EQUINOXGOLD
GREENSTONE GOLD MINES
AN EQUINOX GOLD / ORION JOINT VENTURE

December 30, 2021

Nicolas Courville
Compliance and Enforcement Officer
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Canada, K1A 0H3

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Dear Mr. Courville,

Re: Greenstone Mine, Indigenous Peoples Health Risk Assessment Follow-up Plan Annual Report 2021

Greenstone Gold Mines GP Inc. (GGM) proposes to construct, operate and ultimately decommission/close a new open pit gold mine, process plant, and associated ancillary facilities, collectively known as the Greenstone Mine (the Mine). The Mine's Environmental Impact Statement was approved by the federal Minister of the Environment as outlined in the Decision Statement issued December 10, 2018, under Section 54 of the Canadian Environmental Assessment Act, 2012. The Indigenous Peoples Health Risk Assessment Follow-up Plan Annual Report has been developed and is being submitted to satisfy conditions 5.3, 5.4 and 5.5.

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

Sincerely,

<Original signed by>

Shane Hayes
Environmental Superintendent

cc: Michelle Fraser, Stantec Consulting Ltd.
Mike Johns, Stantec Consulting Ltd.
Lesley Lorrimer, Stantec Consulting Ltd.
Laura Vares, Greenstone Gold Mines

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Greenstone Mine

Indigenous Peoples Health Risk Assessment Follow-up Plan Annual Report 2021

HP-MG003-EV-136-0015_0

December 30, 2021

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Abbreviations

COPC	Chemicals of Potential Concern
CAC	Criteria air contaminants
EA	Environmental Assessment
EMMPs	Environmental Management and Monitoring Plans
GGM	Greenstone Gold Mines GP Inc.
HHRA	Human Health Risk Assessment
NO_2	Nitrogen Dioxide
PDA	Project Development Area
$PM_{2.5}$	Particulate Matter 2.5
Project	Hardrock Project
SO_2	Sulfur Dioxide
SWAT	Southwest Arm Tributary
TETP	Temporary Effluent Treatment Plant
TMF	Tailings Management Facility
tpd	Tonnes Per Day
UCLM	Upper Confidence Limit of the Mean
VOC	Volatile Organic Compound

1.0 Introduction

1.1 Background

Greenstone Gold Mines GP Inc. (GGM) is in the process of constructing the Greenstone Mine (the Mine), which was formerly referred to as the Hardrock Project. The Mine site is located just south of Geraldton, Ontario, within the municipality of Greenstone, at the intersection of Highway 11 and Highway 584. The Environmental Impact Statement (EIS) (Stantec 2018) for the Mine was approved by the Canadian Environmental Assessment Agency (CEAA), as outlined in the Decision Statement issued under Section 54 of the *Canadian Environmental Assessment Act, 2012*. The federal Decision Statement contained various Conditions of Approval. This report deals specifically with federal Conditions of Approval 5.3, 5.4 and 5.5 as detailed in Table , which require GGM to develop and implement "*a follow-up program to 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.*" The Indigenous Peoples Health Risk Assessment Follow-up Plan was completed by GGM (GGM 2020a) and this report presents the first annual monitoring results. Data collected in this reporting period is considered baseline and that future annual reports will provide a comparison of pre and post operation conditions. Table provides a summary of federal conditions related to monitoring potential effects on the health of Indigenous Peoples and how each condition is addressed.

Table 1-1: Federal Conditions Related to the Health of Indigenous Peoples

Federal Condition	Text from federal Decision Statement 9/4/2019	How is the Condition Addressed
5.3	*The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to 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 to air quality. As part of the follow-up program, the Proponent shall:*	GGM has developed the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020a).
5.3.1	*identify, as part of the development of the follow-up program, monitoring locations for air contaminants within areas used by Indigenous groups for traditional purposes or within areas representative of air quality in areas used by Indigenous groups for traditional purposes;*	Air quality monitoring locations are provided in the Air Quality Management and Monitoring (GGM 2020b)
5.3.2	*monitor, during construction, operation and the first five years of decommissioning, total suspended particulates, particulate matter (PM), fine*	Required parameters and monitoring methods are provided in the Air Quality Management and Monitoring (GGM 2020b).

Table 1-1: Federal Conditions Related to the Health of Indigenous Peoples

Federal Condition	Text from federal Decision Statement 9/4/2019	How is the Condition Addressed
	particulate matter (PM) and nitrogen dioxide at the monitoring locations identified pursuant to condition 5.3.1, using as benchmarks the standards and criteria set out in the Canadian Council of Ministers of the Environment's Canadian Ambient Air Quality Standards and Ontario's Ambient Air Quality Criteria. The Proponent shall monitor total suspended particulates, fine particulate matter (PM) and nitrogen dioxide at least monthly and shall monitor particulate matter (PM) in real-time;	The data yielded from these monitoring methods will be examined as per the methods presented in the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020a). Air quality monitoring results for the current monitoring year are discussed in Section 3.1 of this report.
5.3.3	*monitor, at least annually during construction and for the first two years of operation, airborne benzene and benzo(a)pyrene at the monitoring locations identified pursuant to condition 5.3.1. 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 two years of operation and at what frequency this additional monitoring shall occur; and*	Required parameters and monitoring methods are provided in the Air Quality Management and Monitoring (GGM 2020b). The data yielded from these monitoring methods will be examined as per the methods presented in the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020a). Air quality monitoring results for the current monitoring year are discussed in Section 3.1 of this report.
5.3.4	*monitor, during construction and for the first two years of operation, silt content on roads within the project development area. 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 two years of operation and at what frequency this additional monitoring shall occur.*	Required parameters and monitoring methods are provided in the Air Quality Management and Monitoring (GGM 2020b). The data yielded from these monitoring methods will be examined as per the methods presented in the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020a). Monitoring results for the current monitoring year are discussed in Section 3.1 of this report.
5.4	*The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to 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. As part of the implementation of the follow-up program, the Proponent shall:*	Monitoring methods to assess potential changes in water and fish are provided in the Greenstone Gold Mines Project Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan (GGM 2021). The data yielded from these monitoring methods will be examined as per the methods presented in the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020a).

Table 1-1: Federal Conditions Related to the Health of Indigenous Peoples

Federal Condition	Text from federal Decision Statement 9/4/2019	How is the Condition Addressed
5.4.1	*monitor, at least quarterly during construction and the first five years of operation, mercury in the Southwest Arm Tributary, using as a benchmark a concentration of 0.04micrograms per litre. 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 five years of operation and at what frequency this additional monitoring shall occur; and*	Monitoring results for the current monitoring year are discussed in Section 3.2 of this report.
5.4.2	*monitor, at least quarterly during construction and the first five years of operation, methylmercury in the Southwest Arm Tributary, using as a benchmark a concentration of 0.0001micrograms per litre. 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 five years of operation and at what frequency this additional monitoring shall occur.*	Monitoring results for the current monitoring year are discussed in Section 3.2 of this report.
5.5	*The Proponent shall develop, prior to construction and in consultation with Indigenous groups and relevant authorities, a follow-up program to 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 country foods caused by the Designated Project. The Proponent shall implement the follow-up program during all phases of the Designated Project. As part of the development of the follow-up program, the Proponent shall identify, in consultation with Indigenous groups and relevant authorities, species of vegetation, fish and wildlife that shall be monitored and shall determine, in consultation with Indigenous groups and relevant authorities, the sampling and analytical methodology that shall be applied for the monitoring of each species, including how samples will be collected. As part of the implementation of the follow-up program, the Proponent shall:*	GGM has developed the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020a). No monitoring for this Condition was required during this reporting period. Monitoring will be completed every two years, during the first six years of operation.

Table 1-1: Federal Conditions Related to the Health of Indigenous Peoples

Federal Condition	Text from federal Decision Statement 9/4/2019	How is the Condition Addressed
5.5.1	*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; and*	No monitoring for this Condition was required during this reporting period. Baseline data were collected in 2018 (Stantec 2020). The baseline data will be compared to date collected every two years, during the first six years of operation.
5.5.2	*monitor, at least every two years, during the first six years of operation, concentrations of metals, including mercury and arsenic, in small mammals 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.*	No monitoring for this Condition was required during this reporting period. Monitoring will be completed every two years, during the first six years of operation.

1.2 Purpose

The Purpose of this Indigenous Peoples Health Risk Assessment Follow-up Report is to describe monitoring activities that occurred in the current monitoring period (October 1, 2020, to September 30, 2021) to assess the accuracy of the EIS predictions and to determine effectiveness of the mitigation measures as it pertains to potential environmental effects of the Mine on the health of Indigenous Peoples. This first Indigenous Peoples Health Risk Assessment Follow-up Report presents baseline data that will be used in the future, to evaluate potential changes and potential effects on the health of Indigenous Peoples.

1.3 Mine Overview & Activities

The Greenstone Mine will be mined as an open pit. The process plant will operate 365 days per year with a Life of Mine of approximately 15 years. Mill operations will be variable up to a nominal maximum throughput of 30,000 tonnes per day (tpd) as conditions warrant.

Key mine components of the Project development area (PDA) are an open pit, waste rock storage areas, overburden storage areas, ore stockpile, ore crushing and mill feed ore storage activities, process plant, water management facilities, tailings management facility, power plant and associated infrastructure, natural gas plant and explosives facility. Ancillary Project components are buildings, service water supply and associated infrastructure, sewage and effluent treatment plants, site roads, watercourse crossings, realignments, and habitat compensation/offsets, onsite pipelines and piping, fuel and hazardous materials storage, aggregate sources, and temporary camp. Existing infrastructure currently located within the PDA will be relocated, including a portion of Highway 11, a Ministry of Transportation Patrol Yard, and Hydro One Networks Inc. facilities.

The mine is currently in the site preparation phase. Tree clearing started March 1, 2021, , which allowed for the construction of a temporary camp to house mine workers, the set-up of construction trailers, and the construction of a temporary effluent treatment plant (TETP). No activities that involved the excavation or movement of soil occurred prior to the TETP being commissioned on September 15, 2021.

As of the end of this reporting period (September 30, 2021), the following activities had occurred:

- Constructed temporary camp to house Mine workers, which included the camp sewage holding tanks.
- Commenced tree clearing and soil characterization in accordance with the Soil Management Plan for the process plant, area of tailings management facility (TMF), TETP and feed pond.
- Commissioned the TETP on September 15, 2021. Since the infrastructure associated with sources of water for the TETP were not constructed during the reporting period, discharge from TETP was intermittent between September 15, 2021, and September 30, 2021.
- Commenced construction of the runoff detention area which will capture runoff from construction of the process plant and groundwater pumped from process plant foundations.
- Commenced stockpiling of type B soil in the eastern portion of Waste Rock Storage Area C (WRSA-C), where runoff is captured by the runoff detention area.

2.0 Methods

The following text summarizes the detailed methods for data collection presented in the following follow-up monitoring plans:

- Air Quality Management and Monitoring Plan (GGM 2020b)
- Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan (GGM 2021)
- Biodiversity Management and Monitoring Plan (GGM 2020c)

To avoid potential inconsistencies and potential errors associated with methods being presented in multiple reports, detailed methods are not repeated in this report. The focus of this and future Indigenous Peoples Health Risk Assessment Follow-up Reports will be to present the results of the monitoring plans listed above, and to compare those results to the predicted contaminant concentrations in environmental media (air, surface water, and terrestrial and aquatic country foods). Deviations to the monitoring plan or recommendations for adaptive management, if any, will be presented in this report and on future Indigenous Peoples Health Risk Assessment Follow-up Reports.

2.1 Data Collection

Data collection to support the Indigenous Peoples Health Risk Assessment Follow-up Plan has the following main components:

- Air Quality, which has three sub-components
    - Monitoring total suspended particulates, particulate matter (PM), fine particulate matter (PM), and nitrogen dioxide (Condition 5.3.2)
    - Monitoring benzene and benzo(a)pyrene (Condition 5.3.3)
    - Monitoring silt content on haul roads (Condition 5.3.4)
- Monitoring potential changes in concentrations of contaminants in water and fish (Condition 5.4), which has the following sub-components
    - Monitoring Total Mercury concentrations in water and fish in the Southwests Arm Tributary (SWAT) (Condition 5.4.1)
    - Monitoring Methylmercury concentrations in water and fish in the SWAT (Condition 5.4.2)
- Monitoring Total Mercury concentrations in Walleye in Kenogamisis Lake (Condition 5.5.1)
- Monitoring concentrations of contaminants in country foods (vegetation, fish, and wildlife) (Condition 5.5.1).

Sampling methods to satisfy data needs in support of Conditions 5.3.2, 5.3.3 and 5.3.4 are provided in the Air Quality Management and Monitoring Plan (GGM 2020b). Sampling methods to satisfy data needs in support of Conditions 5.4.1, 5.4.2 and 5.5.1 are provided in the Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan (GGM 2021). Sampling methods to satisfy data needs in support of Condition 5.5.2 are provided in the Biodiversity Management and Monitoring Plan (GGM 2020c).

2.2 Data Analysis

The Indigenous Peoples Health Risk Assessment Follow-up Plan is based on comparisons between the predicted contaminant concentrations in environmental media (air, surface water, and terrestrial and aquatic country foods) and the contaminant concentrations measured by the ongoing environmental monitoring programs. The following procedure will be carried out once during each phase of the project (i.e., construction, operation, and closure phases) and will be used to determine whether a more detailed reassessment of Indigenous human health risk is required.

If the 95% upper confidence limit of the mean (UCLM) concentrations of contaminants in the stipulated environmental media (air, surface water, fish tissue and terrestrial country foods (both animal and vegetation)) reported by the environmental monitoring programs are lower than, or equal to the contaminant concentrations predicted in the HHRA, potential human health risks for Indigenous peoples would be lower than or equal to those predicted in the HHRA. No further action would be required.

If the 95% UCLM concentrations of contaminants in the stipulated environmental media (air, surface water, fish tissue and terrestrial country foods (both animal and vegetation)) reported by the environmental monitoring programs are higher than the contaminant concentrations predicted in the HHRA by more than 20%, a reassessment of potential human health risks for Indigenous people would be required. This reassessment would be undertaken using the same assumptions and methods used in the original HHRA but using the new monitoring results to represent contaminant concentrations in environmental media.

The HHRA evaluated the potential human health risks associated with exposures to a number of contaminants in air, surface water, fish tissue, and country foods (animal and vegetation) under current or baseline conditions and under predicted future case conditions. The assessment focused on the potential change in human health risk that may occur between baseline and future case conditions over the life of the Project. The HHRA used standard risk assessment procedures, consistent with risk assessment guidance developed by Health Canada and the Ontario Ministry of the Environment, Conservation and Parks, to assess baseline case and future case human health risks. The HHRA included consideration for Indigenous people who may engage in traditional practices, including the harvesting of terrestrial and aquatic country foods.

Baseline human health risks were estimated using contaminant concentrations measured in air, soil, surface water and terrestrial and aquatic country foods. Future case human health risks were estimated using predicted contaminant concentrations in air, surface water, and terrestrial and aquatic country foods. The predicted concentrations for chemicals of potential concern (COPC) in air, surface water, fish tissue, small mammal tissue, soil and vegetation in the HHRA are provided in Appendix A, Table A-1 to Table A-23. These concentrations will be compared to media concentrations from the follow-up sampling program in subsequent monitoring years.

3.0 Monitoring Results

This annual report is provided to satisfy the reporting requirements for the reporting period of October 1, 2020, to September 30, 2021 (i.e., the 2021 monitoring year). Data collected in this reporting period is considered baseline and that future annual reports will provide a comparison of pre and post operation conditions.

3.1.1 Conditions 5.3.2 and 5.3.3 – Air Quality Monitoring Results

GGM initiated installation of the ambient monitoring network in the first quarter of 2021, with Rotek Environmental being contracted in April 2021 to manufacture and install three continuous/non-continuous ambient monitoring stations. Due to supply issues associated with the COVID-19 pandemic, delivery and installation of the monitoring equipment and equipment enclosures was delayed until December 2021. The dust fall monitoring program was implemented in April 2021. The stations are expected to be commissioned and fully operational in January 2022.

A summary of dustfall monitoring results are presented in Table 3-1. Dustfall results were consistently below the 30-day Provincial Ambient Air Quality Criteria of 70 mg/dm^2 (MOE 2012).

Table 3-1: Summary of Dustfall Monitoring Results

Date	*Dustfall Location A*	*Dustfall Location B*	*Dustfall Location C1*	*Dustfall Location E*
	Total Dustfall (mg/dm^2)	Total Dustfall (mg/dm^2)	Total Dustfall (mg/dm^2)	Total Dustfall (mg/dm^2)
6-May-21	*0.13*	*<0.10*	*0.48*	*0.15*
8-Jun-21	*0.57*	*4.12*	*1.17*	*0.58*
8-Jul-21	*0.10*	*5.22*	*0.96*	*0.18*
5-Aug-21	*0.36*	*0.36*	*1.18*	*1.47*
3-Sep-21	*0.19*	*0.16*	*0.37*	-
4-Oct-21	*0.56*	*0.36*	*0.55*	*0.38*
4-Nov-21	*0.37*	*0.57*	*0.82*	*0.48*

Notes:

Ontario Provincial Ambient Air Quality Criteria for Dustfall is 70 mg/dm2 (or 7 g/m2).

Dates are the date the sample was taken down, after the 30-day period.

New jars were put up at the same time the previous sample was taken down.

Italicized text indicates concentration at detection limit

3.1.2 Condition 5.3.4 – Silt Content on Roads

The requirement for silt content sampling during construction is for specific haul roads and needs to be conducted during the summertime, and when there is traffic on the roads. Those haul roads where silt content monitoring is required are expected to be operational in the next monitoring period. Sampling will be initiated at that time.

3.1.3 Condition 5.4.1 and 5.4.2 – Mercury in SWAT

The realignment of Goldfield Creek is planned to facilitate siting of the TMF and to offset for predicted effects on fish and fish habitat. Goldfield Creek will be diverted into the existing SWAT, which will increase flow in the SWAT and result in an increase of the permanently inundated area by approximately 15 ha. This realignment has the potential to alter mercury and methylmercury concentrations in SWAT. Since the Goldfield Creek realignment has not yet occurred, a pre-post comparison of water quality and fish tissue data is not yet required. However, additional baseline data were collected in 2021 to build on the existing set of baseline water quality and fish tissue data, which will better characterize baseline conditions. The Goldfield Creek Realignment is planned for 2022, with the first year of post construction monitoring planned for 2023 (GGM 2021). Baseline data and post-realignment data will be compared to HHRA predictions in future iterations of this annual report.

3.1.3.1 Water

Water quality monitoring during the reporting period consisted of quarterly sampling for mercury and methyl mercury in Goldfield Creek (Station 52), Southwest Pond 3 (Station 39), and in the SWAT (Stations 55 and 25). Quarterly sampling was identified as the minimum frequency in Condition 5.4.1 and 5.4.2. Baseline (i.e., pre-stream realignment) total mercury and methylmercury data measured in surface water during the current monitoring period are presented in Table 3-2. Summary statistics for mercury and methyl mercury concentrations in surface water are presented in Table 3-3.

Table 3-2: Baseline Total Mercury and Methylmercury Concentrations in Surface Water

Station Number	Date	Total Mercury (µg/L)	Methylmercury (µg/L)
52	23-Mar-21	0.00055	0.000040
	4-May-21	0.00149	0.000040
	10-Jun-21	0.00125	0.000088
	12-Jul-21	0.00264	0.000127
	9-Aug-21	0.00087	0.000126
	8-Sep-21	0.00063	0.000049
39	22-Mar-21	0.00052	0.000082
	6-May-21	0.00112	0.000072
	10-Jun-21	0.00125	0.000080
	14-Jul-21	0.00079	0.000073
	4-Aug-21	0.00073	0.000061
	7-Sep-21	0.00050	0.000042
55	6-May-21	0.00124	0.000066
	7-Jun-21	0.00146	0.000313
	13-Jul-21	0.00136	0.000210
	4-Aug-21	0.00093	0.000176
	8-Sep-21	0.00136	0.000121
25	17-Mar-21	0.00092	0.000535
	6-May-21	0.00152	0.000103
	9-Jun-21	0.00296	0.000160
	12-Jul-21	0.00093	0.000066
	3-Aug-21	0.00060	0.000051
	2-Sep-21	0.00058	0.000067

Table 3-3: Summary Statistics for Mercury and Methylmercury in Surface Water

Station Number	Summary Statistic	Total Mercury	Methylmercury
52	n	6	6
	Minimum (µg/L)	0.00055	0.00004
	Maximum (µg/L)	0.00264	0.00013
	Mean (µg/L)	0.00124	0.00008
	Median (µg/L)	0.00106	0.00007
	Standard Deviation	0.00071	0.00004
39	n	6	6
	Minimum (µg/L)	0.00050	0.00004
	Maximum (µg/L)	0.00125	0.00008
	Mean (µg/L)	0.00082	0.00007
	Median (µg/L)	0.00076	0.00007
	Standard Deviation	0.00028	0.00001
55	n	5	5
	Minimum (µg/L)	0.00093	0.00007
	Maximum (µg/L)	0.00146	0.00031
	Mean (µg/L)	0.00127	0.00018
	Median (µg/L)	0.00136	0.00018
	Standard Deviation	0.00018	0.00008
25	n	6	6
	Minimum (µg/L)	0.00058	0.00005
	Maximum (µg/L)	0.00296	0.00054
	Mean (µg/L)	0.00125	0.00016
	Median (µg/L)	0.00093	0.00009
	Standard Deviation	0.00082	0.00017

Notes:

n=number of samples

3.1.3.2 Fish

As described in the Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan (GGM 2021), whole bodied age-1 Yellow Perch were used for the tissue study. Fish collections occurred from June 16 to June 21, 2021. Analytical results for mercury and methylmercury in whole-bodied, age-1 Yellow Perch are provided in Table 3-4. Summary statistics are provided in Table 3-5. Raw laboratory data are provided in Appendix B1, and supporting morphometric data are provided in Appendix B2. The Goldfield Creek Realignment is planned for 2022, with the first year of post construction monitoring planned for 2023 (GGM 2021). Baseline data and post-realignment data will be compared to HHRA predictions in future iterations of this annual report.

Table 3-4: Mercury and Methylmercury Concentrations in whole-bodied, age-1 Yellow Perch

Waterbody (Sampling Area)	Replicate Sample Number	Total Mercury (µg/L)	Methyl Mercury (µg/L)
Unnamed Tributary to Gamsby Lake (A1-B) (Reference)	A1B-01	0.0468	0.0500
	A1B-02	0.0432	0.0325
	A1B-03	0.0390	0.0347
	A1B-04	0.0354	0.0357
	A1B-05	0.0362	0.0346
	A1B-06	0.0436	0.0415
	A1B-07	0.0327	0.0305
Southwest Pond 3 (A3)	A3-01	0.0756	0.0859
	A3-02	0.0736	0.0734
	A3-03	0.0688	0.0721
	A3-04	0.0653	0.0804
	A3-05	0.0656	0.0682
	A3-06	0.0599	0.0745
	A3-07	0.0587	0.0678
Lower SWAT (A5)	A5-01	0.0577	0.0695
	A5-02	0.0506	0.0556
	A5-03	0.0519	0.0556
	A5-04	0.0501	0.0550
	A5-05	0.0433	0.0543
	A5-06	0.0469	0.0546
	A5-07	0.0411	0.0446

Table 3-5: Summary Statistics for the Concentration of Mercury and Methylmercury in Whole-Bodied, age-1 Yellow Perch

Waterbody (Sampling Area)	Summary Statistic	Total Mercury (µg/L)	Methyl Mercury (µg/L)
Unnamed Tributary to Gamsby Lake (A1-B) (Reference)	n	7	7
	Minimum (µg/L)	0.0327	0.0305
	Maximum (µg/L)	0.0468	0.0500
	Mean (µg/L)	0.0396	0.0371
	Median (µg/L)	0.0390	0.0347
	Standard Deviation	0.00475	0.00615
Southwest Pond 3 (A3)	n	7	7
	Minimum (µg/L)	0.0587	0.0678
	Maximum (µg/L)	0.0756	0.0859
	Mean (µg/L)	0.0668	0.0746
	Median (µg/L)	0.0656	0.0734
	Standard Deviation	0.00591	0.00605
Lower SWAT (A5)	n	7	7
	Minimum (µg/L)	0.0411	0.0446
	Maximum (µg/L)	0.0577	0.0695
	Mean (µg/L)	0.0488	0.0556
	Median (µg/L)	0.0501	0.0550
	Standard Deviation	0.00550	0.00789

Notes:
n=number of samples

3.1.4 Condition 5.5.1 – Kenogamisis Lake Fish Tissue Monitoring Results

No activities related to monitoring fish tissue in Kenogamisis Lake occurred in the 2021 reporting period, nor were monitoring activities required by the Plan. Monitoring is required within 24 months from when the mine first began discharging effluent via the TETP, which occurred on September 15, 2021. The monitoring cycle is scheduled for every two years for the first six years of operation, after which time the need for additional monitoring will be evaluated.

3.1.5 Condition 5.5.2 - Small Mammal Tissue Monitoring Results

Small mammal tissue and browse vegetation sample collection is not required during construction and will commence during the site operations phase, as outlined in the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020a). Co-located soil samples, to be collected during small mammal tissue sample collection, were also not obtained, because tissue sampling will not commence until the mine operations phase. Results will be provided and discussed at in subsequent monitoring reports.

4.0 Summary

This annual Indigenous Peoples Health Risk Assessment Follow-up Report was completed to satisfy the reporting requirements for the reporting period of October 1, 2020, to September 30, 2021 (i.e., the 2021 monitoring year). This report deals specifically with federal Conditions of Approval 5.3, 5.4 and 5.5 as outlined in the Decision Statement issued under Section 54 of the *Canadian Environmental Assessment Act, 2012.* Required sampling methods are provided in the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020a). This report incorporates data collected as a part of other follow-up monitoring plans to build a comprehensive data set to assess the accuracy of the EIS predictions and to determine effectiveness of the mitigation measures as it pertains to potential environmental effects of the Mine on the health of Indigenous Peoples. These following follow-up monitoring plans are:

- Air Quality Management and Monitoring Plan (GGM 2020b).
- Fish and Fish Habitat Federal EIS Follow-Up Monitoring Plan (GGM 2021)
- Biodiversity Management and Monitoring Plan (GGM 2020c).

GGM initiated installation three continuous/non-continuous ambient monitoring stations in April, 2021. However, due to supply issues associated with the COVID-19 pandemic, installation of the monitoring equipment and equipment enclosures was delayed until November/December 2021.

Silt content sampling on roads did not occur in this reporting period but is planned is for specific haul roads during the summertime, when road construction is complete and when there is traffic on the roads.

The realignment of Goldfield Creek realignment has not yet occurred, and therefore a pre-post comparison of water quality and fish tissue data is not yet required. However, additional baseline data were collected in 2021 to build on the existing set of baseline water quality and fish tissue data, which will better characterize baseline conditions.

No activities related to monitoring fish tissue in Kenogamisis Lake occurred in the 2021 reporting period, nor were monitoring activities required by the Plan. The monitoring cycle is scheduled for every two years for the first six years of operation, after which time the need for additional monitoring will be evaluated.

Small mammal tissue and browse vegetation sample collection is not required during construction and will commence during the site operations phase, as outlined in the Indigenous Peoples Health Risk Assessment Follow-up Plan (GGM 2020a).

Data collected in this reporting period is considered baseline. Baseline data and post-realignment data will be compared to HHRA predictions in future iterations of this annual report.

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EQUINOXGOLD
GREENSTONE GOLD MINES
AN EQUINOX GOLD / ORION JOINT VENTURE

APPENDIX A
PREDICTED CONCENTRATIONS AND TRIGGER LEVELS FOR CHEMICALS OF POTENTIAL CONCERN (COPC) IN AIR, SURFACE WATER, FISH TISSUE, SMALL MAMMAL TISSUE, SOIL, AND VEGETATION, IN THE HHRA

Table A-1: Air Quality - 1-hour Concentrations of Criteria Air Contaminants (CAC)

COPC	1-hour Concentration (µg/m³)															
	Inside PDA (On-Property) (Golf Course)		Outside PDA (Off-Property)		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store		Geraldton		MacLeod Provincial Park	
	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level
SO_2	1.79E+02	2.15E+02	9.84E+01	1.18E+02	6.19E+01	7.43E+01	5.50E+01	6.60E+01	5.60E+01	6.72E+01	6.53E+01	7.84E+01	5.49E+01	6.59E+01	5.68E+01	6.82E+01
NO_2	3.00E+02	3.60E+02	2.71E+02	3.25E+02	2.38E+02	2.86E+02	2.27E+02	2.72E+02	2.54E+02	3.05E+02	2.38E+02	2.86E+02	2.16E+02	2.59E+02	2.40E+02	2.88E+02
CO	2.67E+03	3.20E+03	2.70E+03	3.24E+03	2.16E+03	2.59E+03	1.79E+03	2.15E+03	1.42E+03	1.70E+03	2.50E+03	3.00E+03	1.88E+03	2.26E+03	1.89E+03	2.27E+03

Table A-2: Air Quality - 1-hour Concentrations of Volatile Organic Compounds (VOC)

COPC	1-hour Concentration (µg/m³)															
	Inside PDA (On-Property) (Golf Course)		Outside PDA (Off-Property)		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store		Geraldton		MacLeod Provincial Park	
	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level
Acrolein	8.76E-02	1.05E-01	6.37E-02	7.64E-02	4.02E-02	4.82E-02	3.22E-02	3.86E-02	5.03E-02	6.04E-02	4.07E-02	4.88E-02	2.48E-02	2.98E-02	3.99E-02	4.79E-02

Table A-3: Air Quality - 24-hour Concentrations of Criteria CAC

COPC	24-hour Concentration (µg/m³)															
	Inside PDA (On-Property) (Golf Course)		Outside PDA (Off-Property)		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store		Geraldton		MacLeod Provincial Park	
	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level
SO_2	7.52E+01	9.02E+01	3.90E+01	4.68E+01	2.09E+01	2.51E+01	3.44E+01	4.13E+01	1.97E+01	2.36E+01	2.12E+01	2.54E+01	2.96E+01	3.55E+01	2.16E+01	2.59E+01
NO_2	2.17E+02	2.60E+02	2.02E+02	2.42E+02	1.25E+02	1.50E+02	1.92E+02	2.30E+02	1.91E+02	2.29E+02	1.23E+02	1.48E+02	1.72E+02	2.06E+02	1.51E+02	1.81E+02
PM_{10}	1.21E+02	1.45E+02	7.68E+01	9.22E+01	3.70E+01	4.44E+01	7.06E+01	8.47E+01	4.91E+01	5.89E+01	4.38E+01	5.26E+01	6.26E+01	7.51E+01	4.92E+01	5.90E+01
$PM_{2.5}$	1.99E+01	2.39E+01	1.82E+01	2.18E+01	1.45E+01	1.74E+01	1.47E+01	1.76E+01	1.57E+01	1.88E+01	1.53E+01	1.84E+01	1.41E+01	1.69E+01	1.44E+01	1.73E+01

Table A-4: Air Quality - 24-hour Concentrations of Non-metal COPC

COPC	24-hour Concentration (µg/m³)															
	Inside PDA (On-Property) (Golf Course)		Outside PDA (Off-Property)		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store		Geraldton		MacLeod Provincial Park	
	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level
Hydrogen Cyanide	2.81E+00	3.37E+00	2.29E+00	2.75E+00	1.61E+00	1.93E+00	1.84E+00	2.21E+00	1.13E+00	1.36E+00	1.93E+00	2.32E+00	1.58E+00	1.90E+00	1.07E+00	1.28E+00
Calcium Oxide	3.43E-03	4.12E-03	2.77E-03	3.32E-03	1.52E-03	1.82E-03	1.79E-03	2.15E-03	1.09E-03	1.31E-03	2.12E-03	2.54E-03	1.58E-03	1.90E-03	1.04E-03	1.25E-03
Magnesium Oxide	2.27E-03	2.72E-03	1.83E-03	2.20E-03	1.00E-03	1.20E-03	1.18E-03	1.42E-03	7.24E-04	8.69E-04	1.40E-03	1.68E-03	1.05E-03	1.26E-03	6.86E-04	8.23E-04
Dolomite	5.81E-05	6.97E-05	4.70E-05	5.64E-05	2.58E-05	3.10E-05	3.03E-05	3.64E-05	1.86E-05	2.23E-05	3.60E-05	4.32E-05	2.68E-05	3.22E-05	1.76E-05	2.11E-05

Table A-5: Air Quality - 24-hour Concentrations of VOC

COPC	24-hour Concentration (µg/m^3)															
	Inside PDA (On-Property) (Golf Course)		Outside PDA (Off-Property)		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store		Geraldton		MacLeod Provincial Park	
	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level
1,3-butadiene	5.52E-01	6.62E-01	5.52E-01	6.62E-01	5.50E-01	6.60E-01	5.51E-01	6.61E-01	5.51E-01	6.61E-01	5.51E-01	6.61E-01	5.51E-01	6.61E-01	5.51E-01	6.61E-01
Acetaldehyde	1.27E+00	1.52E+00	1.24E+00	1.49E+00	1.15E+00	1.38E+00	1.16E+00	1.39E+00	1.19E+00	1.43E+00	1.15E+00	1.38E+00	1.15E+00	1.38E+00	1.16E+00	1.39E+00
Acrolein	1.00E-01	1.20E-01	9.57E-02	1.15E-01	8.23E-02	9.88E-02	8.38E-02	1.01E-01	8.80E-02	1.06E-01	8.31E-02	9.97E-02	8.27E-02	9.92E-02	8.43E-02	1.01E-01
Benzene	8.85E-01	1.06E+00	8.79E-01	1.05E+00	8.62E-01	1.03E+00	8.64E-01	1.04E+00	8.70E-01	1.04E+00	8.63E-01	1.04E+00	8.63E-01	1.04E+00	8.65E-01	1.04E+00
Formaldehyde	5.26E-01	6.31E-01	4.25E-01	5.10E-01	1.72E+00	2.06E+00	1.75E+00	2.10E+00	1.84E+00	2.21E+00	1.73E+00	2.08E+00	1.43E-01	1.72E-01	1.76E-01	2.11E-01

Table A-6: Air Quality - Annual Concentrations of CAC

COPC	Annual Average Concentration (µg/m^3)															
	Inside PDA (On-Property) (Golf Course)		Outside PDA (Off-Property)		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store		Geraldton		MacLeod Provincial Park	
	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level
SO_2	5.30E+00	6.36E+00	4.04E+00	4.85E+00	2.98E+00	3.58E+00	3.23E+00	3.88E+00	3.18E+00	3.82E+00	3.24E+00	3.89E+00	3.03E+00	3.64E+00	3.06E+00	3.67E+00
NO_2	5.31E+01	6.37E+01	3.85E+01	4.62E+01	2.39E+01	2.87E+01	2.66E+01	3.19E+01	3.00E+01	3.60E+01	2.55E+01	3.06E+01	2.48E+01	2.98E+01	2.63E+01	3.16E+01
PM_{10}	2.16E+01	2.59E+01	2.12E+01	2.54E+01	1.58E+01	1.90E+01	1.61E+01	1.93E+01	1.76E+01	2.11E+01	1.61E+01	1.93E+01	1.57E+01	1.88E+01	1.62E+01	1.94E+01
$PM_{2.5}$	9.22E+00	1.11E+01	8.74E+00	1.05E+01	7.16E+00	8.59E+00	7.30E+00	8.76E+00	7.61E+00	9.13E+00	7.29E+00	8.75E+00	7.11E+00	8.53E+00	7.20E+00	8.64E+00

Table A-7: Air Quality - Annual Concentrations of Non-metal COPC

COPC	Annual Average Concentration (µg/m³)															
	Inside PDA (On-Property) (Golf Course)		Outside PDA (Off-Property)		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store		Geraldton		MacLeod Provincial Park	
	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level
Hydrogen Cyanide	3.32E-01	3.98E-01	2.12E-01	2.54E-01	9.49E-02	1.14E-01	1.24E-01	1.49E-01	1.16E-01	1.39E-01	1.26E-01	1.51E-01	1.02E-01	1.22E-01	1.05E-01	1.26E-01
Calcium Oxide	3.54E-04	4.25E-04	2.07E-04	2.48E-04	8.98E-05	1.08E-04	1.23E-04	1.48E-04	9.81E-05	1.18E-04	1.16E-04	1.39E-04	9.71E-05	1.17E-04	8.50E-05	1.02E-04
Magnesium Oxide	2.83E-04	3.40E-04	1.66E-04	1.99E-04	7.19E-05	8.63E-05	9.86E-05	1.18E-04	7.85E-05	9.42E-05	9.28E-05	1.11E-04	7.76E-05	9.31E-05	6.80E-05	8.16E-05
Dolomite	2.83E-04	3.40E-04	1.66E-04	1.99E-04	7.19E-05	8.63E-05	9.86E-05	1.18E-04	7.85E-05	9.42E-05	9.28E-05	1.11E-04	7.76E-05	9.31E-05	6.80E-05	8.16E-05

Table A-8: Air Quality - Annual Concentrations of VOC

COPC	Annual Average Concentration (µg/m³)															
	Inside PDA (On-Property) (Golf Course)		Outside PDA (Off-Property)		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store		Geraldton		MacLeod Provincial Park	
	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level
1,3-butadiene	6.71E-02	8.05E-02	6.70E-02	8.04E-02	6.68E-02	8.02E-02	6.68E-02	8.02E-02	6.69E-02	8.03E-02	6.68E-02	8.02E-02	6.68E-02	8.02E-02	6.69E-02	8.03E-02
Acetaldehyde	7.05E-01	8.46E-01	6.99E-01	8.39E-01	6.84E-01	8.21E-01	6.86E-01	8.23E-01	6.90E-01	8.28E-01	6.85E-01	8.22E-01	6.84E-01	8.21E-01	6.87E-01	8.24E-01
Acrolein	4.27E-02	5.12E-02	4.17E-02	5.00E-02	3.96E-02	4.75E-02	3.98E-02	4.78E-02	4.05E-02	4.86E-02	3.97E-02	4.76E-02	3.96E-02	4.75E-02	3.99E-02	4.79E-02
Benzene	5.60E-01	6.72E-01	5.64E-01	6.77E-01	5.56E-01	6.67E-01	5.56E-01	6.67E-01	5.57E-01	6.68E-01	5.56E-01	6.67E-01	5.64E-01	6.77E-01	5.56E-01	6.67E-01
Formaldehyde	1.03E+00	1.24E+00	1.03E+00	1.24E+00	9.86E-01	1.18E+00	9.91E-01	1.19E+00	1.01E+00	1.21E+00	9.88E-01	1.19E+00	9.87E-01	1.18E+00	9.94E-01	1.19E+00

Table A-9: Air Quality - Annual Concentrations of Metals

COPC	Annual Average Concentration (µg/m³)															
	Inside PDA (On-Property) (Golf Course)		Outside PDA (Off-Property)		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store		Geraldton		MacLeod Provincial Park	
	Predicted Future Case A	Trigger Level	Predicted Future Case A	Trigger Level	Predicted Future Case A	Trigger Level	Predicted Future Case A	Trigger Level	Predicted Future Case A	Trigger Level	Predicted Future Case A	Trigger Level	Predicted Future Case A	Trigger Level	Predicted Future Case A	Trigger Level
Antimony	8.14E-03	9.77E-03	8.13E-03	9.76E-03	8.11E-03	9.73E-03	8.11E-03	9.73E-03	8.11E-03	9.73E-03	8.11E-03	9.73E-03	8.11E-03	9.73E-03	8.11E-03	9.73E-03
Arsenic	5.47E-03	6.56E-03	5.02E-03	6.02E-03	4.28E-03	5.14E-03	4.35E-03	5.22E-03	4.46E-03	5.35E-03	4.34E-03	5.21E-03	4.26E-03	5.11E-03	4.31E-03	5.17E-03
Barium	2.12E-02	2.54E-02	2.02E-02	2.42E-02	1.86E-02	2.23E-02	1.87E-02	2.24E-02	1.89E-02	2.27E-02	1.87E-02	2.24E-02	1.85E-02	2.22E-02	1.86E-02	2.23E-02
Beryllium	2.82E-04	3.38E-04	2.79E-04	3.35E-04	2.75E-04	3.30E-04	2.75E-04	3.30E-04	2.76E-04	3.31E-04	2.75E-04	3.30E-04	2.74E-04	3.29E-04	2.75E-04	3.30E-04
Chromium	1.20E-03	1.44E-03	1.03E-03	1.24E-03	6.19E-04	7.43E-04	6.50E-04	7.80E-04	7.18E-04	8.62E-04	6.44E-04	7.73E-04	6.09E-04	7.31E-04	6.38E-04	7.66E-04
Cobalt	4.64E-04	5.57E-04	4.16E-04	4.99E-04	3.02E-04	3.62E-04	3.11E-04	3.73E-04	3.30E-04	3.96E-04	3.09E-04	3.71E-04	3.00E-04	3.60E-04	3.08E-04	3.70E-04
Copper	1.08E-01	1.30E-01	1.08E-01	1.30E-01	1.08E-01	1.30E-01	1.08E-01	1.30E-01	1.08E-01	1.30E-01	1.08E-01	1.30E-01	1.08E-01	1.30E-01	1.08E-01	1.30E-01
Lead	3.25E-03	3.90E-03	2.85E-03	3.42E-03	2.29E-03	2.75E-03	2.34E-03	2.81E-03	2.42E-03	2.90E-03	2.33E-03	2.80E-03	2.28E-03	2.74E-03	2.31E-03	2.77E-03
Manganese	1.46E-02	1.75E-02	1.25E-02	1.50E-02	8.15E-03	9.78E-03	8.49E-03	1.02E-02	9.17E-03	1.10E-02	8.43E-03	1.01E-02	8.04E-03	9.65E-03	8.34E-03	1.00E-02
Mercury	4.05E-04	4.86E-04	2.37E-04	2.84E-04	1.02E-04	1.22E-04	1.42E-04	1.70E-04	1.06E-04	1.27E-04	1.26E-04	1.51E-04	1.09E-04	1.31E-04	8.79E-05	1.05E-04
Nickel	1.30E-03	1.56E-03	1.15E-03	1.38E-03	8.33E-04	1.00E-03	8.57E-04	1.03E-03	9.10E-04	1.09E-03	8.53E-04	1.02E-03	8.24E-04	9.89E-04	8.47E-04	1.02E-03
Selenium	8.07E-04	9.68E-04	8.04E-04	9.65E-04	7.96E-04	9.55E-04	7.96E-04	9.55E-04	7.98E-04	9.58E-04	7.96E-04	9.55E-04	7.95E-04	9.54E-04	7.96E-04	9.55E-04
Thallium	1.34E-03	1.61E-03	1.33E-03	1.60E-03	1.32E-03	1.58E-03	1.32E-03	1.58E-03	1.32E-03	1.58E-03	1.32E-03	1.58E-03	1.32E-03	1.58E-03	1.32E-03	1.58E-03
Uranium	1.01E-04	1.21E-04	9.82E-05	1.18E-04	9.26E-05	1.11E-04	9.31E-05	1.12E-04	9.39E-05	1.13E-04	9.30E-05	1.12E-04	9.25E-05	1.11E-04	9.29E-05	1.11E-04
Vanadium	1.03E-03	1.24E-03	8.77E-04	1.05E-03	5.52E-04	6.62E-04	5.77E-04	6.92E-04	6.29E-04	7.55E-04	5.73E-04	6.88E-04	5.44E-04	6.53E-04	5.66E-04	6.79E-04
Zinc	1.13E-02	1.36E-02	1.09E-02	1.31E-02	1.06E-02	1.27E-02	1.07E-02	1.28E-02	1.07E-02	1.28E-02	1.06E-02	1.27E-02	1.06E-02	1.27E-02	1.06E-02	1.27E-02

Table A-10: Air Quality - Annual Concentrations of B(a)P_{TPE}

COPC	Annual Average Concentration (µg/m3)															
	Inside PDA (On-Property) (Golf Course)		Outside PDA (Off-Property)		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store		Geraldton		MacLeod Provincial Park	
	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level
B[a]PTPE	4.09E-07	4.91E-07	2.57E-07	3.08E-07	5.18E-08	6.22E-08	7.31E-08	8.77E-08	1.27E-07	1.52E-07	6.59E-08	7.91E-08	5.10E-08	6.12E-08	7.44E-08	8.93E-08

Table A-11: Mean Concentrations of COPCs in Surface Water-Barton Bay East

COPC	Surface Water Concentration (µg/L)	
	Predicted Future Case [1]	Trigger Value
Antimony	4.34E-01	5.21E-01
Arsenic	1.41E+01	1.69E+01
Barium	6.53E+00	7.84E+00
Beryllium	2.69E-01	3.23E-01
Chromium	5.03E-01	6.04E-01
Cobalt	1.74E-01	2.09E-01
Copper	2.79E+00	3.35E+00
Lead	4.01E-01	4.81E-01
Manganese	1.90E+01	2.28E+01
Mercury	9.11E-03	1.09E-02
Nickel	9.28E-01	1.11E+00
Selenium	2.85E-01	3.42E-01
Thallium	7.66E-02	9.19E-02
Uranium	1.18E+00	1.42E+00
Vanadium	4.95E-01	5.94E-01
Zinc	2.60E+00	3.12E+00

1: Occurs during Operations Phase

Table A-12: Mean Concentrations of COPCs in Surface Water-Barton Bay West

COPC	Surface Water Concentration (µg/L)	
	Predicted Future Case [1]	Trigger Value
Antimony	4.20E-01	5.04E-01
Arsenic	2.84E+01	3.41E+01
Barium	6.11E+00	7.33E+00
Beryllium	2.90E-01	3.48E-01
Chromium	4.30E-01	5.16E-01
Cobalt	1.69E-01	2.03E-01
Copper	1.65E+00	1.98E+00
Lead	3.98E-01	4.78E-01
Manganese	1.96E+01	2.35E+01
Mercury	1.05E-02	1.26E-02
Nickel	8.98E-01	1.08E+00
Selenium	3.13E-01	3.76E-01
Thallium	8.20E-02	9.84E-02
Uranium	1.26E+00	1.51E+00
Vanadium	4.39E-01	5.27E-01
Zinc	2.40E+00	2.88E+00

1: Occurs during Operations Phase

Table A-13: Mean Concentrations of COPCs in Surface Water-Southwest Arm

COPC	Surface Water Concentration (µg/L)	
	Predicted Future Case [1]	Trigger Value
Antimony	2.48E+00	2.98E+00
Arsenic	2.24E+00	2.69E+00
Barium	1.11E+01	1.33E+01
Beryllium	2.32E-01	2.78E-01
Chromium	3.63E-01	4.36E-01
Cobalt	2.87E-01	3.44E-01
Copper	5.24E-01	6.29E-01
Lead	2.40E-01	2.88E-01
Manganese	1.35E+01	1.62E+01
Mercury	6.93E-03	8.32E-03
Nickel	6.08E-01	7.30E-01
Selenium	2.47E-01	2.96E-01
Thallium	6.29E-02	7.55E-02
Uranium	2.16E+00	2.59E+00
Vanadium	4.13E-01	4.96E-01
Zinc	1.86E+00	2.23E+00

1: Occurs during Operations Phase

Table A-14: Mean Concentrations of COPCs in Surface Water-Central Basin East

COPC	Surface Water Concentration (µg/L)	
	Predicted Future Case [1]	Trigger Value
Antimony	3.26E+00	3.91E+00
Arsenic	6.58E+00	7.90E+00
Barium	9.27E+00	1.11E+01
Beryllium	2.27E-01	2.72E-01
Chromium	3.61E-01	4.33E-01
Cobalt	1.96E-01	2.35E-01
Copper	1.64E+00	1.97E+00
Lead	2.69E-01	3.23E-01
Manganese	1.36E+01	1.63E+01
Mercury	2.90E-02	3.48E-02
Nickel	6.65E-01	7.98E-01
Selenium	2.43E-01	2.92E-01
Thallium	6.07E-02	7.28E-02
Uranium	1.83E+00	2.20E+00
Vanadium	4.08E-01	4.90E-01
Zinc	1.98E+00	2.38E+00

1: Occurs during Operations Phase

Table A-15: Mean Concentrations of COPCs in Surface Water-Central Basin West

COPC	Surface Water Concentration (µg/L)	
	Predicted Future Case [1]	Trigger Value
Antimony	2.61E-01	3.13E-01
Arsenic	6.66E+00	7.99E+00
Barium	8.62E+00	1.03E+01
Beryllium	2.59E-01	3.11E-01
Chromium	4.56E-01	5.47E-01
Cobalt	8.12E-02	9.74E-02
Copper	2.19E+00	2.63E+00
Lead	3.93E-01	4.72E-01
Manganese	1.24E+01	1.49E+01
Mercury	1.03E-02	1.24E-02
Nickel	5.51E-01	6.61E-01
Selenium	2.67E-01	3.20E-01
Thallium	7.44E-02	8.93E-02
Uranium	1.15E+00	1.38E+00
Vanadium	4.60E-01	5.52E-01
Zinc	1.91E+00	2.29E+00

1: Occurs during Operations Phase

Table A-16: Mean Concentrations of COPCs in Surface Water-Outlet Basin

COPC	Surface Water Concentration (µg/L)	
	Predicted Future Case [1]	Trigger Value
Antimony	2.25E+00	2.70E+00
Arsenic	4.42E+00	5.30E+00
Barium	8.88E+00	1.07E+01
Beryllium	2.40E-01	2.88E-01
Chromium	3.51E-01	4.21E-01
Cobalt	1.90E-01	2.28E-01
Copper	1.13E+00	1.36E+00
Lead	2.74E-01	3.29E-01
Manganese	1.49E+01	1.79E+01
Mercury	7.73E-03	9.28E-03
Nickel	5.90E-01	7.08E-01
Selenium	2.59E-01	3.11E-01
Thallium	6.76E-02	8.11E-02
Uranium	1.84E+00	2.21E+00
Vanadium	4.10E-01	4.92E-01
Zinc	1.71E+00	2.05E+00

1: Occurs during Operations Phase

Table A-17: COPC Concentrations in Fish Tissue-Whole Body (Small fish)

COPC	Fish Tissue (Whole Body) Exposure Point Concentrations (mg/Kg wet weight)	
	Predicted Future Case	Trigger Value
Antimony	2.13E-02	2.56E-02
Arsenic	6.66E-01	7.99E-01
Barium	9.09E-01	1.09E+00
Beryllium	2.00E-03	2.40E-03
Chromium	1.59E-01	1.91E-01
Cobalt	1.69E-02	2.03E-02
Copper	7.06E-01	8.47E-01
Lead	1.33E-02	1.60E-02
Manganese	3.27E+00	3.92E+00
Mercury (assumed as methylmercury)	1.52E-01	1.82E-01
Nickel	9.22E-02	1.11E-01
Selenium	3.39E-01	4.07E-01
Thallium	3.94E-03	4.73E-03
Uranium	1.85E-03	2.22E-03
Vanadium	7.85E-02	9.42E-02
Zinc	4.79E+01	5.75E+01

Table A-18: COPC Concentrations in Fish Tissue-Whole Body-Fillet and Liver (Walleye)

COPC	Fish Tissue (Fillet) Exposure Point Concentrations (mg/Kg wet weight)	
	Predicted Future Case	Trigger Value
Antimony	1.77E-02	2.12E-02
Arsenic	8.28E-02	9.94E-02
Barium	1.71E-02	2.05E-02
Beryllium	2.00E-03	2.40E-03
Chromium	5.83E-02	7.00E-02
Cobalt	1.10E-01	1.32E-01
Copper	7.18E-01	8.62E-01
Lead	1.01E-02	1.21E-02
Manganese	1.09E+00	1.31E+00
Mercury (assumed as methylmercury)	5.86E-01	7.03E-01
Nickel	3.92E-02	4.70E-02
Selenium	5.20E-01	6.24E-01
Thallium	1.41E-02	1.69E-02
Uranium	9.31E-04	1.12E-03
Vanadium	3.75E-02	4.50E-02
Zinc	1.10E+01	1.32E+01

Table A-19: COPC Concentrations in Small Mammal Tissue

COPC	Small Mammals Exposure Point Concentrations (mg/Kg wet weight)	
	Predicted Future Case	Trigger Value
Antimony	1.17E-02	1.40E-02
Arsenic	7.56E-01	9.07E-01
Barium	3.67E+00	4.40E+00
Beryllium	2.04E-03	2.45E-03
Chromium	1.61E-01	1.93E-01
Cobalt	4.42E-02	5.30E-02
Copper	3.39E+00	4.07E+00
Lead	6.05E-02	7.26E-02
Manganese	4.79E+00	5.75E+00
Mercury	4.55E-02	5.46E-02
Nickel	2.04E-01	2.45E-01
Selenium	3.07E-01	3.68E-01
Thallium	5.33E-03	6.40E-03
Uranium	6.23E-04	7.48E-04
Vanadium	3.48E-02	4.18E-02
Zinc	2.95E+01	3.54E+01

Table A-20: COPC Concentrations in Soil

COPC	Soil Exposure Point Concentration (mg/kg-dry weight)															
	Maximum in Geraldton		Maximum in LAA Outside PDA and Off-Property		Maximum on Golf Course		Maximum Predicted in MacLeod Provincial Park		Leased Properties		Rosedale		Residence 300		Commercial Hardware Store	
	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level	Predicted Future Case	Trigger Level
Antimony	2.87E+00	3.44E+00	2.88E+00	3.46E+00	2.89E+00	3.47E+00	2.87E+00	3.44E+00	2.87E+00	3.44E+00	2.87E+00	3.44E+00	2.87E+00	3.44E+00	2.87E+00	3.44E+00
Arsenic	1.03E+02	1.24E+02	1.04E+02	1.25E+02	1.04E+02	1.25E+02	1.03E+02	1.24E+02	1.03E+02	1.24E+02	1.03E+02	1.24E+02	1.03E+02	1.24E+02	1.03E+02	1.24E+02
Barium	4.55E+01	5.46E+01	4.60E+01	5.52E+01	4.69E+01	5.63E+01	4.55E+01	5.46E+01	4.55E+01	5.46E+01	4.55E+01	5.46E+01	4.56E+01	5.47E+01	4.55E+01	5.46E+01
Beryllium	2.20E-01	2.64E-01	2.22E-01	2.66E-01	2.24E-01	2.69E-01	2.20E-01	2.64E-01	2.20E-01	2.64E-01	2.20E-01	2.64E-01	2.21E-01	2.65E-01	2.20E-01	2.64E-01
Chromium	2.09E+01	2.51E+01	2.10E+01	2.52E+01	2.12E+01	2.54E+01	2.09E+01	2.51E+01	2.09E+01	2.51E+01	2.09E+01	2.51E+01	2.09E+01	2.51E+01	2.09E+01	2.51E+01
Cobalt	4.54E+00	5.45E+00	4.57E+00	5.48E+00	4.63E+00	5.56E+00	4.54E+00	5.45E+00	4.54E+00	5.45E+00	4.54E+00	5.45E+00	4.55E+00	5.46E+00	4.54E+00	5.45E+00
Copper	9.88E+00	1.19E+01	9.96E+00	1.20E+01	1.01E+01	1.21E+01	9.88E+00	1.19E+01	9.88E+00	1.19E+01	9.89E+00	1.19E+01	9.91E+00	1.19E+01	9.89E+00	1.19E+01
Lead	1.35E+01	1.62E+01	1.37E+01	1.64E+01	1.40E+01	1.68E+01	1.35E+01	1.62E+01	1.35E+01	1.62E+01	1.36E+01	1.63E+01	1.36E+01	1.63E+01	1.36E+01	1.63E+01
Manganese	1.90E+03	2.28E+03	1.90E+03	2.28E+03	1.90E+03	2.28E+03	1.90E+03	2.28E+03	1.90E+03	2.28E+03	1.90E+03	2.28E+03	1.90E+03	2.28E+03	1.90E+03	2.28E+03
Mercury	1.38E-01	1.66E-01	1.39E-01	1.67E-01	1.42E-01	1.70E-01	1.38E-01	1.66E-01	1.38E-01	1.66E-01	1.39E-01	1.67E-01	1.38E-01	1.66E-01	1.38E-01	1.66E-01
Nickel	9.77E+00	1.17E+01	9.86E+00	1.18E+01	1.00E+01	1.20E+01	9.77E+00	1.17E+01	9.77E+00	1.17E+01	9.78E+00	1.17E+01	9.80E+00	1.18E+01	9.78E+00	1.17E+01
Selenium	5.00E-01	6.00E-01	5.02E-01	6.02E-01	5.07E-01	6.08E-01	5.00E-01	6.00E-01	5.00E-01	6.00E-01	5.00E-01	6.00E-01	5.00E-01	6.00E-01	5.00E-01	6.00E-01
Thallium	6.21E-02	7.45E-02	6.49E-02	7.79E-02	6.99E-02	8.39E-02	6.21E-02	7.45E-02	6.22E-02	7.46E-02	6.25E-02	7.50E-02	6.30E-02	7.56E-02	6.24E-02	7.49E-02
Uranium	4.03E-01	4.84E-01	4.05E-01	4.86E-01	4.08E-01	4.90E-01	4.03E-01	4.84E-01	4.03E-01	4.84E-01	4.04E-01	4.85E-01	4.04E-01	4.85E-01	4.04E-01	4.85E-01
Vanadium	1.97E+01	2.36E+01	1.98E+01	2.38E+01	2.00E+01	2.40E+01	1.97E+01	2.36E+01	1.97E+01	2.36E+01	1.97E+01	2.36E+01	1.97E+01	2.36E+01	1.97E+01	2.36E+01
Zinc	4.30E+01	5.16E+01	4.32E+01	5.18E+01	4.34E+01	5.21E+01	4.30E+01	5.16E+01	4.30E+01	5.16E+01	4.30E+01	5.16E+01	4.31E+01	5.17E+01	4.30E+01	5.16E+01

Table A-21: COPC Concentrations in Vegetation (Browse)

COPC	Vegetation (Browse) Exposure Point Concentrations (mg/Kg wet weight)	
	Predicted Future Case	Trigger Value
Antimony	2.05E-02	2.46E-02
Arsenic	1.13E-01	1.36E-01
Barium	2.03E+00	2.44E+00
Beryllium	3.90E-03	4.68E-03
Chromium	2.33E-02	2.80E-02
Cobalt	2.38E-01	2.86E-01
Copper	1.08E+00	1.30E+00
Lead	1.16E-02	1.39E-02
Manganese	3.72E+01	4.46E+01
Mercury	1.92E-02	2.30E-02
Nickel	4.98E-01	5.98E-01
Selenium	2.56E-02	3.07E-02
Thallium	4.49E-03	5.39E-03
Uranium	8.82E-04	1.06E-03
Vanadium	1.11E-02	1.33E-02
Zinc	2.37E+01	2.84E+01

Table A-22: COPC Concentrations in Vegetation (Forage)

COPC	Vegetation (Forage) Exposure Point Concentrations (mg/Kg wet weight)	
	Predicted Future Case	Trigger Value
Antimony	1.20E-02	1.44E-02
Arsenic	1.61E-01	1.93E-01
Barium	6.09E+00	7.31E+00
Beryllium	3.90E-03	4.68E-03
Chromium	1.02E-01	1.22E-01
Cobalt	7.31E-03	8.77E-03
Copper	4.27E-01	5.12E-01
Lead	2.14E-02	2.57E-02
Manganese	6.09E+01	7.31E+01
Mercury	1.92E-02	2.30E-02
Nickel	2.09E-01	2.51E-01
Selenium	1.96E-02	2.35E-02
Thallium	2.24E-03	2.69E-03
Uranium	1.28E-03	1.54E-03
Vanadium	5.74E-02	6.89E-02
Zinc	4.57E+00	5.48E+00

Table A-23: COPC Concentrations in Vegetation (Berries)

COPC	Vegetation (Berries) Exposure Point Concentrations (mg/Kg wet weight)	
	Predicted Future Case	Trigger Value
Antimony	3.88E-03	4.66E-03
Arsenic	4.43E-02	5.32E-02
Barium	1.08E+00	1.30E+00
Beryllium	3.90E-03	4.68E-03
Chromium	2.10E-02	2.52E-02
Cobalt	8.56E-03	1.03E-02
Copper	3.58E-01	4.30E-01
Lead	1.84E-02	2.21E-02
Manganese	1.58E+01	1.90E+01
Mercury	1.92E-02	2.30E-02
Nickel	5.32E-02	6.38E-02
Selenium	1.95E-02	2.34E-02
Thallium	3.19E-02	3.83E-02
Uranium	7.80E-04	9.36E-04
Vanadium	3.91E-02	4.69E-02
Zinc	2.70E+00	3.24E+00

APPENDIX B
BASELINE FISH TISSUE DATA

EQUINOXGOLD
GREENSTONE GOLD MINES
AN EQUINOX GOLD / ORION JOINT VENTURE

APPENDIX B1
LABORATORY CERTIFICATE OF ANALYSIS FOR WHOLE-BODY AGE-1 YELLOW PERCH TISSUE SAMPLES

Greenstone Gold Mines GP INC.
ATTN: Mike Johns
1-70 Southgate Drive
Guelph ON N1G 4P5

Date Received: 24-JUN-21
Report Date: 13-SEP-21 08:09 (MT)
Version: FINAL

Client Phone: 519-780-8145

Certificate of Analysis

Lab Work Order #: L2606251

Project P.O. #: 21-00200
Job Reference: 160961397
C of C Numbers:
Legal Site Desc:

<Original signed by>

Christine Paradis
Project Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L2606251-1	L2606251-2	L2606251-3	L2606251-4	L2606251-5
Description	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue
Sampled Date	19-JUN-21	19-JUN-21	19-JUN-21	19-JUN-21	19-JUN-21
Sampled Time					
Client ID	A3-01	A3-02	A3-03	A3-04	A3-05
Grouping / **Analyte**					
TISSUE					
Physical Tests % Moisture (%)	76.6	76.9	76.5	76.7	77.4
Metals Aluminum (Al)-Total (mg/kg wwt)	1.80	1.83	2.82	2.46	1.65
Antimony (Sb)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total (mg/kg wwt)	0.293	0.226	0.289	0.245	0.230
Barium (Ba)-Total (mg/kg wwt)	0.608	0.622	0.518	0.461	0.441
Beryllium (Be)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total (mg/kg wwt)	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total (mg/kg wwt)	0.0023	0.0018	0.0015	0.0035	0.0016
Calcium (Ca)-Total (mg/kg wwt)	12200	12600	11800	11600	13400
Cesium (Cs)-Total (mg/kg wwt)	0.0119	0.0130	0.0108	0.0109	0.0102
Chromium (Cr)-Total (mg/kg wwt)	0.035	0.030	0.023	0.026	0.098
Cobalt (Co)-Total (mg/kg wwt)	0.0105	0.0098	0.0132	0.0139	0.0113
Copper (Cu)-Total (mg/kg wwt)	0.564	0.515	0.598	0.516	0.540
Iron (Fe)-Total (mg/kg wwt)	25.6	18.6	26.6	24.6	20.7
Lead (Pb)-Total (mg/kg wwt)	0.0121	0.0081	0.0129	0.0100	0.0082
Lithium (Li)-Total (mg/kg wwt)	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium (Mg)-Total (mg/kg wwt)	447	446	440	427	416
Manganese (Mn)-Total (mg/kg wwt)	12.8	11.3	9.38	11.9	7.20
Mercury (Hg)-Total (mg/kg wwt)	0.0756	0.0736	0.0688	0.0653	0.0656
Molybdenum (Mo)-Total (mg/kg wwt)	0.0179	0.0148	0.0191	0.0151	0.0171
Nickel (Ni)-Total (mg/kg wwt)	<0.040	<0.040	<0.040	<0.040	0.057
Phosphorus (P)-Total (mg/kg wwt)	8130	8190	8170	7750	8100
Potassium (K)-Total (mg/kg wwt)	3470	3460	3790	3310	3250
Rubidium (Rb)-Total (mg/kg wwt)	10.1	10.7	9.80	9.65	8.88
Selenium (Se)-Total (mg/kg wwt)	0.212	0.192	0.194	0.173	0.172
Sodium (Na)-Total (mg/kg wwt)	919	909	930	812	825
Strontium (Sr)-Total (mg/kg wwt)	3.23	3.48	3.08	2.87	3.74
Tellurium (Te)-Total (mg/kg wwt)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total (mg/kg wwt)	0.00470	0.00439	0.00331	0.00316	0.00349
Tin (Sn)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	<0.020
Uranium (U)-Total (mg/kg wwt)	0.00065	0.00072	0.00099	0.00095	0.00087
Vanadium (V)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	<0.020
Zinc (Zn)-Total (mg/kg wwt)	27.8	24.4	24.0	24.0	22.8
Zirconium (Zr)-Total (mg/kg wwt)	<0.040	<0.040	<0.040	<0.040	<0.040
Speciated Metals Methylmercury (as MeHg) (mg/kg wwt)	0.0859	0.0734	0.0721	0.0804	0.0682
Aggregate Organics Lipid Content (% wwt)	1.9	1.8	2.1	2.2	1.9

ALS ENVIRONMENTAL ANALYTICAL REPORT

Grouping	Analyte	L2606251-6 Fish Tissue 19-JUN-21 A3-06	L2606251-7 Fish Tissue 19-JUN-21 A3-07	L2606251-8 Fish Tissue 19-JUN-21 A3-07 DUP	L2606251-9 Fish Tissue 16-JUN-21 A5-01	L2606251-10 Fish Tissue 16-JUN-21 A5-02
TISSUE						
Physical Tests	% Moisture (%)	75.4	77.1	77.0	78.2	77.7
Metals	Aluminum (Al)-Total (mg/kg wwt)	1.67	2.24	1.99	1.91	1.76
	Antimony (Sb)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	Arsenic (As)-Total (mg/kg wwt)	0.249	0.341	0.340	0.433	0.377
	Barium (Ba)-Total (mg/kg wwt)	0.404	0.357	0.420	0.658	0.788
	Beryllium (Be)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	Bismuth (Bi)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	Boron (B)-Total (mg/kg wwt)	<0.20	<0.20	<0.20	<0.20	<0.20
	Cadmium (Cd)-Total (mg/kg wwt)	0.0014	0.0020	0.0017	0.0066	0.0072
	Calcium (Ca)-Total (mg/kg wwt)	12800	10000	12900	12100	15600
	Cesium (Cs)-Total (mg/kg wwt)	0.0093	0.0092	0.0095	0.0240	0.0224
	Chromium (Cr)-Total (mg/kg wwt)	0.024	0.042	0.022	0.032	0.018
	Cobalt (Co)-Total (mg/kg wwt)	0.0099	0.0118	0.0104	0.0099	0.0089
	Copper (Cu)-Total (mg/kg wwt)	0.579	0.519	0.545	0.474	0.511
	Iron (Fe)-Total (mg/kg wwt)	20.5	25.0	24.9	16.6	16.5
	Lead (Pb)-Total (mg/kg wwt)	0.0099	0.0100	0.0085	0.0115	0.0197
	Lithium (Li)-Total (mg/kg wwt)	<0.10	<0.10	<0.10	<0.10	<0.10
	Magnesium (Mg)-Total (mg/kg wwt)	420	391	441	433	471
	Manganese (Mn)-Total (mg/kg wwt)	6.20	8.05	8.97	6.93	9.85
	Mercury (Hg)-Total (mg/kg wwt)	0.0599	0.0587	0.0588	0.0577	0.0506
	Molybdenum (Mo)-Total (mg/kg wwt)	0.0194	0.0173	0.0180	0.0165	0.0167
	Nickel (Ni)-Total (mg/kg wwt)	<0.040	<0.040	<0.040	<0.040	<0.040
	Phosphorus (P)-Total (mg/kg wwt)	7880	6950	8230	8070	9540
	Potassium (K)-Total (mg/kg wwt)	3380	3470	3550	3320	3430
	Rubidium (Rb)-Total (mg/kg wwt)	9.74	8.98	9.21	11.1	11.4
	Selenium (Se)-Total (mg/kg wwt)	0.157	0.178	0.171	0.213	0.215
	Sodium (Na)-Total (mg/kg wwt)	852	855	913	1090	1130
	Strontium (Sr)-Total (mg/kg wwt)	3.58	2.57	3.20	2.44	2.77
	Tellurium (Te)-Total (mg/kg wwt)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
	Thallium (Tl)-Total (mg/kg wwt)	0.00299	0.00281	0.00312	0.00579	0.00581
	Tin (Sn)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	<0.020
	Uranium (U)-Total (mg/kg wwt)	0.00091	0.00080	0.00078	0.00116	0.00118
	Vanadium (V)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	<0.020
	Zinc (Zn)-Total (mg/kg wwt)	21.2	19.7	22.1	25.0	26.4
	Zirconium (Zr)-Total (mg/kg wwt)	<0.040	<0.040	<0.040	<0.040	<0.040
Speciated Metals	Methylmercury (as MeHg) (mg/kg wwt)	0.0745	0.0678	0.0693	0.0695	0.0556
Aggregate Organics	Lipid Content (% wwt)	2.6	2.2	2.2	1.5	1.5

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L2606251-11	L2606251-12	L2606251-13	L2606251-14	L2606251-15
Description	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue
Sampled Date	16-JUN-21	16-JUN-21	16-JUN-21	16-JUN-21	16-JUN-21
Sampled Time					
Client ID	A5-03	A5-04	A5-05	A5-06	A5-07
Grouping / **Analyte**					
TISSUE					
Physical Tests % Moisture (%)	77.8	78.8	76.7	77.5	76.9
Metals Aluminum (Al)-Total (mg/kg wwt)	1.72	1.58	1.91	1.75	2.12
Antimony (Sb)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total (mg/kg wwt)	0.518	0.431	0.575	0.580	0.638
Barium (Ba)-Total (mg/kg wwt)	0.599	0.575	0.410	0.536	0.429
Beryllium (Be)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total (mg/kg wwt)	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total (mg/kg wwt)	0.0045	0.0063	0.0058	0.0035	0.0040
Calcium (Ca)-Total (mg/kg wwt)	12500	13200	12400	13400	13400
Cesium (Cs)-Total (mg/kg wwt)	0.0236	0.0252	0.0277	0.0246	0.0285
Chromium (Cr)-Total (mg/kg wwt)	0.016	0.015	0.019	0.057	0.034
Cobalt (Co)-Total (mg/kg wwt)	0.0075	0.0095	0.0100	0.0081	0.0091
Copper (Cu)-Total (mg/kg wwt)	0.483	0.521	0.589	0.456	0.555
Iron (Fe)-Total (mg/kg wwt)	14.3	16.2	14.2	12.5	15.3
Lead (Pb)-Total (mg/kg wwt)	0.0097	0.0119	0.0204	0.0080	0.0140
Lithium (Li)-Total (mg/kg wwt)	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium (Mg)-Total (mg/kg wwt)	420	444	407	440	408
Manganese (Mn)-Total (mg/kg wwt)	8.20	9.01	8.09	8.66	8.60
Mercury (Hg)-Total (mg/kg wwt)	0.0519	0.0501	0.0433	0.0469	0.0411
Molybdenum (Mo)-Total (mg/kg wwt)	0.0193	0.0187	0.0237	0.0192	0.0222
Nickel (Ni)-Total (mg/kg wwt)	<0.040	<0.040	<0.040	<0.040	<0.040
Phosphorus (P)-Total (mg/kg wwt)	8200	8400	8130	8470	8100
Potassium (K)-Total (mg/kg wwt)	3360	3330	3430	3250	3400
Rubidium (Rb)-Total (mg/kg wwt)	12.2	11.8	15.6	12.5	15.9
Selenium (Se)-Total (mg/kg wwt)	0.184	0.188	0.152	0.161	0.162
Sodium (Na)-Total (mg/kg wwt)	1100	1060	1110	1040	1060
Strontium (Sr)-Total (mg/kg wwt)	2.77	2.81	2.95	3.00	3.02
Tellurium (Te)-Total (mg/kg wwt)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total (mg/kg wwt)	0.00589	0.00617	0.00696	0.00649	0.00697
Tin (Sn)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	<0.020
Uranium (U)-Total (mg/kg wwt)	0.00075	0.00084	0.00085	0.00064	0.00076
Vanadium (V)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	<0.020
Zinc (Zn)-Total (mg/kg wwt)	23.4	23.7	21.5	21.0	22.2
Zirconium (Zr)-Total (mg/kg wwt)	<0.040	<0.040	<0.040	<0.040	0.089
Speciated Metals Methylmercury (as MeHg) (mg/kg wwt)	0.0556	0.0550	0.0543	0.0546	0.0446
Aggregate Organics Lipid Content (% wwt)	1.5	1.6	2.5	1.8	2.6

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L2606251-16	L2606251-17	L2606251-18	L2606251-19	L2606251-20
Description	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue
Sampled Date	16-JUN-21	20-JUN-21	16-JUN-21	16-JUN-21	16-JUN-21
Sampled Time					
Client ID	A5-07 DUP	A1B-01	A1B-02	A1B-03	A1B-04
Grouping / **Analyte**					
TISSUE					
Physical Tests % Moisture (%)	76.1	76.8	76.9	76.1	75.7
Metals Aluminum (Al)-Total (mg/kg wwt)	2.44	2.06	1.51	2.89	1.56
Antimony (Sb)-Total (mg/kg wwt)	<0.0020	0.0025	<0.0020	<0.0020	<0.0020
Arsenic (As)-Total (mg/kg wwt)	0.582	0.0904	0.0672	0.0660	0.0520
Barium (Ba)-Total (mg/kg wwt)	0.356	0.795	0.690	0.835	0.829
Beryllium (Be)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Bismuth (Bi)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
Boron (B)-Total (mg/kg wwt)	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)-Total (mg/kg wwt)	0.0044	0.0068	0.0057	0.0065	0.0064
Calcium (Ca)-Total (mg/kg wwt)	12500	11100	10300	11800	11900
Cesium (Cs)-Total (mg/kg wwt)	0.0291	0.0372	0.0402	0.0465	0.0365
Chromium (Cr)-Total (mg/kg wwt)	0.015	0.104	0.032	0.032	0.056
Cobalt (Co)-Total (mg/kg wwt)	0.0087	0.0078	0.0070	0.0089	0.0055
Copper (Cu)-Total (mg/kg wwt)	0.573	0.663	0.604	0.636	0.619
Iron (Fe)-Total (mg/kg wwt)	14.4	13.5	12.0	15.0	11.6
Lead (Pb)-Total (mg/kg wwt)	0.0127	0.0052	0.0046	0.0058	0.0047
Lithium (Li)-Total (mg/kg wwt)	<0.10	0.10	<0.10	0.13	0.11
Magnesium (Mg)-Total (mg/kg wwt)	385	392	370	395	386
Manganese (Mn)-Total (mg/kg wwt)	7.94	4.06	3.94	4.56	5.77
Mercury (Hg)-Total (mg/kg wwt)	0.0432	0.0468	0.0432	0.0390	0.0354
Molybdenum (Mo)-Total (mg/kg wwt)	0.0195	0.0261	0.0240	0.0254	0.0270
Nickel (Ni)-Total (mg/kg wwt)	<0.040	0.050	<0.040	<0.040	<0.040
Phosphorus (P)-Total (mg/kg wwt)	7480	7430	6810	7730	7770
Potassium (K)-Total (mg/kg wwt)	3460	3490	3610	3550	3460
Rubidium (Rb)-Total (mg/kg wwt)	16.0	9.28	9.51	9.49	9.05
Selenium (Se)-Total (mg/kg wwt)	0.160	0.189	0.185	0.169	0.158
Sodium (Na)-Total (mg/kg wwt)	1050	969	990	1040	964
Strontium (Sr)-Total (mg/kg wwt)	2.78	2.42	2.24	2.46	2.39
Tellurium (Te)-Total (mg/kg wwt)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Thallium (Tl)-Total (mg/kg wwt)	0.00698	0.00565	0.00541	0.00566	0.00532
Tin (Sn)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	<0.020
Uranium (U)-Total (mg/kg wwt)	0.00093	0.00131	0.00094	0.00203	0.00127
Vanadium (V)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	<0.020
Zinc (Zn)-Total (mg/kg wwt)	20.1	23.3	21.8	20.9	20.8
Zirconium (Zr)-Total (mg/kg wwt)	<0.040	<0.040	<0.040	<0.040	<0.040
Speciated Metals Methylmercury (as MeHg) (mg/kg wwt)	0.0467	0.0500	0.0325	0.0347	0.0357
Aggregate Organics Lipid Content (% wwt)	2.5	2.2	2.0	2.4	3.4

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample ID	L2606251-21	L2606251-22	L2606251-23	L2606251-24	
Description	Fish Tissue	Fish Tissue	Fish Tissue	Fish Tissue	
Sampled Date	16-JUN-21	16-JUN-21	16-JUN-21	16-JUN-21	
Sampled Time					
Client ID	A1B-05	A1B-06	A1B-07	A1B-07 DUP	
Grouping	**Analyte**				
TISSUE					
Physical Tests	% Moisture (%)	76.5	77.2	76.6	77.0	
Metals	Aluminum (Al)-Total (mg/kg wwt)	1.22	3.07	3.63	3.21	
	Antimony (Sb)-Total (mg/kg wwt)	<0.0020	<0.0020	0.0025	<0.0020	
	Arsenic (As)-Total (mg/kg wwt)	0.0524	0.0779	0.0711	0.0719	
	Barium (Ba)-Total (mg/kg wwt)	0.778	0.707	0.929	0.980	
	Beryllium (Be)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	
	Bismuth (Bi)-Total (mg/kg wwt)	<0.0020	<0.0020	<0.0020	<0.0020	
	Boron (B)-Total (mg/kg wwt)	<0.20	<0.20	<0.20	<0.20	
	Cadmium (Cd)-Total (mg/kg wwt)	0.0042	0.0085	0.0068	0.0059	
	Calcium (Ca)-Total (mg/kg wwt)	10100	11000	11200	11500	
	Cesium (Cs)-Total (mg/kg wwt)	0.0386	0.0485	0.0535	0.0542	
	Chromium (Cr)-Total (mg/kg wwt)	0.023	0.047	0.030	0.094	
	Cobalt (Co)-Total (mg/kg wwt)	0.0054	0.0101	0.0090	0.0097	
	Copper (Cu)-Total (mg/kg wwt)	0.585	0.720	0.788	0.741	
	Iron (Fe)-Total (mg/kg wwt)	10.0	13.7	14.7	13.6	
	Lead (Pb)-Total (mg/kg wwt)	0.0049	0.0061	0.0068	0.0078	
	Lithium (Li)-Total (mg/kg wwt)	<0.10	0.11	0.11	0.11	
	Magnesium (Mg)-Total (mg/kg wwt)	322	381	369	372	
	Manganese (Mn)-Total (mg/kg wwt)	3.43	4.11	4.35	3.88	
	Mercury (Hg)-Total (mg/kg wwt)	0.0362	0.0436	0.0327	0.0350	
	Molybdenum (Mo)-Total (mg/kg wwt)	0.0253	0.0321	0.0304	0.0315	
	Nickel (Ni)-Total (mg/kg wwt)	<0.040	<0.040	<0.040	0.052	
	Phosphorus (P)-Total (mg/kg wwt)	6430	7340	7090	7390	
	Potassium (K)-Total (mg/kg wwt)	2980	3620	3460	3460	
	Rubidium (Rb)-Total (mg/kg wwt)	7.72	9.86	9.47	9.49	
	Selenium (Se)-Total (mg/kg wwt)	0.138	0.176	0.168	0.165	
	Sodium (Na)-Total (mg/kg wwt)	835	1030	964	993	
	Strontium (Sr)-Total (mg/kg wwt)	2.17	2.60	3.03	3.33	
	Tellurium (Te)-Total (mg/kg wwt)	<0.0040	<0.0040	<0.0040	<0.0040	
	Thallium (Tl)-Total (mg/kg wwt)	0.00436	0.00562	0.00574	0.00596	
	Tin (Sn)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	
	Uranium (U)-Total (mg/kg wwt)	0.00113	0.00204	0.00177	0.00152	
	Vanadium (V)-Total (mg/kg wwt)	<0.020	<0.020	<0.020	<0.020	
	Zinc (Zn)-Total (mg/kg wwt)	16.9	20.6	18.6	19.5	
	Zirconium (Zr)-Total (mg/kg wwt)	<0.040	<0.040	0.073	<0.040	
Speciated Metals	Methylmercury (as MeHg) (mg/kg wwt)	0.0346	0.0415	0.0305	0.0326	
Aggregate Organics	Lipid Content (% wwt)	3.2	2.8	3.3	2.9	

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
HG-WET-CVAFS-N-VA	Tissue	Mercury in Tissue by CVAAS (WET)	EPA 200.3, EPA 245.7

This method is conducted following British Columbia Lab Manual method "Metals in Animal Tissue and Vegetation (Biota) - Prescriptive". Tissue samples are homogenized and sub-sampled prior to hotblock digestion with nitric and hydrochloric acids, in combination with addition of hydrogen peroxide. Analysis is by atomic fluorescence spectrophotometry or atomic absorption spectrophotometry, adapted from US EPA Method 245.7.

LIPIDS-GRAV-VA	Tissue	Lipids in Tissue by Gravimetric	EPA 3570, 8290A

A portion of homogenized sample is extracted with dichloromethane. The extract is evaporated to dryness and the lipid content determined gravimetrically.

MEHG-WET-MIC-GCAF-VA	Tissue	Methylmercury in Tissue by GCAFS (Wet)	Liang et al. (1994)

This method follows the procedures published by Liang, Bloom and Horvat in Clinical Chemistry (Vol 40, No 4, 1994). Samples are homogenized and then digested in a methanolic potassium hydroxide solution. An aliquot of the digestate is analyzed by aqueous phase ethylation, purge and trap, desorption and GC separation. The separated species are then pyrolized to elemental Hg and quantified by cold vapour atomic fluorescence spectroscopy. Results are reported "as MeHg".

MET-WET-CCMS-N-VA	Tissue	Metals in Tissue by CRC ICPMS (WET)	EPA 200.3/6020A

This method is conducted following British Columbia Lab Manual method "Metals in Animal Tissue and Vegetation (Biota) - Prescriptive". Tissue samples are homogenized and sub-sampled prior to hotblock digestion with nitric and hydrochloric acids, in combination with addition of hydrogen peroxide. Instrumental analysis is by collision cell inductively coupled plasma - mass spectrometry (modified from EPA Method 6020A).

Method Limitation: This method employs a strong acid/peroxide digestion, and is intended to provide a conservative estimate of bio-available metals. Near complete recoveries are achieved for most toxicologically important metals, but elements associated with recalcitrant minerals may be only partially recovered.

MOISTURE-TISS-VA	Tissue	% Moisture in Tissues	Puget Sound WQ Authority, Apr 1997

This analysis is carried out gravimetrically by drying the sample at 105 C for a minimum of six hours.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour 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.
mg/kg - milligrams per kilogram based on dry weight of sample.
mg/kg wwt - milligrams per kilogram based on wet weight of sample.
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.
mg/L - milligrams per litre.
< - Less than.
D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2606251-COFC

COC Number: 17 - 9

Page 1 of 2

Report To	Contact and company name below will appear on the final report
Company:	Greenstone Gold Mines
Contact:	Mike Johns
Phone:	(514) 980-8145
	Company address below will appear on the final report
Street:	6 Twilight Bay
City/Province:	Geraldton, ON
Postal Code:	P0T 1M0
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution	
Select Report Format:	☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☐ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1	environmental@ggmines.com
Email 2	Mike.Johns@Stantec.com
Email 3	

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1	ap@ggmines.com
Email 2	environmental@ggmines.com

Project Information	
ALS Account # / Quote #:	202185
Job #:	160961397
PO / AFE:	*contact* Mike Johns *
LSD:	

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only): L2606251

ALS Contact: Christine Perabis

Sampler: N. Burnett

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
	A3-01	19-Jun-21	—	fish tissue
	A3-02		—	
	A3-03		—	
	A3-04		—	
	A3-05		—	
	A3-06		—	
	A3-07*		—	
	A5-01	16-Jun-21	—	
	A5-02		—	
	A5-03		—	
	A5-04		—	
	A5-05		—	

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

Priority (Business Days)		Emergency	
	4 day [P4-20%] ☐		1 Business day [E - 100%] ☐
	3 day [P3-25%] ☐		Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐
	2 day [P2-50%] ☐		

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

NUMBER OF CONTAINERS	Hg in Tissue by CVAAS (ULET)	Lipids in Tissue by Gravimetric	Methylmercury in Tissue by CVAFS (ULET)	Metals in Tissue by CRC ICPMS (ULET)	Moisture in Tissue	Lab Duplicate *	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
1	X	X	X	X	X			
1								
1								
1								
1								
1								
1						X		
1								
1								
1								
1								
1								

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☐ NO	As per communication with Mike Johns - email. Some methods and detection limits as per lab report - L2290068 from 2019. * Please run a lab duplicate sample on these as well.
Are samples for human consumption/ use? ☐ YES ☐ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐ No ☐
Ice Packs	☑ Ice Cubes ☐	Custody seal intact	Yes ☐ No ☐
Cooling Initiated	☑		

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
10.0	

SHIPMENT RELEASE (client use)		
Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by: CB	Date: 06-24-21	Time: 3:00

FINAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

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.

* Keep Frozen! *

Chain of Custody (COC) / Analytical Request Form

L2606251-COFC

COC Number: 17 - 4

Page 2 of 2

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Greenstone Gold Mines
Contact:	Mike Johns
Phone:	(SM) 980-8145
	Company address below will appear on the final report
Street:	6 Twilight Bay
City/Province:	Geraldton, ON
Postal Code:	P0T 1M0
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution	
Select Report Format:	☐ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Quality Control (QC) Report with Report	☐ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1	environmental@ggmines.com
Email 2	Mike.Johns@Stantec.com
Email 3	

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1	ap@ggmines.com
Email 2	environmental@ggmines.com

Project Information	
ALS Account # / Quote #:	202285
Job #:	160961397
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only):

ALS Contact: Christine Peradon

Sampler: N. Burnett

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days)
- 4 day [P4-20%] ☐
- 3 day [P3-25%] ☐
- 2 day [P2-50%] ☐

EMERGENCY
- 1 Business day [E - 100%] ☐
- Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

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	NUMBER OF CONTAINERS	Mercury in tissue by CVAFS (WET)	Lipids in tissue by Gravimetric	Methyl mercury in tissue by CVAFS (WET)	Metals in tissue by CRC ICPMS (WET)	Moisture in tissue	Lab Duplicate*	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	A5-06	16-Jun-21	—	fish tissue	1	X	X	X	X	X			
	A5-07*	↓	—		1						X		
	A1B-01	20-Jun-21	—		1								
	A1B-02		—		1								
	A1B-03		—		1								
	A1B-04		—		1								
	A1B-05		—		1								
	A1B-06		—		1								
	A1B-07*		—	↓	1	↓	↓	↓	↓	↓	X		

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☐ NO	As per communication with Mike Johns - email. Some methods and detection limits as Lab report - L2290068 from 2019. *Please run a lab duplicate on these samples as well
Are samples for human consumption/ use? ☐ YES ☐ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☐	No	☐
Ice Packs	☑ Ice Cubes ☐	Custody seal intact	Yes ☐	No	☐
Cooling Initiated	☑				

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
10.0							

SHIPMENT RELEASE (client use)		
Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by: CB	Date: 06-21-21	Time: 3:00

FINAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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NOV 2018 FRONT

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.

EQUINOXGOLD
GREENSTONE GOLD MINES
AN EQUINOX GOLD / ORION JOINT VENTURE

APPENDIX B2
SUPPORTING MORPHOMETRIC DATA FOR AGE-1 YELLOW PERCH

Waterbody Name	Sampling Area	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Weightt (g)	Age	Composite Sample ID
Southwest Arm Tributary	A5	A5-YLPR-003	June 16, 2021	Yellow Perch	6.5	6.2	2.98		A5-01
Southwest Arm Tributary	A5	A5-YLPR-004	June 16, 2021	Yellow Perch	6.8	6.4	3.40		A5-03
Southwest Arm Tributary	A5	A5-YLPR-007	June 16, 2021	Yellow Perch	7.2	6.9	4.55		A5-05
Southwest Arm Tributary	A5	A5-YLPR-008	June 16, 2021	Yellow Perch	7.2	6.8	4.91		A5-05
Southwest Arm Tributary	A5	A5-YLPR-010	June 16, 2021	Yellow Perch	7.4	6.9	4.51		A5-06
Southwest Arm Tributary	A5	A5-YLPR-011	June 16, 2021	Yellow Perch	7.7	7.4	6.21		A5-07
Southwest Arm Tributary	A5	A5-YLPR-012	June 16, 2021	Yellow Perch	6.8	6.5	3.29		A5-03
Southwest Arm Tributary	A5	A5-YLPR-013	June 16, 2021	Yellow Perch	6.6	6.3	2.96		A5-02
Southwest Arm Tributary	A5	A5-YLPR-014	June 16, 2021	Yellow Perch	6.7	6.4	3.55		A5-03
Southwest Arm Tributary	A5	A5-YLPR-016	June 16, 2021	Yellow Perch	7.2	6.9	4.98		A5-05
Southwest Arm Tributary	A5	A5-YLPR-017	June 16, 2021	Yellow Perch	7.6	7.3	5.40		A5-07
Southwest Arm Tributary	A5	A5-YLPR-019	June 16, 2021	Yellow Perch	7.6	7.4	5.13		A5-07
Southwest Arm Tributary	A5	A5-YLPR-020	June 16, 2021	Yellow Perch	7.2	6.8	4.63		A5-05
Southwest Arm Tributary	A5	A5-YLPR-022	June 16, 2021	Yellow Perch	6.6	6.4	3.34		A5-02
Southwest Arm Tributary	A5	A5-YLPR-025	June 16, 2021	Yellow Perch	6.7	6.4	3.12		A5-03
Southwest Arm Tributary	A5	A5-YLPR-029	June 16, 2021	Yellow Perch	7.4	7.0	4.53		A5-06
Southwest Arm Tributary	A5	A5-YLPR-031	June 16, 2021	Yellow Perch	6.5	6.2	2.82		A5-01
Southwest Arm Tributary	A5	A5-YLPR-033	June 16, 2021	Yellow Perch	6.7	6.3	3.29		A5-03
Southwest Arm Tributary	A5	A5-YLPR-034	June 16, 2021	Yellow Perch	6.9	6.6	3.84		A5-04
Southwest Arm Tributary	A5	A5-YLPR-039	June 16, 2021	Yellow Perch	6.5	6.3	3.10		A5-01
Southwest Arm Tributary	A5	A5-YLPR-043	June 16, 2021	Yellow Perch	6.9	6.6	2.93		A5-04
Southwest Arm Tributary	A5	A5-YLPR-045	June 16, 2021	Yellow Perch	6.5	6.2	2.99		A5-01
Southwest Arm Tributary	A5	A5-YLPR-047	June 16, 2021	Yellow Perch	6.5	6.2	3.15		A5-01
Southwest Arm Tributary	A5	A5-YLPR-054	June 16, 2021	Yellow Perch	7.5	7.2	5.04		A5-07
Southwest Arm Tributary	A5	A5-YLPR-059	June 16, 2021	Yellow Perch	6.9	6.6	3.84		A5-04
Southwest Arm Tributary	A5	A5-YLPR-067	June 16, 2021	Yellow Perch	6.5	6.2	2.80		A5-02
Southwest Arm Tributary	A5	A5-YLPR-069	June 16, 2021	Yellow Perch	7.3	7.0	3.87		A5-06
Southwest Arm Tributary	A5	A5-YLPR-070	June 16, 2021	Yellow Perch	7.3	6.9	4.84		A5-06
Southwest Arm Tributary	A5	A5-YLPR-074	June 16, 2021	Yellow Perch	7.6	7.3	5.64		A5-07
Southwest Arm Tributary	A5	A5-YLPR-075	June 16, 2021	Yellow Perch	6.5	6.2	3.15		A5-02
Southwest Arm Tributary	A5	A5-YLPR-076	June 16, 2021	Yellow Perch	7.1	6.8	4.38		A5-05
Southwest Arm Tributary	A5	A5-YLPR-077	June 16, 2021	Yellow Perch	6.9	6.6	4.07		A5-04
Southwest Arm Tributary	A5	A5-YLPR-078	June 16, 2021	Yellow Perch	7.3	6.9	4.50		A5-06

Waterbody Name	Sampling Area	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Weightt (g)	Age	Composite Sample ID
Southwest Arm Tributary	A5	A5-YLPR-081	June 16, 2021	Yellow Perch	6.9	6.5	3.30		A5-04
Southwest Arm Tributary	A5	A5-YLPR-001	June 16, 2021	Yellow Perch	6.6	6.3	3.04		A5-02
Southwest Arm Tributary	A5	A5-YLPR-002	June 16, 2021	Yellow Perch	7.0	6.7	4.24	1	
Southwest Arm Tributary	A5	A5-YLPR-005	June 16, 2021	Yellow Perch	6.7	6.3	5.31	1	
Southwest Arm Tributary	A5	A5-YLPR-006	June 16, 2021	Yellow Perch	7.1	6.5	2.96		
Southwest Arm Tributary	A5	A5-YLPR-009	June 16, 2021	Yellow Perch	7.3	6.9	4.59		
Southwest Arm Tributary	A5	A5-YLPR-015	June 16, 2021	Yellow Perch	7.1	6.7	4.21		
Southwest Arm Tributary	A5	A5-YLPR-018	June 16, 2021	Yellow Perch	7.5	7.1	5.45		
Southwest Arm Tributary	A5	A5-YLPR-021	June 16, 2021	Yellow Perch	6.3	6.1	2.64		
Southwest Arm Tributary	A5	A5-YLPR-023	June 16, 2021	Yellow Perch	7.0	6.7	3.90		
Southwest Arm Tributary	A5	A5-YLPR-024	June 16, 2021	Yellow Perch	6.6	6.4	3.01	1	
Southwest Arm Tributary	A5	A5-YLPR-026	June 16, 2021	Yellow Perch	6.9	6.6	3.25		
Southwest Arm Tributary	A5	A5-YLPR-027	June 16, 2021	Yellow Perch	7.5	7.2	5.26	1	
Southwest Arm Tributary	A5	A5-YLPR-028	June 16, 2021	Yellow Perch	7.9	7.5	6.17		
Southwest Arm Tributary	A5	A5-YLPR-030	June 16, 2021	Yellow Perch	6.9	6.6	3.63	1	
Southwest Arm Tributary	A5	A5-YLPR-032	June 16, 2021	Yellow Perch	7.2	6.9	3.50	1	
Southwest Arm Tributary	A5	A5-YLPR-035	June 16, 2021	Yellow Perch	6.6	6.3	3.42		
Southwest Arm Tributary	A5	A5-YLPR-036	June 16, 2021	Yellow Perch	7.3	6.9	4.75	1	
Southwest Arm Tributary	A5	A5-YLPR-037	June 16, 2021	Yellow Perch	7.7	7.3	5.31	1	
Southwest Arm Tributary	A5	A5-YLPR-038	June 16, 2021	Yellow Perch	7.4	7.0	4.97	1	
Southwest Arm Tributary	A5	A5-YLPR-040	June 16, 2021	Yellow Perch	7.4	7.1	4.94		
Southwest Arm Tributary	A5	A5-YLPR-041	June 16, 2021	Yellow Perch	6.8	6.6	3.54	1	
Southwest Arm Tributary	A5	A5-YLPR-042	June 16, 2021	Yellow Perch	7.0	6.7	4.04		
Southwest Arm Tributary	A5	A5-YLPR-044	June 16, 2021	Yellow Perch	6.4	6.2	2.55		
Southwest Arm Tributary	A5	A5-YLPR-046	June 16, 2021	Yellow Perch	6.8	6.5	3.58		
Southwest Arm Tributary	A5	A5-YLPR-048	June 16, 2021	Yellow Perch	7.2	6.8	4.85		
Southwest Arm Tributary	A5	A5-YLPR-049	June 16, 2021	Yellow Perch	7.1	6.7	4.00	1	
Southwest Arm Tributary	A5	A5-YLPR-050	June 16, 2021	Yellow Perch	8.0	7.7	6.05		
Southwest Arm Tributary	A5	A5-YLPR-051	June 16, 2021	Yellow Perch	7.7	7.4	5.60		
Southwest Arm Tributary	A5	A5-YLPR-052	June 16, 2021	Yellow Perch	6.5	6.2	2.93	1	
Southwest Arm Tributary	A5	A5-YLPR-053	June 16, 2021	Yellow Perch	6.5	6.3	2.89		
Southwest Arm Tributary	A5	A5-YLPR-055	June 16, 2021	Yellow Perch	7.2	6.9	4.69		
Southwest Arm Tributary	A5	A5-YLPR-056	June 16, 2021	Yellow Perch	7.2	6.8	3.62		

Waterbody Name	Sampling Area	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Weightt (g)	Age	Composite Sample ID
Southwest Arm Tributary	A5	A5-YLPR-057	June 16, 2021	Yellow Perch	6.5	6.2	2.64		
Southwest Arm Tributary	A5	A5-YLPR-058	June 16, 2021	Yellow Perch	6.8	6.4	3.82		
Southwest Arm Tributary	A5	A5-YLPR-060	June 16, 2021	Yellow Perch	8.0	7.6	6.03	1	
Southwest Arm Tributary	A5	A5-YLPR-061	June 16, 2021	Yellow Perch	7.4	7.0	5.43		
Southwest Arm Tributary	A5	A5-YLPR-062	June 16, 2021	Yellow Perch	6.5	6.2	3.36		
Southwest Arm Tributary	A5	A5-YLPR-063	June 16, 2021	Yellow Perch	6.5	6.2	2.95		
Southwest Arm Tributary	A5	A5-YLPR-064	June 16, 2021	Yellow Perch	6.5	6.3	3.71	1	
Southwest Arm Tributary	A5	A5-YLPR-065	June 16, 2021	Yellow Perch	6.4	6.1	2.75		
Southwest Arm Tributary	A5	A5-YLPR-066	June 16, 2021	Yellow Perch	6.4	6.1	3.12	1	
Southwest Arm Tributary	A5	A5-YLPR-068	June 16, 2021	Yellow Perch	6.6	6.3	3.03		
Southwest Arm Tributary	A5	A5-YLPR-071	June 16, 2021	Yellow Perch	6.6	6.3	3.29		
Southwest Arm Tributary	A5	A5-YLPR-072	June 16, 2021	Yellow Perch	6.8	6.5	3.40		
Southwest Arm Tributary	A5	A5-YLPR-073	June 16, 2021	Yellow Perch	7.8	7.5	5.59		
Southwest Arm Tributary	A5	A5-YLPR-079	June 16, 2021	Yellow Perch	6.6	6.3	3.69		
Southwest Arm Tributary	A5	A5-YLPR-080	June 16, 2021	Yellow Perch	7.4	7.0	5.13		
Southwest Pond 3	SWP3	A3-YLPR-003	June 19, 2021	Yellow Perch	6.9	6.5	3.33		A3-03
Southwest Pond 3	SWP3	A3-YLPR-004	June 19, 2021	Yellow Perch	7.9	7.5	5.56		A3-07
Southwest Pond 3	SWP3	A3-YLPR-006	June 19, 2021	Yellow Perch	6.9	6.5	3.18		A3-03
Southwest Pond 3	SWP3	A3-YLPR-008	June 19, 2021	Yellow Perch	7.5	7.0	5.06		A3-06
Southwest Pond 3	SWP3	A3-YLPR-012	June 19, 2021	Yellow Perch	7.4	7.0	4.20		A3-06
Southwest Pond 3	SWP3	A3-YLPR-013	June 19, 2021	Yellow Perch	6.5	6.2	2.68		A3-01
Southwest Pond 3	SWP3	A3-YLPR-014	June 19, 2021	Yellow Perch	7.5	7.1	4.92		A3-06
Southwest Pond 3	SWP3	A3-YLPR-015	June 19, 2021	Yellow Perch	6.4	6.0	2.75		A3-01
Southwest Pond 3	SWP3	A3-YLPR-016	June 19, 2021	Yellow Perch	6.7	6.3	2.95		A3-02
Southwest Pond 3	SWP3	A3-YLPR-017	June 19, 2021	Yellow Perch	6.4	6.0	2.95		A3-01
Southwest Pond 3	SWP3	A3-YLPR-018	June 19, 2021	Yellow Perch	7.2	6.8	4.48		A3-05
Southwest Pond 3	SWP3	A3-YLPR-019	June 19, 2021	Yellow Perch	7.9	7.4	5.53		A3-07
Southwest Pond 3	SWP3	A3-YLPR-021	June 19, 2021	Yellow Perch	6.4	6.0	2.77		A3-01
Southwest Pond 3	SWP3	A3-YLPR-023	June 19, 2021	Yellow Perch	7.0	6.6	3.95		A3-04
Southwest Pond 3	SWP3	A3-YLPR-027	June 19, 2021	Yellow Perch	7.0	6.5	3.59		A3-04
Southwest Pond 3	SWP3	A3-YLPR-029	June 19, 2021	Yellow Perch	7.0	6.6	3.44		A3-04
Southwest Pond 3	SWP3	A3-YLPR-030	June 19, 2021	Yellow Perch	7.2	6.8	3.98		A3-05
Southwest Pond 3	SWP3	A3-YLPR-031	June 19, 2021	Yellow Perch	7.5	7.0	5.06		A3-06

Waterbody Name	Sampling Area	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Weightt (g)	Age	Composite Sample ID
Southwest Pond 3	SWP3	A3-YLPR-032	June 19, 2021	Yellow Perch	7.8	7.4	5.73		A3-07
Southwest Pond 3	SWP3	A3-YLPR-033	June 19, 2021	Yellow Perch	7.9	7.4	4.70		A3-07
Southwest Pond 3	SWP3	A3-YLPR-034	June 19, 2021	Yellow Perch	7.9	7.5	6.31		A3-07
Southwest Pond 3	SWP3	A3-YLPR-036	June 19, 2021	Yellow Perch	6.9	6.5	3.78		A3-03
Southwest Pond 3	SWP3	A3-YLPR-037	June 19, 2021	Yellow Perch	7.0	6.5	3.32		A3-04
Southwest Pond 3	SWP3	A3-YLPR-045	June 19, 2021	Yellow Perch	6.6	6.2	3.00		A3-02
Southwest Pond 3	SWP3	A3-YLPR-047	June 19, 2021	Yellow Perch	7.0	6.5	3.97		A3-04
Southwest Pond 3	SWP3	A3-YLPR-055	June 19, 2021	Yellow Perch	6.8	6.4	3.71		A3-03
Southwest Pond 3	SWP3	A3-YLPR-056	June 19, 2021	Yellow Perch	6.7	6.3	2.86		A3-02
Southwest Pond 3	SWP3	A3-YLPR-060	June 19, 2021	Yellow Perch	6.5	6.0	2.77		A3-02
Southwest Pond 3	SWP3	A3-YLPR-067	June 19, 2021	Yellow Perch	6.6	6.1	3.28		A3-02
Southwest Pond 3	SWP3	A3-YLPR-068	June 19, 2021	Yellow Perch	6.8	6.4	3.03		A3-03
Southwest Pond 3	SWP3	A3-YLPR-069	June 19, 2021	Yellow Perch	7.1	6.6	3.95		A3-05
Southwest Pond 3	SWP3	A3-YLPR-071	June 19, 2021	Yellow Perch	7.1	6.7	4.16		A3-05
Southwest Pond 3	SWP3	A3-YLPR-074	June 19, 2021	Yellow Perch	7.4	6.9	4.37		A3-06
Southwest Pond 3	SWP3	A3-YLPR-079	June 19, 2021	Yellow Perch	6.3	5.9	2.83		A3-01
Southwest Pond 3	SWP3	A3-YLPR-080	June 19, 2021	Yellow Perch	7.1	6.7	3.33		A3-05
Southwest Pond 3	SWP3	A3-YLPR-001	June 19, 2021	Yellow Perch	6.9	6.5	3.57		
Southwest Pond 3	SWP3	A3-YLPR-002	June 19, 2021	Yellow Perch	6.8	6.4	3.39		
Southwest Pond 3	SWP3	A3-YLPR-005	June 19, 2021	Yellow Perch	6.1	5.7	2.75		
Southwest Pond 3	SWP3	A3-YLPR-007	June 19, 2021	Yellow Perch	7.4	7.0	3.69	1	
Southwest Pond 3	SWP3	A3-YLPR-009	June 19, 2021	Yellow Perch	7.1	6.6	3.95		
Southwest Pond 3	SWP3	A3-YLPR-010	June 19, 2021	Yellow Perch	7.7	7.3	5.52		
Southwest Pond 3	SWP3	A3-YLPR-011	June 19, 2021	Yellow Perch	7.1	6.7	3.96		
Southwest Pond 3	SWP3	A3-YLPR-020	June 19, 2021	Yellow Perch	7.1	6.7	3.74		
Southwest Pond 3	SWP3	A3-YLPR-022	June 19, 2021	Yellow Perch	7.8	7.4	4.84	1	
Southwest Pond 3	SWP3	A3-YLPR-024	June 19, 2021	Yellow Perch	8.0	7.6	5.71	1	
Southwest Pond 3	SWP3	A3-YLPR-025	June 19, 2021	Yellow Perch	6.5	6.1	2.91	1	
Southwest Pond 3	SWP3	A3-YLPR-026	June 19, 2021	Yellow Perch	6.8	6.3	3.21		
Southwest Pond 3	SWP3	A3-YLPR-028	June 19, 2021	Yellow Perch	7.1	6.6	3.52	1	
Southwest Pond 3	SWP3	A3-YLPR-035	June 19, 2021	Yellow Perch	7.5	7.0	5.12	1	
Southwest Pond 3	SWP3	A3-YLPR-038	June 19, 2021	Yellow Perch	6.5	6.0	2.86		
Southwest Pond 3	SWP3	A3-YLPR-039	June 19, 2021	Yellow Perch	6.9	6.4	3.65	1	

Waterbody Name	Sampling Area	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Weightt (g)	Age	Composite Sample ID
Southwest Pond 3	SWP3	A3-YLPR-040	June 19, 2021	Yellow Perch	6.5	6.1	2.70		
Southwest Pond 3	SWP3	A3-YLPR-041	June 19, 2021	Yellow Perch	6.5	6.1	2.57		
Southwest Pond 3	SWP3	A3-YLPR-042	June 19, 2021	Yellow Perch	6.5	6.1	3.20		
Southwest Pond 3	SWP3	A3-YLPR-043	June 19, 2021	Yellow Perch	7.3	6.9	4.13		
Southwest Pond 3	SWP3	A3-YLPR-044	June 19, 2021	Yellow Perch	7.2	6.7	4.13	1	
Southwest Pond 3	SWP3	A3-YLPR-046	June 19, 2021	Yellow Perch	7.3	6.8	3.95		
Southwest Pond 3	SWP3	A3-YLPR-048	June 19, 2021	Yellow Perch	6.9	6.4	3.68		
Southwest Pond 3	SWP3	A3-YLPR-049	June 19, 2021	Yellow Perch	7.7	7.2	4.51		
Southwest Pond 3	SWP3	A3-YLPR-050	June 19, 2021	Yellow Perch	7.9	7.4	5.50	1	
Southwest Pond 3	SWP3	A3-YLPR-051	June 19, 2021	Yellow Perch	6.5	6.2	3.08	1	
Southwest Pond 3	SWP3	A3-YLPR-052	June 19, 2021	Yellow Perch	7.6	7.1	5.01		
Southwest Pond 3	SWP3	A3-YLPR-053	June 19, 2021	Yellow Perch	6.8	6.4	3.24	1	
Southwest Pond 3	SWP3	A3-YLPR-054	June 19, 2021	Yellow Perch	6.9	6.4	3.53		
Southwest Pond 3	SWP3	A3-YLPR-057	June 19, 2021	Yellow Perch	6.7	6.3	3.18	1	
Southwest Pond 3	SWP3	A3-YLPR-058	June 19, 2021	Yellow Perch	6.9	6.4	3.42		
Southwest Pond 3	SWP3	A3-YLPR-059	June 19, 2021	Yellow Perch	6.3	5.9	2.66	1	
Southwest Pond 3	SWP3	A3-YLPR-061	June 19, 2021	Yellow Perch	6.9	6.5	3.31		
Southwest Pond 3	SWP3	A3-YLPR-062	June 19, 2021	Yellow Perch	6.2	5.9	2.56		
Southwest Pond 3	SWP3	A3-YLPR-063	June 19, 2021	Yellow Perch	7.0	6.5	3.45	1	
Southwest Pond 3	SWP3	A3-YLPR-064	June 19, 2021	Yellow Perch	7.2	6.7	4.22		
Southwest Pond 3	SWP3	A3-YLPR-065	June 19, 2021	Yellow Perch	6.9	6.5	3.52	1	
Southwest Pond 3	SWP3	A3-YLPR-066	June 19, 2021	Yellow Perch	7.9	7.4	5.83		
Southwest Pond 3	SWP3	A3-YLPR-070	June 19, 2021	Yellow Perch	7.9	7.4	5.26		
Southwest Pond 3	SWP3	A3-YLPR-072	June 19, 2021	Yellow Perch	7.6	7.2	5.25		
Southwest Pond 3	SWP3	A3-YLPR-073	June 19, 2021	Yellow Perch	7.3	6.8	4.27		
Southwest Pond 3	SWP3	A3-YLPR-075	June 19, 2021	Yellow Perch	7.0	6.7	3.32		
Southwest Pond 3	SWP3	A3-YLPR-076	June 19, 2021	Yellow Perch	6.7	6.3	3.42		
Southwest Pond 3	SWP3	A3-YLPR-077	June 19, 2021	Yellow Perch	6.7	6.3	3.14		
Southwest Pond 3	SWP3	A3-YLPR-078	June 19, 2021	Yellow Perch	6.2	5.8	2.74		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-002	June 20, 2021	Yellow Perch	7.8	7.3	5.33		A1B-07
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-004	June 20, 2021	Yellow Perch	6.3	5.9	2.77		A1B-01
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-005	June 20, 2021	Yellow Perch	6.6	6.3	3.33		A1B-02
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-009	June 20, 2021	Yellow Perch	7.8	7.3	5.72		A1B-07

Waterbody Name	Sampling Area	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Weightt (g)	Age	Composite Sample ID
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-010	June 20, 2021	Yellow Perch	6.6	6.2	3.62		A1B-02
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-016	June 20, 2021	Yellow Perch	7.1	6.6	4.53		A1B-04
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-017	June 20, 2021	Yellow Perch	7.1	6.6	4.61		A1B-04
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-018	June 20, 2021	Yellow Perch	6.6	6.2	3.34		A1B-02
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-020	June 20, 2021	Yellow Perch	7.8	7.4	6.21		A1B-07
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-022	June 20, 2021	Yellow Perch	7.0	6.6	4.35		A1B-04
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-025	June 20, 2021	Yellow Perch	7.6	7.1	5.40		A1B-06
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-028	June 20, 2021	Yellow Perch	7.0	6.6	4.18		A1B-04
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-029	June 20, 2021	Yellow Perch	6.4	6.0	3.05		A1B-01
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-030	June 20, 2021	Yellow Perch	7.8	7.3	5.78		A1B-07
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-031	June 20, 2021	Yellow Perch	7.3	6.8	4.73		A1B-05
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-033	June 20, 2021	Yellow Perch	7.6	7.2	5.53		A1B-06
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-035	June 20, 2021	Yellow Perch	7.6	7.1	5.05		A1B-06
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-036	June 20, 2021	Yellow Perch	7.4	6.8	5.38		A1B-05
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-037	June 20, 2021	Yellow Perch	6.3	5.9	2.98		A1B-01
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-043	June 20, 2021	Yellow Perch	7.4	6.9	4.46		A1B-05
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-045	June 20, 2021	Yellow Perch	6.8	6.3	3.60		A1B-03
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-046	June 20, 2021	Yellow Perch	7.5	7.0	5.00		A1B-06
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-047	June 20, 2021	Yellow Perch	6.3	5.9	2.97		A1B-01
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-048	June 20, 2021	Yellow Perch	6.7	6.4	3.36		A1B-03
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-049	June 20, 2021	Yellow Perch	6.7	6.3	3.68		A1B-03
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-052	June 20, 2021	Yellow Perch	7.5	7.0	5.17		A1B-06
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-054	June 20, 2021	Yellow Perch	6.5	6.1	3.13		A1B-02
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-055	June 20, 2021	Yellow Perch	6.5	6.0	3.18		A1B-02
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-057	June 20, 2021	Yellow Perch	6.7	6.2	3.80		A1B-03
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-060	June 20, 2021	Yellow Perch	7.8	7.3	6.02		A1B-07
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-061	June 20, 2021	Yellow Perch	7.0	6.6	4.50		A1B-04
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-064	June 20, 2021	Yellow Perch	7.3	6.8	4.44		A1B-05
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-065	June 20, 2021	Yellow Perch	6.3	5.9	3.44		A1B-01
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-066	June 20, 2021	Yellow Perch	6.7	6.3	3.38		A1B-03
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-067	June 20, 2021	Yellow Perch	7.4	6.9	5.65		A1B-05
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-001	June 20, 2021	Yellow Perch	6.5	6.1	3.08		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-003	June 20, 2021	Yellow Perch	7.2	6.7	5.05		

Waterbody Name	Sampling Area	Fish ID	Collection Date	Species	Total Length (cm)	Fork Length (cm)	Total Weightt (g)	Age	Composite Sample ID
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-006	June 20, 2021	Yellow Perch	7.5	7.0	4.31	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-007	June 20, 2021	Yellow Perch	7.2	6.8	4.99		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-008	June 20, 2021	Yellow Perch	7.3	6.8	4.05	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-011	June 20, 2021	Yellow Perch	7.2	6.7	4.55		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-012	June 20, 2021	Yellow Perch	7.0	6.6	3.70		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-013	June 20, 2021	Yellow Perch	8.0	7.5	6.43	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-014	June 20, 2021	Yellow Perch	6.5	6.0	3.23		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-015	June 20, 2021	Yellow Perch	6.9	6.5	3.75		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-019	June 20, 2021	Yellow Perch	7.0	6.6	4.48	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-021	June 20, 2021	Yellow Perch	6.6	6.2	3.73	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-023	June 20, 2021	Yellow Perch	6.7	6.3	3.29	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-024	June 20, 2021	Yellow Perch	6.6	6.2	3.18		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-026	June 20, 2021	Yellow Perch	7.5	7.0	5.43		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-027	June 20, 2021	Yellow Perch	7.7	7.2	5.57		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-032	June 20, 2021	Yellow Perch	7.5	7.0	5.26		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-034	June 20, 2021	Yellow Perch	6.6	6.2	3.95		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-038	June 20, 2021	Yellow Perch	5.9	5.5	2.02		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-039	June 20, 2021	Yellow Perch	7.5	7.0	5.15	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-040	June 20, 2021	Yellow Perch	6.5	6.1	3.02		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-041	June 20, 2021	Yellow Perch	6.9	6.4	3.76		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-042	June 20, 2021	Yellow Perch	5.5	5.2	1.85		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-044	June 20, 2021	Yellow Perch	6.5	6.1	3.28	0	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-050	June 20, 2021	Yellow Perch	7.6	7.2	4.73	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-051	June 20, 2021	Yellow Perch	6.0	5.6	2.51	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-053	June 20, 2021	Yellow Perch	6.6	6.1	2.73		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-056	June 20, 2021	Yellow Perch	7.1	6.6	4.68	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-058	June 20, 2021	Yellow Perch	5.4	5.0	1.74		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-059	June 20, 2021	Yellow Perch	7.7	7.2	6.48	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-062	June 20, 2021	Yellow Perch	7.6	7.1	5.68		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-063	June 20, 2021	Yellow Perch	6.8	6.4	3.98	1	
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-068	June 20, 2021	Yellow Perch	5.6	5.3	2.26		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-069	June 20, 2021	Yellow Perch	5.5	5.1	1.84		
Unnamed Trib. to Gamsby Lake	UTGA	UTGA-YLPR-070	June 20, 2021	Yellow Perch	6.4	6.0	2.80	1	