9547580
Total (Wet Wt) Sulphur (S)	mg/kg	2140	2130	2420	50	N/A	9547580
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	<0.0040	0.0040	N/A	9547580
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00384	0.00378	0.00371	0.00040	N/A	9547580
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	<0.025	0.025	0.0025	9547580

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMZ258	ZMZ259	ZMZ260			
Sampling Date		2024/06/05	2024/06/05	2024/06/05			
COC Number		994554-03-01	994554-03-01	994554-03-01			
	UNITS	A5-YLPR-03 NEW/SPLIT	A5-YLPR-04 NEW/SPLIT	A5-YLPR-05 NEW/SPLIT	RDL	MDL	QC Batch
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	0.020	N/A	9547580
Total (Wet Wt) Titanium (Ti)	mg/kg	0.37	0.41	0.38	0.13	N/A	9547580
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	<0.0050	0.0050	N/A	9547580
Total (Wet Wt) Uranium (U)	mg/kg	0.00109	0.00090	0.00085	0.00040	N/A	9547580
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	0.020	N/A	9547580
Total (Wet Wt) Zinc (Zn)	mg/kg	24.2	18.8	17.3	0.20	N/A	9547580
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	<0.040	0.040	N/A	9547580
Mercury (Hg)	mg/kg	0.121	0.0439	0.120	0.0010	0.0010	9547578
PHYSICAL PROPERTIES							
Sample Weight (as received)	%	0.21	0.36	0.28	N/A	N/A	9547579
Moisture-Subcontracted	%	74	78	74	0.30	N/A	9547579

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMZ267			ZMZ272			
Sampling Date		2024/06/08			2024/06/07			
COC Number		994554-03-01			994554-03-01			
	UNITS	A3-YLPR-05 NEW/SPLIT	RDL	MDL	SMLK-YLPR-07 NEW/SPLIT	RDL	MDL	QC Batch
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	3.85	0.50	N/A	2.42	0.50	N/A	9547580
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0062	0.0020	N/A	0.0024	0.0020	N/A	9547580
Total (Wet Wt) Arsenic (As)	mg/kg	0.163	0.0050	N/A	0.100	0.0050	N/A	9547580
Total (Wet Wt) Barium (Ba)	mg/kg	0.590	0.010	N/A	1.58	0.010	N/A	9547580
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	0.0020	N/A	<0.0020	0.0020	N/A	9547580
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	0.0013	N/A	<0.0013	0.0013	N/A	9547580
Total (Wet Wt) Boron (B)	mg/kg	<0.20	0.20	N/A	<0.20	0.20	N/A	9547580
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0062	0.0013	N/A	0.0079	0.0013	N/A	9547580
Total (Wet Wt) Calcium (Ca)	mg/kg	16000	4.0	N/A	12400	4.0	N/A	9547580
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.025	0.025	N/A	<0.025	0.025	N/A	9547580
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0362	0.0013	N/A	0.0083	0.0013	N/A	9547580
Total (Wet Wt) Copper (Cu)	mg/kg	0.536	0.013	N/A	0.586	0.013	N/A	9547580
Total (Wet Wt) Iron (Fe)	mg/kg	22.7	0.25	N/A	14.6	0.25	N/A	9547580
Total (Wet Wt) Lead (Pb)	mg/kg	0.0309	0.0013	N/A	0.0122	0.0013	N/A	9547580
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	0.10	N/A	<0.10	0.10	N/A	9547580
Total (Wet Wt) Magnesium (Mg)	mg/kg	474	0.40	N/A	423	0.40	N/A	9547580
Total (Wet Wt) Manganese (Mn)	mg/kg	7.60	0.010	N/A	5.71	0.010	N/A	9547580
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0132	0.0080	N/A	0.0220	0.0080	N/A	9547580
Total (Wet Wt) Nickel (Ni)	mg/kg	0.044	0.010	N/A	0.024	0.010	N/A	9547580
Total (Wet Wt) Phosphorus (P)	mg/kg	10700	2.0	N/A	8530	2.0	N/A	9547580
Total (Wet Wt) Potassium (K)	mg/kg	3360	2.5	N/A	3250	2.5	N/A	9547580
Total (Wet Wt) Selenium (Se)	mg/kg	0.265	0.010	N/A	0.258	0.010	N/A	9547580
Total (Wet Wt) Silicon (Si)	mg/kg	<50	50	N/A	<50	50	N/A	9547580
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	0.0013	N/A	<0.0013	0.0013	N/A	9547580
Total (Wet Wt) Sodium (Na)	mg/kg	939	2.5	N/A	898	2.5	N/A	9547580
Total (Wet Wt) Strontium (Sr)	mg/kg	3.23	0.013	N/A	2.02	0.013	N/A	9547580
Total (Wet Wt) Sulphur (S)	mg/kg	2080	50	N/A	2400	50	N/A	9547580
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	0.0040	N/A	<0.0040	0.0040	N/A	9547580
Total (Wet Wt) Thallium (Tl)	mg/kg	0.0102	0.00040	N/A	0.00687	0.00040	N/A	9547580
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	0.025	0.0025	<0.025	0.025	0.0025	9547580

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMZ267			ZMZ272			
Sampling Date		2024/06/08			2024/06/07			
COC Number		994554-03-01			994554-03-01			
	UNITS	**A3-YLPR-05 NEW/SPLIT**	**RDL**	**MDL**	**SMLK-YLPR-07 NEW/SPLIT**	**RDL**	**MDL**	**QC Batch**
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	0.020	N/A	0.716	0.020	N/A	9547580
Total (Wet Wt) Titanium (Ti)	mg/kg	0.58	0.13	N/A	0.37	0.13	N/A	9547580
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	0.0050	N/A	<0.0050	0.0050	N/A	9547580
Total (Wet Wt) Uranium (U)	mg/kg	0.00117	0.00040	N/A	0.00157	0.00040	N/A	9547580
Total (Wet Wt) Vanadium (V)	mg/kg	0.028	0.020	N/A	0.024	0.020	N/A	9547580
Total (Wet Wt) Zinc (Zn)	mg/kg	27.4	0.20	N/A	26.6	0.20	N/A	9547580
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	0.040	N/A	<0.040	0.040	N/A	9547580
Mercury (Hg)	mg/kg	0.251 (1)	0.0020	0.0020	0.0458	0.0010	0.0010	9547578
PHYSICAL PROPERTIES								
Sample Weight (as received)	%	0.25	N/A	N/A	0.26	N/A	N/A	9547579
Moisture-Subcontracted	%	80	0.30	N/A	80	0.30	N/A	9547579

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable
(1) RDL raised due to concentration over linear range, sample dilution required.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMZ272	ZMZ276			
Sampling Date		2024/06/07	2024/06/07			
COC Number		994554-03-01	994554-03-01			
	UNITS	SMLK-YLPR-07 NEW/SPLIT Lab-Dup	SMLK-YLPR-08 NEW/SPLIT	RDL	MDL	QC Batch
Metals						
Total (Wet Wt) Aluminum (Al)	mg/kg	2.56	1.53	0.50	N/A	9547580
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0046	0.0086	0.0020	N/A	9547580
Total (Wet Wt) Arsenic (As)	mg/kg	0.102	0.121	0.0050	N/A	9547580
Total (Wet Wt) Barium (Ba)	mg/kg	1.59	1.29	0.010	N/A	9547580
Total (Wet Wt) Beryllium (Be)	mg/kg	0.0023	<0.0020	0.0020	N/A	9547580
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0013	<0.0013	0.0013	N/A	9547580
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	0.20	N/A	9547580
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0085	0.0066	0.0013	N/A	9547580
Total (Wet Wt) Calcium (Ca)	mg/kg	12500	9840	4.0	N/A	9547580
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.025	<0.025	0.025	N/A	9547580
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0103	0.0107	0.0013	N/A	9547580
Total (Wet Wt) Copper (Cu)	mg/kg	0.599	0.628	0.013	N/A	9547580
Total (Wet Wt) Iron (Fe)	mg/kg	14.7	12.5	0.25	N/A	9547580
Total (Wet Wt) Lead (Pb)	mg/kg	0.0147	0.0154	0.0013	N/A	9547580
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	<0.10	0.10	N/A	9547580
Total (Wet Wt) Magnesium (Mg)	mg/kg	422	398	0.40	N/A	9547580
Total (Wet Wt) Manganese (Mn)	mg/kg	5.71	3.33	0.010	N/A	9547580
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0221	0.0218	0.0080	N/A	9547580
Total (Wet Wt) Nickel (Ni)	mg/kg	0.037	0.026	0.010	N/A	9547580
Total (Wet Wt) Phosphorus (P)	mg/kg	8480	7100	2.0	N/A	9547580
Total (Wet Wt) Potassium (K)	mg/kg	3300	3290	2.5	N/A	9547580
Total (Wet Wt) Selenium (Se)	mg/kg	0.261	0.258	0.010	N/A	9547580
Total (Wet Wt) Silicon (Si)	mg/kg	<50	<50	50	N/A	9547580
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	0.0013	N/A	9547580
Total (Wet Wt) Sodium (Na)	mg/kg	907	836	2.5	N/A	9547580
Total (Wet Wt) Strontium (Sr)	mg/kg	2.03	1.96	0.013	N/A	9547580
Total (Wet Wt) Sulphur (S)	mg/kg	2150	2240	50	N/A	9547580
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	<0.0040	0.0040	N/A	9547580
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00736	0.00981	0.00040	N/A	9547580

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

RESULTS OF ANALYSES OF TISSUE

Bureau Veritas ID		ZMZ272	ZMZ276			
Sampling Date		2024/06/07	2024/06/07			
COC Number		994554-03-01	994554-03-01			
	UNITS	SMLK-YLPR-07 NEW/SPLIT Lab-Dup	SMLK-YLPR-08 NEW/SPLIT	RDL	MDL	QC Batch
Total (Wet Wt) Thorium (Th)	mg/kg	<0.025	<0.025	0.025	0.0025	9547580
Total (Wet Wt) Tin (Sn)	mg/kg	0.731	0.048	0.020	N/A	9547580
Total (Wet Wt) Titanium (Ti)	mg/kg	0.41	0.32	0.13	N/A	9547580
Total (Wet Wt) Tungsten (W)	mg/kg	<0.0050	<0.0050	0.0050	N/A	9547580
Total (Wet Wt) Uranium (U)	mg/kg	0.00171	0.00076	0.00040	N/A	9547580
Total (Wet Wt) Vanadium (V)	mg/kg	0.030	<0.020	0.020	N/A	9547580
Total (Wet Wt) Zinc (Zn)	mg/kg	29.8	29.5	0.20	N/A	9547580
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	<0.040	0.040	N/A	9547580
Mercury (Hg)	mg/kg	0.0428	0.0325	0.0010	0.0010	9547578
PHYSICAL PROPERTIES						
Sample Weight (as received)	%	0.26	0.25	N/A	N/A	9547579
Moisture-Subcontracted	%	77	78	0.30	N/A	9547579

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
N/A = Not Applicable

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX897 **Collected:** 2024/06/05
Sample ID: A5-YLPR-01 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/03	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX898 **Collected:** 2024/06/05
Sample ID: A5-YLPR-02 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/03	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX899 **Collected:** 2024/06/05
Sample ID: A5-YLPR-03 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/03	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX900 **Collected:** 2024/06/05
Sample ID: A5-YLPR-04 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/03	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX901 **Collected:** 2024/06/05
Sample ID: A5-YLPR-05 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/03	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX902 **Collected:** 2024/06/05
Sample ID: A5-YLPR-07 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/03	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX903 **Collected:** 2024/06/05
Sample ID: A5-YLPR-08 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/03	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX904 **Collected:** 2024/06/08
Sample ID: A3-YLPR-01 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/03	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX905 **Collected:** 2024/06/08
Sample ID: A3-YLPR-02 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/30	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX906 **Collected:** 2024/06/08
Sample ID: A3-YLPR-03 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/30	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX907 **Collected:** 2024/06/08
Sample ID: A3-YLPR-05 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/30	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX908 **Collected:** 2024/06/08
Sample ID: A3-YLPR-06 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/30	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX909 **Collected:** 2024/06/08
Sample ID: A3-YLPR-08 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/30	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX910 **Collected:** 2024/06/08
Sample ID: A3-YLPR-09 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/30	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX911 **Collected:** 2024/06/10
Sample ID: GMLK-YLPR-01 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/30	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX912 **Collected:** 2024/06/10
Sample ID: GMLK-YLPR-02 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/30	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX913 **Collected:** 2024/06/10
Sample ID: GMLK-YLPR-03 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX914 **Collected:** 2024/06/10
Sample ID: GMLK-YLPR-04 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX915 **Collected:** 2024/06/10
Sample ID: GMLK-YLPR-05 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX916 **Collected:** 2024/06/10
Sample ID: GMLK-YLPR-06 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX916 Dup
Sample ID: GMLK-YLPR-06
Matrix: Tissue
Collected: 2024/06/10
Shipped:
Received: 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547563	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547566	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547565	2024/06/25	2024/06/28	Cyrhea Goda

Bureau Veritas ID: ZMX917
Sample ID: GMLK-YLPR-07
Matrix: Tissue
Collected: 2024/06/10
Shipped:
Received: 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/27	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX917 Dup
Sample ID: GMLK-YLPR-07
Matrix: Tissue
Collected: 2024/06/10
Shipped:
Received: 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda

Bureau Veritas ID: ZMX918
Sample ID: SMLK-YLPR-01
Matrix: Tissue
Collected: 2024/06/07
Shipped:
Received: 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/06	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX919
Sample ID: SMLK-YLPR-02
Matrix: Tissue
Collected: 2024/06/07
Shipped:
Received: 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX920 **Collected:** 2024/06/07
Sample ID: SMLK-YLPR-03 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX921 **Collected:** 2024/06/07
Sample ID: SMLK-YLPR-04 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX922 **Collected:** 2024/06/07
Sample ID: SMLK-YLPR-06 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX923 **Collected:** 2024/06/07
Sample ID: SMLK-YLPR-07 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX924 **Collected:** 2024/06/07
Sample ID: SMLK-YLPR-08 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX925 **Collected:** 2024/06/05
Sample ID: A5-SPSH-01 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX926 **Collected:** 2024/06/05
Sample ID: A5-SPSH-02 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX927 **Collected:** 2024/06/05
Sample ID: A5-SPSH-03 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX928 **Collected:** 2024/06/05
Sample ID: A5-SPSH-05 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX929 **Collected:** 2024/06/05
Sample ID: A5-SPSH-06 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX930 **Collected:** 2024/06/05
Sample ID: A5-SPSH-07 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX931 **Collected:** 2024/06/05
Sample ID: A5-SPSH-09 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX932 **Collected:** 2024/06/05
Sample ID: A5-SPSH-10 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX933 **Collected:** 2024/06/10
Sample ID: GMLK-SPSH-01 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX934 **Collected:** 2024/06/10
Sample ID: GMLK-SPSH-02 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX935 **Collected:** 2024/06/10
Sample ID: GMLK-SPSH-03 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX936 **Collected:** 2024/06/10
Sample ID: GMLK-SPSH-04 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547568	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547570	2024/06/25	2024/07/04	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547569	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX937 **Collected:** 2024/06/10
Sample ID: GMLK-SPSH-05 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/28	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX937 Dup **Collected:** 2024/06/10
Sample ID: GMLK-SPSH-05 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda

Bureau Veritas ID: ZMX938 **Collected:** 2024/06/10
Sample ID: GMLK-SPSH-06 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX939 **Collected:** 2024/06/10
Sample ID: GMLK-SPSH-07 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX940 **Collected:** 2024/06/10
Sample ID: GMLK-SPSH-08 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX941 **Collected:** 2024/06/06
Sample ID: MHT-SPSH-01 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX942 **Collected:** 2024/06/06
Sample ID: MHT-SPSH-02 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX943 **Collected:** 2024/06/06
Sample ID: MHT-SPSH-03 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX944 **Collected:** 2024/06/06
Sample ID: MHT-SPSH-04 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688531	N/A		Harwin Grewal

Bureau Veritas ID: ZMX945 **Collected:** 2024/06/06
Sample ID: MHT-SPSH-07 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMX946 **Collected:** 2024/06/06
Sample ID: MHT-SPSH-08 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMX947 **Collected:** 2024/06/06
Sample ID: MHT-SPSH-09 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMX948 **Collected:** 2024/06/06
Sample ID: MHT-SPSH-10 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

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TEST SUMMARY

Bureau Veritas ID: ZMX949 **Collected:** 2024/06/06
Sample ID: HRT-SPSH-01 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMX950 **Collected:** 2024/06/06
Sample ID: HRT-SPSH-03 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMX951 **Collected:** 2024/06/06
Sample ID: HRT-SPSH-04 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMX952 **Collected:** 2024/06/06
Sample ID: HRT-SPSH-06 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMX953 **Collected:** 2024/06/06
Sample ID: HRT-SPSH-07 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMX954 **Collected:** 2024/06/06
Sample ID: HRT-SPSH-08 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMX955 **Collected:** 2024/06/06
Sample ID: HRT-SPSH-09 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMX956 **Collected:** 2024/06/06
Sample ID: HRT-SPSH-10 **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547571	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547574	2024/06/26	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547573	2024/06/26	2024/06/27	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMZ258 **Collected:** 2024/06/05
Sample ID: A5-YLPR-03 NEW/SPLIT **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547578	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547580	2024/06/25	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547579	2024/06/25	2024/06/28	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMZ259 **Collected:** 2024/06/05
Sample ID: A5-YLPR-04 NEW/SPLIT **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547578	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547580	2024/06/25	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547579	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZMZ260 **Collected:** 2024/06/05
Sample ID: A5-YLPR-05 NEW/SPLIT **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547578	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547580	2024/06/25	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547579	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMZ267 **Collected:** 2024/06/08
Sample ID: A3-YLPR-05 NEW/SPLIT **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547578	N/A	2024/07/30	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547580	2024/06/25	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547579	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMZ272 **Collected:** 2024/06/07
Sample ID: SMLK-YLPR-07 NEW/SPLIT **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547578	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547580	2024/06/25	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547579	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

Bureau Veritas ID: ZMZ272 Dup **Collected:** 2024/06/07
Sample ID: SMLK-YLPR-07 NEW/SPLIT **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547578	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547580	2024/06/25	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547579	2024/06/25	2024/06/25	Cyrhea Goda

Bureau Veritas ID: ZMZ276 **Collected:** 2024/06/07
Sample ID: SMLK-YLPR-08 NEW/SPLIT **Shipped:**
Matrix: Tissue **Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Tissue by CVAF - Wet Wt	CV/AF	9547578	N/A	2024/07/25	John Choo
Elements by ICPMS - Tissue Plug Wet Wt	ICP/MS	9547580	2024/06/25	2024/07/17	Megan Mak
Moisture in Tissue-Freeze Drying	BAL/BAL	9547579	2024/06/25	2024/06/25	Cyrhea Goda
Methyl Mercury		9688535	N/A		Harwin Grewal

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	-0.3°C

Results relate only to the items tested.

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9547563	Mercury (Hg)	2024/07/25	83	80 - 120	<0.0010	mg/kg	3.2	40	91	N/A
9547565	Moisture-Subcontracted	2024/06/28					0.79	20		
9547565	Sample Weight (as received)	2024/06/28					3.2	N/A		
9547566	Total (Wet Wt) Aluminum (Al)	2024/07/04	103	80 - 120	<0.50	mg/kg	4.7	40		
9547566	Total (Wet Wt) Antimony (Sb)	2024/07/04	105	80 - 120	<0.0020	mg/kg	21	40	95	N/A
9547566	Total (Wet Wt) Arsenic (As)	2024/07/04	97	80 - 120	<0.0050	mg/kg	2.4	40	86	N/A
9547566	Total (Wet Wt) Barium (Ba)	2024/07/04	99	80 - 120	<0.010	mg/kg	5.1	40		
9547566	Total (Wet Wt) Beryllium (Be)	2024/07/04	106	80 - 120	<0.0020	mg/kg	NC	40		
9547566	Total (Wet Wt) Bismuth (Bi)	2024/07/04	93	80 - 120	<0.0013	mg/kg	NC	40		
9547566	Total (Wet Wt) Boron (B)	2024/07/04	112	80 - 120	<0.20	mg/kg	NC	40		
9547566	Total (Wet Wt) Cadmium (Cd)	2024/07/04	96	80 - 120	<0.0013	mg/kg	0.90	40	90	N/A
9547566	Total (Wet Wt) Calcium (Ca)	2024/07/04	106	80 - 120	<4.0	mg/kg	4.9	60	93	N/A
9547566	Total (Wet Wt) Chromium (Cr)	2024/07/04	104	80 - 120	<0.025	mg/kg	2.3	40		
9547566	Total (Wet Wt) Cobalt (Co)	2024/07/04	102	80 - 120	<0.0013	mg/kg	1.9	40	86	N/A
9547566	Total (Wet Wt) Copper (Cu)	2024/07/04	101	80 - 120	<0.013	mg/kg	2.3	40	90	N/A
9547566	Total (Wet Wt) Iron (Fe)	2024/07/04	107	80 - 120	<0.25	mg/kg	4.0	40	95	N/A
9547566	Total (Wet Wt) Lead (Pb)	2024/07/04	92	80 - 120	<0.0013	mg/kg	6.0	40	113	N/A
9547566	Total (Wet Wt) Lithium (Li)	2024/07/04	104	80 - 120	<0.10	mg/kg	NC	40		
9547566	Total (Wet Wt) Magnesium (Mg)	2024/07/04	99	80 - 120	<0.40	mg/kg	4.9	40		
9547566	Total (Wet Wt) Manganese (Mn)	2024/07/04	102	80 - 120	<0.010	mg/kg	3.2	40	93	N/A
9547566	Total (Wet Wt) Molybdenum (Mo)	2024/07/04	105	80 - 120	<0.0080	mg/kg	9.3	40	89	N/A
9547566	Total (Wet Wt) Nickel (Ni)	2024/07/04	105	80 - 120	<0.010	mg/kg	11	40		
9547566	Total (Wet Wt) Phosphorus (P)	2024/07/04	103	80 - 120	<2.0	mg/kg	4.5	40	94	N/A
9547566	Total (Wet Wt) Potassium (K)	2024/07/04	98	80 - 120	<2.5	mg/kg	5.5	40	94	N/A
9547566	Total (Wet Wt) Selenium (Se)	2024/07/04	100	80 - 120	<0.010	mg/kg	1.2	40	88	N/A
9547566	Total (Wet Wt) Silicon (Si)	2024/07/04	103	80 - 120	<50	mg/kg	NC	40		
9547566	Total (Wet Wt) Silver (Ag)	2024/07/04	97	80 - 120	<0.0013	mg/kg	NC	40	90	N/A
9547566	Total (Wet Wt) Sodium (Na)	2024/07/04	98	80 - 120	<2.5	mg/kg	2.3	40	98	N/A
9547566	Total (Wet Wt) Strontium (Sr)	2024/07/04	93	80 - 120	<0.013	mg/kg	4.6	60	89	N/A
9547566	Total (Wet Wt) Sulphur (S)	2024/07/04	99	80 - 120	<50	mg/kg	3.8	40		

QUALITY ASSURANCE REPORT(CONT'D)

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9547566	Total (Wet Wt) Tellurium (Te)	2024/07/04	79 (1)	80 - 120	<0.0040	mg/kg	NC	40		
9547566	Total (Wet Wt) Thallium (Tl)	2024/07/04	94	80 - 120	<0.00040	mg/kg	1.8	40	87	N/A
9547566	Total (Wet Wt) Thorium (Th)	2024/07/04	94	80 - 120	<0.025	mg/kg	NC	40		
9547566	Total (Wet Wt) Tin (Sn)	2024/07/04	106	80 - 120	<0.020	mg/kg	NC	40	82	N/A
9547566	Total (Wet Wt) Titanium (Ti)	2024/07/04	93	80 - 120	<0.13	mg/kg	19	40		
9547566	Total (Wet Wt) Tungsten (W)	2024/07/04	101	80 - 120	<0.0050	mg/kg	NC	40		
9547566	Total (Wet Wt) Uranium (U)	2024/07/04	96	80 - 120	<0.00040	mg/kg	1.8	40	89	N/A
9547566	Total (Wet Wt) Vanadium (V)	2024/07/04	104	80 - 120	<0.020	mg/kg	NC	40	87	N/A
9547566	Total (Wet Wt) Zinc (Zn)	2024/07/04	121 (1)	80 - 120	<0.20	mg/kg	3.8	40	94	N/A
9547566	Total (Wet Wt) Zirconium (Zr)	2024/07/04	91	80 - 120	<0.040	mg/kg	NC	40		
9547568	Mercury (Hg)	2024/07/25	83	80 - 120	<0.0010	mg/kg	2.9	40	107	N/A
9547569	Moisture-Subcontracted	2024/06/25					1.2	20		
9547569	Sample Weight (as received)	2024/06/25					2.8	N/A		
9547570	Total (Wet Wt) Aluminum (Al)	2024/07/04	105	80 - 120	<0.50	mg/kg	5.8	40		
9547570	Total (Wet Wt) Antimony (Sb)	2024/07/04	103	80 - 120	<0.0020	mg/kg	0.71	40	86	N/A
9547570	Total (Wet Wt) Arsenic (As)	2024/07/04	101	80 - 120	<0.0050	mg/kg	0.28	40	100	N/A
9547570	Total (Wet Wt) Barium (Ba)	2024/07/04	102	80 - 120	<0.010	mg/kg	6.2	40		
9547570	Total (Wet Wt) Beryllium (Be)	2024/07/04	97	80 - 120	<0.0020	mg/kg	NC	40		
9547570	Total (Wet Wt) Bismuth (Bi)	2024/07/04	98	80 - 120	<0.0013	mg/kg	NC	40		
9547570	Total (Wet Wt) Boron (B)	2024/07/04	104	80 - 120	<0.20	mg/kg	NC	40		
9547570	Total (Wet Wt) Cadmium (Cd)	2024/07/04	98	80 - 120	<0.0013	mg/kg	23	40	100	N/A
9547570	Total (Wet Wt) Calcium (Ca)	2024/07/04	104	80 - 120	<4.0	mg/kg	0.41	60	105	N/A
9547570	Total (Wet Wt) Chromium (Cr)	2024/07/04	106	80 - 120	<0.025	mg/kg	12	40		
9547570	Total (Wet Wt) Cobalt (Co)	2024/07/04	104	80 - 120	<0.0013	mg/kg	0.76	40	98	N/A
9547570	Total (Wet Wt) Copper (Cu)	2024/07/04	101	80 - 120	<0.013	mg/kg	1.1	40	102	N/A
9547570	Total (Wet Wt) Iron (Fe)	2024/07/04	107	80 - 120	<0.25	mg/kg	0.11	40	106	N/A
9547570	Total (Wet Wt) Lead (Pb)	2024/07/04	97	80 - 120	<0.0013	mg/kg	29	40	104	N/A
9547570	Total (Wet Wt) Lithium (Li)	2024/07/04	88	80 - 120	<0.10	mg/kg	NC	40		
9547570	Total (Wet Wt) Magnesium (Mg)	2024/07/04	102	80 - 120	<0.40	mg/kg	0.96	40		
9547570	Total (Wet Wt) Manganese (Mn)	2024/07/04	102	80 - 120	<0.010	mg/kg	1.3	40	101	N/A

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Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9547570	Total (Wet Wt) Molybdenum (Mo)	2024/07/04	108	80 - 120	<0.0080	mg/kg	24	40	106	N/A
9547570	Total (Wet Wt) Nickel (Ni)	2024/07/04	108	80 - 120	<0.010	mg/kg	2.4	40		
9547570	Total (Wet Wt) Phosphorus (P)	2024/07/04	102	80 - 120	<2.0	mg/kg	0.94	40	105	N/A
9547570	Total (Wet Wt) Potassium (K)	2024/07/04	100	80 - 120	<2.5	mg/kg	2.1	40	108	N/A
9547570	Total (Wet Wt) Selenium (Se)	2024/07/04	103	80 - 120	<0.010	mg/kg	2.4	40	100	N/A
9547570	Total (Wet Wt) Silicon (Si)	2024/07/04	98	80 - 120	<50	mg/kg	NC	40		
9547570	Total (Wet Wt) Silver (Ag)	2024/07/04	100	80 - 120	<0.0013	mg/kg	1.9	40	102	N/A
9547570	Total (Wet Wt) Sodium (Na)	2024/07/04	104	80 - 120	<2.5	mg/kg	3.4	40	114	N/A
9547570	Total (Wet Wt) Strontium (Sr)	2024/07/04	92	80 - 120	<0.013	mg/kg	7.8	60	100	N/A
9547570	Total (Wet Wt) Sulphur (S)	2024/07/04	89	80 - 120	<50	mg/kg	9.7	40		
9547570	Total (Wet Wt) Tellurium (Te)	2024/07/04	89	80 - 120	<0.0040	mg/kg	NC	40		
9547570	Total (Wet Wt) Thallium (Tl)	2024/07/04	101	80 - 120	<0.00040	mg/kg	2.1	40	97	N/A
9547570	Total (Wet Wt) Thorium (Th)	2024/07/04	100	80 - 120	<0.025	mg/kg	NC	40		
9547570	Total (Wet Wt) Tin (Sn)	2024/07/04	104	80 - 120	<0.020	mg/kg	9.3	40	121	N/A
9547570	Total (Wet Wt) Titanium (Ti)	2024/07/04	101	80 - 120	<0.13	mg/kg	2.5	40		
9547570	Total (Wet Wt) Tungsten (W)	2024/07/04	106	80 - 120	<0.0050	mg/kg	NC	40		
9547570	Total (Wet Wt) Uranium (U)	2024/07/04	100	80 - 120	<0.00040	mg/kg	10	40	102	N/A
9547570	Total (Wet Wt) Vanadium (V)	2024/07/04	106	80 - 120	<0.020	mg/kg	NC	40	102	N/A
9547570	Total (Wet Wt) Zinc (Zn)	2024/07/04	111	80 - 120	<0.20	mg/kg	0.14	40	106	N/A
9547570	Total (Wet Wt) Zirconium (Zr)	2024/07/04	90	80 - 120	<0.040	mg/kg	NC	40		
9547571	Mercury (Hg)	2024/07/25	99	80 - 120	<0.0010	mg/kg	6.0	40	93	N/A
9547573	Moisture-Subcontracted	2024/06/27					0.76	20		
9547573	Sample Weight (as received)	2024/06/27					3.4	N/A		
9547574	Total (Wet Wt) Aluminum (Al)	2024/07/17	105	80 - 120	<0.50	mg/kg	14	40		
9547574	Total (Wet Wt) Antimony (Sb)	2024/07/17	105	80 - 120	<0.0020	mg/kg	1.0	40	121	N/A
9547574	Total (Wet Wt) Arsenic (As)	2024/07/17	108	80 - 120	<0.0050	mg/kg	1.7	40	89	N/A
9547574	Total (Wet Wt) Barium (Ba)	2024/07/17	104	80 - 120	<0.010	mg/kg	5.3	40		
9547574	Total (Wet Wt) Beryllium (Be)	2024/07/17	112	80 - 120	<0.0020	mg/kg	NC	40		
9547574	Total (Wet Wt) Bismuth (Bi)	2024/07/17	104	80 - 120	<0.0013	mg/kg	NC	40		
9547574	Total (Wet Wt) Boron (B)	2024/07/17	118	80 - 120	<0.20	mg/kg	NC	40		

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QUALITY ASSURANCE REPORT(CONT'D)

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9547574	Total (Wet Wt) Cadmium (Cd)	2024/07/17	102	80 - 120	<0.0013	mg/kg	7.1	40	88	N/A
9547574	Total (Wet Wt) Calcium (Ca)	2024/07/17	114	80 - 120	<4.0	mg/kg	1.7	60	88	N/A
9547574	Total (Wet Wt) Chromium (Cr)	2024/07/17	104	80 - 120	<0.025	mg/kg	0.58	40		
9547574	Total (Wet Wt) Cobalt (Co)	2024/07/17	102	80 - 120	<0.0013	mg/kg	5.1	40	85	N/A
9547574	Total (Wet Wt) Copper (Cu)	2024/07/17	101	80 - 120	<0.013	mg/kg	6.6	40	87	N/A
9547574	Total (Wet Wt) Iron (Fe)	2024/07/17	111	80 - 120	<0.25	mg/kg	5.5	40	91	N/A
9547574	Total (Wet Wt) Lead (Pb)	2024/07/17	104	80 - 120	<0.0013	mg/kg	22	40	117	N/A
9547574	Total (Wet Wt) Lithium (Li)	2024/07/17	119	80 - 120	<0.10	mg/kg	NC	40		
9547574	Total (Wet Wt) Magnesium (Mg)	2024/07/17	104	80 - 120	<0.40	mg/kg	0.16	40		
9547574	Total (Wet Wt) Manganese (Mn)	2024/07/17	106	80 - 120	<0.010	mg/kg	2.5	40	90	N/A
9547574	Total (Wet Wt) Molybdenum (Mo)	2024/07/17	108	80 - 120	<0.0080	mg/kg	18	40	90	N/A
9547574	Total (Wet Wt) Nickel (Ni)	2024/07/17	104	80 - 120	<0.010	mg/kg	37	40		
9547574	Total (Wet Wt) Phosphorus (P)	2024/07/17	108	80 - 120	<2.0	mg/kg	3.6	40	93	N/A
9547574	Total (Wet Wt) Potassium (K)	2024/07/17	104	80 - 120	<2.5	mg/kg	2.7	40	96	N/A
9547574	Total (Wet Wt) Selenium (Se)	2024/07/17	103	80 - 120	<0.010	mg/kg	0.93	40	85	N/A
9547574	Total (Wet Wt) Silicon (Si)	2024/07/17	116	80 - 120	<50	mg/kg	NC	40		
9547574	Total (Wet Wt) Silver (Ag)	2024/07/17	107	80 - 120	<0.0013	mg/kg	18	40	90	N/A
9547574	Total (Wet Wt) Sodium (Na)	2024/07/17	106	80 - 120	<2.5	mg/kg	4.6	40	96	N/A
9547574	Total (Wet Wt) Strontium (Sr)	2024/07/17	108	80 - 120	<0.013	mg/kg	2.2	60	90	N/A
9547574	Total (Wet Wt) Sulphur (S)	2024/07/17	108	80 - 120	<50	mg/kg	3.3	40		
9547574	Total (Wet Wt) Tellurium (Te)	2024/07/17	116	80 - 120	<0.0040	mg/kg	NC	40		
9547574	Total (Wet Wt) Thallium (Tl)	2024/07/17	105	80 - 120	<0.00040	mg/kg	7.4	40	88	N/A
9547574	Total (Wet Wt) Thorium (Th)	2024/07/17	100	80 - 120	<0.025	mg/kg	NC	40		
9547574	Total (Wet Wt) Tin (Sn)	2024/07/17	108	80 - 120	<0.020	mg/kg	NC	40	90	N/A
9547574	Total (Wet Wt) Titanium (Ti)	2024/07/17	107	80 - 120	<0.13	mg/kg	5.8	40		
9547574	Total (Wet Wt) Tungsten (W)	2024/07/17	109	80 - 120	<0.0050	mg/kg	NC	40		
9547574	Total (Wet Wt) Uranium (U)	2024/07/17	104	80 - 120	<0.00040	mg/kg	9.2	40	92	N/A
9547574	Total (Wet Wt) Vanadium (V)	2024/07/17	103	80 - 120	<0.020	mg/kg	NC	40	87	N/A
9547574	Total (Wet Wt) Zinc (Zn)	2024/07/17	108	80 - 120	0.24, RDL=0.20 (2)	mg/kg	2.1	40	88	N/A

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QUALITY ASSURANCE REPORT(CONT'D)

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9547574	Total (Wet Wt) Zirconium (Zr)	2024/07/17	104	80 - 120	<0.040	mg/kg	NC	40		
9547578	Mercury (Hg)	2024/07/25	114	80 - 120	<0.0010	mg/kg	6.6	40	91	N/A
9547579	Moisture-Subcontracted	2024/06/25					4.7	20		
9547579	Sample Weight (as received)	2024/06/25					0.69	N/A		
9547580	Total (Wet Wt) Aluminum (Al)	2024/07/17	106	80 - 120	<0.50	mg/kg	5.4	40		
9547580	Total (Wet Wt) Antimony (Sb)	2024/07/17	101	80 - 120	<0.0020	mg/kg	NC	40	130	N/A
9547580	Total (Wet Wt) Arsenic (As)	2024/07/17	109	80 - 120	<0.0050	mg/kg	1.8	40	88	N/A
9547580	Total (Wet Wt) Barium (Ba)	2024/07/17	101	80 - 120	<0.010	mg/kg	0.52	40		
9547580	Total (Wet Wt) Beryllium (Be)	2024/07/17	106	80 - 120	<0.0020	mg/kg	14	40		
9547580	Total (Wet Wt) Bismuth (Bi)	2024/07/17	105	80 - 120	<0.0013	mg/kg	NC	40		
9547580	Total (Wet Wt) Boron (B)	2024/07/17	113	80 - 120	<0.20	mg/kg	NC	40		
9547580	Total (Wet Wt) Cadmium (Cd)	2024/07/17	101	80 - 120	<0.0013	mg/kg	7.8	40	87	N/A
9547580	Total (Wet Wt) Calcium (Ca)	2024/07/17	107	80 - 120	<4.0	mg/kg	0.97	60	88	N/A
9547580	Total (Wet Wt) Chromium (Cr)	2024/07/17	103	80 - 120	<0.025	mg/kg	NC	40		
9547580	Total (Wet Wt) Cobalt (Co)	2024/07/17	102	80 - 120	<0.0013	mg/kg	21	40	81	N/A
9547580	Total (Wet Wt) Copper (Cu)	2024/07/17	100	80 - 120	<0.013	mg/kg	2.2	40	87	N/A
9547580	Total (Wet Wt) Iron (Fe)	2024/07/17	111	80 - 120	<0.25	mg/kg	0.57	40	93	N/A
9547580	Total (Wet Wt) Lead (Pb)	2024/07/17	103	80 - 120	<0.0013	mg/kg	19	40	110	N/A
9547580	Total (Wet Wt) Lithium (Li)	2024/07/17	112	80 - 120	<0.10	mg/kg	NC	40		
9547580	Total (Wet Wt) Magnesium (Mg)	2024/07/17	104	80 - 120	<0.40	mg/kg	0.16	40		
9547580	Total (Wet Wt) Manganese (Mn)	2024/07/17	105	80 - 120	<0.010	mg/kg	0.098	40	89	N/A
9547580	Total (Wet Wt) Molybdenum (Mo)	2024/07/17	107	80 - 120	<0.0080	mg/kg	0.68	40	88	N/A
9547580	Total (Wet Wt) Nickel (Ni)	2024/07/17	103	80 - 120	<0.010	mg/kg	NC	40		
9547580	Total (Wet Wt) Phosphorus (P)	2024/07/17	106	80 - 120	<2.0	mg/kg	0.62	40	92	N/A
9547580	Total (Wet Wt) Potassium (K)	2024/07/17	104	80 - 120	<2.5	mg/kg	1.6	40	95	N/A
9547580	Total (Wet Wt) Selenium (Se)	2024/07/17	103	80 - 120	<0.010	mg/kg	0.99	40	86	N/A
9547580	Total (Wet Wt) Silicon (Si)	2024/07/17	111	80 - 120	<50	mg/kg	NC	40		
9547580	Total (Wet Wt) Silver (Ag)	2024/07/17	105	80 - 120	<0.0013	mg/kg	NC	40	88	N/A
9547580	Total (Wet Wt) Sodium (Na)	2024/07/17	105	80 - 120	<2.5	mg/kg	1.0	40	97	N/A
9547580	Total (Wet Wt) Strontium (Sr)	2024/07/17	105	80 - 120	<0.013	mg/kg	0.21	60	87	N/A

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QUALITY ASSURANCE REPORT(CONT'D)

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
9547580	Total (Wet Wt) Sulphur (S)	2024/07/17	106	80 - 120	<50	mg/kg	11	40		
9547580	Total (Wet Wt) Tellurium (Te)	2024/07/17	117	80 - 120	<0.0040	mg/kg	NC	40		
9547580	Total (Wet Wt) Thallium (Tl)	2024/07/17	105	80 - 120	<0.00040	mg/kg	6.9	40	89	N/A
9547580	Total (Wet Wt) Thorium (Th)	2024/07/17	102	80 - 120	<0.025	mg/kg	NC	40		
9547580	Total (Wet Wt) Tin (Sn)	2024/07/17	108	80 - 120	<0.020	mg/kg	2.1	40	152	N/A
9547580	Total (Wet Wt) Titanium (Ti)	2024/07/17	104	80 - 120	<0.13	mg/kg	8.5	40		
9547580	Total (Wet Wt) Tungsten (W)	2024/07/17	108	80 - 120	<0.0050	mg/kg	NC	40		
9547580	Total (Wet Wt) Uranium (U)	2024/07/17	106	80 - 120	<0.00040	mg/kg	8.5	40	89	N/A
9547580	Total (Wet Wt) Vanadium (V)	2024/07/17	104	80 - 120	<0.020	mg/kg	23	40	87	N/A
9547580	Total (Wet Wt) Zinc (Zn)	2024/07/17	108	80 - 120	<0.20	mg/kg	11	40	89	N/A
9547580	Total (Wet Wt) Zirconium (Zr)	2024/07/17	104	80 - 120	<0.040	mg/kg	NC	40		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Blank Spike outside acceptance criteria (10% of analytes failure allowed).

(2) Method Blank exceeds acceptance limits. Sample values are >10x the concentration of the method blank and the contamination is considered irrelevant.

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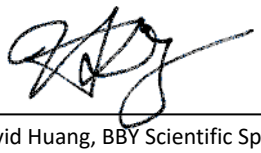
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4I7374
Report Date: 2024/10/08

Stantec Consulting Ltd
Client Project #: 160901121
Your P.O. #: 300.108.999
Sampler Initials: NB

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:



David Huang, BBY Scientific Specialist

Bureau Veritas Proprietary Software
Logiciel Propriétaire de Bureau Veritas

Automated Statchk

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.

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STANTEC

NONT-2024-06-1938

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:	
Company Name:	#9197 Stantec Consulting Ltd	Company Name:	Stantec	Quotation #:	C34487
Contact Name:	Accounts Payable	Contact Name:	Nathan Burnett	Task #:	300.108.999
Address:	300 Hagey Blvd Suite 100	Address:		Project #:	160901121
	Waterloo ON N2L 0A4			Profit Centre:	
Phone:	(519) 579-4410 Fax: (519) 579-6733	Phone:	Fax:	Site #:	
Email:	SAPinvoices@Stantec.com	Email:	Nathan.Burnett@stantec.com	Sampled By:	N. Burnett

Bottle Order #: 994554

COC #: C#994554-03-01

Project Manager: Julie Clement

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
☐ Table 1 ☐ Res/Park ☐ Medium/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other ☐ For RSC
☐ Table ___

Other Regulations
☐ CCME ☐ Sanitary Sewer Bylaw
☐ Reg 558. ☐ Storm Sewer Bylaw
☐ MISA Municipality ___
☐ PWQO ☐ Reg 406 Table ___
☐ Other ___

Include Criteria on Certificate of Analysis (Y/N)? ___

Special Instructions
See Julie comment (BV) for required detection limits.

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Mercury in Tissue by CVAF - Wet Wt (Julie + reanalysis DL)	Elements by ICPMS	Percent Lipid Content	Moisture in Tissue	Methyl Mercury in Tissue by GC - Wet Wt (Julie + reanalysis DL)	*Sample homogenization	Lab Duplicate + Homogenize Split Sample Interval (Do not analyze separately) *	# of Bottles	Comments
1		A5-YLPR-01	June 5, 2024	—	Tissue	X	X	X	X	X	X		16eg	See Julie (BV) about DL's and procedure for lab duplicates (filing)
2		A5-YLPR-02		—										
3		A5-YLPR-03		—								X		
4		A5-YLPR-04		—								X		
5		A5-YLPR-05		—								X		
6		A5-YLPR-07		—										
7		A5-YLPR-08		—										
8		A3-YLPR-01	June 8, 2024	—										
9		A3-YLPR-02		—										
10		A3-YLPR-03		—										

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Nathan Burnett / NB	24/06/20	10:00	[illegible]	24/06/20	09:26	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	1.0/0	Present		
		Intact		✓

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvna.com

STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#9197 Stantec Consulting Ltd	Company Name:	Stantec	Quotation #:	C34487	Bureau Veritas Job #:	Bottle Order #:
Contact Name:	Accounts Payable	Contact Name:	Nathan Burnett	Task #:	300.108.999		994554
Address:	300 Hagey Blvd Suite 100	Address:		Project #:	160901131	COC #:	Project Manager:
	Waterloo ON N2L 0A4			Profit Centre:		C#994554-01-01	Julie Clement
Phone:	(519) 579-4410 Fax: (519) 579-6733	Phone:	Fax:	Site #:			
Email:	SAPinvoices@Stantec.com	Email:	Nathan.Burnett@stantec.com	Sampled By:	N. Burnett		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558. ☐ Storm Sewer Bylaw ☐ MISA Municipality ☐ PWQO ☐ Reg 406 Table ☐ Other

Special Instructions: See Julie Clement (BV) For Required detection limits

Include Criteria on Certificate of Analysis (Y/N)? _____

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____ ☐
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Mercury in Tissue by CVAF - Wet Wt. - Julie → Probably DL's!	Elements by ICPMS	Percent Lipid Content	Moisture in Tissue	Methyl Mercury in Tissue by GC - Wet Wt. - Julie → probably DL's!	* Sample homogenization	Laboratory to homogenize Split sample into 2 subsamples and analyze separately	# of Bottles	Comments
1		A3-YLPR-05	June 8, 2024	—	Tissue	X	X	X	X	X	X	X	16oz	See Julie about DL's and procedure for blind lab duplicates
2		A3-YLPR-06	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
3		~~A5~~ A3-YLPR-08												
4		A3-YLPR-09												
5		GMLH-YLPR-01	June 10, 2024											
6		GMLH-YLPR-02												
7		GMLH-YLPR-03												
8		GMLH-YLPR-04												
9		GMLH-YLPR-05												
10		GMLH-YLPR-06	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Nathan Burnett	24/06/20	10:00		24/06/11	0914	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	-1 / 0 / 0	Present		
		Intact		✓

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

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STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#9197 Stantec Consulting Ltd	Company Name:	Stantec	Quotation #:	C34487	Bureau Veritas Job #:	Bottle Order #: 994554
Contact Name:	Accounts Payable	Contact Name:	Nathan Burnett	Task #:	300.ICB.9999		
Address:	300 Hagey Blvd Suite 100	Address:		Project #:	160901121	COC #:	Project Manager:
	Waterloo ON N2L 0A4			Profit Centre:		C#994554-04-01	Julie Clement
Phone:	(519) 579-4410 Fax: (519) 579-6733	Phone:	Fax:	Site #:			
Email:	SAPinvoices@Stantec.com	Email:	Nathan.Burnett@stantec.com	Sampled By:	N.Burnett		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- ☐ Table 1 ☐ Res/Park ☐ Medium/Fine
- ☐ Table 2 ☐ Ind/Comm ☐ Coarse
- ☐ Table 3 ☐ Agri/Other ☐ For RSC
- ☐ Table ___

Other Regulations
- ☐ CCME ☐ Sanitary Sewer Bylaw
- ☐ Reg 558. ☐ Storm Sewer Bylaw
- ☐ MISA Municipality ___
- ☐ PWQO ☐ Reg 406 Table ___
- ☐ Other ___

Special Instructions
See Julie for required detection limits.

Include Criteria on Certificate of Analysis (Y/N)? ___

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Mercury in Tissue by CVAF - Wet Wt - Julie → modified DL's!	Elements by ICPMS	Percent Lipid Content	Moisture in Tissue	Methyl Mercury in Tissue by GC - Wet Wt - Julie → modified DL's!	Sample for archive	Lab Duplicate → to archive Spike sample, MS and MSD samples, extra sample for archive	# of Bottles	Comments
1		SmLK-YLPR-07	June 10, 2024	—	Tissue	X	X	X	X	X	X		1 bag.	see Julie about DL's and procedures for blind duplicates.
2		SmLK-YLPR-01	June 7, 2024	—										
3		SmLK-YLPR-02		—										
4		SmLK-YLPR-03		—										
5		SmLK-YLPR-04		—										
6		SmLK-YLPR-06		—										
7		SmLK-YLPR-07		—								X		
8		SmLK-YLPR-08		—								X		
9		AS-SPSH-01	June 5, 2024	—										
10		AS-SPSH-02		—										

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Nathan Burnett	24/06/20	1030			0924	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	-1 1 0 / 0	Present		
		Intact		

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Page 4 of 6

STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#9197 Stantec Consulting Ltd	Company Name:	Stantec	Quotation #:	C34487	Bureau Veritas Job #:	Bottle Order #: 994554
Contact Name:	Accounts Payable	Contact Name:	Nathan Burnett	Task #:	300.108.999		
Address:	300 Hagey Blvd Suite 100	Address:		Project #:	160901121	COC #: C#994554-05-01	Project Manager: Julie Clement
	Waterloo ON N2L 0A4			Profit Centre:			
Phone:	(519) 579-4410 Fax: (519) 579-6733	Phone:	Fax:	Site #:			
Email:	SAPinvoices@Stantec.com	Email:	Nathan.Burnett@stantec.com	Sampled By:	N. Burnett		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- ☐ Table 1 ☐ Res/Park ☐ Medium/Fine
- ☐ Table 2 ☐ Ind/Comm ☐ Coarse
- ☐ Table 3 ☐ Agri/Other ☐ For RSC
- ☐ Table ___

Other Regulations
- ☐ CCME ☐ Sanitary Sewer Bylaw
- ☐ Reg 558. ☐ Storm Sewer Bylaw
- ☐ MISA Municipality ___
- ☐ PWQO ☐ Reg 406 Table ___
- ☐ Other ___

Special Instructions
See Julie for required detection limits.

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Mercury in Tissue by CVAF - Wet Wt. (w/ site-specific MDL's!)	Elements by ICPMS	Percent Lipid Content	Moisture in Tissue	Methyl Mercury in Tissue by GC - Wet Wt. (w/ site-specific MDL's!)	Total Mercury in Tissue by CVAF - Wet Wt. (w/ site-specific MDL's!)	# of Bottles	Comments
1		AS-SPSH-03	June 5, 2014	—	Tissue		X	X	X	X	X	X	16oz	see Julie chart re: site-specific MDL's!
2		AS-SPSH-05												
3		AS-SPSH-06												
4		AS-SPSH-07												
5		AS-SPSH-09												
6		AS-SPSH-10												
7		GmLH-SPSH-01	June 10, 2014											
8		GmLH-SPSH-02												
9		GmLH-SPSH-03												
10		GmLH-SPSH-04												

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Nathan Burnett	14/06/20	16:00		06/06/20	09:00	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	7/6/0	Present		
		Intact		✓

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STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#9197 Stantec Consulting Ltd	Company Name:	Stantec	Quotation #:	C34487	Bureau Veritas Job #:	Bottle Order #:
Contact Name:	Accounts Payable	Contact Name:	Nathan Burnett	Task #:	300.108.999		994554
Address:	300 Hagey Blvd Suite 100	Address:		Project #:	160901121	COC #:	Project Manager:
	Waterloo ON N2L 0A4			Profit Centre:		C#994554-06-01	Julie Clement
Phone:	(519) 579-4410 Fax: (519) 579-6733	Phone:	Fax:	Site #:			
Email:	SAPinvoices@Stantec.com	Email:	Nathan.Burnett@stantec.com	Sampled By:	N. Burnett		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- ☐ Table 1 ☐ Res/Park ☐ Medium/Fine
- ☐ Table 2 ☐ Ind/Comm ☐ Coarse
- ☐ Table 3 ☐ Agri/Other ☐ For RSC
- ☐ Table ___

Other Regulations
- ☐ CCME ☐ Sanitary Sewer Bylaw
- ☐ Reg 558. ☐ Storm Sewer Bylaw
- ☐ MISA Municipality ___
- ☐ PWQO ☐ Reg 406 Table ___
- ☐ Other ___

Special Instructions: See Julie for required detection limits.

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Mercury in Tissue by CVAF - Wet Wt (Julie - modified DL's!)	Elements by ICPMS	Percent Lipid Content	Moisture in Tissue	Methyl Mercury in Tissue by GC - Wet Wt (Julie - modified DL's!)	Sample for regrinization	# of Bottles	Comments
1		GmLK-SPSH-05	June 10, 2024	—	Tissue		X	X	X	X	X	X	1bag	See Julie - modified DL's!
2		GmLK-SPSH-06	↓	↓	↓									
3		GmLK-SPSH-07												
4		GmLK-SPSH-08												
5		MHT-SPSH-01	June 6, 2024	—	Tissue									
6		MHT-SPSH-02	↓	↓	↓									
7		MHT-SPSH-03												
8		MHT-SPSH-04												
9		MHT-SPSH-07												
10		MHT-SPSH-08	↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	↓

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only			
Nathan Burnett / MB	24/06/20	10:00		24/06/20	09:45		Time Sensitive	Temperature (°C) on Recei -1 0/0	Custody Seal Present	Yes / No
									Intact	

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STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#9197 Stantec Consulting Ltd	Company Name:	Stantec	Quotation #:	C34487	Bureau Veritas Job #:	Bottle Order #:
Contact Name:	Accounts Payable	Contact Name:	Nathan Burnett	Task #:	300.108.999		994554
Address:	300 Hagey Blvd Suite 100	Address:		Project #:	1609112	COC #:	Project Manager:
	Waterloo ON N2L 0A4			Profit Centre:		C#994554-07-01	Julie Clement
Phone:	(519) 579-4410 Fax: (519) 579-6733	Phone:	Fax:	Site #:			
Email:	SAPinvoices@Stantec.com	Email:	Nathan.Burnett@stantec.com	Sampled By:	N. Burnett		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine; ☐ Table 2 ☐ Ind/Comm ☐ Coarse; ☐ Table 3 ☐ Agri/Other ☐ For RSC; ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw; ☐ Reg 558. ☐ Storm Sewer Bylaw; ☐ MISA Municipality ___; ☐ PWQO ☐ Reg 406 Table ___; ☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
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Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Mercury in Tissue by CVAF - Wet Wt (Julie + Moderately DL's!)	Elements by ICPMS	Percent Lipid Content	Moisture in Tissue	Methyl Mercury in Tissue by GC - Wet Wt (Julie + Moderately DL's!)	Sample for organic analysis	# of Bottles	Comments
1		MHT-SPSH-09	June 6, 2024	→	tissue		X	X	X	X	X	X	1 bag	see Julie + moderately DL's!
2		MHT-SPSH-10												
3		HRT-SPSH-01												
4		HRT-SPSH-03												
5		HRT-SPSH-04												
6		HRT-SPSH-06												
7		HRT-SPSH-07												
8		HRT-SPSH-08												
9		HRT-SPSH-09												
10		HRT-SPSH-10	↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	↓

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
Nathan Burnett	24/06/20	10:00		24/06/20	09:29		Time Sensitive	Temperature (°C) on Recei -1/0/0	Custody Seal Present	Yes	No
									Intact		

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

White: Bureau Veritas Yellow: Client

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Methyl Mercury Results

Flett Research Ltd.
440 DeSalaberry Ave. Winnipeg, MB R2L 0Y7
Fax/Phone (204) 667-2505
E-mail: flett@flettresearch.ca Webpage: http://www.flettresearch.ca

CLIENT: Bureau Veritas - Mississauga: C4I7374
6740 Campobello Road
Mississauga, ON L5N 2L8
Date Received: September 11, 2024
Sampling Date: June 5, 2024 to June 10, 2024
Date Issued: October 7, 2024

Matrix: Tissue (dry)
Transaction ID: 1006
PO/Contract No.:
Date Analysed: October 1, 2024
Analyst(s): Jason S.

Analytical Method: M10221: Methyl Mercury in Tissue by Digestion, Aqueous Ethylation, Purge & Trap, and CVAFS - Tekran 2700 Mercury Analyser (Version 2)

Comments: Samples were freeze-dried and ground at Flett prior to analysis.

Detection Limit: The method detection limit (MDL) for this method is 0.4 ng/g. The MDL is the minimum concentration that can be reported with 99% confidence that the measured concentration exceeds zero and is based on the digestion of 20mg of dry sample and the analysis of 30uL of a 4mL digest.

For reporting purpose samples are flagged when the dry concentration is below the methods minimum level (ML= 1.4 ng/g).
As concentration rises above the MDL confidence that the analyte is present approaches 100% at and above the ML.

Estimated Uncertainty: Overall method uncertainty is expected to decrease as analyte concentration increases. When methyl mercury concentrations exceed 5 ng/g the estimated uncertainty is ±27%. Method uncertainty is expressed at a 95% confidence level of (k=2).

Results authorized by Dr. Robert J. Flett, Chief Scientist

QUALITY DATA

Blanks

	Pg of CH_3Hg in the Ethylation Blank	Mean Gross Peak Area			CH_3Hg in the Ethylation Blank (ng/L) assumes volume in the
Ethylation blank (H_2O+Reage	0.17	6.62			0.006
Mean Eth. Blank (last 30 runs)	0.24				

	Net Pg CH_3Hg in the Method Blank (Eth. Blank subtracted)	Gross Peak Area	Volume of Method Blank Digest added to the Ethylation EPA Vial (mL)	Total Volume of Digest (mL)	Equivalent CH_3Hg in the Method Blank (ng/g) (Eth. Blank subtracted) Uses the MeanWeight of all the samples in the batch
Method Blank 1	0.04	8.10	0.03	4.494	0.470
Method Blank 2	0.07	9.46	0.03	4.514	0.906
Method Blank 3	0.07	9.25	0.03	4.497	0.837
Mean Method Blank					0.738

Mean Calibration Factor (area units / pg): 39.76 ± 2.3 %RSD

Spike Recovery Matrix Spike (MS) and Matrix Spike Duplicate (MSD)	Sample ID (Details)	Sample Type	Gross Peak Area	Volume of Digest added to the Ethylation EPA Vial (mL)	Total Volume of Digest (mL)	Weight of Sample added to the digestion vial (g)	Percent Weight Lost on Drying (%LOD)	Dry Weight of Reference Material	% CH_3Hg Recovery Used for Calculations	Net CH_3Hg as Hg (ng/g)	**CH_3Hg Recovery (%)**	
	ZMX900 (A5-YLPR-04)	MS1	2081.08	0.030	4.509	0.01166	-	-	100%	671.79	86.0	
		MS1D	1924.57	0.030	4.745	0.01062	-	-	100%	717.55	88.1	%RPD=2.3
	ZMX913 (GMLK-YLPR-03)	MS2	1941.71	0.030	4.768	0.01373	-	-	100%	562.69	97.7	
		MS2D	1793.90	0.030	4.720	0.01119	-	-	100%	631.29	94.9	%RPD=2.8
	Mean of Spike Recoveries										**91.7**	
QC Samples Reference Material (RM)	DORM4 (355 ng/g)	(beginning of run)	1562.72	0.030	4.508	0.01999	5.039	0.019	100%	309	87.1	
		(end of run)	1574.55	0.030	4.508	0.01999	5.039	0.019	100%	312	87.8	
	IAEA476 (523 ng/g)	(beginning of run)	1954.25	0.030	4.506	0.01473	6.301	0.014	100%	532	101.8	
		(end of run)	1903.06	0.030	4.506	0.01473	6.301	0.014	100%	518	99.1	
	Mean of RM Recoveries										**94.0**	
Alternate Source Standard (A.S.S)	A.S.S.-Alfa ID1301 (1000 ng/L)		1147.22						Net CH3Hg as Hg (ng/L) ->	956	**95.6**	

LAB ID	Sampling Details	Sample ID	Date Sampled	Time Sampled	Sample Type	Gross Peak Area	Volume of Digest added to EPA Vial (mL) =Vpd	Total Volume of Digest (mL) = VTd	Weight of Dry Sample added to the Digestion vial (g)	Percent Weight Lost on Drying (%LOD)	Wet Sample Weight by Calculation (g)	% CH_3Hg Recovery Used for Calculations	Net CH_3Hg as Hg in the sample (ng/g dry wt.) [Ethylation & Method Blank subtracted] [Recovery corrected] As Analyzed	Net CH_3Hg as Hg in the sample (ng/g wet wt.) [Ethylation & Method Blank subtracted] [Recovery corrected] As Calculated	
119014	ZMX897	A5-YLPR-01	June 5, 2024			977.77	0.030	4.626	0.01098	79.9	0.055	91.7%	**373**	**75.0**	
119015	ZMX898	A5-YLPR-02	June 5, 2024			814.37	0.030	4.675	0.01053	78.0	0.048	91.7%	**327**	**72.0**	
119016	ZMX899	A5-YLPR-03	June 5, 2024			988.39	0.030	4.643	0.01080	78.9	0.051	91.7%	**385**	**81.2**	
119017	ZMX900	A5-YLPR-04	June 5, 2024			1013.89	0.030	4.655	0.01295	79.1	0.062	91.7%	**330**	**69.2**	
119018	ZMX901	A5-YLPR-05	June 5, 2024			784.26	0.030	4.626	0.01018	79.3	0.049	91.7%	**322**	**66.6**	
119019	ZMX902	A5-YLPR-07	June 5, 2024			824.18	0.030	4.598	0.01062	78.0	0.048	91.7%	**323**	**70.9**	
119020	ZMX903	A5-YLPR-08	June 5, 2024		DupA1	932.22	0.030	4.658	0.01136	77.2	0.050	91.7%	**346**	**79.0**	
119020	ZMX903	A5-YLPR-08	June 5, 2024		DupA2	996.47	0.030	4.619	0.01186	77.2	0.052	91.7%	**352**	**80.3**	
119021	ZMX904	A3-YLPR-01	June 8, 2024			2814.52	0.030	4.599	0.01051	79.7	0.052	91.7%	**1120**	**228**	
119022	ZMX905	A3-YLPR-02	June 8, 2024			2668.52	0.030	4.573	0.01078	79.7	0.053	91.7%	**1030**	**210**	
119023	ZMX906	A3-YLPR-03	June 8, 2024			2838.51	0.030	4.528	0.01088	78.9	0.052	91.7%	**1080**	**227**	
119024	ZMX907	A3-YLPR-05	June 8, 2024			4163.58	0.030	4.532	0.01554	79.4	0.076	91.7%	**1110**	**228**	
119025	ZMX908	A3-YLPR-06	June 8, 2024		DupB1	2336.85	0.030	4.549	0.01213	78.9	0.058	91.7%	**798**	**168**	
119025	ZMX908	A3-YLPR-06	June 8, 2024		DupB2	2202.54	0.030	4.528	0.01117	78.9	0.053	91.7%	**813**	**171**	
119026	ZMX909	A3-YLPR-08	June 8, 2024			3165.48	0.030	4.522	0.01124	78.5	0.052	91.7%	**1160**	**250**	
119027	ZMX910	A3-YLPR-09	June 8, 2024			2542.93	0.030	4.552	0.01090	78.5	0.051	91.7%	**968**	**208**	
119028	ZMX911	GMLK-YLPR-01	June 10, 2024			652.26	0.030	4.565	0.01130	79.1	0.054	91.7%	**238**	**49.7**	
119029	ZMX912	GMLK-YLPR-02	June 10, 2024			683.74	0.030	4.540	0.01462	78.0	0.066	91.7%	**192**	**42.2**	
119030	ZMX913	GMLK-YLPR-03	June 10, 2024			612.64	0.030	4.520	0.01105	78.3	0.051	91.7%	**226**	**49.0**	
119031	ZMX914	GMLK-YLPR-04	June 10, 2024			642.78	0.030	4.537	0.01586	78.9	0.075	91.7%	**166**	**34.9**	
119032	ZMX915	GMLK-YLPR-05	June 10, 2024			651.77	0.030	4.518	0.01122	77.9	0.051	91.7%	**237**	**52.4**	
119033	ZMX916	GMLK-YLPR-06	June 10, 2024			627.22	0.030	4.520	0.01519	77.9	0.069	91.7%	**168**	**37.1**	

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* : See 'Comments' section above for discussion.

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Note: Results relate only to the samples tested and as received.

Dup : Duplicate - two subsamples of the same sample carried through the analytical procedure in an identical manner.

ISO/IEC 17025:2017 Accredited with the Canadian Association of Laboratory Accreditation

Methyl Mercury Results

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CLIENT: Bureau Veritas - Mississauga: C4I7374
6740 Campobello Road
Mississauga, ON L5N 2L8

Matrix: Tissue (dry)
Transaction ID: 1006
PO/Contract No.:
Date Received: September 11, 2024
Date Analysed: October 2, 2024
Sampling Date: June 5, 2024 to June 10, 2024
Analyst(s): Jason S.
Date Issued: October 7, 2024

Analytical Method: M10221: Methyl Mercury in Tissue by Digestion, Aqueous Ethylation, Purge & Trap, and CVAFS - Tekran 2700 Mercury Analyser (Version 2)

Comments: Samples were freeze-dried and ground at Flett prior to analysis.

Detection Limit: The method detection limit (MDL) for this method is 0.4 ng/g. The MDL is the minimum concentration that can be reported with 99% confidence that the measured concentration exceeds zero and is based on the digestion of 20mg of dry sample and the analysis of 30uL of a 4mL digest.

For reporting purpose samples are flagged when the dry concentration is below the methods minimum level (ML= 1.4 ng/g).
As concentration rises above the MDL confidence that the analyte is present approaches 100% at and above the ML.

Estimated Uncertainty: Overall method uncertainty is expected to decrease as analyte concentration increases. When methyl mercury concentrations exceed 5 ng/g the estimated uncertainty is ±27%. Method uncertainty is expressed at a 95% confidence level of (k=2).

Results authorized by Dr. Robert J. Flett, Chief Scientist

Blanks		Pg of CH_3Hg in the Ethylation Blank	Mean Gross Peak Area			CH_3Hg in the Ethylation Blank (ng/L) assumes volume in the
	Ethylation blank (H_2O+Reage	0.25	9.78			0.008
	Mean Eth. Blank (last 30 runs)	0.24				
		Net Pg CH_3Hg in the Method Blank (Eth. Blank subtracted)	Gross Peak Area	Volume of Method Blank Digest added to the Ethylation EPA Vial (mL)	Total Volume of Digest (mL)	Equivalent CH_3Hg in the Method Blank (ng/g) (Eth. Blank subtracted) Uses the MeanWeight of all the samples in the batch
	Method Blank 1	-0.11	5.54	0.03	4.462	-1.255
	Method Blank 2	0.07	12.62	0.03	4.496	0.846
	Method Blank 3	0.01	10.08	0.03	4.446	0.087
	Mean Method Blank					-0.107

Mean Calibration Factor (area units / pg): 39.25 ± 3.1 %RSD

QUALITY DATA

Spike Recovery (Matrix Spike (MS) and Matrix Spike Duplicate (MSD))	Sample ID (Details)	Sample Type	Gross Peak Area	Volume of Digest added to the Ethylation EPA Vial (mL)	Total Volume of Digest (mL)	Weight of Sample added to the digestion vial (g)	Percent Weight Lost on Drying (%LOD)	Dry Weight of Reference Material	% CH_3Hg Recovery Used for Calculations	Net CH_3Hg as Hg (ng/g)	**CH_3Hg Recovery (%)**	
	ZMX918 (SMLK-YLPR-01)	MS1	1720.31	0.030	4.403	0.01025	-	-	100%	624.11	97.2	
		MS1D	1606.13	0.030	4.710	0.01078	-	-	100%	592.44	95.4	%RPD=1.9
	ZMX926 (A5-SPSH-02)	MS2	2088.69	0.030	4.709	0.01181	-	-	100%	703.99	93.1	
		MS2D	2358.51	0.030	4.681	0.01336	-	-	100%	698.92	104.0	%RPD=11
	Mean of Spike Recoveries										**97.4**	
QC Samples Reference Material (RM)	DORM4 (355 ng/g)	(beginning of run)	1936.59	0.030	4.519	0.02485	5.039	0.024	100%	313	88.3	
		(end of run)	1865.97	0.030	4.519	0.02485	5.039	0.024	100%	302	85.1	
	IAEA476 (523 ng/g)	(beginning of run)	1908.81	0.030	4.453	0.01415	6.301	0.013	100%	542	103.6	
		(end of run)	1854.72	0.030	4.453	0.01415	6.301	0.013	100%	526	100.6	
	Mean of RM Recoveries										**94.4**	
Alternate Source Standard (A.S.S)	A.S.S.-Alfa ID1301 (1000 ng/L)		1109.21						Net CH3Hg as Hg (ng/L) ->	934	**93.4**	

LAB ID	Sampling Details	Sample ID	Date Sampled	Time Sampled	Sample Type	Gross Peak Area	Volume of Digest added to EPA Vial (mL) =Vpd	Total Volume of Digest (mL) = VTd	Weight of Dry Sample added to the Digestion vial (g)	Percent Weight Lost on Drying (%LOD)	Wet Sample Weight by Calculation (g)	% CH_3Hg Recovery Used for Calculations	Net CH_3Hg as Hg in the sample (ng/g dry wt.) [Ethylation & Method Blank subtracted] [Recovery corrected] As Analyzed	Net CH_3Hg as Hg in the sample (ng/g wet wt.) [Ethylation & Method Blank subtracted] [Recovery corrected] As Calculated
119034	ZMX917	GMLK-YLPR-07	June 10, 2024			405.04	0.030	4.645	0.01151	78.6	0.054	97.4%	**139**	**29.8**
119035	ZMX918	SMLK-YLPR-01	June 7, 2024			393.58	0.030	4.644	0.01010	78.9	0.048	97.4%	**154**	**32.5**
119036	ZMX919	SMLK-YLPR-02	June 7, 2024			479.33	0.030	4.632	0.01120	78.5	0.052	97.4%	**169**	**36.4**
119037	ZMX920	SMLK-YLPR-03	June 7, 2024			376.96	0.030	4.594	0.01072	78.7	0.050	97.4%	**137**	**29.3**
119038	ZMX921	SMLK-YLPR-04	June 7, 2024			383.54	0.030	4.595	0.01135	79.0	0.054	97.4%	**132**	**27.8**
119039	ZMX922	SMLK-YLPR-06	June 7, 2024			518.54	0.030	4.537	0.01239	78.8	0.058	97.4%	**162**	**34.5**
119040	ZMX923	SMLK-YLPR-07	June 7, 2024			577.06	0.030	4.586	0.01437	81.1	0.076	97.4%	**158**	**29.8**
119041	ZMX924	SMLK-YLPR-08	June 7, 2024			417.51	0.030	4.571	0.01048	78.7	0.049	97.4%	**155**	**33.0**
119042	ZMX925	A5-SPSH-01	June 5, 2024			920.24	0.030	4.537	0.01052	77.7	0.047	97.4%	**342**	**76.3**
119043	ZMX926	A5-SPSH-02	June 5, 2024			1005.41	0.030	4.521	0.01235	78.9	0.059	97.4%	**318**	**67.0**
119044	ZMX927	A5-SPSH-03	June 5, 2024			1401.58	0.030	4.527	0.01636	78.9	0.078	97.4%	**336**	**70.8**
119045	ZMX928	A5-SPSH-05	June 5, 2024			947.37	0.030	4.520	0.01108	79.8	0.055	97.4%	**333**	**67.3**
119046	ZMX929	A5-SPSH-06	June 5, 2024			1011.45	0.030	4.470	0.01292	80.1	0.065	97.4%	**302**	**60.0**
119047	ZMX930	A5-SPSH-07	June 5, 2024		DupA1	1229.80	0.030	4.515	0.01466	80.1	0.074	97.4%	**328**	**65.3**
119047	ZMX930	A5-SPSH-07	June 5, 2024		DupA2	1270.97	0.030	4.508	0.01515	80.1	0.076	97.4%	**327**	**65.2**
119048	ZMX931	A5-SPSH-09	June 5, 2024			1371.06	0.030	4.518	0.01407	80.8	0.073	97.4%	**381**	**73.1**
119049	ZMX932	A5-SPSH-10	June 5, 2024			1522.55	0.030	4.517	0.01582	80.8	0.082	97.4%	**376**	**72.4**
119050	ZMX933	GMLK-SPSH-01	June 10, 2024			961.53	0.030	4.523	0.01759	78.5	0.082	97.4%	**213**	**46.0**
119051	ZMX934	GMLK-SPSH-02	June 10, 2024			605.62	0.030	4.501	0.01040	79.4	0.050	97.4%	**225**	**46.3**
119052	ZMX935	GMLK-SPSH-03	June 10, 2024		DupB1	653.28	0.030	4.472	0.01150	79.3	0.056	97.4%	**218**	**45.1**
119052	ZMX935	GMLK-SPSH-03	June 10, 2024		DupB2	901.63	0.030	4.487	0.01594	79.3	0.077	97.4%	**219**	**45.3**
119053	ZMX936	GMLK-SPSH-04	June 10, 2024			664.50	0.030	4.471	0.01114	79.0	0.053	97.4%	**229**	**48.1**

* : See 'Comments' section above for discussion.

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Note: Results relate only to the samples tested and as received.

Dup : Duplicate - two subsamples of the same sample carried through the analytical procedure in an identical manner.

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Methyl Mercury Results

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CLIENT: Bureau Veritas - Mississauga: C4I7374
6740 Campobello Road
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Matrix: Tissue (dry)
Transaction ID: 1006
PO/Contract No.:
Date Received: September 11, 2024
Date Analysed: October 4, 2024
Sampling Date: June 5, 2024 to June 10, 2024
Analyst(s): Jason S.
Date Issued: October 7, 2024

Analytical Method: M10221: Methyl Mercury in Tissue by Digestion, Aqueous Ethylation, Purge & Trap, and CVAFS - Tekran 2700 Mercury Analyser (Version 2)

Comments: Samples were freeze-dried and ground at Flett prior to analysis.

Detection Limit: The method detection limit (MDL) for this method is 0.4 ng/g. The MDL is the minimum concentration that can be reported with 99% confidence that the measured concentration exceeds zero and is based on the digestion of 20mg of dry sample and the analysis of 30uL of a 4mL digest.

For reporting purpose samples are flagged when the dry concentration is below the methods minimum level (ML= 1.4 ng/g).
As concentration rises above the MDL confidence that the analyte is present approaches 100% at and above the ML.

Estimated Uncertainty: Overall method uncertainty is expected to decrease as analyte concentration increases. When methyl mercury concentrations exceed 5 ng/g the estimated uncertainty is ±27%. Method uncertainty is expressed at a 95% confidence level of (k=2).

Results authorized by Dr. Robert J. Flett, Chief Scientist

QUALITY DATA

Blanks		Pg of CH_3Hg in the Ethylation Blank	Mean Gross Peak Area			CH_3Hg in the Ethylation Blank (ng/L) assumes volume in the
	Ethylation blank (H_2O+Reage	0.19	7.56			0.006
	Mean Eth. Blank (last 30 runs)	0.24				
		Net Pg CH_3Hg in the Method Blank (Eth. Blank subtracted)	Gross Peak Area	Volume of Method Blank Digest added to the Ethylation EPA Vial (mL)	Total Volume of Digest (mL)	Equivalent CH_3Hg in the Method Blank (ng/g) [Eth. Blank subtracted] Uses the MeanWeight of all the samples in the batch
	Method Blank 1	0.04	8.95	0.03	4.504	0.416
	Method Blank 2	0.08	10.67	0.03	4.510	0.929
	Method Blank 3	-0.01	6.98	0.03	4.525	-0.172
	Mean Method Blank					0.391

Mean Calibration Factor (area units / pg) 39.74 ± 3.3 %RSD

Spike Recovery Matrix Spike (MS) and Matrix Spike Duplicate (MSD)	Sample ID (Details)	Sample Type	Gross Peak Area	Volume of Digest added to the Ethylation EPA Vial (mL)	Total Volume of Digest (mL)	Weight of Sample added to the digestion vial (g)	Percent Weight Lost on Drying (%LOD)	Dry Weight of Reference Material	% CH_3Hg Recovery Used for Calculations	Net CH_3Hg as Hg (ng/g)	**CH_3Hg Recovery (%)**	
	ZMZ259 (A5-YLPR-04 NEW/SPLIT)	MS1	1986.79	0.030	4.409	0.01208	-	-	100%	605.47	86.3	
		MS1D	1827.11	0.030	4.748	0.01103	-	-	100%	656.51	90.1	%RPD=4.3
	Mean of Spike Recoveries										**88.2**	
QC Samples Reference Material (RM)	DORM4 (355 ng/g)	(beginning of run)	1684.32	0.030	4.527	0.02061	5.039	0.020	100%	325	91.6	
		(end of run)	1658.16	0.030	4.527	0.02061	5.039	0.020	100%	320	90.1	
	IAEA476 (523 ng/g)	(beginning of run)	1910.06	0.030	4.506	0.01441	6.301	0.014	100%	532	101.7	
		(end of run)	1844.72	0.030	4.506	0.01441	6.301	0.014	100%	514	98.2	
	Mean of RM Recoveries										**95.4**	
Alternate Source Standard (A.S.S)	A.S.S.-Alfa ID1301 (1000 ng/L)		1138.98						Net CH3Hg as Hg (ng/L) ->	949	**94.9**	

LAB ID	Sampling Details	Sample ID	Date Sampled	Time Sampled	Sample Type	Gross Peak Area	Volume of Digest added to EPA Vial (mL) =Vpd	Total Volume of Digest (mL) = VTd	Weight of Dry Sample added to the Digestion vial (g)	Percent Weight Lost on Drying (%LOD)	Wet Sample Weight by Calculation (g)	% CH_3Hg Recovery Used for Calculations	Net CH_3Hg as Hg in the sample (ng/g dry wt.) [Ethylation & Method Blank subtracted] [Recovery corrected] As Analyzed	Net CH_3Hg as Hg in the sample (ng/g wet wt.) [Ethylation & Method Blank subtracted] [Recovery corrected] As Calculated
119074	ZMZ258	A5-YLPR-03 NEW/SPLIT	June 5, 2024			991.98	0.030	4.696	0.01126	77.6	0.050	88.2%	**390**	**87.4**
119075	ZMZ259	A5-YLPR-04 NEW/SPLIT	June 5, 2024			693.03	0.030	4.660	0.01077	77.3	0.047	88.2%	**282**	**64.0**
119076	ZMZ260	A5-YLPR-05 NEW/SPLIT	June 5, 2024			893.64	0.030	4.627	0.01025	77.7	0.046	88.2%	**380**	**84.7**
119077	ZMZ267	A3-YLPR-05 NEW/SPLIT	June 8, 2024		**DupA1**	2628.76	0.030	4.547	0.01319	77.1	0.058	88.2%	**859**	**197**
119077	ZMZ267	A3-YLPR-05 NEW/SPLIT	June 8, 2024		**DupA2**	2157.40	0.030	4.561	0.01084	77.1	0.047	88.2%	**860**	**197**
119078	ZMZ272	SMLK-YLPR-07 NEW/SPLIT	June 7, 2024			511.93	0.030	4.575	0.01125	77.8	0.051	88.2%	**195**	**43.3**
119079	ZMZ276	SMLK-YLPR-08 NEW/SPLIT	June 7, 2024			424.97	0.030	4.562	0.01289	77.4	0.057	88.2%	**140**	**31.6**
119017	ZMX900	A5-YLPR-04	June 5, 2024		**DupB1**	980.05	0.030	4.522	0.01332	79.1	0.064	88.2%	**314**	**65.7**
119017	ZMX900	A5-YLPR-04	June 5, 2024		**DupB2**	821.39	0.030	4.552	0.01103	79.1	0.053	88.2%	**319**	**66.8**
119021	ZMX904	A3-YLPR-01	June 8, 2024		**DupC1**	3875.50	0.030	4.491	0.01585	79.7	0.078	88.2%	**1040**	**212**
119021	ZMX904	A3-YLPR-01	June 8, 2024		**DupC2**	3002.75	0.030	4.533	0.01226	79.7	0.060	88.2%	**1050**	**214**
119032	ZMX915	GMLK-YLPR-05	June 10, 2024		**DupD1**	838.46	0.030	4.516	0.01512	77.9	0.068	88.2%	**236**	**52.2**
119032	ZMX915	GMLK-YLPR-05	June 10, 2024		**DupD2**	892.59	0.030	4.549	0.01643	77.9	0.074	88.2%	**233**	**51.5**

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Note: Results relate only to the samples tested and as received.

Dup : Duplicate - two subsamples of the same sample carried through the analytical procedure in an identical manner.

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Methyl Mercury Results

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Matrix: Tissue (dry)
Transaction ID: 1006
PO/Contract No.:
Date Received: September 11, 2024
Date Analysed: October 3, 2024
Sampling Date: June 6, 2024 to June 10, 2024
Analyst(s): Jason S.
Date Issued: October 7, 2024

Analytical Method: M10221: Methyl Mercury in Tissue by Digestion, Aqueous Ethylation, Purge & Trap, and CVAFS - Tekran 2700 Mercury Analyser (Version 2)

Comments: Samples were freeze-dried and ground at Flett prior to analysis.

Detection Limit: The method detection limit (MDL) for this method is 0.4 ng/g. The MDL is the minimum concentration that can be reported with 99% confidence that the measured concentration exceeds zero and is based on the digestion of 20mg of dry sample and the analysis of 30uL of a 4mL digest.

For reporting purpose samples are flagged when the dry concentration is below the methods minimum level (ML= 1.4 ng/g).
As concentration rises above the MDL confidence that the analyte is present approaches 100% at and above the ML.

Estimated Uncertainty: Overall method uncertainty is expected to decrease as analyte concentration increases. When methyl mercury concentrations exceed 5 ng/g the estimated uncertainty is ±27%. Method uncertainty is expressed at a 95% confidence level of (k=2).

Results authorized by Dr. Robert J. Flett, Chief Scientist

QUALITY DATA

Blanks

	Pg of CH_3Hg in the Ethylation Blank	Mean Gross Peak Area			CH_3Hg in the Ethylation Blank (ng/L) assumes volume in the
Ethylation blank (H_2O+Reage	0.24	9.24			0.008
Mean Eth. Blank (last 30 runs)	0.24				

	Net Pg CH_3Hg in the Method Blank (Eth. Blank subtracted)	Gross Peak Area	Volume of Method Blank Digest added to the Ethylation EPA Vial (mL)	Total Volume of Digest (mL)	Equivalent CH_3Hg in the Method Blank (ng/g) [Eth. Blank subtracted] Uses the MeanWeight of all the samples in the batch
Method Blank 1	0.01	9.81	0.03	4.449	0.165
Method Blank 2	-0.04	7.60	0.03	4.425	-0.475
Method Blank 3	-0.01	8.97	0.03	4.465	-0.079
Mean Method Blank					-0.130

Mean Calibration Factor (area units / pg): 38.76 ± 1.4 %RSD

Spike Recovery Matrix Spike (MS) and Matrix Spike Duplicate (MSD)	Sample ID (Details)	Sample Type	Gross Peak Area	Volume of Digest added to the Ethylation EPA Vial (mL)	Total Volume of Digest (mL)	Weight of Sample added to the digestion vial (g)	Percent Weight Lost on Drying (%LOD)	Dry Weight of Reference Material	% CH_3Hg Recovery Used for Calculations	Net CH_3Hg as Hg (ng/g)	**CH_3Hg Recovery (%)**	
	ZMX938 (GMLK-SPSH-06)	MS1	1952.85	0.030	4.436	0.01014	-	-	100%	731.38	98.1	
		MS1D	1719.28	0.030	4.692	0.01007	-	-	100%	685.39	88.2	%RPD=10.7
	ZMX953 (HRT-SPSH-07)	MS2	1748.52	0.030	4.682	0.01011	-	-	100%	692.77	90.8	
		MS2D	1846.04	0.030	4.700	0.01219	-	-	100%	609.13	89.1	%RPD=1.9
	Mean of Spike Recoveries										**91.6**	
QC Samples Reference Material (RM)	DORM4 (355 ng/g)	(beginning of run)	1560.10	0.030	4.473	0.01999	5.039	0.019	100%	314	88.5	
		(end of run)	1481.30	0.030	4.473	0.01999	5.039	0.019	100%	298	84.1	
	IAEA476 (523 ng/g)	(beginning of run)	1851.04	0.030	4.493	0.01399	6.301	0.013	100%	543	103.8	
		(end of run)	1757.51	0.030	4.493	0.01399	6.301	0.013	100%	515	98.5	
	Mean of RM Recoveries										**93.7**	
Alternate Source Standard (A.S.S)	A.S.S.-Alfa ID1301 (1000 ng/L)		1139.63						Net CH3Hg as Hg (ng/L) ->	972	**97.2**	

LAB ID	Sampling Details	Sample ID	Date Sampled	Time Sampled	Sample Type	Gross Peak Area	Volume of Digest added to EPA Vial (mL) =Vpd	Total Volume of Digest (mL) = VTd	Weight of Dry Sample added to the Digestion vial (g)	Percent Weight Lost on Drying (%LOD)	Wet Sample Weight by Calculation (g)	% CH_3Hg Recovery Used for Calculations	**Net CH_3Hg as Hg in the sample (ng/g dry wt.)** [Ethylation & Method Blank subtracted] [Recovery corrected] As Analyzed	**Net CH_3Hg as Hg in the sample (ng/g wet wt.)** [Ethylation & Method Blank subtracted] [Recovery corrected] As Calculated
119054	ZMX937	GMLK-SPSH-05	June 10, 2024			676.05	0.030	4.637	0.01115	79.7	0.055	91.6%	**261**	**52.9**
119055	ZMX938	GMLK-SPSH-06	June 10, 2024			636.83	0.030	4.610	0.01006	80.5	0.052	91.6%	**270**	**52.7**
119056	ZMX939	GMLK-SPSH-07	June 10, 2024			674.67	0.030	4.608	0.01071	80.6	0.055	91.6%	**269**	**52.2**
119057	ZMX940	GMLK-SPSH-08	June 10, 2024			699.61	0.030	4.581	0.01115	79.9	0.055	91.6%	**267**	**53.6**
119058	ZMX941	MHT-SPSH-01	June 6, 2024		DupA1	1387.94	0.030	4.588	0.01749	78.5	0.081	91.6%	**340**	**73.2**
119058	ZMX941	MHT-SPSH-01	June 6, 2024		DupA2	957.36	0.030	4.561	0.01189	78.5	0.055	91.6%	**342**	**73.6**
119059	ZMX942	MHT-SPSH-02	June 6, 2024			921.31	0.030	4.567	0.01404	78.3	0.065	91.6%	**279**	**60.4**
119060	ZMX943	MHT-SPSH-03	June 6, 2024			911.54	0.030	4.558	0.01260	78.7	0.059	91.6%	**307**	**65.3**
119061	ZMX944	MHT-SPSH-04	June 6, 2024			1206.51	0.030	4.530	0.01613	78.8	0.076	91.6%	**316**	**67.0**
119062	ZMX945	MHT-SPSH-07	June 6, 2024			924.06	0.030	4.527	0.01152	78.5	0.054	91.6%	**338**	**72.7**
119063	ZMX946	MHT-SPSH-08	June 6, 2024			1021.71	0.030	4.518	0.01486	78.7	0.070	91.6%	**289**	**61.5**
119064	ZMX947	MHT-SPSH-09	June 6, 2024			893.82	0.030	4.459	0.01396	79.8	0.069	91.6%	**265**	**53.6**
119065	ZMX948	MHT-SPSH-10	June 6, 2024			869.40	0.030	4.499	0.01154	79.8	0.057	91.6%	**315**	**63.7**
119066	ZMX949	HRT-SPSH-01	June 6, 2024			857.32	0.030	4.500	0.01542	77.6	0.069	91.6%	**233**	**52.2**
119067	ZMX950	HRT-SPSH-03	June 6, 2024			872.12	0.030	4.495	0.01461	77.4	0.065	91.6%	**249**	**56.3**
119068	ZMX951	HRT-SPSH-04	June 6, 2024			1107.31	0.030	4.476	0.01660	78.2	0.076	91.6%	**278**	**60.6**
119069	ZMX952	HRT-SPSH-06	June 6, 2024		DupB1	678.09	0.030	4.531	0.01242	78.3	0.057	91.6%	**229**	**49.8**
119069	ZMX952	HRT-SPSH-06	June 6, 2024		DupB2	850.65	0.030	4.526	0.01596	78.3	0.074	91.6%	**224**	**48.7**
119070	ZMX953	HRT-SPSH-07	June 6, 2024			665.03	0.030	4.510	0.01045	78.2	0.048	91.6%	**266**	**58.1**
119071	ZMX954	HRT-SPSH-08	June 6, 2024			881.46	0.030	4.513	0.01461	78.1	0.067	91.6%	**253**	**55.4**
119072	ZMX955	HRT-SPSH-09	June 6, 2024			595.21	0.030	4.504	0.01107	78.9	0.052	91.6%	**224**	**47.4**
119073	ZMX956	HRT-SPSH-10	June 6, 2024			696.14	0.030	4.505	0.01055	78.3	0.049	91.6%	**276**	**59.8**

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