

**FINAL REPORT Blackwater
Gold Project: Condition 3.16
Follow-up Program 2023
Results Report**

**In Support of the Environmental Assessment
Decision Statement under the Canadian
Environmental Assessment Act, 2012**

Palmer Project #
2006506

Prepared For
Artemis Gold Inc.

May 3, 2024

May 3, 2024

Mark Warbanski
Manager – Environment
Artemis Gold Inc.
Suite 3083 – 595 Burrard St.
Vancouver, BC V7X 1L3

Dear Mark Warbanski:

**Re: FINAL REPORT Blackwater Gold Project: Condition 3.16 Follow-up Program 2023
Results Report**
Project #: 2006506

Palmer (part of SLR Canada Ltd.) is pleased to provide the attached final report in support of compliance monitoring under Condition 3.16 of the Blackwater Gold Project's Environmental Assessment (EA) Decision Statement. The report describes fish and fish habitat conditions in Tatelkuz Lake and lower Chedakuz Creek from January to November 2023.

Data collected during this period will contribute to fulfillment of Condition 3.16 of the project's EA Decision Statement, issued under Section 54 of the *Canadian Environmental Assessment Act, 2012*, and was completed in accordance with the Condition 3.16 Follow-up Program developed by Palmer. Under the EA Decision Statement, monitoring is required in Tatelkuz Lake and lower Chedakuz Creek during all stages of the project to determine, to the extent possible, if predicted project effects in the EA were accurate and the efficacy of implemented mitigation measures.

If you or technical reviewers have any questions about this report, please feel free to contact Rick Palmer at 604-629-9075 or at rick.palmer@pecg.ca.

Yours truly,

Palmer™ | PART OF
SLR



Rick Palmer, M.Sc., R.P.Bio.
CEO, Fisheries Biologist

Executive Summary

BW Gold Ltd., a subsidiary of Artemis Gold Inc., is constructing, and plans to operate, the Blackwater Gold Project (the Project), a gold and silver, open pit mine located approximately 160 kilometres southwest of Prince George in British Columbia. In accordance with the Project's Environmental Assessment Decision Statement that was received in 2019, follow-up programs are required to monitor fish and fish habitat in the Project area. Specifically, Condition 3.16 requires monitoring in Tatelkuz Lake and lower Chedakuz Creek to determine the efficacy of planned flow augmentation from the Fresh Water Supply System (FWSS), a proposed mitigation measure for adverse Project impacts resulting in water loss in Davidson Creek.

The effectiveness of flow augmentation (i.e., the FWSS) in mitigating adverse Project impacts will be evaluated generally as a Before-After Control-Impact study design. Effects will be assessed with baseline data, as a before-after comparison, and reference site data, as a control-impact comparison. The results of 2023 field surveys will be used during the long-term monitoring program to detect changes (e.g., fish abundance and habitat) as a result of the Project and to assess whether fish habitat mitigation measures are functioning as intended.

The following report describes environmental conditions in Tatelkuz Lake and lower Chedakuz Creek between January and November 2023, prior to the construction and operation of the FWSS. Methods and results are described for surveys that contribute to long-term monitoring data for fish and fish habitat.

Tatelkuz Lake fish and fish habitat surveys included:

- Limnology and Winter Ice Conditions: Seasonal assessments of physical limnology were completed at one site near the centre of Tatelkuz Lake to characterize seasonal variability. Quarterly sampling included vertical profiles for water quality variables, epilimnetic (i.e., surface layer of the lake) total phosphorus and total nitrogen, and Secchi depths to measure water clarity. Additionally, ice thickness was measured during the winter trip.
- Littoral Fish Habitat: Summer fish habitat was assessed at 11 sites in Tatelkuz Lake to characterize littoral fish habitat quantity and quality. Littoral habitat transects measured water depth, distances relative to benchmark pin, shoreline gradient, dominant and sub-dominant substrate, littoral plant community characteristics, and in situ water quality. Unmanned aerial vehicle (UAV) imagery was collected for each littoral fish habitat site to provide updated imagery of the littoral and riparian habitat. Littoral habitat suitability will continue to be monitored based on the littoral-dwelling Brassy Minnow (*Hybognathus hankinsoni*).
- Littoral Fish Community and Abundance: Two assessments for littoral fish community and abundance were planned to characterize fish in Tatelkuz Lake: an early summer sampling event (i.e., late June to early July) to target the larval life-stage of Brassy Minnow, and a late summer (i.e., September) sampling event to target the adult life-stage of the same species. Early summer sampling for the larval life-stage was not completed in 2023 as the mine site was under a wildfire evacuation order during the planned sampling period. Catch per unit area (CPUA) during the late summer sampling event ranged from 0.01 to 1.70 fish per square metres (fish/m²).

Lower Chedakuz Creek fish and fish habitat surveys included:

- Overwintering Fish Habitat: A winter assessment for fish abundance and habitat suitability was completed in March 2023 through the installation of underwater cameras in overwintering pool

habitat and collection of in situ water quality. Data from the 2023 winter survey, was included in the 2022 Field Survey Report (Palmer 2023a).

- Summer Fish Habitat: Surveys to assess fish habitat in lower Chedakuz Creek included Fish Habitat Assessment Procedures (FHAP), in situ water quality, and the collection of UAV-based mapping to create updated imagery of stream conditions.
- Fish Community and Abundance: Abundance and distribution of immature and small-bodied fish within lower Chedakuz Creek were assessed by minnow trapping. A total of 38 fish were captured during minnow trapping with catch per unit effort (CPUE) ranging from 0 to 0.34 fish/trap hour. The planned closed-site backpack electrofishing was not completed in 2023 due to a wildfire evacuation order. Once safe to access the site, the presence of spawning kokanee (*Oncorhynchus nerka*) and in-gravel embryos prevented electrofishing in accordance with provincial Fish Collection Permit conditions.
- Kokanee Summer Spawner and Redd Abundance: Visual spawner surveys were completed in 2023 to determine abundance of mature kokanee entering lower Chedakuz Creek. Carcass measurements were also collected to determine fish age at maturity. Due to the wildfire site evacuation in July, only the latter half of the kokanee spawning period was assessed. Visual bank walks completed between August 17 and September 24, 2023 recorded 28 holding/migrating and 2 dead kokanee spawners. The peak live spawner count was observed in late-August. No redds were observed during any of the surveys.

Table of Contents

Executive Summary	i
1 Introduction	1
1.1 Project Description.....	1
1.2 Regulatory Requirements and Objectives	1
1.3 Scope of Work	2
1.4 Study Area	2
2 Methods.....	4
2.1 Tatelkuz Lake	4
2.1.1 Limnology and Winter Ice Conditions	6
2.1.2 Littoral Fish Habitat.....	6
2.1.2.1 Littoral Habitat Transects.....	7
2.1.2.2 Water Quality	7
2.1.2.3 Unmanned Aerial Vehicle Mapping	7
2.1.3 Littoral Fish Community and Abundance	7
2.2 Lower Chedakuz Creek.....	8
2.2.1 Overwintering Fish Habitat.....	11
2.2.2 Summer Fish Habitat	11
2.2.2.1 Fish Habitat Assessment Procedure Survey	11
2.2.2.2 Water Quality	11
2.2.2.3 Unmanned Aerial Vehicle Mapping Survey	12
2.2.3 Fish Community and Abundance.....	12
2.2.4 Kokanee Spawner Survey	13
3 Results	14
3.1 Tatelkuz Lake	14
3.1.1 Limnology and Winter Ice Conditions	14
3.1.2 Littoral Fish Habitat	16
3.1.2.1 Littoral Habitat Transects.....	16
3.1.2.2 Water Quality	20
3.1.2.3 Unmanned Aerial Vehicle Mapping	21
3.1.3 Littoral Fish Community and Abundance	21
3.2 Lower Chedakuz Creek.....	24
3.2.1 Overwintering Fish Habitat.....	24
3.2.2 Summer Fish Habitat	24
3.2.2.1 Fish Habitat Assessment Procedure Survey	24
3.2.2.2 Water Quality	26
3.2.2.3 Unmanned Aerial Vehicle Mapping	26
3.2.3 Fish Community and Abundance.....	28
3.2.4 Kokanee Spawner Survey	32
4 Recommendations	33
5 Certification	34

6 References 35

List of Figures

Figure 1-1. Blackwater Gold Project area highlighting the sections of lower Chedakuz Creek and Tatelkuz Lake that were monitored under the Condition 3.16 Follow-up Program.	3
Figure 2-1. Tatelkuz Lake fish and fish habitat survey locations, and limnological station monitored under the Condition 3.16 Follow-up Program, 2023.	5
Figure 2-2. Lower Chedakuz Creek fish and fish habitat survey locations monitored under the Condition 3.16 Follow-up Program, 2023.	10
Figure 3-1. Temperature (°C) and dissolved oxygen (mg/L) at various water depths in Tatelkuz Lake (TLLim3) in January, June, September, and November 2023	15
Figure 3-2. Lower Chedakuz Creek Unmanned Aerial Vehicle imagery, October 2023.	27
Figure 3-3. Length and weight frequency distribution and length vs weight regression for Rainbow Trout (n = 3), Northern Pikeminnow (n = 26), and Prickly Sculpin (n = 6) in lower Chedakuz Creek, September 2023.	31

List of Tables

Table 2-1. Tatelkuz Lake Assessment Site Locations and Surveys Performed, 2023.....	4
Table 2-2. Tatelkuz Lake (TLLim3) Limnology and Winter Conditions Data Collection Summary, 2023	6
Table 2-3. Lower Chedakuz Creek Assessment Site Locations and Surveys, 2023	9
Table 2-4. Habitat Unit Variables Assessed for Fish Habitat Assessment Procedure Survey, August 2023.....	11
Table 3-1. Tatelkuz Lake (TLLim3) Winter Ice Thickness and Water Column Depth, January 2023	14
Table 3-2. Tatelkuz Lake (TLLim3) Average Vertical Profile Water Quality Conditions, 2023.....	14
Table 3-3. Total Phosphorus and Total Nitrogen in Tatelkuz Lake (TLLim3), 2023.....	16
Table 3-4. Littoral Habitat Transect Data for Tatelkuz Lake, September 2023	17
Table 3-5. In Situ Water Quality Data in Tatelkuz Lake, September 2023.....	21
Table 3-6. Beach Seine Fish Capture Data, CPUA and Fish Density in Tatelkuz Lake, September 2023.....	22
Table 3-7. Relative Fish Abundance by Species and Site for Beach Seining in Tatelkuz Lake, September 2023	23
Table 3-8. Summary of Fish Habitat Assessment Procedure Survey in Lower Chedakuz Creek, August 2023.....	25
Table 3-9. Lower Chedakuz Creek Survey Effort and Catch per Unit Effort, September 2023	28
Table 3-10. Biomass of Fish Captured during the Lower Chedakuz Creek Survey, September 2023	29
Table 3-11. Morphometrics of Captured Fish during the Lower Chedakuz Creek Survey, September 2023	29
Table 3-12. Kokanee Visual Spawner Survey in Lower Chedakuz Creek, August to September 2023	32
Table 4-1. Recommendations for Future Condition 3.16 Field Programs in Davidson Creek	33

List of Appendices

- Appendix A. Site Photographs
- Appendix B. 2023 Field Data
- Appendix C. Tatelkuz Lake Littoral Habitat UAV Imagery

Acronyms and Abbreviations

Acronym or Abbreviation	Definition
BC	British Columbia
BMC	Brassy Minnow
BC WQG	British Columbia Approved Water Quality Guidelines
CAS	Prickly Sculpin
CEAA	Canadian Environmental Assessment Act
CPUA	Catch per unit area
CPUE	Catch per unit effort
CSU	Largescale Sucker
DELT	Deformities, erosion, lesions, and tumors
DFO	Fisheries and Oceans Canada
EA	Environmental Assessment
EAC	Environmental Assessment Act
ECCC	Environment and Climate Change Canada
FAL	Freshwater Aquatic Life
FHAP	Fish Habitat Assessment Procedure
FWSS	Freshwater Supply System
K	Condition Factor
KO	Kokanee
LSU	Longnose Sucker
MDMER	Metal and Diamond Mining Effluent Regulations
MW	Mountain Whitefish
NSC	Northern Pikeminnow
POHL	Postorbital-hypural Length
RB	Rainbow Trout
SU	Unidentified sucker species
UAV	Unmanned Aerial Vehicle
UTM	Universal Transverse Mercator
WSU	White Sucker

Symbols and Units of Measure

Symbol or Unit of Measure	Definition
>	Greater than
<	Less than
%	Percent
µS/cm	Microsiemens per centimetre
°C	Degrees Celsius
G	Grams
Km	Kilometre
M	Metre
m ²	Square metres
Masl	Metres above sea level
mg/L	Milligram per litre
Mm	Millimetre
NTU	Nephelometric turbidity unit

1 Introduction

1.1 Project Description

BW Gold Ltd. (BW Gold), a subsidiary of Artemis Gold Inc. (Artemis), is currently constructing and plans to operate the Blackwater Gold Project (the Project), a gold and silver, open pit mine located approximately 160 kilometres (km) southwest of Prince George, British Columbia (BC) (**Figure 1-1**). The Project received a Decision Statement under the *Canadian Environmental Assessment Act* (CEAA) (CEAA 2012) on April 15, 2019, and an Environmental Assessment Certificate (EAC) (#M19-01) under the *British Columbia Environmental Assessment Act* (BC EAA) (2002) on June 21, 2019. An Authorization under 35(2)(b) of the *Fisheries Act* (1985) was issued by Fisheries and Oceans Canada (DFO) in June 2023. In early June 2023, an amendment of Schedule 2 of the *Metal and Diamond Mining Effluent Regulations* (MDMER) was approved by Environment and Climate Change Canada (ECCC).

In accordance with regulatory approval requirements, long-term aquatic monitoring programs have been implemented for water bodies in the Project area to detect changes to aquatic resources in relation to the Project. Monitoring will also evaluate the efficacy of proposed mitigation measures for adverse Project effects to fish and fish habitat and whether they are functioning as intended.

1.2 Regulatory Requirements and Objectives

As part of the federal Environmental Assessment (EA) Decision Statement, Condition 3.16 is required to evaluate proposed mitigation measures associated with lower Chedakuz Creek and Tatelkuz Lake. With Project development reducing the catchment area of Davidson Creek, water will be pumped from Tatelkuz Lake via a Fresh Water Supply System (FWSS) into Davidson Creek to maintain instream flow requirements. Monitoring is required to determine if water withdrawal will effect fish habitat in the Tatelkuz Lake littoral zone (i.e., near shore area) and in the section of lower Chedakuz Creek from the outlet of Tatelkuz Lake to its confluence with Davidson Creek.

Condition 3.16 requires a fish and fish habitat follow-up program be implemented during all stages of the Project to confirm data presented in the EA and to evaluate the efficacy of mitigation measures for fish habitat impacts in Tatelkuz Lake and Chedakuz Creek. Components of the program include:

- Monitoring fish habitat in the littoral zone of Tatelkuz Lake prior to (Condition 3.16.1) and after commissioning (Condition 3.16.2; in year 6 of Operations) of the FWSS; and
- Monitoring flows in lower Chedakuz Creek, between Tatelkuz Lake and the confluence with Davidson Creek, during the open water season (Condition 3.16.3; the latter completed by Knight Piésold Consulting and reported separately).

A fish and fish habitat follow-up program was developed by Palmer (2023b) to fulfill the Condition 3.16 of the federal EA Decision Statement. Specific objectives for each field survey are described in the methods (**Section 2**).

1.3 Scope of Work

This Condition 3.16 annual monitoring report describes the methods and results of several field sampling programs conducted between January and November 2023 to satisfy the requirements of Condition 3.16 of the Blackwater Gold Project EA Decision Statement issued under Section 54 of the CEAA. The overwintering study in lower Chedakuz Creek (performed in March 2023) is not included in this report. The results of this program were presented in the Blackwater Gold Project Fish and Aquatic Resources 2022 Field Survey Report (Palmer 2023a).

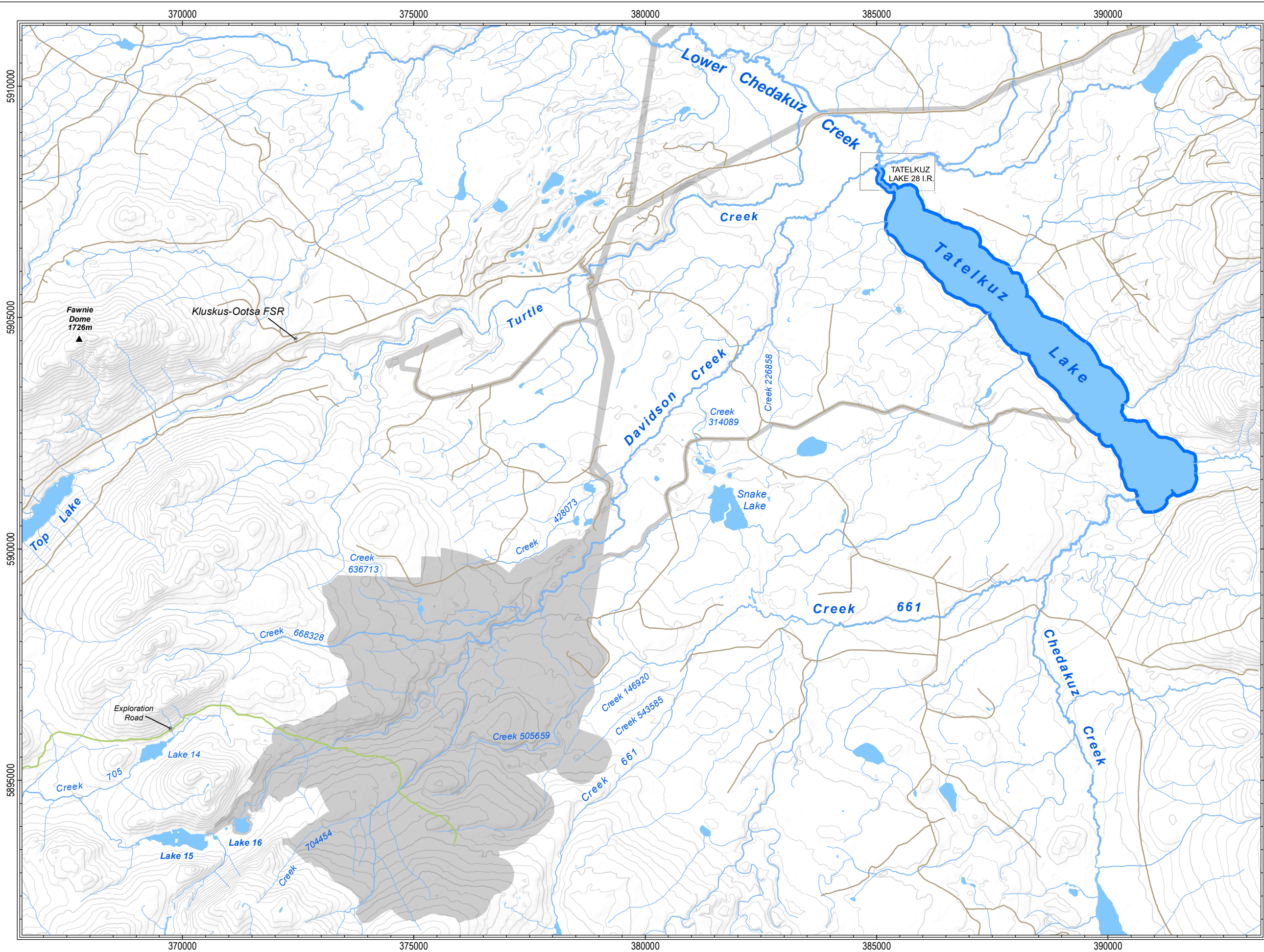
Monitoring results for the following fisheries compliance programs are not within the scope of this report and will be reported separately.

- Condition 3.14 Follow-up Program for the Blackwater Gold Project Decision Statement issued under Section 54 of the CEAA.
- Fish Habitat Offsetting Plan and Effectiveness Monitoring Plan (EMP) under the *Fisheries Act* Authorization.
- Habitat Compensation Plan and EMP under the Schedule 2 Metal and Diamond Mining Effluent Regulations amendment.
- Aquatic Effects Monitoring Plan (AEMP) and Country Foods Monitoring Program (CFMP) under the provincial EAA.

1.4 Study Area

Field studies were performed in the Project area (**Figure 1-1**) on Tatelkuz Lake and lower Chedakuz Creek for long-term aquatic monitoring. Tatelkuz Lake assessment locations are presented in **Figure 2-1** and **Figure 2-2**. Site photographs are included in **Appendix A** and site information is included in **Appendix B-1**.

Document Path: G:\Shared drives\Projects 2020 (2024) to 2027\20265 - Artemis Gold Inc\Blackwater GIS\1. Workspaces\Task 01 - Figures\2024-02 2023 Field Survey Report - 3-16\Figure 1.4-1 Blackwater Gold Project Area.mxd



- Legend**
- ▲ Spot Height
 - Major Forest Service Road (FSR)
 - Minor FSR
 - Exploration Road
 - Elevation Contour (25 m interval)
 - Watercourse
 - Waterbody
 - Indian Reserve
 - Mine Footprint



Scale 1:80000
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:

CLIENT: Artemis Gold Inc.
PROJECT: Blackwater
DRAWN: B. Elder
CHECKED: A. Miller
PROJECT: 2006506
DATE: Mar 01, 2024

Prepared by:

Artemis Gold Inc.
Palmer SLR

Blackwater Gold Project Area

FIGURE 1-1

Contains information licensed under the Open Government Licence - British Columbia and Canada.

2 Methods

Methods for surveys conducted in Tatelkuz Lake and lower Chedakuz Creek during the 2023 field program are summarized in this section. Report sections are separated by water body, specific surveys and associated analyses completed to address objectives and monitoring requirements as described in the Condition 3.16 Follow-up Plan (Palmer 2023b).

2.1 Tatelkuz Lake

Several surveys were completed in 2023 to assess fish populations and fish habitat conditions in Tatelkuz Lake (**Figure 2-1**). The monitoring program aims to determine if water withdrawal from Tatelkuz Lake for the FWSS will affect littoral fish and fish habitat. The results of these programs will serve to update baseline littoral habitat information to be used for future monitoring once the FWSS is operational. Survey results from 2023 represent environmental conditions prior to the construction and operational of the FWSS.

In 2023, fish and fish habitat surveys were completed in the Tatelkuz Lake. As part of these surveys, Tatelkuz Lake limnology and winter conditions (**Section 2.1.1**), littoral fish habitat (**Section 2.1.2**) and fish community and abundance (**Section 2.1.3**) surveys were completed.

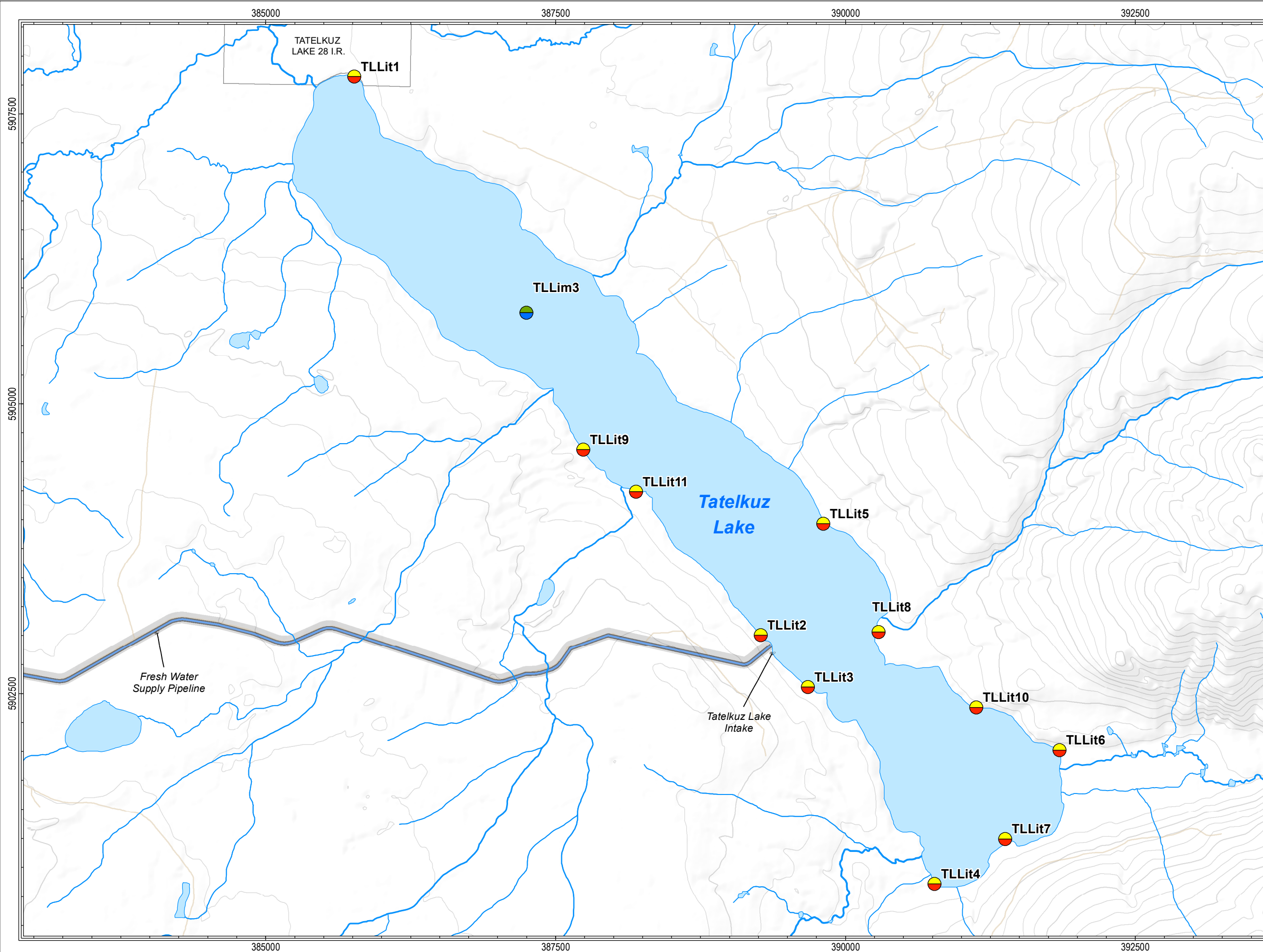
Tatelkuz Lake assessment site locations are presented in **Table 2-1** and on **Figure 2-1**. Site photographs are included in **Appendix A-1** and site information is included in **Appendix B-1**.

Table 2-1. Tatelkuz Lake Assessment Site Locations and Surveys Performed, 2023

Water Body Name	Site	Coordinates (UTM 10U)		Survey			
		Easting	Northing	Limnology and Winter Ice Conditions	Winter Ice Conditions	Littoral Fish Habitat	Littoral Fish Community and Abundance
Tatelkuz Lake	TLLim3	387247	5905786	✓	✓	-	-
	TLLit1	385764	5907822	-	-	✓	✓
	TLLit2	389268	5903003	-	-	✓	✓
	TLLit3	389674	5902558	-	-	✓	✓
	TLLit4	390766	5900859	-	-	✓	✓
	TLLit5	389807	5903965	-	-	✓	✓
	TLLit6	391845	5902013	-	-	✓	✓
	TLLit7	391375	5901246	-	-	✓	✓
	TLLit8	390285	5903031	-	-	✓	✓
	TLLit9	387737	5904604	-	-	✓	✓
	TLLit10	391128	5902380	-	-	✓	✓
TLLit11	388194	5904242	-	-	✓	✓	

Notes: UTM = Universal Transverse Mercator, ✓ = survey completed at that site, (-) = survey not completed at that site.

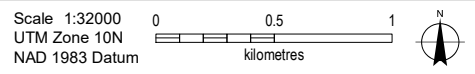
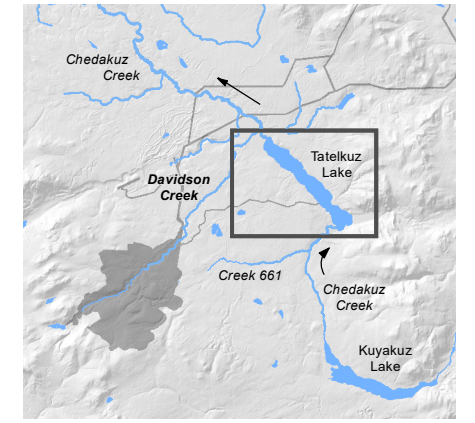
Document Path: G:\Shared drives\Projects\2020_2024\to_2007\20065 - Artemis Gold Inc\Blackwater GIS\1 - Workspaces\Task 01 - Figures\2024-02 2023 Field Survey Report - 3-16\Figure 2-1 Tatelukuz Lake Littoral Sites.mxd



Legend

- 2023 Tatelukuz Lake Fish and Fish Habitat Surveys**
- Limnology
 - Winter Ice Conditions
 - Littoral Fish Habitat
 - Littoral Fish Community
 - Watercourse
 - Fresh Water Supply Pipeline
 - Forest Service Road
 - Elevation Contour (25 m interval)
 - Indian Reserve
 - Mine Area Footprint

Overview



Prepared For:

CLIENT: Artemis Gold Inc.
PROJECT: Blackwater
DRAWN: B. Elder
CHECKED: A. Miller
PROJECT: 2006506
DATE: Mar 05, 2024

Prepared by:

Artemis Gold Inc.
Palmer SLR

**Blackwater Gold Project
Tatelukuz Lake
Survey Locations, 2023**

FIGURE 2-1

Contains information licensed under the Open Government Licence - British Columbia and Canada.

2.1.1 Limnology and Winter Ice Conditions

The objective of the physical limnology and winter ice condition surveys is to characterize seasonal variability in Tatelkuz Lake. The 2023 physical limnology field program was completed by two Avison Management Services Ltd. (Avison) field technicians and included the following sampling activities at TLLim3 (**Table 2-2**):

- Vertical profiles at 1.0 metre (m) intervals for temperature (degrees Celsius [°C]), pH, conductivity (microsiemens per centimetre [μ S/cm]), and dissolved oxygen (milligrams per litre [mg/L]). The winter profiles were taken under ice and included the measurement of ice thickness (millimetres [mm]). Averages were calculated from ascending and descending values, with the exception of specific conductivity which was only measured at the lake surface.
- Collection of surface water samples for analysis of epilimnetic (i.e., surface layer of the lake) total phosphorus (mg/L) and total nitrogen (mg/L).
- Secchi depths by lowering a Secchi disc over the shaded side of the boat and recording the depth (m) at which the disc disappeared and the depth at which it reappeared.

Table 2-2. Tatelkuz Lake (TLLim3) Limnology and Winter Conditions Data Collection Summary, 2023

Sampling Date	Water Quality Vertical Profile	Secchi Depth Assessment ¹	Surface Water Sample Collection	Ice Thickness (m)
24-Jan-2023	✓	-	✓	✓
27-Jun-2023	✓	✓	✓	-
14-Sep-2023	✓	✓	✓	-
7-Nov-2023	✓	✓	✓	-

Note: (-) = survey not completed at site, ✓ = survey completed at site

¹Ice cover on the lake precluded Secchi depth assessment during the winter 2023 survey.

During the winter survey, an ice thickness (meters [m]) measurement was collected at TLLim3 and the depth from ice surface to lake bottom was recorded. Water column depth was calculated using the ice thickness and depth to lake bottom measurements.

2.1.2 Littoral Fish Habitat

Littoral areas in Tatelkuz Lake were selected at eleven locations (TLLit1 to TLLit11; **Table 2-1**) distributed around the lake that correspond to baseline-identified littoral habitat classes (AMEC 2013). Sites are located near lake inlets, the outlet to lower Chedakuz Creek, and planned FWSS intake location. Some sites are co-located with historical capture locations of Brassy Minnow (*Hybognathus hankinsoni*), a littoral-dwelling fish species that will be used to monitor littoral habitat suitability. The objective of fish habitat sampling in Tatelkuz Lake is to characterize nearshore fish collection of in situ water quality, water depth, lake substrate type, plant community and cover, and lake elevation, and unmanned aerial vehicle (UAV) imagery data at the monitoring sites.

2.1.2.1 Littoral Habitat Transects

The 2023 littoral fish habitat assessment in Tatelkuz Lake consisted of characterizing the plant community and lake substrates every meter along transects, starting from the shoreline to a water depth of 3 m using methods described in *Standard Methods Guide for the Classification/Quantification of Lacustrine Habitat in Newfoundland and Labrador* (Bradbury 2001). The habitat characteristics evaluated were selected from the Brassy Minnow lacustrine Habitat Suitability Index developed by Golder (Golder 2008). Habitat assessments were conducted by a combination of snorkel, float-tube, underwater camera, or by using an avalanche probe depending on water clarity and depth.

Detailed depth and substrate transects were collected at 11 locations (TLLit1 to TLLit11; **Table 2-1** and **Figure 2-1**) that were representative of the unique littoral habitat types identified during the 2013 Fish and Aquatic Baseline (AMEC 2013). Habitat characteristics measurements were recorded at 1 m intervals along transects, starting from above the high-water mark to a 3 m water depth, including the following:

- Water depth (m) measurement;
- Measurements of distance relative to benchmark pin for the high-water mark (i.e., top of bank), toe of bank, lake edge, and transect at 3 m depth;
- Measurements of elevation for the high-water mark (i.e., top of bank) and toe of bank relative to lake elevation found using a rod-and-level survey from benchmark station BM1; and
- Characterization (using a 0.5 x 0.5 m quadrat) of:
 - Lake substrate (i.e., identification of dominant and subdominant substrate types along the transect);
 - Shoreline gradient (percent [%]);
 - Littoral plant community (i.e., presence/absence of emergent or submergent vegetation); and,
 - Other key habitat features (e.g., littoral zone cover (%) for fish, including presence/absence of woody debris, and large-diameter coarse substrate).

2.1.2.2 Water Quality

In situ water quality measurements, including temperature (°C), pH (pH units), conductivity (µS/cm), and dissolved oxygen (mg/L), were collected in September 2023 at 0.5 m water depth at each littoral habitat site (see **Figure 2-1**). Water quality values were compared to the British Columbia Approved Water Quality Guideline (BC WQG) for Freshwater Aquatic Life (FAL) for Rainbow Trout (*Oncorhynchus mykiss*).

2.1.2.3 Unmanned Aerial Vehicle Mapping

A UAV-based survey of Tatelkuz Lake littoral zone was conducted by Avison field technicians in October 2023 at the habitat transect locations to collect updated imagery of littoral habitat conditions.

2.1.3 Littoral Fish Community and Abundance

The 2023 Littoral Fish Community and Abundance Survey was intended to be completed in the early summer (late June to early July and late summer (September) to target both larval and adult populations of Brassy Minnow. However, sampling that targeted the larval life-stage was not completed because the mine site was under a wildfire evacuation order during the planned sampling period. Further detail on the

effects of wildfire on the 2023 monitoring programs is provided in the 2023 Post-Fire Memorandum (Palmer 2024).

Brassy Minnow was selected as an indicator for littoral habitat suitability given that it is a blue-listed species in British Columbia, is sensitive to changes in flow, and has been historically documented in Tatelkuz Lake.

The late summer field program was conducted from September 12 to 14, 2023 at eleven sites around the perimeter of Tatelkuz Lake (**Figure 2-1**; **Table 2-1**). Sites were selected to correspond with littoral habitat classes identified in baseline studies and were co-located with previously established baseline sites where possible. A beach seine (10 m length, with 3.2 mm mesh) was deployed for a total of two hauls at each site to survey an approximate 200 m² area of littoral zone. Captured fish were identified to species, measured for fork length (mm) and weight (g), assessed for deformities, erosion, lesions, and tumors (DELTS), and released back into the lake. These measurements were recorded for all captured Brassy Minnow, but only for the first 10 fish captured per site for all other fish species.

Catch per unit area (CPUA, total fish captured per m²), fish density per 100 m², and relative abundance per species for the 2023 Littoral Fish Community and Abundance Survey are reported in **Section 3.1.3**.

2.2 Lower Chedakuz Creek

Several surveys were developed to assess fish populations and fish habitat conditions in lower Chedakuz Creek and to determine the baseline conditions against which water withdrawal from Tatelkuz Lake effects on downstream fish and fish habitat in lower Chedakuz Creek will be assessed. Survey results from 2023 represent environmental conditions prior to the construction and operational of the FWSS.

In 2023, fish and fish habitat inventory surveys were completed in lower Chedakuz Creek, from the outlet of Tatelkuz Lake downstream to its confluence with Davidson Creek. As part of these surveys, lower Chedakuz Creek overwintering fish habitat (**Section 2.2.1**), summer fish habitat (**Section 2.2.2**), summer fish community and abundance (**Section 2.2.3**), and kokanee (*Oncorhynchus nerka*) spawner abundance (**Section 2.2.4**) surveys were completed.

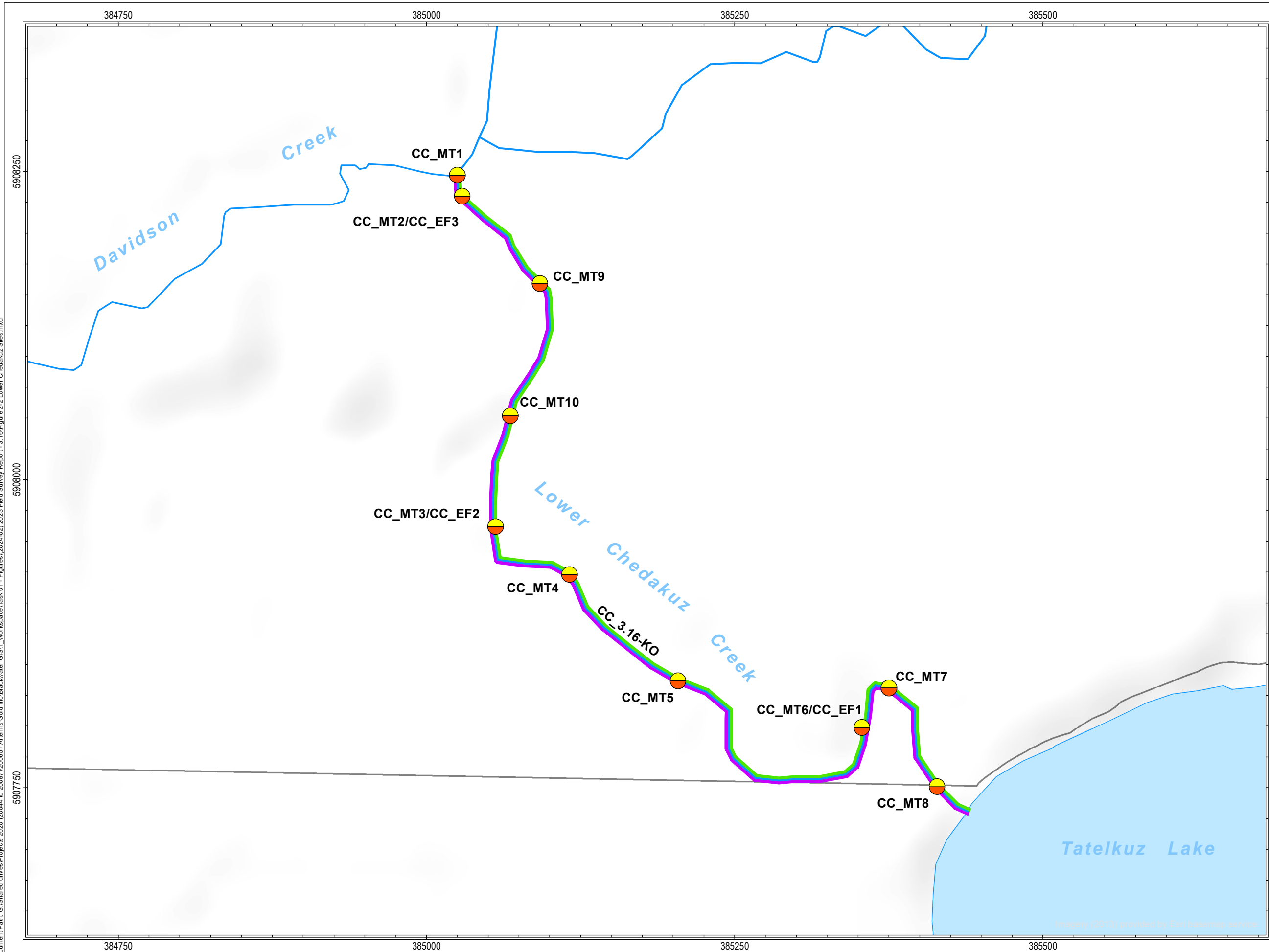
Lower Chedakuz Creek assessment site locations are presented in **Table 2-3** and on **Figure 2-2**. Site photographs are included in **Appendix A-2** and site information is included in **Appendix B-1**.

Table 2-3. Lower Chedakuz Creek Assessment Site Locations and Surveys, 2023

Water Body Name	Site	Coordinates (UTM 10U)		Survey			
		Easting	Northing	Summer Fish Habitat		Fish Community and Abundance	Kokanee Summer Spawner Abundance
				Water Quality	FHAP		
Chedakuz Creek	CC_MT1	385022	5908268	✓	-	✓	-
	CC_MT2/CC_EF3	385029	5908230	✓	-	✓	-
	CC_MT3/CC_EF2	385056	5907962	✓	-	✓	-
	CC_MT4	385110	5907915	✓	-	✓	-
	CC_MT5	385198	5907836	✓	-	✓	-
	CC_MT6/CC_EF1	385353	5907799	✓	-	✓	-
	CC_MT7	385376	5907838	✓	-	✓	-
	CC_MT8	385407	5907747	✓	-	✓	-
	CC_MT9	385086	5908154	✓	-	✓	-
	CC_MT10	385064	5908053	✓	-	✓	-
	CC_3.16-KO	385022	5908268	-	✓	-	✓

Notes: UTM = Universal Transverse Mercator, Datum = NAD83, ✓ = survey completed at that site, (-) = survey not completed at site, FHAP = Fish Habitat Assessment Procedure

Document Path: G:\Shared drives\Projects\2020-2024\4. Artemis Gold Inc\Blackwater_GIS\1. Workspace\Task 01 - Figures\2024-02-2023 Field Survey Report - 3.16\Figure 2-2 Lower Chedakuz Sites.mxd

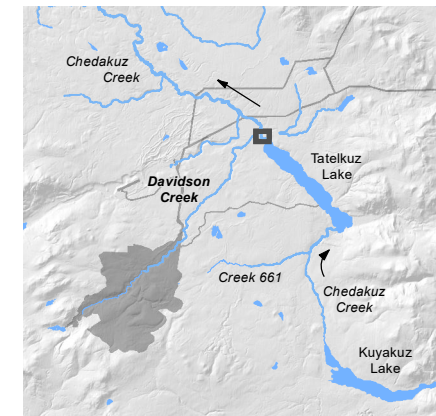


Legend

2023 Lower Chedakuz Creek Fish and Fish Habitat Surveys

- Fish Community
- In Situ Water Quality
- Kokanee Spawner
- Fish Habitat Assessment Procedure
- Watercourse
- Indian Reserve

Overview



Scale 1:3000
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:
CLIENT: Artemis Gold Inc.
PROJECT: Blackwater
DRAWN: B. Elder
CHECKED: A. Miller
PROJECT: 2006506
DATE: Mar 05, 2024

Prepared by:
ARTEMIS GOLD INC.
Palmer SLR

**Blackwater Gold Project
 Lower Chedakuz Creek
 Survey Locations, 2023**

FIGURE 2-2

2.2.1 Overwintering Fish Habitat

The 2023 overwintering fish habitat assessment methods are presented under the Blackwater Gold Project Fish and Aquatic Resources 2022 Field Survey Report (Palmer 2023a).

2.2.2 Summer Fish Habitat

2.2.2.1 Fish Habitat Assessment Procedure Survey

On August 28, 2023 a level 1 Fish Habitat Assessment Procedures (FHAP) survey was completed for the entire length of lower Chedakuz Creek, from the outlet of Tatelkuz Lake to the confluence with Davidson Creek (CC_3.16-KO; **Figure 2-2**). Standard FHAP methodologies according to Johnson and Slaney (1996) were followed to collect habitat data, including areas and abundance of mesohabitat types, substrate characteristics, as well as channel dimensions and morphology (**Table 2-4**). The relative percentage of each mesohabitat (e.g., glide, riffle, pool) was calculated for lower Chedakuz Creek.

Table 2-4. Habitat Unit Variables Assessed for Fish Habitat Assessment Procedure Survey, August 2023

Stream Habitat Classification	Stream Channel Measurements
Habit unit type and category	Length (m)
Pool type	Gradient (%)
Disturbance indicator	Bankfull depth (m)
Barrier	Wetted depth (m)
Dominant bed material type	Bankfull width (m)
Subdominant bed material type	Wetted width (m)
Functional large woody debris tally	Pool maximum depth (m)
Dominant cover type and amount (%)	Pool riffle crest depth (m)
Subdominant cover type and amount (%)	Pool residual depth (m)
Canopy cover (%)	Off-channel length (m)
Riparian vegetation type and stage	
Spawning gravel type and amount	
Off-channel habitat type and access	

Notes: m = metre, % = percent

2.2.2.2 Water Quality

In situ water quality measurements were collected at sites CC_MT1 to CC_MT10 (**Table 2-3; Figure 2-2**) during the September 16 to 17 minnow trapping program (**Section 2.2.3**) to characterize fish habitat conditions at the time of sampling. Water quality was measured using a calibrated YSI ProDSS water quality meter for the following variables:

- Water temperature (°C)
- pH (pH units)
- Dissolved oxygen (mg/L)
- Conductivity (µS/cm)

- Turbidity (nephelometric turbidity unit [NTU]).

Water quality values were compared to the BC WQG for FAL for Rainbow Trout (BC ENV 2021).

2.2.2.3 Unmanned Aerial Vehicle Mapping Survey

Georeferenced imagery collection using a UAV was conducted by Avison field technicians in October 2023 to be used for updated orthoimage for lower Chedakuz Creek, from the outlet of Tatelkuz Lake to the confluence with Davidson Creek (CC_3.16-KO; **Table 2-3**). The survey, which encompassed each of the stream sampling stations, was completed autonomously with the purpose of updating imagery for habitat conditions within this section of Chedakuz Creek. Manual flights for the purpose of counting kokanee spawners (**Section 2.2.4**) were not completed.

2.2.3 Fish Community and Abundance

The objective of the 2023 Lower Chedakuz Creek Fish Community and Abundance Survey was to assess fish community and distribution within lower Chedakuz Creek. The survey was intended to occur in July and use backpack electrofishing and minnow traps to capture fish. However, given that forest fires within the Project area delayed the survey to September, electrofishing was removed from the program in accordance with provincial Fish Collection Permit conditions to prevent harm to spawning kokanee. Minnow trapping was still performed to assess small-bodied fish community and distribution.

The 2023 Lower Chedakuz Creek Fish Community and Abundance Survey was conducted at 10 sites from September 14 to 17 (**Table 2-3**). A total of two gee-style minnow traps baited with wet cat food were deployed at each site for approximately 24 to 48 hours. Captured fish were identified to species, measured for fork length (mm) and weight (g), assessed for DELTs, and returned to the creek.

Length and weight ranges of captured fish, catch per unit effort (CPUE, total fish captured per trap hour), Fulton's condition factor (K), and total species and site biomass (i.e., total weight) for the 2023 Lower Chedakuz Creek Fish Community and Abundance Survey are reported in **Section 3.2.3**. Fulton's condition factor was calculated using **Equation 1**. Fish density could not be calculated given that closed site backpack electrofishing was removed from the program.

Equation 1

$$K = 100 * \left(\frac{W}{L^3} \right)$$

Where K = Fulton's Condition Factor

W = measured weight of individual fish (g)

L = fork length of individual fish (cm)

The population structure of captured kokanee, Northern Pikeminnow (*Ptychocheilus oregonensis*), Prickly Sculpin (*Cottus asper*), Rainbow Trout, and sucker species (*Catostomus* spp.) were assessed using fork length and weight frequency distribution, and length-weight regression. All statistical analysis were preformed in RStudio, version 4.3.1 (RStudio Team 2022).

2.2.4 Kokanee Spawner Survey

Enumeration of kokanee spawners in lower Chedakuz Creek is part of EA Decision Statement Sub-condition 3.16.3 monitoring to update baseline information from the EA. Baseline spawner data obtained prior to construction of the FWSS will be compared with spawner information collected during other Project phases. The objectives of the 2023 kokanee spawner survey in lower Chedakuz Creek were to measure spawner abundance, redd abundance, and the size (i.e., length) and age of fish at maturity.

Visual spawner surveys were completed for the 920 m-long section (CC_3.16-KO) of lower Chedakuz Creek, between Tatelkuz Lake and the confluence with Davidson Creek between August 17 and September 24, 2023. Spawner surveys were completed by a minimum crew size of two, with crews walking in an upstream direction, either along the stream bank or in the creek, from the confluence with Davidson Creek to Tatelkuz Lake. During the survey both live and dead kokanee were counted. Live fish were further classified as either holding/migrating, spawning, or spent, depending on their behaviour. Redd counts were also recorded concurrently with kokanee spawner visual counts. Sampling of spawned out kokanee carcasses for fork length (mm), postorbital-hypural length (POHL; in mm), and otoliths collection was completed if the carcass had limited decomposition.

Limited water quality measurements were recorded prior to the spawner surveys due to equipment malfunctions. Manual measurements using a thermometer and turbidity meter (Lamotte 2020 model) were attempted where possible.

Spawner surveys of this section of lower Chedakuz Creek using a UAV were not completed in 2023. The UAV-based surveys proved to be ineffective for counting kokanee spawners due to the fish size and visibility conditions in the area in previous sampling years (Palmer 2023a).

3 Results

The data collected during the 2023 fish and fish habitat surveys in Tatelkuz Lake and lower Chedakuz Creek are presented in this section. Survey assessment endpoints, as described in the EA Decision Statement Condition 3.16 Follow-up Plan (Palmer 2023b), are provided below.

3.1 Tatelkuz Lake

3.1.1 Limnology and Winter Ice Conditions

Ice thickness, like depth, and calculated water depth in Tatelkuz Lake, measured at TLLim3, are presented in **Table 3-1**. Limnological data are included in **Appendix B-2**.

Table 3-1. Tatelkuz Lake (TLLim3) Winter Ice Thickness and Water Column Depth, January 2023

Site	Date	Ice Thickness (m)	Depth from Ice Surface to Lake Bottom (m)	Calculated Water Column Depth (m)
TLLim3	24-Jan-2023	0.38	28.0	27.60

Notes: m = metre

Vertical profiles for water quality variables at TLLim3 resulted in an average temperature in January of 3.17°C (**Table 3-2**). In June, September, and November, average water temperatures ranged from 5.89°C to 9.29°C. Average conductivity, for which there is no guideline, ranged from 81.21 µS/cm in January to 130.29 µS/cm in November. The average pH ranged from 6.57 in June to 7.77 in both January and September, within BC WQG FAL guidelines (6.5 to 9 pH) (BC ENV 2021) to support fish of all life stages. The average dissolved oxygen concentration ranged from 5.73 mg/L in November to 8.40 mg/L in January, above the optimum minimum BC WQG FAL threshold (5 mg/L) to support fish of all life stages (BC ENV 2021). Ascending and descending vertical profile data are detailed in **Appendix B-2**.

Table 3-2. Tatelkuz Lake (TLLim3) Average Vertical Profile Water Quality Conditions, 2023

Site	Date	Average Temperature (°C)	Average Conductivity (µS/cm)	Average pH	Average Dissolved Oxygen (mg/L)	Average Secchi Depth (m)
TLLim3	24-Jan-2023	3.17	81.21	7.77	8.40	-
	27-Jun-2023	9.29	102.18	6.57	7.88	4.85
	14-Sep-2023	9.95	101.35	7.77	5.74	4.00
	7-Nov-2023	5.89	130.29	7.19	7.30	5.50

Notes: °C = degrees Celsius, µS/cm = microsiemens per centimetre, mg/L = milligrams per litre, m = metre

Average Secchi depth of Tatelkuz Lake ranged from 4.00 m in September to 5.50 m in November (**Table 3-2**). Secchi depth was not measured in January due to ice coverage over Tatelkuz Lake.

Tatelkuz Lake at site TLLim3 was thermally stratified in June and September 2023 (**Figure 3-1**). The thermocline (i.e., transition layer between warmer near surface water and cooler deeper water) ranged between 19.0 to 5.7°C in June, and between 14.7 and 5.5°C in September. Water temperatures ranged from 3.9 to 0.3°C in January, from 19.0 to 4.4°C in June, from 15.9 to 5.0°C in September, and from 5.9 to 5.8°C in November. A vertical profile of dissolved oxygen at TLLim3 ranged from 11.51 to 3.25 mg/L in January, from 4.41 to 10.21 mg/L in June, from 9.86 to 1.41 mg/L in September, and from 7.62 to 7.14 mg/L in November (**Figure 3-1**).

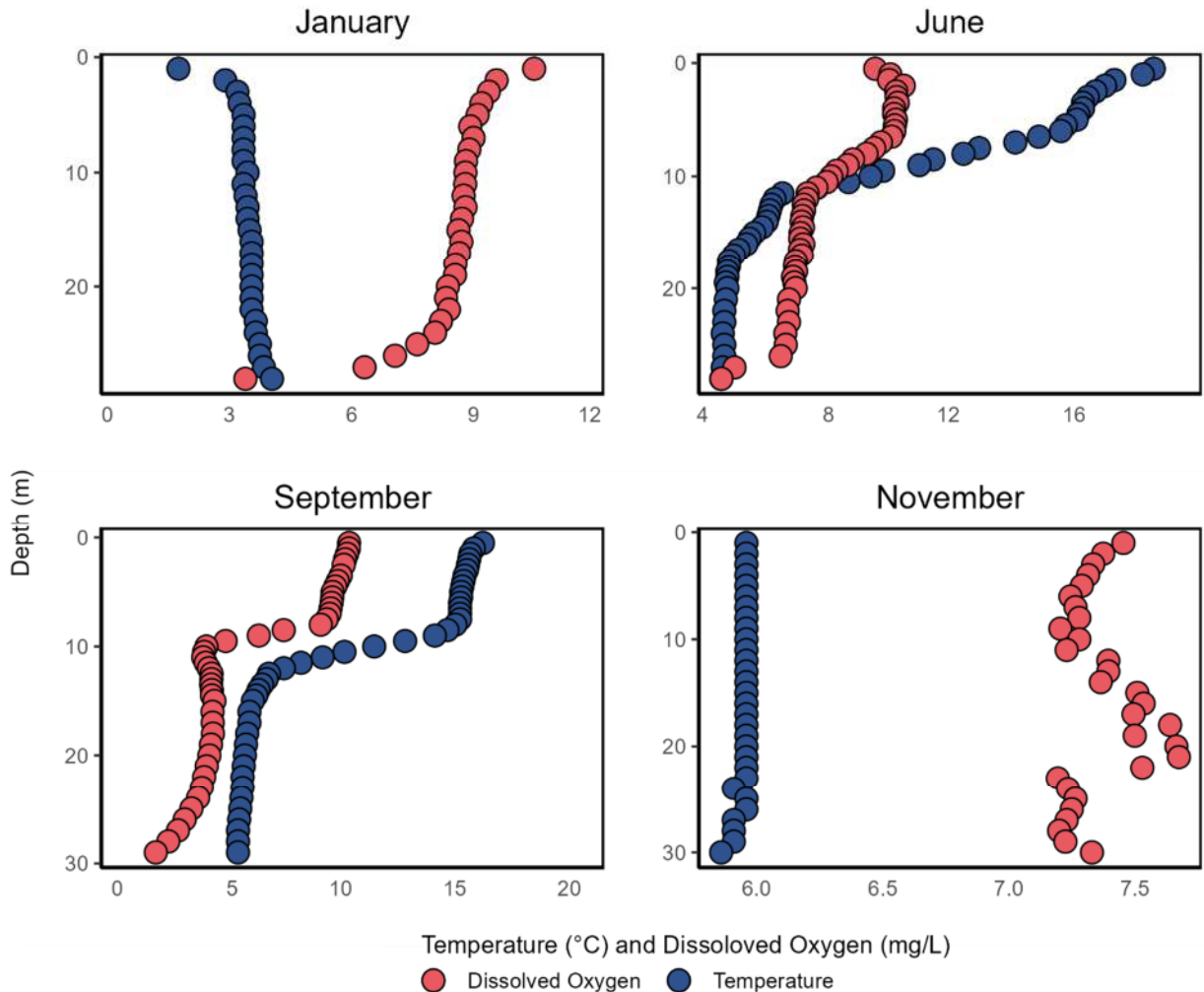


Figure 3-1. *Temperature (°C) and dissolved oxygen (mg/L) at various water depths in Tatelkuz Lake (TLLim3) in January, June, September, and November 2023*

Total phosphorus in surface water at TLLim3 ranged from 0.0088 mg/L in June to 0.027 mg/L in January 2023 (**Table 3-3**). Total phosphorus measured in January and November 2023, was above the approved BC WQG for FAL (BC ENV 2021) range for total phosphorus (0.0050 to 0.015 mg/L). Total nitrogen, for

which there is no guideline, in surface water at TLLim3 ranged from 0.309 mg/L in June to 0.414 mg/L in January 2023. Tatelkuz Lake water chemistry data are included in **Appendix B-3**.

Table 3-3. Total Phosphorus and Total Nitrogen in Tatelkuz Lake (TLLim3), 2023

Site	Date	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
TLLim3	24-Jan-2023	0.0265	0.414
	27-Jun-2023	0.0088	0.309
	14-Sep-2023	0.0128	0.331
	7-Nov-2023	0.0248	0.408

Notes: mg/L = milligrams per litre

3.1.2 Littoral Fish Habitat

The results of the littoral habitat assessment are discussed in the following section. Data are presented for littoral habitat transects, water quality and UAV mapping.

3.1.2.1 Littoral Habitat Transects

Littoral habitat data from Tatelkuz Lake collected from 11 sites (**Figure 2-1**) in September 2023 is presented in **Table 3-4**. The habitat characteristics of each site were delineated by depth strata (e.g., 0 to 0.5 m) and the relative distances and elevations from the pin at each sampling location of the wetted edge of the lake, toe of the bank and top of bank (i.e., highwater mark) were recorded. Lake elevation was determined from the benchmark station BM1 (UTM 10U 388115 E 5905799 N) prior to conducting the habitat surveys and an elevation of 926.79 masl was used as the reference elevation for other habitat features. Littoral fish habitat transect data are provided in **Appendices B-4** and **B-5**.

Table 3-4. Littoral Habitat Transect Data for Tatelkuz Lake, September 2023

Site	Distance and Elevation			Littoral Habitat Characteristics								
	Location Relative to Pin ¹	Distance From Pin (m)	Elevation (masl)	Depth Strata (m)	Substrate Type (Dominant/Sub-dominant) ²	Shoreline Gradient (%)	Littoral Habitat Type ³	Littoral Plant Community ⁴		Littoral Zone Cover (%) ⁵	Additional Habitat Features ⁴	
								Emergent Vegetation	Submergent Vegetation		Woody Debris	Course Substrate ⁶
TLLit1	Top of Bank	1.64	928.15	0-0.5	Fg	2	Fg-Sh	x	✓	5	✓	x
	Toe of Bank	2.35	927.45	0.5-1	Fg	1	Fg-Sh	x	✓	5	✓	x
	Lake Edge	3.01	926.79	1-2	Fg	3	Fg-Sh	x	✓	30	x	x
	3.0 m Depth	113.01	923.79	2-3	Fg	6	Fg-Sh	x	✓	10	x	x
TLLit2	Top of Bank	1.86	928.17	0-0.5	Gc	13	Gc-St	x	✓	10	x	✓
	Toe of Bank	2.65	927.38	0.5-1	Cg	25	Cg-St	x	✓	10	x	✓
	Lake Edge	3.23	926.79	1-2	Bc	17	Bc-St	x	✓	30	✓	✓
	3.0 m Depth	24.23	923.79	2-3	Bc	11	Bc-St	x	✓	20	✓	✓
TLLit3	Top of Bank	1.51	928.21	0-0.5	Cg	17	Cg-St	x	x	50	✓	✓
	Toe of Bank	2.43	927.29	0.5-1	Gc	10	Gc-St	x	x	10	x	✓
	Lake Edge	2.95	926.78	1-2	Cb	17	Cb-St	x	x	10	x	✓
	3.0 m Depth	32.95	923.79	2-3	Gf	6	Gf-Sh	x	✓	5	x	✓
TLLit4	Top of Bank	0.08	928.19	0-0.5	Fg	1	Fg-Sh	✓	✓	10	x	x
	Toe of Bank	0.85	927.42	0.5-1	Gf	10	Gf-St	x	✓	5	x	x
	Lake Edge	1.48	926.79	1-2	Gf	20	Gf-St	x	✓	20	x	x
	3.0 m Depth	53.48	923.79	2-3	Gf	25	Gf-St	x	✓	5	x	x
TLLit5	Top of Bank	0.58	928.36	0-0.5	Gf	25	Gf-St	x	x	5	x	✓
	Toe of Bank	1.13	927.81	0.5-1	Fg	25	Fg-St	x	✓	5	x	x
	Lake Edge	2.15	926.79	1-2	Gf	50	Gf-St	x	✓	30	x	x
	3.0 m Depth	12.15	923.79	2-3	Gf	25	Gf-St	x	✓	10	x	x
TLLit6	Top of Bank	2.24	928.01	0-0.5	F-	1	F-Sh	x	✓	10	x	x
	Toe of Bank	2.94	927.30	0.5-1	F-	10	F-St	x	✓	30	x	x
	Lake Edge	27.46	926.79	1-2	F-	20	F-St	x	✓	30	x	x
	3.0 m Depth	81.46	923.79	2-3	F-	20	F-St	x	✓	10	x	x

Site	Distance and Elevation			Littoral Habitat Characteristics								
	Location Relative to Pin ¹	Distance From Pin (m)	Elevation (masl)	Depth Strata (m)	Substrate Type (Dominant/Sub-dominant) ²	Shoreline Gradient (%)	Littoral Habitat Type ³	Littoral Plant Community ⁴		Littoral Zone Cover (%) ⁵	Additional Habitat Features ⁴	
								Emergent Vegetation	Submergent Vegetation		Woody Debris	Course Substrate ⁶
TLLit7	Top of Bank	0.33	927.74	0-0.5	Bg	50	Bg-St	*	✓	30	*	✓
	Toe of Bank	0.69	927.38	0.5-1	Bg	25	Bg-St	*	✓	30	✓	✓
	Lake Edge	1.28	926.79	1-2	Fb	9	Fb-Sh	*	✓	20	*	✓
	3.0 m Depth	48.28	923.79	2-3	Fb	3	Fb-Sh	*	✓	10	*	*
TLLit8	Top of Bank	0.46	928.04	0-0.5	Fc	13	Fc-St	*	*	0	*	*
	Toe of Bank	0.87	927.62	0.5-1	Gc	13	Gc-St	*	✓	5	*	*
	Lake Edge	1.70	926.79	1-2	Gf	33	Gf-St	*	✓	5	*	*
	3.0 m Depth	17.70	923.79	2-3	Gf	20	Gf-St	*	✓	5	*	*
TLLit9	Top of Bank	1.61	928.36	0-0.5	Cg	8	Cg-Sh	*	*	5	*	✓
	Toe of Bank	2.32	927.64	0.5-1	Bc	25	Bc-St	*	*	10	✓	✓
	Lake Edge	3.18	926.79	1-2	Cg	25	Cg-St	*	✓	10	✓	✓
	3.0 m Depth	18.18	923.79	2-3	Bc	25	Bc-St	*	*	5	*	✓
TLLit10	Top of Bank	0.14	928.20	0-0.5	Gf	17	Gf-St	*	✓	5	*	*
	Toe of Bank	0.74	927.61	0.5-1	Fg	13	Fg-St	*	✓	10	*	*
	Lake Edge	1.56	926.79	1-2	Fg	50	Fg-St	*	✓	10	*	*
	3.0 m Depth	13.56	923.79	2-3	Gf	33	Gf-St	*	✓	5	*	*
TLLit11	Top of Bank	1.45	928.17	0-0.5	Gf	13	Gf-St	*	*	0	*	*
	Toe of Bank	2.05	927.56	0.5-1	Gf	17	Gf-St	*	*	0	*	*
	Lake Edge	2.83	926.79	1-2	Gf	33	Gf-St	*	✓	5	*	*
	3.0 m Depth	16.83	923.79	2-3	Fg	25	Fg-St	*	✓	5	*	*

Notes: ¹Top of Bank = highwater mark, Toe of bank = toe of the slope directly below highwater mark, Lake edge = wetted edge of the lake, 3.0 m depth = the terminus of the littoral habitat transect where water depth was 3.0 m, ² Substrate Type: capital letter = dominant substrate, lower case letter = sub-dominant substrate, (-) no substrate for that substrate type; f = fines (less than [$<$] 2 mm), g = gravel (2-64 millimetres [m]), c = cobble (64-256 mm), and b = boulder (greater than [$>$] 256 mm), ³ Littoral Habitat Type: capital letter = dominant substrate, lower case letter = -dominant substrate, gradient as shallow (Sh) = <10 percent (%), steep (St) = >10 %, ⁴Littoral Plant Community and Habitat Features recorded as presence (✓) / absence (✗) as per Bradbury et al. 2001 and AMEC 2013, ⁵Littoral Zone Cover: rounded to nearest 10% or 5% if less than or equal to 5%, ⁶Course substrate = cobble and boulder (>64 mm), m = meters, masl = meters above sea level, (-) = data not available.

At TLLit1 the predominant habitat type was a shallow gradient with Fines/gravel (Fg-Sh) as the dominant and sub-dominant substrate types across depth strata, respectively. Percent cover ranging from 5 to 30%, submergent vegetation and woody debris were present between the 0 to 1.0 m depths. Course substrate was absent at the site.

At TLLit2 the habitat type was a steep gradient with Gravel/cobble (Gc-St, 0-0.5 m), Cobble/gravel (Cg-St, 0.5-1 m) and Boulder/cobble (Bc-St, 1-3 m) as the dominant and sub-dominant substrate types with each increasing depth strata, respectively. Percent cover ranged from 10 to 30%, submergent vegetation was present as well as woody debris and course substrates for additional habitat features.

At TLLit3 there was a steep gradient with Cobble/gravel (Cg-St, 0-0.5 m), Gravel/cobble (Gc-St, 0.5-1 m) and Cobble/boulder (Cb-St) as the dominant and sub-dominant substrate types with each increasing depth strata until a depth of 2 m. Then between 2 to 3 m, the habitat type changed to Gravel/fines-Shallow (Gf-Sh). Percent cover at the site was variable, ranging from 5 to 50%, with submergent vegetation present only in the 2 to 3 m depth stratum, woody debris present between the 0 to 0.5 depth and course substrates present throughout the transect.

At TLLit4 the habitat type was Fines/gravel-Shallow (Fg-Sh) until 0.5 m depth, shifting to Gravel/fines-Steep (Gf-St) until 3.0 m. Percent cover ranged from 5 to 20%, with emergent vegetation only present between 0 to 0.5 m, submergent vegetation present across all depths, and no woody debris or course substrates present.

At TLLit5 the habitat types ranged from Fines/gravel-Steep (Fg-St, 0.5-1 m) to Gravel/fines-Steep (Gf-St, 0-0.5 and 1-3 m). There was a steep gradient (25 to 50%) across depth strata. Percent cover ranged from 5 to 30%, submergent vegetation was present between 1 to 3 m, and woody debris between 0 to 0.5 m.

At TLLit6 the habitat types ranged from Fines-Shallow (F-Sh, 0-0.5 m) to Fines-Steep (F-St, 0.5-3 m). No substrate types other than fines were visually observed at this site, though it is likely that trace amounts were present. The transect had a shallow gradient (>10%) until the 1 m depth, increasing rapidly until 3 m. Percent cover ranged from 10 to 30%, submergent vegetation was present across depths, and no woody debris or course substrates were present.

At TLLit7 the habitat types ranged from Boulder/gravel-Steep (Bg-St, 0-1 m) to Fines/boulder-Shallow (Fb-Sh, 1-3 m). There was a steep gradient until the 1 m depth and the gradient was shallow after that until 3 m. Percent cover ranged from 10 to 30%, with submergent vegetation present across depths. Woody debris was only present between 0.5 to 1 m, and course substrate provided cover between 0 to 2.0 m depth.

At TLLit8 the habitat types included Fines/cobble-Steep (Fc-St, 0-0.5 m), Gravel/cobble-Steep (Gc-St, 0.5-1 m), and Gravel/fines-Steep (Gf-St, 1-3 m). There was a steep gradient (13 to 33%) across depth strata. Percent cover ranged from 0 to 5%, trace submergent vegetation was present between 0.5 and 3 m, and no woody debris or course substrate providing cover were present.

At TLLit9 the habitat types included Cobble/gravel-Shallow (Cg-Sh, 0-0.5 m), Cobble/gravel-Steep (Cg-St, 1-2 m), and Boulder/cobble-Steep (Bc-St, 0.5-1 m and 2-3 m). There was a shallow gradient until the 0.5 m depth at which point the transect had a steep (25%) gradient until 3.0 m. Percent cover ranged from 5 to

10%, with submergent vegetation present between 1 and 2 m, woody debris present between 0.5 and 2 m, and coarse substrate provided cover across all depths.

At TLLit10 the habitat types ranged from Gravel/fines-Steep (Gf-St, 0-0.5 and 2-3 m) to Fines/gravel-Steep (Fg-St, 0.5-2 m). There was a steep (13 to 50%) gradient across depths. Percent cover was low ranging from 5 to 10%, with submergent vegetation present across depth strata, and no other habitat features present.

At TLLit11 the habitat types ranged from Gravel/fines-Steep (Gf-St, 0-2 m) to Fines/gravel-Steep (Fg-St, 2-3 m). There was a steep gradient (13 to 33%) across all depth strata. Percent cover was low ranging from 0 to 5%, with submergent vegetation present between 1 and 3 m, and no other habitat features present along the transect.

The following two recommendations for this program are based on the experience and findings associated with the 2023 littoral habitat field program:

- Alter habitat metrics used in habitat assessments to match the Standard Methods Guide for the Classification/Quantification of Lacustrine Habitat in Newfoundland and Labrador (Bradbury 2001) to more closely match the methodology used in the Project Fish and Aquatics Baseline Study (AMEC 2013). For example, the manual identified littoral habitat types as vegetated or non-vegetated rather than describing the plant community (e.g., submergent and emergent).
- Adjust the timing of subsequent pre-FWSS construction littoral habitat assessments to better reflect the timing of potential changes to the littoral habitat due to the Project. With three years (2021 to 2023) of baseline littoral fish habitat data, sampling for this program should not be required until the FWSS construction/operation, as it is unlikely that changes or impacts to the lake littoral habitat are expected until that point. This is not a recommendation on the frequency of sampling post-construction of the FWSS, only prior to construction. All recommendations for the Condition 3.16 fisheries compliance field programs are summarized in **Table 4-1**.

3.1.2.2 Water Quality

Water quality variables were measured at the littoral habitat transect sites between September 9 and 12, 2023, at a depth of 0.5 m (**Table 3-5**). Water temperature across sites ranged from 15.4 at site TLLit4 to 16.9°C at TLLit6. The pH ranged from 8.74 (TLLit3) to 9.22 (TLLit2), within or slightly above guidelines (6.5 to 9 pH) (BC ENV 2021). Values for conductivity and specific conductivity (no guidelines) varied little between sites. Conductivity ranged from 119.80 (TLLit11) to 146.40 (TLLit8) $\mu\text{S}/\text{cm}$ and specific conductivity ranged from 146.10 (TLLit9) to 149.20 $\mu\text{S}/\text{cm}$ (TLLit6). Dissolved oxygen ranged from 5.63 to 9.99 mg/L, above the minimum BC WQG FAL threshold (5 mg/L) to support fish of all life stages (BC ENV 2021). In situ surface water quality data are also included in **Appendix B-6**.

Table 3-5. In Situ Water Quality Data in Tatelkuz Lake, September 2023

Site	Date	Depth (m)	Temperature (°C)	pH	Conductivity (µS/cm)	Specific Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (% saturation)
TLLit1	10-Sept-2023	0.5	16.80	9.04	123.60	146.50	7.07	73.50
TLLit2	12-Sept-2023	0.5	15.90	9.22	121.10	146.60	5.85	59.10
TLLit3	9-Sept-2023	0.5	16.10	8.74	121.60	146.40	9.99	101.30
TLLit4	11-Sept-2023	0.5	15.40	9.02	120.70	147.60	6.78	61.10
TLLit5	12-Sept-2023	0.5	15.50	9.14	120.20	146.70	5.63	57.00
TLLit6	11-Sept-2023	0.5	16.90	9.14	126.20	149.20	7.39	76.50
TLLit7	11-Sept-2023	0.5	16.00	9.15	122.50	147.90	6.62	67.40
TLLit8	12-Sept-2023	0.5	15.70	9.19	146.40	146.20	5.87	59.20
TLLit9	10-Sept-2023	0.5	16.50	8.98	121.30	146.10	7.21	72.80
TLLit10	11-Sept-2023	0.5	16.20	9.21	122.20	147.20	9.57	69.30
TLLit11	10-Sept-2023	0.5	15.50	8.96	119.80	146.50	7.05	71.10

Notes: m = meters, µS/cm = microsiemens per centimeter, mg/L = milligrams per liter, °C = degrees Celsius, % = percent

3.1.2.3 Unmanned Aerial Vehicle Mapping

Orthoimage maps created from UAV image collection completed for the Tatelkuz Lake littoral zone at the 11 fish habitat transects sites in October 2023 are included in **Appendix C**.

3.1.3 Littoral Fish Community and Abundance

A total of 572 individual fish and 11 fish species were captured during the late summer 2023 Littoral Fish Community and Abundance Survey. Fish capture data, CPUA, and fish density per 100 m² are presented in **Table 3-6**. Relative fish abundance is presented in **Table 3-7**. Beach seine effort data are presented in **Appendix B-7** and individual fish data are presented in **Appendix B-8**.

A total of 572 fish were captured consisting of 10 different species and one larval fish that could not be identified to species (**Table 3-6**). All captured fish were juvenile, except for 16 adult Prickly Sculpin and the one unidentified larval fish. Overall, the most captured species was the Largescale Sucker (*Catostomus macrocheilus*), and the least captured species was kokanee. The CPUA and fish density were the highest at site TLLit4 and the lowest at site TLLit2. The relative abundance (i.e., proportion of total fish caught) for Prickly Sculpin was highest at sites TLLit1, TLLit5, TLLit8, TLLit10, and TLLit11. Relative abundance for Largescale Sucker was highest at site TLLit4. Relative abundance for Northern Pikeminnow abundance was highest at sites TLLit2, TLLit3, TLLit7, and TLLit9. Relative abundance for unidentified sculpin species was highest at site TLLit2 and relative abundance for White Sucker (*Catostomus commersonii*) was highest as site TLLit6.

Table 3-6. Beach Seine Fish Capture Data, CPOA and Fish Density in Tatelkuz Lake, September 2023.

Site	Fish Species											Total	CPOA (fish per m ²)	Density (fish per 100 m ²)
	BMC	CAS	CSU	KO	LSU	MW	NSC	RB	Sculpin	WSU	Unident-ified			
TLLit1	0	19	0	2	0	0	2	0	0	0	1	24	0.12	12.0
TLLit2	0	0	0	0	0	0	1	0	1	0	0	2	0.01	1.0
TLLit3	1	0	0	0	0	0	5	0	0	0	0	6	0.03	3.0
TLLit4	8	2	247	0	12	0	42	0	0	30	0	341	1.70	170.5
TLLit5	0	44	0	0	1	1	5	0	10	0	0	61	0.31	30.5
TLLit6	0	3	1	0	1	0	2	0	0	6	0	13	0.07	6.5
TLLit7	0	0	0	0	0	0	15	0	0	0	0	15	0.08	7.5
TLLit8	0	10	0	0	0	0	9	0	2	0	0	21	0.11	10.5
TLLit9	0	0	0	0	0	0	5	1	0	0	0	6	0.03	3.0
TLLit10	0	20	0	0	1	15	12	6	9	0	0	63	0.32	31.5
TLLit11	0	13	0	0	0	2	0	1	4	0	0	20	0.10	10.0
Total	9	111	248	2	15	18	98	8	26	36	1	572	N/A	N/A

Notes: BMC = Brassy Minnow, CAS = Prickly Sculpin, CSU = Largescale Sucker, KO = kokanee, LSU = Longnose Sucker, MW = Mountain Whitefish, NSC = Northern Pikeminnow, RB = Rainbow Trout, Sculpin = general sculpin species, WSU = White Sucker, m² = square metres, CPOA = catch per unit area, N/A = not applicable

Table 3-7. Relative Fish Abundance by Species and Site for Beach Seining in Tatelkuz Lake, September 2023

Site	Relative Abundance BMC (%)	Relative Abundance CAS (%)	Relative Abundance CSU (%)	Relative Abundance KO (%)	Relative Abundance LSU (%)	Relative Abundance MW (%)	Relative Abundance NSC (%)	Relative Abundance RB (%)	Relative Abundance Sculpin (%)	Relative Abundance WSU (%)	Relative Abundance UNID (%)
TTLit1	0	79	0	8	0	0	8	0	0	0	4
TTLit2	0	0	0	0	0	0	50	0	50	0	0
TTLit3	17	0	0	0	0	0	83	0	0	0	0
TTLit4	2	1	72	0	4	0	12	0	0	8	0
TTLit5	0	72	0	0	2	2	8	0	16	0	0
TTLit6	0	23	8	0	8	0	15	0	0	46	0
TTLit7	0	0	0	0	0	0	100	0	0	0	0
TTLit8	0	48	0	0	0	0	43	0	10	0	0
TTLit9	0	0	0	0	0	0	83	17	0	0	0
TTLit10	0	32	0	0	2	24	19	10	14	0	0
TTLit11	0	65	0	0	0	10	0	5	20	0	0

Notes: BMC = Brassy Minnow, CAS = Prickly Sculpin, CSU = Largescale Sucker, KO = kokanee, LSU = Longnose Sucker, MW = Mountain Whitefish, NSC = Northern Pikeminnow, RB = Rainbow Trout, Sculpin = general sculpin species, WSU = White Sucker, UNID = unidentified species, % = percent

The following recommendations for this program are based on the experience and findings associated with the 2023 littoral fish community and abundance field programs:

- Remove the larval Brassy Minnow sampling component and sample only for the adult life stage or delay the timing of larval sampling to a point where most of the spawning is expected to have occurred and larval fish are hatched, based on a literature review of lacustrine Brassy Minnow reproduction in BC. Due to the inter-annual variation in lake temperatures and water level, the timing and duration of Brassy Minnow spawning and hatching can be variable. More variable than what would be observed, for example, with salmonids in streams. This variability makes timing annual sampling to target the same larval life stage of Brassy Minnow difficult to achieve.
- Sacrifice a subset of fish captured during early life-stage sampling to be taxonomically identified by laboratory analysis if this component is not removed from the program. Identification of early life stages for some species captured in Tatelkuz Lake was difficult given the lack of available literature for some species at these stages (e.g., Northern Pikeminnow), and the challenge of maintaining fish health when confirming key identification features.

All recommendations for the Condition 3.16 fisheries compliance field programs are summarized in **Table 4-1**.

3.2 Lower Chedakuz Creek

3.2.1 Overwintering Fish Habitat

The 2023 overwintering fish habitat assessment results are presented in the Blackwater Gold Project Fish and Aquatic Resources 2022 Field Survey Report (Palmer 2023a).

3.2.2 Summer Fish Habitat

3.2.2.1 *Fish Habitat Assessment Procedure Survey*

The 910 m portion of lower Chedakuz Creek between Tatelkuz Lake and Davidson Creek was assessed as having seven distinct habitat units, including 4 glides, 2 pools, and 1 riffle mesohabitat types. FHAP data was collected in these habitat units on August 28, 2023 (**Table 3-8**). Lower Chedakuz Creek was dominated by glide habitat (87%) with smaller amounts of riffle (8%) and pool (5%) habitats. Channel widths ranged from 13.87 m to 19.83 m in glide habitat, and from 20.50 to 24.00 m for pool habitat. The riffle habitat unit width was 17.43 m. Water depth ranged from 0.28 to 0.52 m in glide habitats, 1.03 to 1.12 m for pool habitats, and 0.12 m for the riffle habitat. The dominant bed material was fines for glide and pool habitats, and gravel for riffle habitat. The dominant cover type varied between and within habitats, and included instream vegetation, small woody debris, and deep pools. Detailed FHAP data are included in **Appendix B-9**.

Table 3-8. Summary of Fish Habitat Assessment Procedure Survey in Lower Chedakuz Creek, August 2023

Site	Habitat Unit	Habitat Unit Type	Habitat Unit Length (m)	Average Channel Width (m)	Average Wetted Width (m)	Average Bankfull Depth (m)	Average Water Depth (m)	Dominant/Sub-dominant Bed Material ¹	Spawning Gravel Amount (Type)	Dominant Cover Type (%)	Sub-Dominant Cover Type (%)
CC_3.16-KO	1	Glide	292.9	13.87	13.27	1.01	0.52	Fines/Gravel	Low (R)	Instream vegetation (15)	Undercut banks (3)
	2	Riffle	71.6	17.43	14.23	0.61	0.12	Gravel/Fines	Low (R)	Small woody debris (9)	Undercut banks (7)
	3	Glide	305.6	16.27	13.07	0.87	0.49	Fines/Gravel	Low (R)	Small woody debris (7)	Undercut banks (5)
	4	Pool	29.2	20.50	20.00	1.60	1.03	Fines/Gravel	None	Deep pool (60)	Undercut banks (6)
	5	Glide	121.5	19.83	17.67	0.64	0.28	Fines/Gravel	Low (R)	Small woody debris (10)	Undercut banks (8)
	6	Pool	17.8	24.00	23.00	1.80	1.12	Fines/Gravel	None	Deep pool (60)	Small woody debris (8)
	7	Glide	72.0	-	-	-	-	-	-	-	-

Notes: m = metre, % = percentage, (-) = data not collected, R = suitable for resident trout with substate size 10-75 mm. ¹Bed material particle size range: fines = less than 2 mm, gravel = 2 to 64 mm.

3.2.2.2 Water Quality

Summer in situ water quality measurements taken at the lower Chedakuz Creek minnow trapping sites are presented in **Table 3**. In situ surface water quality data are also included in **Appendix B-6**.

The temperature of Chedakuz Creek ranged from 14.2°C at site CC_MT1 to 15.2°C at site CC_MT7 and CC_MT8 (**Table 3**). Dissolved oxygen ranged from 10.41 mg/L at site CC_MT7 to 11.84 mg/L at site CC_MT2, above the BC WQG FAL threshold (5 mg/L) to support fish of all life stages (BC ENV 2021). Values for conductivity and specific conductivity, for which there are no guidelines, were low with little variation between sites. Conductivity ranged from 103.3 µS/cm (CC_MT1) to 106.3 µS/cm (CC_MT8), and specific conductivity ranged from 129.9 µS/cm (CC_MT5) to 130.8 µS/cm (CC_MT8). Water pH was within BC WQG FAL guidelines (6.5 to 9 pH) (BC ENV 2021), except at site CC_MT9 (pH 9.03). Water quality was not collected at CC_MT4.

Table 3-9. Summer In Situ Water Quality Data in Lower Chedakuz Creek, September 2023

Site	Sample Date	Temperature (°C)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Specific Conductivity (µS/cm)	Conductivity (µS/cm)	pH
CC_MT1	17-Sep-2023	14.2	11.63	113.4	130.2	103.3	8.97
CC_MT2	17-Sep-2023	14.3	11.84	115.6	130.0	103.5	9.01
CC_MT3 ¹	-	-	-	-	-	-	-
CC_MT4 ¹	-	-	-	-	-	-	-
CC_MT5	17-Sep-2023	14.9	11.21	111.1	129.9	104.8	8.94
CC_MT6	16-Sep-2023	15.1	10.49	104.2	130.5	105.8	8.81
CC_MT7	16-Sep-2023	15.2	10.41	103.6	130.1	105.6	8.80
CC_MT8	16-Sep-2023	15.2	10.47	105.0	130.8	106.3	8.78
CC_MT9	17-Sep-2023	14.4	11.76	115.3	130.3	103.9	9.03
CC_MT10	17-Sep-2023	14.9	11.77	116.5	130.1	105.0	8.99

Notes: (-) data not collected. °C = degrees Celsius, mg/L = milligrams per litre, % = percent, µS/cm = microsiemens per centimetre.
¹Water quality was measured at nearby site CC_MT10.

3.2.2.3 Unmanned Aerial Vehicle Mapping

Survey imagery from the UAV mapping is presented on **Figure 3-2**. This image shows overhead imagery of lower Chedakuz Creek from the outlet of Tatelkuz Lake to the confluence with Davidson Creek (CC_3.16-KO; **Table 2-3**). Riparian vegetation, predominantly comprised of grasses and shrubs, is present along both banks of lower Chedakuz Creek. Dark pool areas can be seen near the outlet of Tateluz Lake.

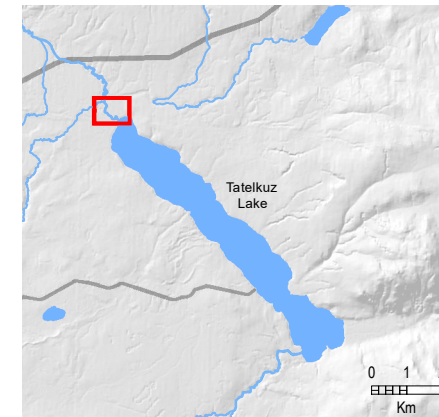
385000



385000

Surrounding base imagery from Esri basemap service
(for context only)

Overview



Scale 1:3000
UTM Zone 10N
NAD 1983 Datum

Prepared For:

CLIENT: Artemis Gold Inc.
PROJECT: Blackwater
DRAWN: B. Elder
CHECKED: A. Miller
PROJECT: 2006506
DATE: Mar 05, 2024

Prepared by:



**Chedakuz Creek (CC_3.16)
2023 UAV Imagery**

Figure 3-2

3.2.3 Fish Community and Abundance

A total of 39 individual fish, representing four fish species, were captured during the 2023 Lower Chedakuz Creek Fish Community and Abundance Survey. Fish capture data, total fish biomass, and morphometrics are presented in **Table 3-9**, **Table 3-10**, and **Table 3-11**, respectively. Minnow trapping effort data for this survey are presented in **Appendix B-10** and individual fish data are presented in **Appendix B-8**.

The 39 fish captured consisted of White Sucker, unidentified sucker species (*Catostomus* sp.), Prickly Sculpin, Northern Pikeminnow, and Rainbow Trout (**Table 3-9**). The unidentified sucker individuals were suspected to be White Sucker based on morphological characteristics and catch of another White Sucker individual positively identified in lower Chedakuz Creek, however, uncertainty based on small body size precludes confident species determination. All captured fish were juveniles, except for two Prickly Sculpin suspected to be in the adult life stage. Overall, the most captured species was Northern Pikeminnow, and the least captured species was Rainbow Trout (**Table 3-9**). The CPUE and total fish biomass was highest at site CC_MT7, and lowest at sites CC_MT1 and CC_MT4. No fish were captured at sites CC_MT1 or CC_MT4 (**Table 3-9**; **Table 3-10**). The condition factor (K) for all captured fish ranged between 0.94 to 1.76 (**Table 3-11**).

Table 3-9. Lower Chedakuz Creek Survey Effort and Catch per Unit Effort, September 2023

Site	Fish Species						Effort (total trap hours per site)	CPUE (fish/trap hour)
	SU ¹	WSU	CAS	NSC	RB	Total Fish		
CC_MT1	0	0	0	0	0	0	44.83	0
CC_MT2	0	0	0	2	0	2	57.65	0.03
CC_MT3	0	0	0	0	1	1	71.90	0.01
CC_MT4	0	0	0	0	0	0	48.35	0
CC_MT5	0	0	0	0	2	2	72.92	0.03
CC_MT6	0	0	3	5	0	8	56.13	0.14
CC_MT7	0	0	1	14	0	15	43.68	0.34
CC_MT8	1	1	2	1	0	5	42.85	0.12
CC_MT9	2	0	0	3	0	5	46.55	0.11
CC_MT10	0	0	0	1	0	1	47.35	0.02
Total	3	1	5	27	2	39	N/A	N/A

Notes: SU = unidentified sucker, WSU = White Sucker, CAS = Prickly Sculpin, NSC = Northern Pikeminnow, RB = Rainbow Trout, CPUE = catch per unit effort, N/A = not applicable

¹ The unidentified sucker species was suspected to be White Sucker (*Catostomus commersoni*) based on morphological characteristics and catch of another White Sucker individual positively identified in lower Chedakuz Creek, however, uncertainty based on small body size precludes confident species determination.

Table 3-10. Biomass of Fish Captured during the Lower Chedakuz Creek Survey, September 2023

Site	Fish Species					Total Site Biomass (g)
	SU ¹	WSU	CAS	NSC	RB	
CC_MT1	0	0	0	0	0	0
CC_MT2	0	0	0	29.6	0	29.6
CC_MT3	0	0	0	0	4.8	0
CC_MT4	0	0	0	0	0	0
CC_MT5	0	0	0	0	3.8	3.8
CC_MT6	0	0	22.8	77.2	0	100.0
CC_MT7	0	0	5.4	222.6	0	228.0
CC_MT8	13.6	12.9	7.7	25.6	0	59.8
CC_MT9	17.1	0	0	37.3	0	54.4
CC_MT10	0	0	0	12.1	0	12.1
Total	30.7	43.6	35.9	404.4	8.6	492.5

Notes: SU = unidentified sucker, WSU = White Sucker, CAS = Prickly Sculpin, NSC = Northern Pikeminnow, RB = Rainbow Trout, CPUE = catch per unit effort, g = grams

¹The unidentified sucker species was suspected to be White Sucker (*Catostomus commersoni*) based on morphological characteristics and catch of another White Sucker individual positively identified in lower Chedakuz Creek, however, uncertainty based on small body size precludes confident species determination.

Table 3-11. Morphometrics of Captured Fish during the Lower Chedakuz Creek Survey, September 2023

Species	Fork Length Range (mm) ¹	Total Length Range (mm) ²	Weight Range (g)	Condition Factor Range (K) ³
White Sucker	106	111	12.9	1.08
Unidentified sucker ⁴	55 - 108	114 - 117	1.60 – 15.50	0.96 – 1.23
Prickly Sculpin	-	39 - 115	0.7 - 20.3	1.14-1.76 ¹
Northern Pikeminnow	97 - 131	10 - 146	10.0 - 25.6	0.94 - 1.26
Rainbow Trout	46 - 73	47 - 73	1.2 - 4.8	1.20 - 1.23

Notes: mm = millimetre, g = grams

¹Prickly Sculpin do not have a forked caudal fin.

²Total length for one unidentified sucker was removed due to suspected error.

³Condition factor for Prickly Sculpin was calculated using total length instead of fork length, given that Prickly Sculpin do not have a forked caudal fin.

⁴The unidentified sucker species was suspected to be White Sucker (*Catostomus commersoni*) based on morphological characteristics and catch of another White Sucker individual positively identified in lower Chedakuz Creek, however, uncertainty based on small body size precludes confident species determination.

Fork length and weight distribution, and length-weight regression, for captured Rainbow Trout, Northern Pikeminnow, and Prickly Sculpin are presented in **Table 3-11**. The single White Sucker and three unidentified suckers captured during the survey were removed from analysis given the limited data available for these individuals. Linear regression cannot be performed on a single data point, and it is not clear which species the three unidentified sucker fish are. No Kokanee were captured during the survey.

The coefficient of determination [r^2] value for each species was above 0.9, demonstrating a strong correlation between fork length and weight. Total length was used in place of fork length for the length-weight regression of Prickly Sculpin because Prickly Sculpin do not have a forked caudal fin.

Because that closed-site electrofishing was not completed, the results presented in **Figure 3-3** do not represent species density or population structure in lower Chedakuz Creek. Instead, data presented in **Figure 3.3** represents the length and weight distribution, and abundance of small-bodied fish captured in lower Chedakuz Creek in September 2023.

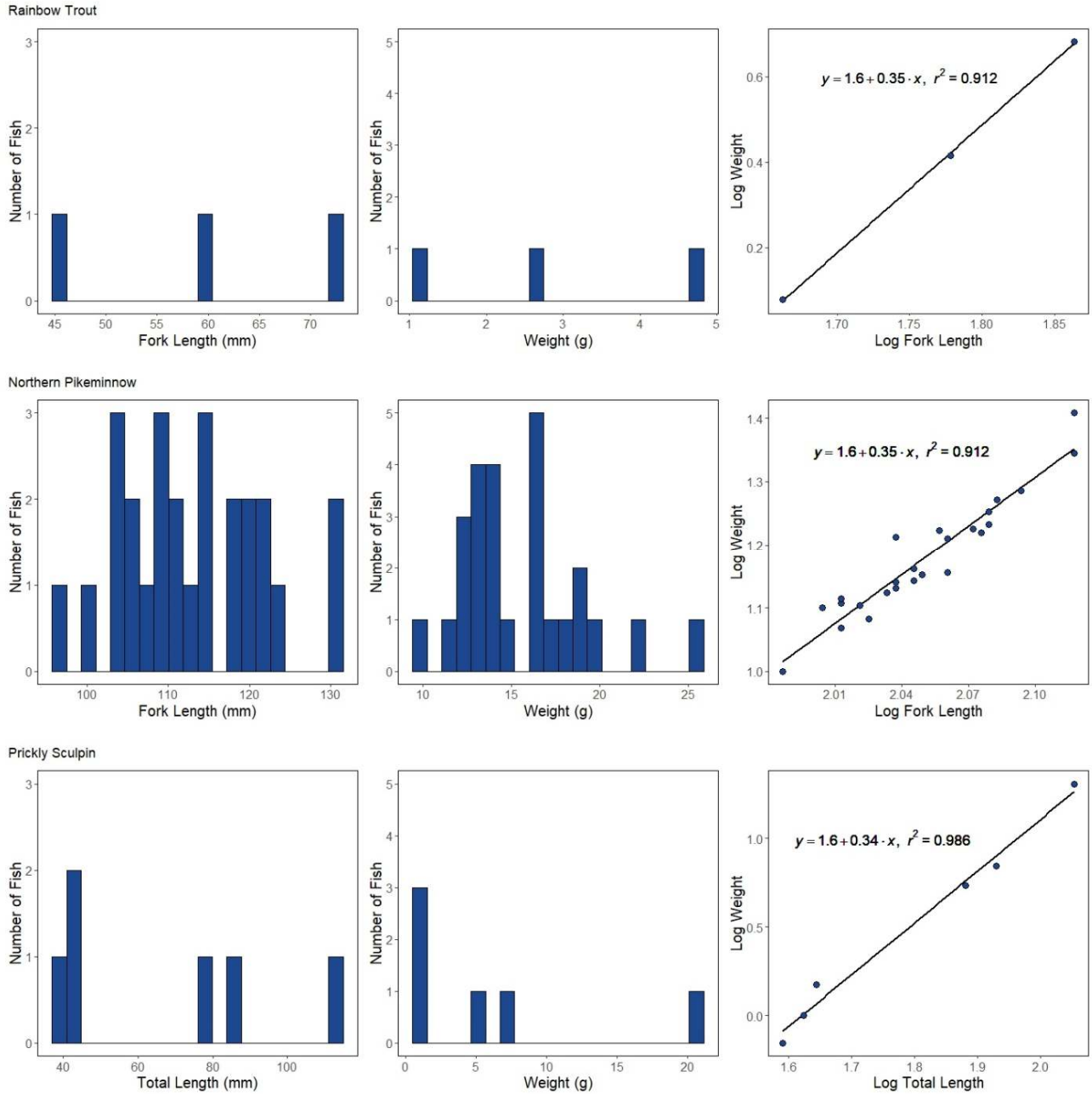


Figure 3-3. Length and weight frequency distribution and length vs weight regression for Rainbow Trout ($n = 3$), Northern Pikeminnow ($n = 26$), and Prickly Sculpin ($n = 6$) in lower Chedakuz Creek, September 2023.

3.2.4 Kokanee Spawner Survey

Four visual spawner surveys were conducted in lower Chedakuz Creek between its confluence with Davidson Creek and the outlet of Tatelkuz Lake (CC_3.16-KO) in August and September 2022 (**Table 3-12**). Live kokanee observations ranged from zero on August 17 and September 9, to 27 on August 28. All live fish observed were holding or actively migrating upstream toward Tatelkuz Lake, with no spawning or spent fish recorded. No redds were observed during any of the surveys in 2023.

Table 3-12. Kokanee Visual Spawner Survey in Lower Chedakuz Creek, August to September 2023

Date	Holding/ Migrating	Spawning	Spent	Dead	Redds	Linear ¹ Density (fish/m)	Areal ² Density (fish/m ²)
17-Aug-2023	0	0	0	0	0	0	0
28-Aug-2023	27	0	0	1	0	0.03	0.002
09-Sep-2023	0	0	0	1	0	0	0
24-Sep-2023	1	0	0	0	0	1.1x10 ⁻³	6.4x10 ⁻⁵

Notes: m = meter, m² = square meter

¹Linear distance used for density was measured using GIS as the distance between Davidson Creek and Tatelkuz Lake (920 m).

²Area was the average wetted width of 16.87 m recorded during the Level 1 Fish Habitat Assessment (Johnson and Slaney 1996) multiplied by the linear distance of the survey (920 m).

One kokanee carcass each was observed during the surveys completed on August 28 and September 9, 2023. The individual carcass recovered on September 9 was measured for fork length (223 mm) and postorbital-hypural length (184 mm) and the otoliths were not recovered due to its decomposition. The carcass observed on August 28 was not recoverable due to its advanced stage of decomposition. Kokanee visual spawner survey data are also included in **Appendix B-11**.

Recording of in situ water quality was attempted prior to each survey however, the water quality meter malfunctioned prior to several surveys. Water temperatures of 21 and 18°C were recorded manually using a thermometer on August 28 and September 9, respectively, at the downstream extent of the CC_3.16-KO survey section, immediately upstream of the confluence between lower Chedakuz Creek and Davidson Creek. A turbidity of 1.88 NTU was also recorded using a turbidity meter, on September 9.

A recommendation for future field programs is to discontinue kokanee spawner surveys for the section of lower Chedakuz Creek, between the outlet of Tatelkuz Lake and the confluence with Davidson Creek (site CC_3.16-KO). In 2022 and 2023, no active spawning or redds were counted in this section, with only holding or migrating kokanee observed with counts of 293 in 2022 and 28 in 2023 (Palmer 2023a). Additionally, no spawning redds were observed in either year. These results indicate that this section of lower Chedakuz Creek is likely used by kokanee for holding and migrating, and not for spawning. These results, in combination with the coverage of kokanee spawner surveys from other monitoring programs (i.e., 3.14 Follow-up Program and the Aquatic Effects Monitoring Program), further downstream in lower Chedakuz Creek, upstream in middle Chedakuz Creek, and in Davidson Creek, indicate the value of completing surveys in this section is relatively limited. All recommendations for the Condition 3.16 fisheries compliance field programs are summarized in **Table 4-1**.

4 Recommendations

Based on the results of the 2023 field program, several recommendations have been developed to refine future Condition 3.16 fish and fish habitat follow-up program surveys. **Table 4-1** presents each recommendation along with the respective study and references the associated method and result report sections for that survey.


Table 4-1. Recommendations for Future Condition 3.16 Field Programs in Davidson Creek

Report Reference (Methods and Results)	Field Program	Recommendation
Sections 2.1.2 and 3.1.2	Tatelkuz Lake Littoral Fish Habitat	Alter the habitat metrics used in littoral fish habitat assessments to better align with the Standard Methods Guide for the Classification/Quantification of Lacustrine Habitat in Newfoundland and Labrador (Bradbury 2001).
Sections 2.1.2 and 3.1.2	Tatelkuz Lake Littoral Fish Habitat	Discontinue pre-construction littoral habitat assessments. Three years (2021 to 2023) of baseline habitat have been collected to characterize baseline conditions. Sampling for this program should not be required until FWSS construction/operation as no changes or impacts to the lake littoral habitat are expected until then.
Sections 2.1.3 and 3.1.3	Tatelkuz Lake Littoral Fish Community and Abundance	Discontinue larval life stage sampling for Brassy Minnow or delay sampling to a time when most spawning is expected to have occurred and larval fish hatched, based on literature review. Due to inter-annual variation in lake temperatures and water level, the timing and duration of Brassy Minnow spawning and hatching can be highly variable. This variability makes timing for annual sampling that targets larval Brassy Minnow at the same life stage with a similar number of fish spawned and hatched challenging.
Sections 2.1.3 and 3.1.3	Tatelkuz Lake Littoral Fish Community and Abundance	Sacrifice a subset of fish captured during larval life-stage sampling for laboratory taxonomic identification. Identification of fish in early life stages can be difficult given the lack of available literature for some species and the challenge of maintaining fish health when confirming key identification features.
Sections 2.2.4 and 3.2.4	Lower Chedakuz Creek Kokanee Spawner Survey	Discontinue kokanee spawner surveys for the section of lower Chedakuz Creek, between the outlet of Tatelkuz Lake and the confluence with Davidson Creek (CC_3.16-KO). In 2022 and 2023, no active spawning or redds were observed in this section and a relatively small number of holding/migrating kokanee were counted (293 kokanee in 2022 and 28 kokanee in 2023). Those results would indicate that this section is predominantly used by kokanee for holding and migrating, not spawning. Considering this in combination with the coverage of kokanee spawner surveys from other compliance fisheries monitoring programs (i.e., Condition 3.14 Follow-up Program and the AEMP) in lower Chedakuz Creek, middle Chedakuz Creek, and an adjacent tributary (Davidson Creek), the value of completing surveys in this section is relatively limited.

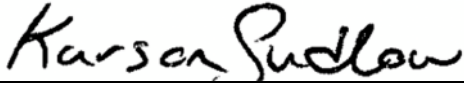
This field survey results report was compiled using the data collected between January and November 2023 to characterize fish and fish habitat conditions in Tatelkuz Lake and lower Chedakuz Creek. These monitoring results will contribute to long-term monitoring program for these waterbodies.

5 Certification


This report was prepared, reviewed and approved by the undersigned:

Prepared By: 

Alexandra Leclair, M.Sc., R.P.Bio.
Environmental Biologist

Prepared By: 


Karson Sudlow, M. Sc., B.I.T
Aquatic Biologist

Prepared By: 


Daniel King, M.E.T
Fisheries Biologist

Prepared By: 

Amanda Miller, B.Tech., R.P.Bio.
Aquatic Biologist

Reviewed By: 

Glenn Wagner, Ph.D., R.P.Bio.
Senior Fisheries Biologist

Approved By: 

Rick Palmer, M.Sc., R.P.Bio.
Senior Fisheries Biologist, Chief Executive Officer

6 References

- AMEC. 2013. *Blackwater Gold Project Application for an Environmental Assessment Certificate/Environmental Impact Statement - Assessment of Potential Environmental Effects: Fish and Aquatic Resources 2013 Baseline Report (Appendix 5.1.2.6B)*. Prepared for New Gold Inc. By AMEC Environment and Infrastructure.
- BC EAA. 2002. British Columbia Environmental Assessment Act (BE EAA), SBC. C. 43.
- BC ENV. 2021. British Columbia Approved Water Quality Guidelines: Aquatic Life, Wildlife & Agriculture - Guideline Summary. Water Quality Guideline Series, WQG-20. Prov. B.C., Victoria B.C.: British Columbia Ministry of Environment and Climate Change Strategy (BC ENV). 2021.
- Bradbury, C., Power, A.S., Roberge, M.M. 2001. *Standard Methods Guide for the Classification/Quantification of Lacustrine Habitat in Newfoundland and Labrador*. Fisheries and Oceans, St. John's, NF. 60 p. .
- CEAA. 2012. Canadian Environmental Assessment Act (CEAA), SC. C.19, s. 52.
- Fisheries Act. 1985. RSC. C. F-14.
- Golder. 2008. *Fish Species Habitat Suitability Index Models for the Alberta Oil Sands Region*. Version 2.0. Golder Associates Ltd. (Golder).
- Johnston, N.T. and P.A. Slaney. 1996. *Fish Habitat Assessment Procedures*. Watershed Restoration Technical Circular No. 8. Revised April 1996.
- Palmer. 2024. *2023 Post-Fire Memorandum*. Prepared on behalf of Artemis Gold Inc. March 2024.
- Palmer. 2022. *Blackwater Gold Project Fish and Aquatic Resources 2021 Field Survey Report*. Prepared for BW Gold Ltd. by Palmer, August 2022.
- Palmer. 2023a. *Blackwater Gold Project Fish and Aquatic Resources 2022 Field Survey Report*. Prepared for BW Gold Ltd. by Palmer, September 2023.
- Palmer. 2023b. Blackwater Gold Project: Follow-up Programs for Condition 3.16 of the Blackwater Mine Project Decision Statement Issued under Section 54 of the Canadian Environmental Assessment Act, 2012. Prepared for BW Gold Ltd. by Palmer, May 9, 2023.
- Palmer. 2023c. *Fin Clipping as a Marking Tool to Distinguish Salvaged and Resident Fish in Davidson Creek and Creek 661 for the Blackwater Gold Project*. Prepared for Artemis Gold Inc. by Palmer, July 2023.
- RStudio Team. 2022. RStudio: Integrated Development Environment for R. RStudio, PBC, Boston, MA. Available at: <http://www.rstudio.com/>.

Appendix A

Site Photographs

- A-1. Tatelkuz Lake Photographs
- A-2. Lower Chedakuz Creek Photographs

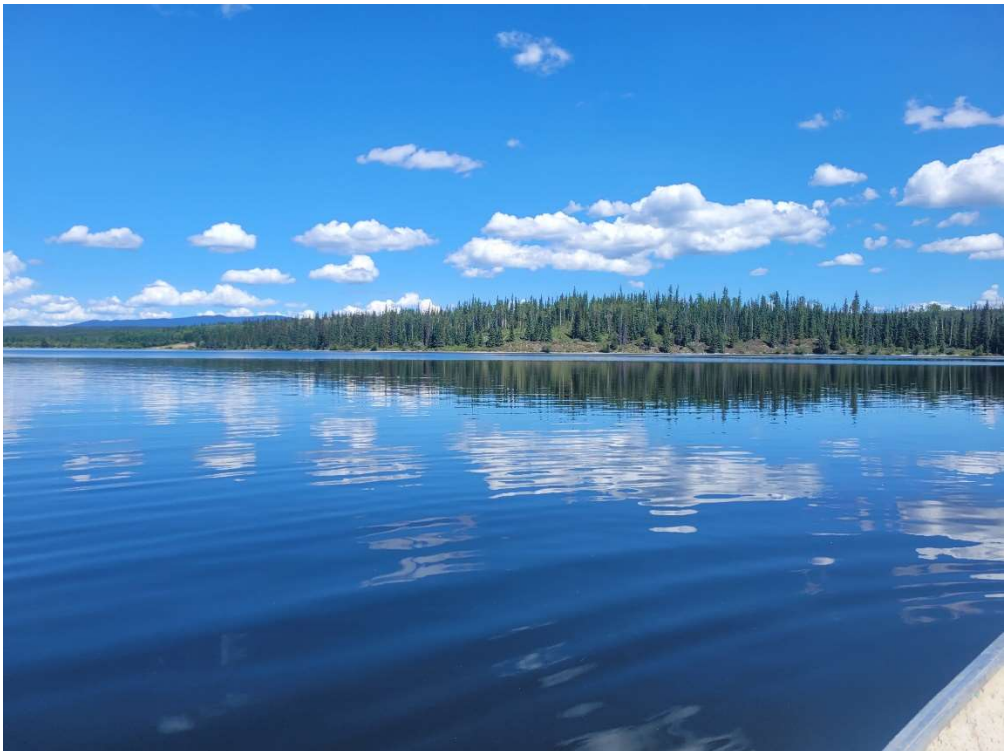
A-1. Tatelkuz Lake Photographs

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

Photo #: 1	Date: 1/24/2023	
Field Program Tatelkuz Lake Limnology and Winter Conditions		
Description Northwest view of Tatelkuz Lake during January limnology survey.		

Photo #: 2	Date: 6/27/2023	
Field Program Tatelkuz Lake Limnology and Winter Conditions		
Description Northeast view of Tatelkuz Lake during June limnology survey.		

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506



Photo #: 3	Date: 9/14/2023	
Field Program Tatelkuz Lake Limnology and Winter Conditions		
Description Northwest view of Tatelkuz Lake during September limnology survey.		

Photo #: 4	Date: 9/10/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description Northwest view of TLLit1 shoreline from 70 m distance from the pin.		

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

Photo #: 5	Date: 9/12/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description View of TLLit1 littoral plant community.		

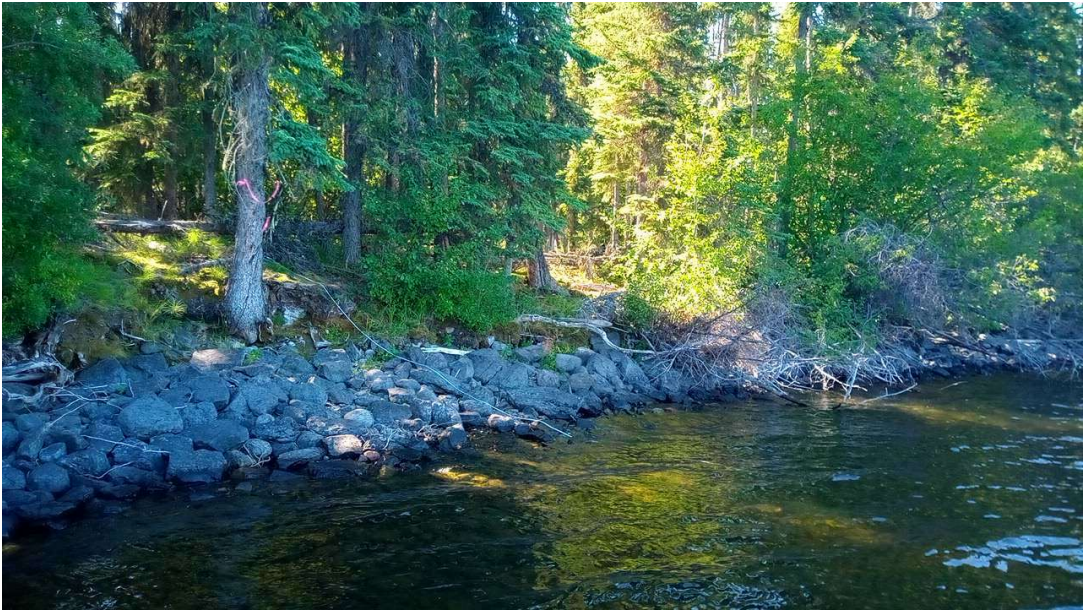
Photo #: 6	Date: 9/12/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description Northwest view of TLLit2 shoreline.		

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

Photo #: 7	Date: 9/12/2023
Field Program Tatelkuz Lake Littoral Fish Habitat	
Description TLLit2 shoreline substrate composition.	

Photo #: 8	Date: 9/9/2023
Field Program Tatelkuz Lake Littoral Fish Habitat	
Description TLLit3 Southwestern view of shoreline.	

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

Photo #: 9	Date: 9/9/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description TLLit3 shoreline substrate composition.		

Photo #: 10	Date: 9/11/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description TLLit4 western view of shoreline.		

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

Photo #:	Date:
11	9/11/2023
Field Program Tatelkuz Lake Littoral Fish Habitat	
Description TLLit4 wetted edge substrate and plant community composition.	

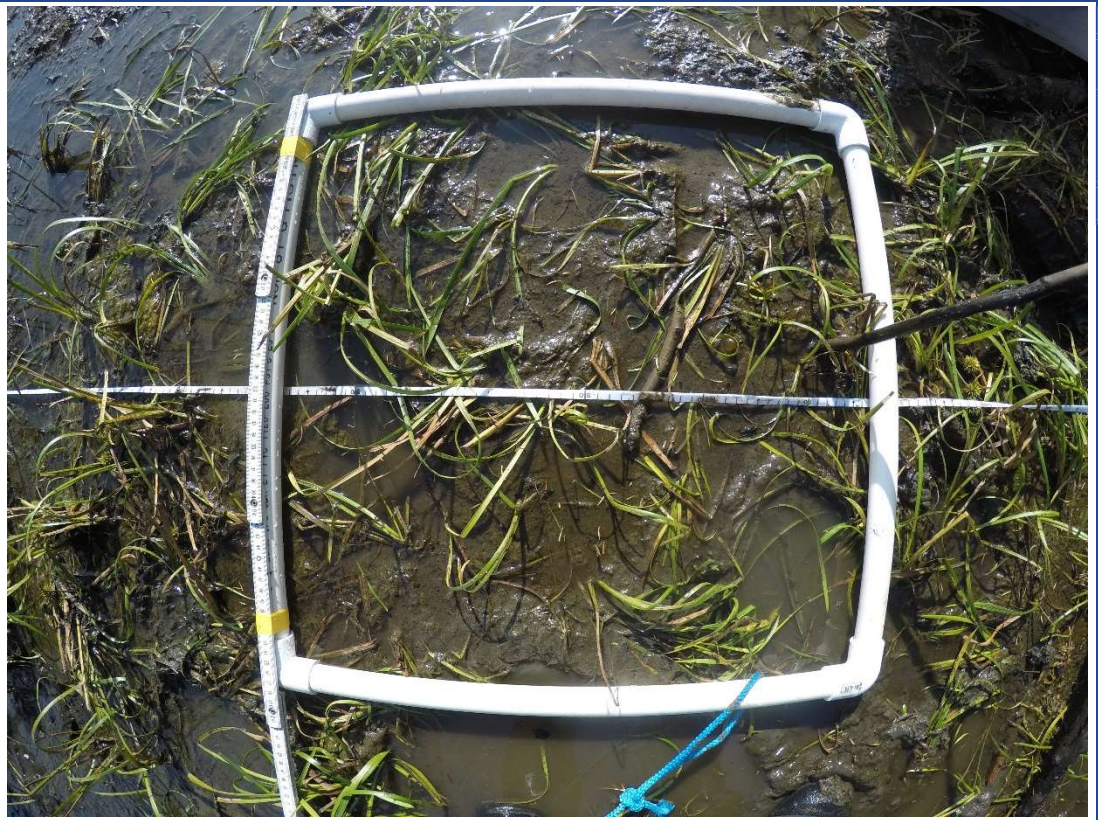


Photo #:	Date:
12	9/12/2023
Field Program Tatelkuz Lake Littoral Fish Habitat	
Description TLLit5 Northwest view of shoreline.	



A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506




Photo #: 13	Date: 9/12/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description TLLit5 substrate and plant community composition.		

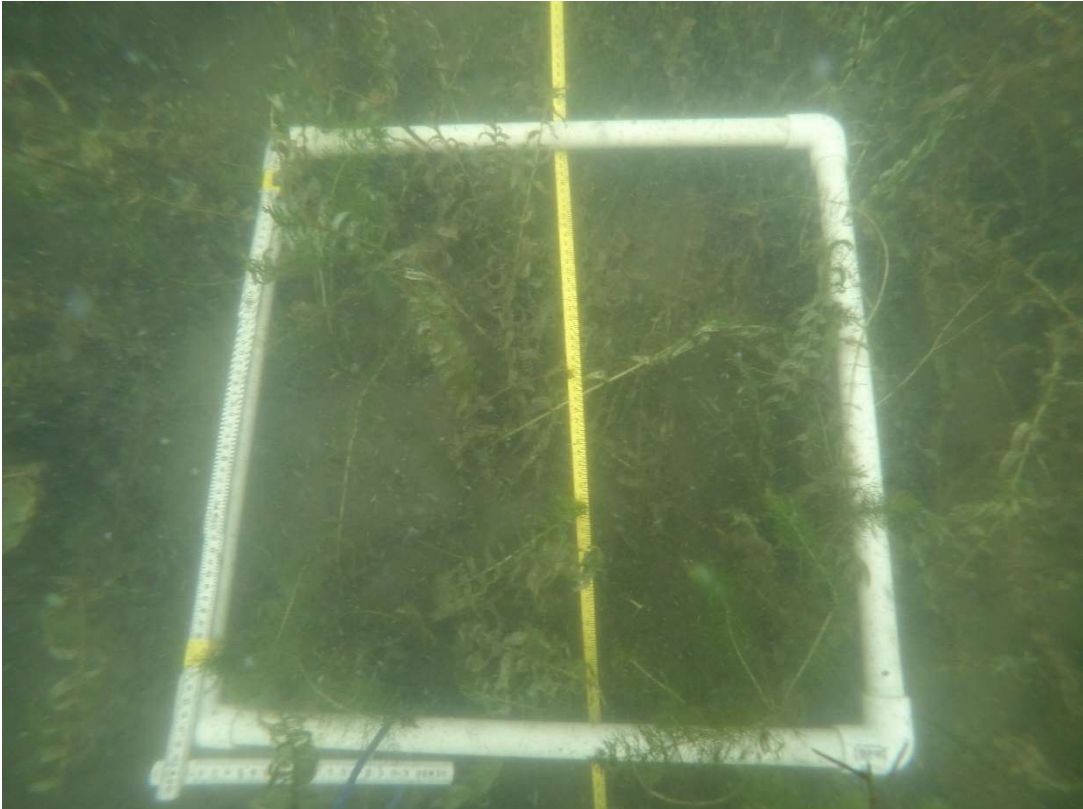
Photo #: 14	Date: 9/11/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description TLLit6 southern facing shoreline view.		

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

<p>Photo #: 15</p>	<p>Date: 9/11/2023</p>	
<p>Field Program Tatelkuz Lake Littoral Fish Habitat</p>		
<p>Description TLLit6 western view of transect from shore.</p>		

<p>Photo #: 16</p>	<p>Date: 9/11/2023</p>	
<p>Field Program Tatelkuz Lake Littoral Fish Habitat</p>		
<p>Description TLLit6 substrate and plant community composition.</p>		

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

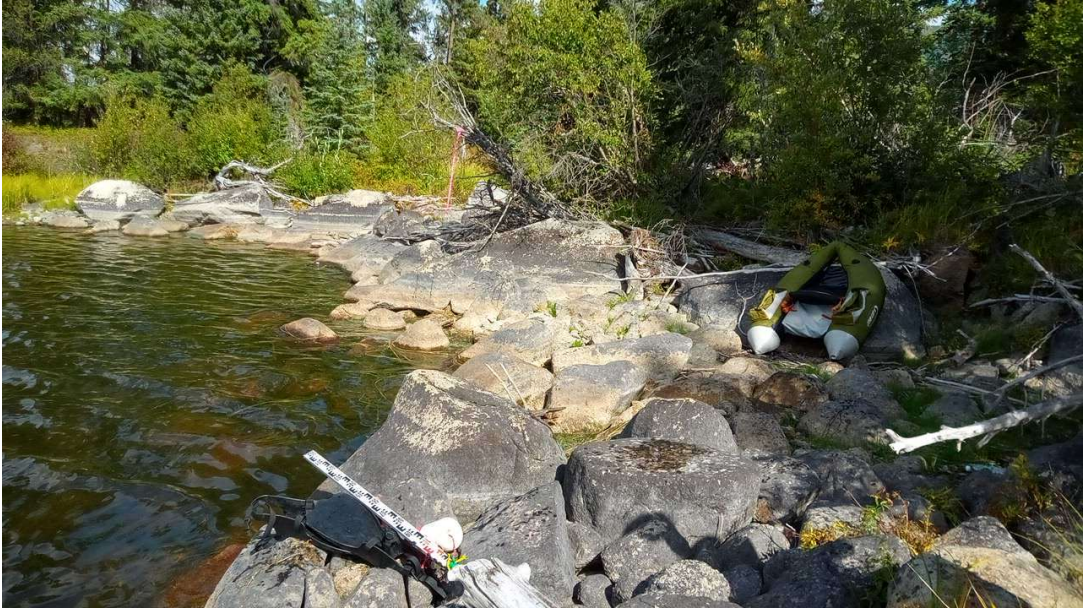

Photo #: 17	Date: 9/11/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description TLLit7 northeastern view of shoreline.		

Photo #: 18	Date: 9/11/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description TLLit7 shoreline substrate composition.		

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

Photo #: 19	Date: 9/12/2023
Field Program Tatelkuz Lake Littoral Fish Habitat	
Description North view showing TLLit8 shoreline.	

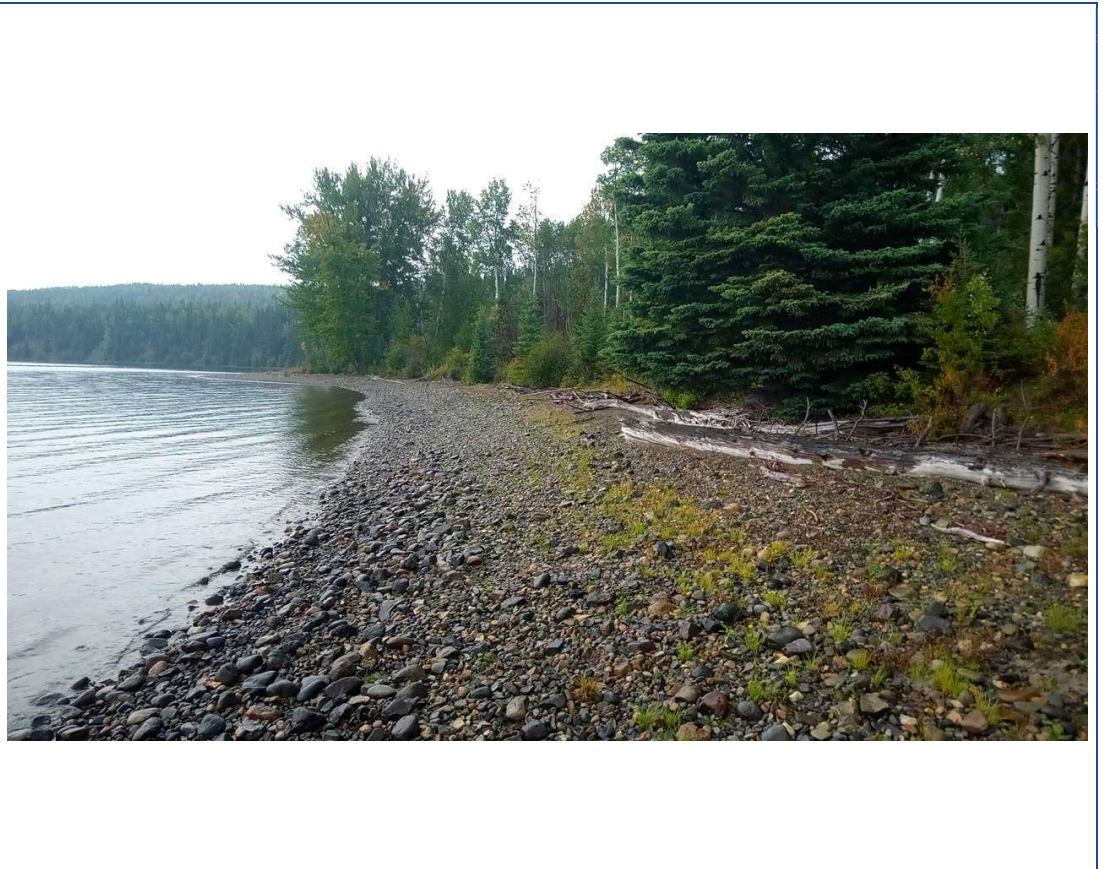
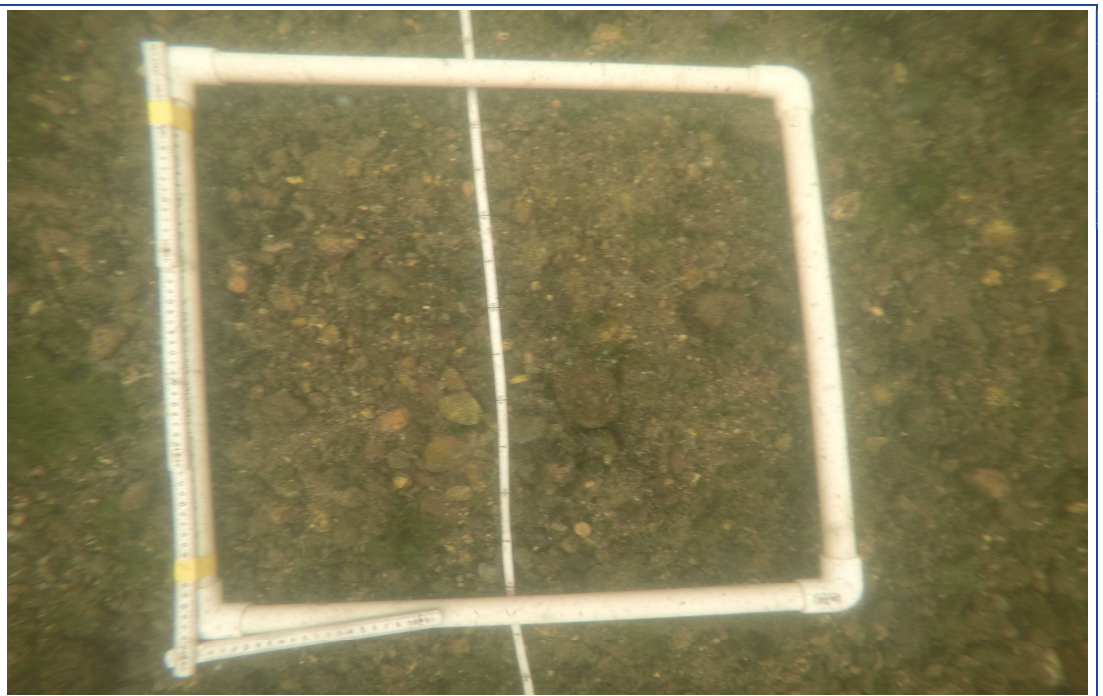


Photo #: 20	Date: 9/12/2023
Field Program Tatelkuz Lake Littoral Fish Habitat	
Description TLLit8 substrate composition and plant community.	



A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506



Photo #: 21	Date: 9/10/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description Southeastern view of TLLit9 shoreline.		

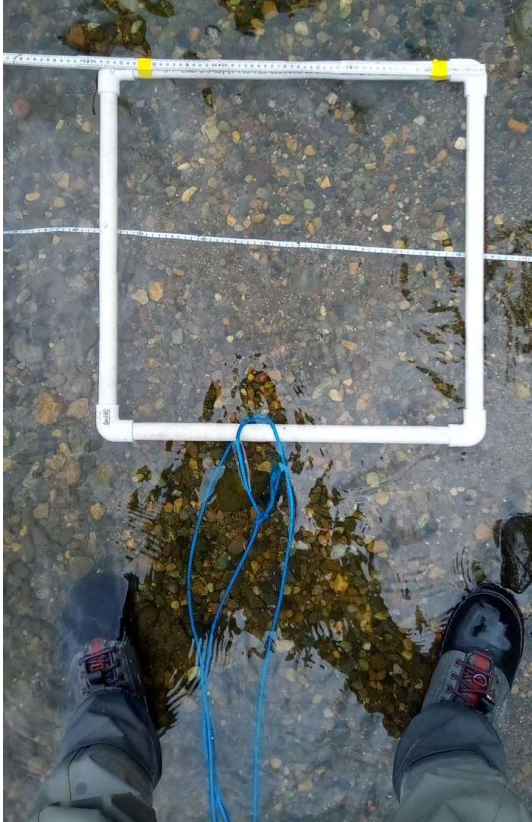
Photo #: 22	Date: 9/10/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description TLLit9 substrate composition at 7.5 m distance from pin.		

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

<p>Photo #: 23</p>	<p>Date: 9/11/2023</p>	
<p>Field Program Tatelkuz Lake Littoral Fish Habitat</p>		
<p>Description TLLit10 southeastern shoreline view.</p>		

<p>Photo #: 24</p>	<p>Date: 9/11/2023</p>	
<p>Field Program Tatelkuz Lake Littoral Fish Habitat</p>		
<p>Description TLLit10 substrate composition near waters edge.</p>		

A-1. Tatelkuz Lake Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506



Photo #: 25	Date: 9/10/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description TLLit11 southeast view of shoreline		

Photo #: 26	Date: 9/10/2023	
Field Program Tatelkuz Lake Littoral Fish Habitat		
Description TLLit11 substrate composition.		


A-2. Lower Chedakuz Creek Photographs

A-2. Lower Chedakuz Creek Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

Photo #: 1	Date: 8/28/2023	
Field Program Lower Chedakuz Creek Fish Habitat Assessment Procedure Survey		
Description Downstream view at CC_3.16 in lower Chedakuz Creek.		

Photo #: 2	Date: 8/28/2023	
Field Program Lower Chedakuz Creek Fish Habitat Assessment Procedure Survey		
Description View of left bank at CC_3.16 in lower Chedakuz Creek.		

A-2. Lower Chedakuz Creek Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506



Photo #: 3	Date: 8/28/2023	
Field Program Lower Chedakuz Creek Fish Habitat Assessment Procedure Survey		
Description View of right bank at CC_3.16 in lower Chedakuz Creek.		

Photo #: 4	Date: 8/28/2023	
Field Program Lower Chedakuz Creek Fish Habitat Assessment Procedure Survey		
Description View of substrate at CC_3.16 in lower Chedakuz Creek.		

A-2. Lower Chedakuz Creek Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506


Photo #: 5	Date: 8/28/2023	
Field Program Lower Chedakuz Creek Fish Habitat Assessment Procedure Survey		
Description Upstream view at CC_3.16 in lower Chedakuz Creek.		

Photo #: 6	Date: 9/16/2023	
Field Program Lower Chedakuz Creek Fish Community and Abundance		
Description Minnow trap set at CC_MT3 in lower Chedakuz Creek.		

Palmer
20065 Artemis
CC-MT3 sub
2023.09.16 14:51
10U 385059 5907963



A-2. Lower Chedakuz Creek Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

Photo #: 7	Date: 9/16/2023	 <p>Palmer 20065 Artemis CC-MT4 sub 2023.09.16 14:44 10U 385110-5907915</p> 
Field Program Lower Chedakuz Creek Fish Community and Abundance		
Description Minnow traps set at CC_MT4 in lower Chedakuz Creek.		

Photo #: 8	Date: 9/16/2023	 <p>Palmer 20065 Artemis CC-MT5 sub 2023.09.16 14:36 10U 385198 5907837</p> 
Field Program Lower Chedakuz Creek Fish Community and Abundance		
Description Minnow traps set at CC_MT5 in lower Chedakuz Creek.		

A-2. Lower Chedakuz Creek Photographs

Client Name:
Artemis Gold Inc.

Project No.
2006506

Photo #: 9	Date: 9/16/2023	
Field Program Lower Chedakuz Creek Fish Community and Abundance		
Description Minnow trapset at CC_MT7 in lower Chedakuz Creek.		

Palmer
20065 Artemis
CC_MT7 subs
2023.09.14 16:07
53.30674, -124.71992

Photo #: 10	Date: 9/16/2023	
Field Program Lower Chedakuz Creek Fish Community and Abundance		
Description Minnow trapset at CC_MT9 in lower Chedakuz Creek.		

Palmer
20065 Artemis
CC_MT9 subs
2023.09.16 15:08
10U 385093 5908149

Appendix B

2023 Field Data

Blackwater Gold Project
Condition 3.16 Follow-up Program

Appendix B-1: Site Names and Locations

Water Body	Site	UTM Zone	UTM Easting	UTM Northing
Tatelkuz Lake	TLLim3	10U	387247	5905786
Tatelkuz Lake	TLLit1	10U	385764	5907822
Tatelkuz Lake	TLLit2	10U	389268	5903003
Tatelkuz Lake	TLLit3	10U	389674	5902558
Tatelkuz Lake	TLLit4	10U	390766	5900859
Tatelkuz Lake	TLLit5	10U	389807	5903965
Tatelkuz Lake	TLLit6	10U	391845	5902013
Tatelkuz Lake	TLLit7	10U	391375	5901246
Tatelkuz Lake	TLLit8	10U	390285	5903031
Tatelkuz Lake	TLLit9	10U	387737	5904604
Tatelkuz Lake	TLLit10	10U	391128	5902380
Tatelkuz Lake	TLLit11	10U	388194	5904242
Lower Chedakuz Creek	CC_MT1	10U	385022	5908268
Lower Chedakuz Creek	CC_MT2/CC_EF3	10U	385029	5908230
Lower Chedakuz Creek	CC_MT3/CC_EF2	10U	385056	5907962
Lower Chedakuz Creek	CC_MT4	10U	385110	5907915
Lower Chedakuz Creek	CC_MT5	10U	385198	5907836
Lower Chedakuz Creek	CC_MT6/CC_EF1	10U	385353	5907799
Lower Chedakuz Creek	CC_MT7	10U	385376	5907838
Lower Chedakuz Creek	CC_MT8	10U	385407	5907747
Lower Chedakuz Creek	CC_MT9	10U	385086	5908154
Lower Chedakuz Creek	CC_MT10	10U	385064	5908053
Lower Chedakuz Creek	CC_3.16	10U	352022	5908268

Appendix B-2: Tatalkuz Lake Limnology and Winter Ice Conditions

Water Body	Site	Date (YYYY-MM-DD)	Time On Site	Time Off Site	Weather	Cloud Cover (%)	Wind	Ice Thickness (m)	Descending Secci Depth (m)	Ascending Secci Depth (m)	Average Secci Depth (m)	Depth (m)	Descending Temperature (°C)	Descending Conductivity (µS/cm)	Descending Specific Conductivity (µS/cm)	Descending pH	Descending Dissolved Oxygen (mg/L)	Descending Dissolved Oxygen (% saturation)	Ascending Temperature (°C)	Ascending Conductivity (µS/cm)	Ascending Specific Conductivity (µS/cm)	Ascending pH	Ascending Dissolved Oxygen (mg/L)	Ascending Dissolved Oxygen (% saturation)	Average Temperature (°C)	Average Conductivity (µS/cm)	Average Specific Conductivity (µS/cm)	Average pH	Average Dissolved Oxygen (mg/L)	Average Dissolved Oxygen (% saturation)
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	0 (Surface)	0.3	79.5	150.6	8.13	12.86	89.3	0.2	79.8	151.8	7.63	10.15	71.20	0.3	79.7	151.2	7.88	11.51	80.25
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	1.0	1.5	80.7	-	7.94	11.09	80.0	1.7	81.0	-	7.70	9.60	69.20	1.6	80.9	-	7.82	10.35	74.60
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	2.0	2.7	80.9	-	7.92	9.80	73.0	2.8	81.2	-	7.63	9.04	66.70	2.8	81.1	-	7.78	9.42	69.85
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	3.0	3.0	80.8	-	7.91	9.56	71.5	3.1	81.0	-	7.63	8.90	67.00	3.1	80.9	-	7.77	9.23	69.25
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	4.0	3.1	80.7	-	8.00	9.21	69.2	3.1	81.0	-	7.62	8.89	66.10	3.1	80.8	-	7.81	9.05	67.65
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	5.0	3.2	80.7	-	8.02	9.10	68.5	3.2	80.7	-	7.64	8.81	66.00	3.2	80.7	-	7.83	8.96	67.25
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	6.0	3.2	80.8	-	8.04	8.80	66.2	3.2	80.7	-	7.65	8.75	65.60	3.2	80.8	-	7.85	8.78	65.90
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	7.0	3.2	80.7	-	8.02	8.91	67.5	3.2	80.7	-	7.64	8.80	65.90	3.2	80.7	-	7.83	8.86	66.70
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	8.0	3.2	80.6	-	8.01	8.70	66.1	3.2	80.7	-	7.63	8.80	65.70	3.2	80.7	-	7.82	8.75	65.90
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	9.0	3.2	80.6	-	8.00	8.65	65.1	3.2	80.6	-	7.62	8.69	65.00	3.2	80.6	-	7.81	8.67	65.05
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	10.0	3.3	80.6	-	7.99	8.61	65.0	3.3	80.6	-	7.61	8.70	65.00	3.3	80.6	-	7.80	8.66	65.00
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	11.0	3.2	81.0	-	7.98	8.70	66.0	3.2	81.0	-	7.64	8.60	64.50	3.2	81.0	-	7.81	8.65	65.25
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	12.0	3.2	81.0	-	7.96	8.50	64.0	3.3	81.0	-	7.65	8.72	65.00	3.3	81.0	-	7.81	8.61	64.50
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	13.0	3.3	80.9	-	7.94	8.66	64.9	3.3	80.9	-	7.64	8.65	64.80	3.3	80.9	-	7.79	8.66	64.85
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	14.0	3.3	80.8	-	7.92	8.49	64.7	3.3	80.8	-	7.63	8.65	64.80	3.3	80.8	-	7.78	8.57	64.75
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	15.0	3.3	80.8	-	7.91	8.40	63.4	3.4	80.8	-	7.64	8.57	64.70	3.4	80.8	-	7.78	8.49	64.05
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	16.0	3.4	80.8	-	7.90	8.50	64.1	3.4	80.8	-	7.63	8.61	64.70	3.4	80.8	-	7.77	8.56	64.40
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	17.0	3.4	80.8	-	7.89	8.45	63.8	3.4	80.8	-	7.62	8.55	64.00	3.4	80.8	-	7.76	8.50	63.90
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	18.0	3.4	80.8	-	7.87	8.42	63.5	3.4	80.8	-	7.64	8.40	63.30	3.4	80.8	-	7.76	8.41	63.40
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	19.0	3.4	81.0	-	7.86	8.30	63.0	3.4	81.0	-	7.63	8.50	63.90	3.4	81.0	-	7.75	8.40	63.45
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	20.0	3.4	81.1	-	7.85	8.20	62.5	3.4	81.2	-	7.63	8.25	62.50	3.4	81.2	-	7.74	8.23	62.50
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	21.0	3.4	81.2	-	7.85	8.11	61.2	3.4	81.2	-	7.63	8.25	62.50	3.4	81.2	-	7.74	8.18	61.85
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	22.0	3.4	81.3	-	7.81	8.30	62.7	3.4	81.3	-	7.63	8.20	63.00	3.4	81.3	-	7.72	8.25	62.85
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	23.0	3.5	81.5	-	7.80	8.10	61.5	3.5	81.5	-	7.62	8.01	60.00	3.5	81.5	-	7.71	8.06	60.75
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	24.0	3.5	81.6	-	7.78	7.92	60.0	3.5	81.6	-	7.62	7.90	59.90	3.5	81.6	-	7.70	7.91	59.95
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	25.0	3.6	82.0	-	7.76	7.50	57.1	3.6	82.0	-	7.62	7.44	55.90	3.6	82.0	-	7.69	7.47	56.50
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	26.0	3.6	82.3	-	7.75	7.05	53.0	3.6	82.5	-	7.62	6.80	51.50	3.6	82.4	-	7.69	6.93	52.25
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	27.0	3.7	83.0	-	7.71	6.25	48.0	3.7	83.1	-	7.63	6.10	46.40	3.7	83.1	-	7.67	6.18	47.20
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	-	-	-	28.0	3.8	84.2	-	7.65	4.50	34.5	4.0	87.1	-	7.59	1.99	15.00	3.9	85.7	-	7.62	3.25	24.75
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	0 (Surface)	18.9	122.9	139.2	7.79	8.88	99.2	19.0	125.9	142.0	8.04	9.46	102.50	19.0	124.4	140.6	7.92	9.17	100.85
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	0.5	18.3	121.2	-	7.77	8.85	94.9	18.0	122.7	-	8.02	9.74	102.60	18.2	122.0	-	7.90	9.30	98.75
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	1.0	17.8	120.2	-	7.61	9.62	101.5	17.8	121.6	-	8.00	9.93	103.40	17.8	120.9	-	7.81	9.78	102.45
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	1.5	17.1	118.3	-	7.61	9.96	103.6	16.7	119.4	-	7.98	9.51	96.40	16.9	118.9	-	7.80	9.74	100.00
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	2.0	16.7	117.0	-	7.58	10.01	102.8	16.5	118.6	-	7.95	10.40	102.90	16.6	117.8	-	7.77	10.21	102.85
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	2.5	16.4	116.6	-	7.48	9.95	101.4	16.2	118.2	-	7.92	9.98	101.50	16.3	117.4	-	7.70	9.97	101.45
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	3.0	16.1	115.8	-	7.39	9.93	100.9	16.0	117.6	-	7.96	10.02	101.70	16.1	116.7	-	7.68	9.98	101.30
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	3.5	15.9	115.4	-	7.46	9.93	100.5	15.9	117.6	-	7.95	10.10	100.90	15.9	116.5	-	7.71	10.02	100.70
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	4.0	15.9	115.6	-	7.41	9.91	100.2	15.9	117.3	-	7.92	9.89	100.00	15.9	116.5	-	7.67	9.90	100.10
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	4.5	15.8	115.4	-	7.42	9.96	100.4	15.7	116.9	-	7.82	9.84	99.70	15.8	116.2	-	7.62	9.90	100.05
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	5.0	15.8	115.2	-	7.44	9.96	100.2	15.6	114.7	-	7.76	9.95	99.90	15.7	115.0	-	7.60	9.96	100.05
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	5.5	15.7	115.4	-	7.48	9.96	99.5	15.0	113.1	-	7.71	9.88	98.00	15.4	114.3	-	7.60	9.92	98.75
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	6.0	15.6	115.4	-	7.43	9.97	99.4	14.8	112.1	-	7.62	9.84	97.20	15.2	113.8	-	7.53	9.91	98.30
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	6.5	14.4	112.4	-	7.41	9.88	96.4	14.6	112.0	-	7.51	9.75	95.00	14.5	112.2	-	7.46	9.82	95.70
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	4.85	4.85	4.85	7.0	14.1	112.3	-	7.30	9.47	92.3	13.4	109.4	-	7.22	9.48	90.70	13.8	110.9	-	7.26	9.48	91.50</

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Site	Date (YYYY-MM-DD)	Time On Site	Time Off Site	Weather	Cloud Cover (%)	Wind	Ice Thickness (m)	Descending Secci Depth (m)	Ascending Secci Depth (m)	Average Secci Depth (m)	Depth (m)	Descending Temperature (°C)	Descending Conductivity (µS/cm)	Descending Specific Conductivity (µS/cm)	Descending pH	Descending Dissolved Oxygen (mg/L)	Descending Dissolved Oxygen (% saturation)	Ascending Temperature (°C)	Ascending Conductivity (µS/cm)	Ascending Specific Conductivity (µS/cm)	Ascending pH	Ascending Dissolved Oxygen (mg/L)	Ascending Dissolved Oxygen (% saturation)	Average Temperature (°C)	Average Conductivity (µS/cm)	Average Specific Conductivity (µS/cm)	Average pH	Average Dissolved Oxygen (mg/L)	Average Dissolved Oxygen (% saturation)
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	6.50	14.7	113.6	-	8.49	9.16	90.3	14.7	113.6	-	8.72	8.93	88.00	14.7	113.6	-	8.61	9.05	89.15
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	7.00	14.7	113.5	-	8.48	9.16	90.2	14.7	113.6	-	8.69	8.84	87.20	14.7	113.6	-	8.59	9.00	88.70
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	7.50	14.7	113.5	-	8.47	9.13	89.9	14.7	113.5	-	8.61	8.62	85.10	14.7	113.5	-	8.54	8.88	87.50
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	8.00	14.5	113.1	-	8.44	9.03	88.9	14.5	113.3	-	8.47	8.20	81.20	14.5	113.2	-	8.46	8.62	85.05
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	8.50	14.4	112.7	-	7.94	7.51	71.8	13.9	112.0	-	7.72	6.48	63.20	14.2	112.4	-	7.83	7.00	67.50
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	9.00	13.5	110.7	-	7.73	6.47	62.8	13.7	111.1	-	7.49	5.35	52.10	13.6	110.9	-	7.61	5.91	57.45
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	9.50	12.4	107.6	-	7.57	5.03	46.6	12.2	106.4	-	7.38	3.89	36.20	12.3	107.0	-	7.48	4.46	41.40
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	10.00	11.1	104.2	-	7.40	3.93	36.1	10.8	102.3	-	7.35	3.31	26.90	11.0	103.3	-	7.38	3.62	31.50
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	10.50	9.9	101.1	-	7.30	3.69	32.4	9.4	99.2	-	7.36	3.35	29.10	9.7	100.2	-	7.33	3.52	30.75
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	11.00	8.6	97.6	-	7.23	3.56	30.8	8.8	97.7	-	7.31	3.40	29.30	8.7	97.7	-	7.27	3.48	30.05
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	11.50	8.0	96.0	-	7.20	3.60	30.5	7.5	95.1	-	7.28	3.58	30.00	7.8	95.6	-	7.24	3.59	30.25
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	12.00	6.8	93.1	-	7.22	3.79	31.2	7.2	93.7	-	7.26	3.66	30.20	7.0	93.4	-	7.24	3.73	30.70
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	12.50	6.5	92.0	-	7.20	3.89	31.6	6.2	91.6	-	7.25	3.80	30.80	6.4	91.8	-	7.23	3.85	31.20
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	13.00	6.3	91.7	-	7.19	3.89	31.5	6.2	91.4	-	7.20	3.79	30.60	6.3	91.6	-	7.20	3.84	31.05
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	13.50	6.1	91.3	-	7.18	3.91	31.6	6.0	91.1	-	7.18	3.75	30.10	6.1	91.2	-	7.18	3.83	30.85
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	14.00	5.9	90.8	-	7.17	3.92	31.4	5.9	90.8	-	7.18	3.79	30.30	5.9	90.8	-	7.18	3.86	30.85
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	14.50	5.8	90.4	-	7.16	3.91	31.3	5.8	90.6	-	7.18	3.81	30.40	5.8	90.5	-	7.17	3.86	30.85
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	15.00	5.7	90.3	-	7.16	4.03	32.1	5.6	90.1	-	7.18	3.91	31.20	5.7	90.2	-	7.17	3.97	31.65
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	16.00	5.5	89.9	-	7.15	3.89	31.5	5.5	89.9	-	7.17	3.88	30.80	5.5	89.9	-	7.16	3.89	31.15
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	17.00	5.5	89.9	-	7.14	3.92	31.1	5.5	89.7	-	7.16	3.87	30.70	5.5	89.8	-	7.15	3.90	30.90
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	18.00	5.4	89.6	-	7.15	3.97	31.3	5.4	89.6	-	7.16	3.84	30.40	5.4	89.6	-	7.16	3.91	30.85
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	19.00	5.4	89.5	-	7.14	3.95	31.2	5.3	89.4	-	7.15	3.69	29.30	5.4	89.5	-	7.15	3.82	30.25
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	20.00	5.3	89.4	-	7.14	3.85	30.4	5.3	89.4	-	7.14	3.65	28.80	5.3	89.4	-	7.14	3.75	29.60
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	21.00	5.3	89.4	-	7.13	3.72	29.3	5.2	89.3	-	7.13	3.54	28.00	5.3	89.4	-	7.13	3.63	28.65
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	22.00	5.2	89.3	-	7.13	3.71	29.2	5.2	89.2	-	7.12	3.33	26.30	5.2	89.3	-	7.13	3.52	27.75
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	23.00	5.2	89.2	-	7.13	3.63	28.5	5.2	89.1	-	7.11	3.21	25.40	5.2	89.2	-	7.12	3.42	26.95
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	24.00	5.2	89.1	-	7.12	3.48	27.3	5.1	89.0	-	7.10	3.04	24.10	5.2	89.1	-	7.11	3.26	25.70
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	25.00	5.1	89.0	-	7.10	3.25	25.6	5.1	88.9	-	7.08	2.68	21.30	5.1	89.0	-	7.09	2.97	23.45
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	26.00	5.1	88.9	-	7.09	2.97	23.3	5.0	88.9	-	7.06	2.37	18.80	5.1	88.9	-	7.08	2.67	21.05
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	27.00	5.0	88.9	-	7.08	2.79	21.6	5.0	88.8	-	7.05	1.97	16.50	5.0	88.9	-	7.07	2.38	19.05
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	28.00	5.0	89.0	-	7.06	2.27	17.5	5.0	89.0	-	7.01	1.64	12.90	5.0	89.0	-	7.04	1.96	15.20
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	4.00	4.00	4.00	29.00	5.0	93.3	-	6.92	1.60	12.4	5.0	94.0	-	6.88	1.22	9.50	5.0	93.7	-	6.90	1.41	10.95
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	1.00	5.9	102.6	-	7.31	7.65	61.3	5.9	139.5	-	6.97	7.14	57.30	5.9	121.1	-	7.14	7.40	59.30
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	2.00	5.9	104.3	-	7.31	7.51	60.3	5.9	139.5	-	6.92	7.12	57.40	5.9	121.9	-	7.12	7.32	58.85
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	3.00	5.9	103.5	-	7.30	7.43	59.5	5.9	138.1	-	6.95	7.12	57.30	5.9	120.8	-	7.13	7.28	58.40
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	4.00	5.9	103.2	-	7.33	7.40	59.3	5.9	135.9	-	6.84	7.11	56.90	5.9	119.6	-	7.09	7.26	58.10
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	5.00	5.9	100.9	-	7.33	7.32	58.5	5.9	139.1	-	6.95	7.14	57.00	5.9	120.0	-	7.14	7.23	57.75
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	6.00	5.9	101.0	-	7.28	7.24	58.1	5.9	139.5	-	6.92	7.13	57.20	5.9	120.3	-	7.10	7.19	57.65
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	7.00	5.9	100.9	-	7.32	7.26	58.2	5.9	150.6	-	6.94	7.15	57.40	5.9	125.8	-	7.13	7.21	57.80
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	8.00	5.9	101.0	-	7.32	7.19	57.7	5.9	148.8	-	7.02	7.25	58.20	5.9	124.9	-	7.17	7.22	57.95
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	9.00	5.9	101.1	-	7.31	7.18	57.6	5.9	145.8	-	6.93	7.11	57.10	5.9	123.5	-	7.12	7.15	57.35
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	10.00	5.9	101.3	-	7.31	7.18	57.4	5.9	145.1	-	6.99	7.26	58.10	5.9	123.2	-	7.15	7.22	57.75
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	11.00	5.9	101.4	-	7.31	7.14	57.2	5.9	144.5	-	6.63	7.20	58.40	5.9	123.0	-	6.97	7.17	57.80
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5.25	5.50	12.00	5.9	101.5	-	7.32	7.14	57.3	5.9	151.1	-	6.91	7.53	60.10	5.9	126.3	-	7.12	7.34	58.70
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	5.75	5																				

Blackwater Gold Project
Condition 3.16 Follow-up Program

Appendix B-3: Tatelkuz Lake Water Chemistry

Water Body	Site	Date (YYYY-MM-DD)	Time On Site	Time Off Site	Weather	Cloud Cover (%)	Wind	Ice Thickness (m)	Total Phosphorus (mg/L)	Total Nitrogen (mg/L)
Tatelkuz Lake	TLLim3	2023-01-24	13:00	14:35	Heavy snow, overcast	75-100	Minimal	0.38	0.0265	0.414
Tatelkuz Lake	TLLim3	2023-06-27	12:00	14:30	Partially cloudy	1-25	Minimal	-	0.0088	0.309
Tatelkuz Lake	TLLim3	2023-09-14	13:05	14:41	Sunny	20	Minimal	-	0.0128	0.331
Tatelkuz Lake	TLLim3	2023-11-07	11:42	-	Partially cloudy	50	Gusts 30 km/h	-	0.0248	0.408

Notes:

m = meter, cm = centimeter, % = percent, mg/L = milligrams per litre, (-) data unavailable or not collected, YYYY-MM-DD = year-month-day

Blackwater Gold Project
Condition 3.16 Follow-up Program

Appendix B-4: Tatelkuz Lake Littoral Fish Habitat

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-10	TLLit1	1	0.07	0	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-10	TLLit1	2	0.25	5	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-10	TLLit1	3	0.27	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	4	0.31	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	5	0.33	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	6	0.33	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	7	0.33	5	0	10	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	8	0.35	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	9	0.33	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-10	TLLit1	10	0.35	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-10	TLLit1	11	0.37	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	12	0.38	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	13	0.39	5	0	5	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	14	0.36	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	15	0.40	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	16	0.40	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	17	0.42	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	18	0.42	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	19	0.45	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	20	0.47	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	21	0.48	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	22	0.51	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	23	0.53	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	24	0.54	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	25	0.57	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	26	0.56	0	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	27	0.59	10	0	5	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	28	0.60	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	29	0.59	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	30	0.60	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	31	0.62	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-10	TLLit1	32	0.64	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	33	0.66	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	34	0.69	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	35	0.68	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	36	0.70	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	37	0.71	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	38	0.74	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	39	0.73	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	40	0.75	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	41	0.75	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	42	0.77	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	43	0.77	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	44	0.79	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	45	0.80	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	46	0.82	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	47	0.82	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	48	0.83	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	49	0.84	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	50	0.86	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	51	0.88	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	52	0.90	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	53	0.90	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	54	0.93	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	55	0.95	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	56	0.96	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	57	0.97	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	58	0.99	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	59	1.01	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	60	1.02	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	61	1.05	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	62	1.07	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	63	1.08	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-10	TLLit1	64	1.10	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	65	1.12	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	66	1.15	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	67	1.14	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	68	1.16	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	69	1.19	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	70	1.22	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	71	1.25	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	72	1.28	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	73	1.34	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	74	1.36	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	75	1.40	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	76	1.41	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	77	1.46	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	78	1.49	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	79	1.47	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	80	1.51	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	81	1.50	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	82	1.54	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	83	1.55	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	84	1.60	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	85	1.65	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	86	1.63	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	87	1.71	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	88	1.77	50	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	89	1.81	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	90	1.82	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	91	1.84	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	92	1.87	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	93	1.81	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	94	1.92	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	95	2.05	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-10	TLLit1	96	2.06	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	97	2.15	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	98	2.14	25	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	99	2.19	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	100	2.28	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	101	2.31	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	102	2.33	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	103	2.47	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	104	2.65	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	105	2.65	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	106	2.72	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	107	2.83	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	108	2.96	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	109	2.96	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-10	TLLit1	110	3.06	10	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-12	TLLit2	1	0.11	0	0	0	5	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-12	TLLit2	2	0.20	0	0	0	5	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-12	TLLit2	3	0.37	0	0	0	5	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-12	TLLit2	4	0.46	5	0	0	5	Cobbles	Gravel	Steep	Cg-St
Tatelkuz Lake	2023-09-12	TLLit2	5	0.62	5	0	0	5	Cobbles	Gravel	Steep	Cg-St
Tatelkuz Lake	2023-09-12	TLLit2	6	0.78	5	0	0	5	Cobbles	Gravel	Steep	Cg-St
Tatelkuz Lake	2023-09-12	TLLit2	7	1.01	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	8	1.14	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	9	1.33	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	10	1.46	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	11	1.62	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	12	1.88	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	13	2.06	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	14	2.15	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	15	2.21	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	16	2.35	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	17	2.45	5	0	10	10	Boulders	Cobbles	Steep	Bc-St

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-12	TLLit2	18	2.61	5	0	10	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-12	TLLit2	19	2.75	0	0	0	5	Boulders	Gravel	Steep	Bg-St
Tatelkuz Lake	2023-09-12	TLLit2	20	2.86	0	0	0	5	Boulders	Gravel	Steep	Bg-St
Tatelkuz Lake	2023-09-12	TLLit2	21	3.01	0	0	0	5	Boulders	Gravel	Steep	Bg-St
Tatelkuz Lake	2023-09-09	TLLit3	1	0.04	0	0	75	0	Boulders	Gravel	Shallow	Bg-Sh
Tatelkuz Lake	2023-09-09	TLLit3	2	0.23	0	0	0	50	Cobbles	Boulders	Steep	Cb-St
Tatelkuz Lake	2023-09-09	TLLit3	3	0.47	0	0	0	25	Cobbles	Gravel	Steep	Cg-St
Tatelkuz Lake	2023-09-09	TLLit3	4	0.59	5	0	0	10	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-09	TLLit3	5	0.64	5	0	0	10	Boulders	Gravel	Steep	Bg-St
Tatelkuz Lake	2023-09-09	TLLit3	6	0.76	5	0	0	10	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-09	TLLit3	7	0.83	10	0	0	5	Fines	Cobbles	Steep	Fc-St
Tatelkuz Lake	2023-09-09	TLLit3	8	0.93	5	0	0	5	Cobbles	Fines	Steep	Cf-St
Tatelkuz Lake	2023-09-09	TLLit3	9	1.11	0	0	0	10	Boulders	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-09	TLLit3	10	1.35	0	0	0	5	Cobbles	Boulders	Steep	Cb-St
Tatelkuz Lake	2023-09-09	TLLit3	11	1.47	0	0	0	5	Cobbles	Boulders	Steep	Cb-St
Tatelkuz Lake	2023-09-09	TLLit3	12	1.72	0	0	0	5	Cobbles	Boulders	Steep	Cb-St
Tatelkuz Lake	2023-09-09	TLLit3	13	1.62	0	0	0	5	Cobbles	Boulders	Steep	Cb-St
Tatelkuz Lake	2023-09-09	TLLit3	14	1.83	0	0	0	5	Cobbles	Boulders	Steep	Cb-St
Tatelkuz Lake	2023-09-09	TLLit3	15	2.03	0	0	0	5	Cobbles	Boulders	Steep	Cb-St
Tatelkuz Lake	2023-09-09	TLLit3	16	2.14	0	0	0	5	Cobbles	Boulders	Steep	Cb-St
Tatelkuz Lake	2023-09-09	TLLit3	17	2.26	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	18	2.34	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	19	2.42	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	20	2.39	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	21	2.45	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	22	2.52	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	23	2.56	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	24	2.61	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	25	2.69	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	26	2.75	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	27	2.80	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	28	2.86	5	0	0	0	Gravel	Fines	Steep	Gf-St

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-09	TLLit3	29	2.94	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-09	TLLit3	30	3.02	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-11	TLLit4	1	0.03	25	25	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	2	0.03	25	25	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	3	0.02	25	25	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	4	0.05	25	25	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	5	0.07	25	25	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	6	0.13	25	25	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	7	0.12	25	25	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	8	0.12	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	9	0.13	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	10	0.16	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	11	0.18	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	12	0.17	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	13	0.16	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	14	0.17	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	15	0.24	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	16	0.17	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	17	0.20	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	18	0.20	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	19	0.21	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	20	0.21	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	21	0.23	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	22	0.22	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	23	0.25	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	24	0.25	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	25	0.25	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	26	0.27	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	27	0.27	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	28	0.28	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	29	0.30	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	30	0.31	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-11	TLLit4	31	0.37	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	32	0.32	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	33	0.33	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	34	0.35	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	35	0.35	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	36	0.36	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	37	0.39	5	0	0	0	Fines	Gravel	Shallow	Fg-Sh
Tatelkuz Lake	2023-09-11	TLLit4	38	0.41	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	39	0.45	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	40	0.50	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	41	0.58	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	42	0.64	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	43	0.73	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	44	0.88	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	45	1.03	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	46	1.24	25	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	47	1.46	25	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	48	1.75	25	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	49	1.83	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	50	2.18	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	51	2.54	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	52	2.81	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-11	TLLit4	53	3.23	5	0	0	0	Gravel	Fines	Shallow	Gf-Sh
Tatelkuz Lake	2023-09-12	TLLit5	1	0.13	0	0	0	5	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit5	2	0.35	0	0	0	5	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit5	3	0.61	5	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-12	TLLit5	4	0.90	5	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-12	TLLit5	5	1.20	25	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit5	6	1.64	25	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit5	7	2.10	25	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit5	8	2.52	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit5	9	2.88	5	0	0	0	Gravel	Fines	Steep	Gf-St

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-12	TLLit5	10	3.2	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-11	TLLit6	1	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	2	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	3	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	4	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	5	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	6	0.10	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	7	0.02	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	8	0.02	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	9	0.05	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	10	0.04	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	11	0.02	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	12	0.01	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	13	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	14	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	15	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	16	0.01	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	17	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	18	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	19	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	20	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	21	0.01	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	22	0.02	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	23	0.02	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	24	0	-	-	-	-	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	25	0.01	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	26	0.03	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	27	0.04	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	28	0.06	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	29	0.06	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	30	0.07	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	31	0.06	5	0	0	0	Fines	-	Shallow	F-Sh

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-11	TLLit6	32	0.07	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	33	0.06	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	34	0.08	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	35	0.09	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	36	0.10	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	37	0.13	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	38	0.12	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	39	0.14	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	40	0.14	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	41	0.15	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	42	0.18	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	43	0.16	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	44	0.17	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	45	0.17	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	46	0.21	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	47	0.20	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	48	0.23	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	49	0.21	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	50	0.22	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	51	0.24	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	52	0.26	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	53	0.24	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	54	0.25	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	55	0.26	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	56	0.28	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	57	0.29	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	58	0.28	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	59	0.30	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	60	0.32	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	61	0.36	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	62	0.40	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	63	0.46	25	0	0	0	Fines	-	Shallow	F-Sh

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-11	TLLit6	64	0.54	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	65	0.65	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	66	0.80	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	67	0.85	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	68	0.95	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	69	1.07	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	70	1.25	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	71	1.47	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	72	1.66	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	73	1.86	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	74	2.18	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	75	2.31	25	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	76	2.67	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	77	2.85	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit6	78	3.18	5	0	0	0	Fines	-	Shallow	F-Sh
Tatelkuz Lake	2023-09-11	TLLit7	1	0.21	5	0	0	25	Boulders	Gravel	Steep	Bg-St
Tatelkuz Lake	2023-09-11	TLLit7	2	0.59	5	0	0	25	Boulders	Gravel	Steep	Bg-St
Tatelkuz Lake	2023-09-11	TLLit7	3	0.85	5	0	10	10	Boulders	Gravel	Steep	Bg-St
Tatelkuz Lake	2023-09-11	TLLit7	4	1.19	5	0	0	10	Boulders	Gravel	Steep	Bg-St
Tatelkuz Lake	2023-09-11	TLLit7	5	1.37	5	0	0	10	Boulders	Gravel	Steep	Bg-St
Tatelkuz Lake	2023-09-11	TLLit7	6	1.56	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	7	1.58	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	8	1.68	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	9	1.84	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	10	1.63	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	11	1.62	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	12	1.85	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	13	1.92	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	14	1.88	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	15	2.00	10	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	16	2.00	10	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	17	2.00	10	0	0	0	Fines	Boulders	Steep	Fb-St

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-11	TLLit7	18	2.01	10	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	19	1.98	10	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	20	1.96	10	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	21	2.09	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	22	2.15	25	0	0	0	Fines	Boulders	Steep	Fb-St
Tatelkuz Lake	2023-09-11	TLLit7	23	2.17	25	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	24	2.15	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	25	2.21	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	26	2.21	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	27	2.24	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	28	2.32	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	29	2.31	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	30	2.33	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	31	2.17	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	32	2.18	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	33	2.18	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	34	2.34	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	35	2.49	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	36	2.49	5	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-11	TLLit7	37	2.57	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	38	2.65	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	39	2.68	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	40	2.70	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	41	2.77	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	42	2.79	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	43	2.81	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	44	2.86	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	45	2.90	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	46	2.92	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-11	TLLit7	47	3.05	5	0	0	0	Fines	Boulders	Shallow	Fb-Sh
Tatelkuz Lake	2023-09-12	TLLit8	1	0.05	0	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-12	TLLit8	2	0.20	0	0	0	0	Fines	Cobbles	Steep	Fc-St

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-12	TLLit8	3	0.25	0	0	0	0	Fines	Cobbles	Shallow	Fc-Sh
Tatelkuz Lake	2023-09-12	TLLit8	4	0.38	0	0	0	0	Fines	Cobbles	Steep	Fc-St
Tatelkuz Lake	2023-09-12	TLLit8	5	0.50	0	0	0	0	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-12	TLLit8	6	0.64	0	0	0	0	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-12	TLLit8	7	0.81	0	0	0	0	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-12	TLLit8	8	0.97	5	0	0	0	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-12	TLLit8	9	1.17	5	0	0	0	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-12	TLLit8	10	1.52	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit8	11	1.85	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit8	12	2.06	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit8	13	2.34	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit8	14	2.48	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit8	15	2.76	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-12	TLLit8	16	3.08	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit9	0	0.05	0	0	0	0	Gravel	Cobbles	Shallow	Gc-Sh
Tatelkuz Lake	2023-09-10	TLLit9	1	0.16	0	0	0	5	Cobbles	Gravel	Steep	Cg-St
Tatelkuz Lake	2023-09-10	TLLit9	2	0.22	0	0	0	5	Cobbles	Gravel	Steep	Cg-St
Tatelkuz Lake	2023-09-10	TLLit9	3	0.27	0	0	0	5	Cobbles	Gravel	Shallow	Cg-Sh
Tatelkuz Lake	2023-09-10	TLLit9	4	0.40	0	0	0	5	Boulder	Gravel	Steep	Bg-St
Tatelkuz Lake	2023-09-10	TLLit9	5	0.46	0	0	0	5	Gravel	Cobbles	Shallow	Gc-Sh
Tatelkuz Lake	2023-09-10	TLLit9	6	0.65	0	0	0	5	Boulder	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-10	TLLit9	7	0.92	0	0	10	5	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-10	TLLit9	8	1.34	0	0	0	5	Fines	Cobbles	Steep	Fc-St
Tatelkuz Lake	2023-09-10	TLLit9	9	1.60	0	0	0	5	Cobbles	Fines	Steep	Cf-St
Tatelkuz Lake	2023-09-10	TLLit9	10	1.85	0	0	10	5	Cobbles	Gravel	Steep	Cg-St
Tatelkuz Lake	2023-09-10	TLLit9	11	1.94	5	0	10	5	Boulder	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-10	TLLit9	12	2.47	0	0	0	5	Boulder	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-10	TLLit9	13	2.83	0	0	0	5	Boulder	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-10	TLLit9	14	2.91	0	0	0	5	Boulder	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-10	TLLit9	15	3.10	0	0	0	5	Boulder	Cobbles	Steep	Bc-St
Tatelkuz Lake	2023-09-11	TLLit10	1	0.12	0	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-11	TLLit10	2	0.29	0	0	0	0	Gravel	Fines	Steep	Gf-St

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Date (YYYY-MM-DD)	Site	Distance from Shore (m)	Transect Depth (m)	Submergent Vegetation (%)	Emergent Vegetation (%)	Woody Debris (%)	Rock (Cobble / Boulders in %)	Dominant Substrate	Subdominant Substrate	Shoreline Gradient	Littoral Habitat Type
Tatelkuz Lake	2023-09-11	TLLit10	3	0.44	5	0	0	0	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-11	TLLit10	4	0.56	5	0	0	0	Gravel	Cobbles	Steep	Gc-St
Tatelkuz Lake	2023-09-11	TLLit10	5	0.63	10	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-11	TLLit10	6	0.74	10	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-11	TLLit10	7	0.97	10	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-11	TLLit10	8	1.25	10	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-11	TLLit10	9	1.78	10	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-11	TLLit10	10	2.24	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-11	TLLit10	11	2.75	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-11	TLLit10	12	3.19	5	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit11	1	0.14	0	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit11	2	0.22	0	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit11	3	0.33	0	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit11	4	0.48	0	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit11	5	0.63	0	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit11	6	0.77	0	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit11	7	0.99	0	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit11	8	1.21	0	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit11	9	1.47	0	0	0	0	Gravel	Fines	Steep	Gf-St
Tatelkuz Lake	2023-09-10	TLLit11	10	1.79	5	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-10	TLLit11	11	2.09	5	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-10	TLLit11	12	2.37	5	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-10	TLLit11	13	2.68	5	0	0	0	Fines	Gravel	Steep	Fg-St
Tatelkuz Lake	2023-09-10	TLLit11	14	3.09	5	0	0	0	Fines	Gravel	Steep	Fg-St

Notes:

m = metres, % = percentage, (-) = data unavailable or not collected

Fb-Sh = Fine boulder-Shallow, Fb-St = Fine boulder-Steep, Fc-Sh = Fine cobble-Shallow, Fc-St = Fine cobble-Steep, Fg-Sh = Fine gravel-Shallow, Fg-St = Fine gravel-Steep, F-Sh = Fine-Shallow

Gc-Sh = Gravel cobble-shallow, Gc-St = Gravel cobble-Steep, Gf-Sh = Gravel fines-Shallow, Gf-St = Gravel fines-Steep

Cb-St = Cobble boulder-Steep, Cf-St = Cobble fines-Steep, Cg-Sh = Cobble gravel-Shallow, Cg-St = Cobble gravel-Steep

Bc-St = Boulder cobble-Steep, Bg-Sh = Boulder gravel-Shallow, Bg - St = Boulder gravel-Steep

Appendix B-5: Tatelkuz Lake Littoral Fish Habitat

Water Body	Date (YYYY-MM-DD)	Site	UTM Zone	Eastern Habitat Extent Easting UTM	Eastern Habitat Extent Northing UTM	Western Habitat Extent Easting UTM	Western Habitat Extent Northing UTM	Distance (m) to Water's Edge (Relative to Pin) 1	Distance (m) to Top of Bank (Relative to Pin) 1	Distance (m) to Toe of Bank (Relative to Pin) 1	Distance (m) to Water's Edge (Relative to Pin) 2	Distance (m) to Top of Bank (Relative to Pin) 2	Distance (m) to Toe of Bank (Relative to Pin) 2	Lake Elevation (m) 1 (Relative to Benchmark)	Top of Bank Elevation (m) 1 (Relative to Benchmark)	Toe of Bank Elevation (m) 1 (Relative to Benchmark)	Lake Elevation (m) 2 (Relative to Benchmark)	Top of Bank Elevation (m) 2 (Relative to Benchmark)	Toe of Bank Elevation (m) 2 (Relative to Benchmark)	Comments
Tatelkuz Lake	2023-09-10	TLLit1	10U	385771	5907815	385650	5907832	3.01	1.64	2.35	3.23	1.87	2.58	926.79	928.15	927.45	926.79	928.15	927.44	Transect starts 0.8 m from water's edge.
Tatelkuz Lake	2023-09-12	TLLit2	10U	389300	5902966	389216	5903071	3.23	1.86	2.65	3.13	1.77	2.54	926.79	928.17	927.38	926.79	928.15	927.37	-
Tatelkuz Lake	2023-09-09	TLLit3	10U	389699	5902549	389498	5902713	2.95	1.51	2.43	2.86	1.41	2.32	926.78	928.21	927.29	926.79	928.25	927.34	-
Tatelkuz Lake	2023-09-11	TLLit4	10U	390886	5900830	390665	5901133	1.48	0.08	0.85	1.67	0.27	1.04	926.79	928.19	927.42	926.79	928.19	927.42	-
Tatelkuz Lake	2023-09-12	TLLit5	10U	389839	5903954	389805	5903979	2.15	0.58	1.13	2.07	0.49	1.04	926.79	928.36	927.81	926.79	928.37	927.82	-
Tatelkuz Lake	2023-09-11	TLLit6	10U	391826	5902028	391839	5901341	3.46	2.24	2.94	3.38	2.17	2.87	926.79	928.01	927.30	926.79	928.00	927.30	Transect measurements 1-24 m were also not fully wetted; substrate appeared saturated as if it was recently wetted or area was fed by extensive groundwater seepage, but no wetted depth for fish or fish habitat. Covered this area in the event that it was recently wetted and on a non-drought year would be wetted.
Tatelkuz Lake	2023-09-11	TLLit7	10U	391142	5900875	391371	5901250	1.28	0.33	0.69	1.41	0.46	0.81	926.79	927.74	927.38	926.79	927.74	927.39	-
Tatelkuz Lake	2023-09-12	TLLit8	10U	390311	5902846	390316	5903156	1.70	0.46	0.87	1.46	0.22	0.63	926.79	928.04	927.62	926.80	928.04	927.63	-
Tatelkuz Lake	2023-09-10	TLLit9	10U	387707	5904626	387552	5904921	3.18	1.61	2.32	3.07	1.50	2.21	926.79	928.36	927.64	926.78	928.36	927.65	Eroding bank, exposed roots. End of transect 22 m from waterline at the shore, travelling deeper into the lake.
Tatelkuz Lake	2023-09-11	TLLit10	10U	391175	5902375	391106	5902383	1.56	0.14	0.74	1.63	0.22	0.83	926.79	928.20	927.61	926.78	928.18	927.58	-
Tatelkuz Lake	2023-09-10	TLLit11	10U	388275	5904238	388247	5904231	2.83	1.45	2.05	2.54	1.16	1.76	926.79	928.17	927.56	926.79	928.17	927.57	Mossy and woody debris observed along shoreline with wide area between bank and waterline. Transect end is 22 m from pin into the lake, perpendicular to waterline.

Notes:

UTM = Universal Transvers Mercator, m = metres, YYYY-MM-DD = year-month-day, m = metre, (-) = data unavailable or not collected

Blackwater Gold Project
Condition 3.16 Follow-up Program

Appendix B-6: Tatelkuz Lake and Lower Chedakuz Creek Water Quality

Water Body	Site	Date (YYYY-MM-DD)	Time	Water Quality Meter	Temperature (°C)	Dissolved Oxygen (mg/L)	Dissolved Oxygen (%)	Conductivity (µS/cm)	Specific Conductivity (µS/cm)	pH	Turbidity (NTU)	Comments
Lower Chedakuz Creek	CC_3.16-KO	2023-08-28	-	Thermometer	21	-	-	-	-	-	-	Only thermometer available.
Lower Chedakuz Creek	CC_3.16-KO	2023-09-09	-	Thermometer, Turbidity Meter	18	-	-	-	-	-	1.88	Only turbidity meter and thermometer available.
Tatelkuz Lake	TLLit1	2023-09-10	-	YSI ProDSS	16.80	7.07	73.50	123.60	146.50	9.04	-	-
Tatelkuz Lake	TLLit2	2023-09-12	-	YSI ProDSS	15.90	5.85	59.10	121.10	146.60	9.22	-	-
Tatelkuz Lake	TLLit3	2023-09-09	-	YSI ProPlus	16.10	9.99	101.30	121.60	146.40	8.74	-	-
Tatelkuz Lake	TLLit4	2023-09-11	-	YSI ProDSS	15.40	6.78	61.10	120.70	147.60	9.02	-	-
Tatelkuz Lake	TLLit5	2023-09-12	-	YSI ProDSS	15.50	5.63	57.00	120.20	146.70	9.14	-	-
Tatelkuz Lake	TLLit6	2023-09-11	-	YSI ProDSS	16.90	7.39	76.50	126.20	149.20	9.14	-	-
Tatelkuz Lake	TLLit7	2023-09-11	-	YSI ProDSS	16.00	6.62	67.40	122.50	147.90	9.15	-	-
Tatelkuz Lake	TLLit8	2023-09-12	-	YSI ProDSS	15.70	5.87	59.20	146.40	146.20	9.19	-	-
Tatelkuz Lake	TLLit9	2023-09-10	-	YSI ProDSS	16.50	7.21	72.80	121.30	146.10	8.98	-	-
Tatelkuz Lake	TLLit10	2023-09-11	-	YSI ProDSS	16.20	9.57	69.30	122.20	147.20	9.21	-	-
Tatelkuz Lake	TLLit11	2023-09-10	-	YSI ProDSS	15.50	7.05	71.10	119.80	146.50	8.96	-	-
Lower Chedakuz Creek	CC-MT1	2023-09-17	13:59	YSI ProDSS	14.2	11.63	113.4	103.3	130.2	8.97	-	-
Lower Chedakuz Creek	CC-MT2	2023-09-17	14:07	YSI ProDSS	14.3	11.84	115.6	103.5	130.0	9.01	-	-
Lower Chedakuz Creek	CC-MT3	2023-09-17	14:46	YSI ProDSS	-	-	-	-	-	-	-	Surface water quality collected once from nearby site CC-MT10.
Lower Chedakuz Creek	CC-MT4	2023-09-17	14:54	YSI ProDSS	-	-	-	-	-	-	-	Surface water quality collected once from nearby site CC-MT10.
Lower Chedakuz Creek	CC-MT5	2023-09-17	15:00	YSI ProDSS	14.9	11.21	111.1	104.8	129.9	8.94	-	-
Lower Chedakuz Creek	CC-MT6	2023-09-16	14:15	YSI ProDSS	15.1	10.49	104.2	105.8	130.5	8.81	-	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	13:43	YSI ProDSS	15.2	10.41	103.6	105.6	130.1	8.80	-	-
Lower Chedakuz Creek	CC-MT8	2023-09-16	12:43	YSI ProDSS	15.2	10.47	105	106.3	130.8	8.78	-	-
Lower Chedakuz Creek	CC-MT9	2023-09-17	14:19	YSI ProDSS	14.4	11.76	115.3	103.9	130.3	9.03	-	-
Lower Chedakuz Creek	CC-MT10	2023-09-17	14:38	YSI ProDSS	14.9	11.77	116.5	105.0	130.1	8.99	-	-

Notes:

% = percent, °C = degrees Celcius, mg/L = milligram per litre, µS/cm = microsiemens per centimetre, YYYY-MM-DD = year-month-day, (-) = data unavailable or not collected, NTU = Nephelometric Turbidity Units

Blackwater Gold Project
Condition 3.16 Follow-up Program

Appendix B-7: Tatelkuz lake Beach Seine Effort

Water Body	Site	Date (YYYY-MM-DD)	Time	Method	Weather	Mesh Size (mm)	Net Height (m)	Net Length (m)	End 1 Approx. Set Depth (m)	End 2 Approx. Set Depth (m)	Set Number	Set Length (m)	Set Area (m ²)	Fish Captured (Individual)	Fish Captured (Bulk) ¹	Comments
Tatelkuz Lake	TLLit1	2023-09-12	12:31	Beach Seine	Intermittent Rain	3	2	10	0.1	0.3	1	20	200	11	0	-
Tatelkuz Lake	TLLit1	2023-09-12	14:30	Beach Seine	Intermittent Rain	3	2	10	0.1	0.3	2	20	200	13	0	-
Tatelkuz Lake	TLLit2	2023-09-14	15:43	Beach Seine	Clear	3	2	10	0.1	1.5	1	20	200	2	0	-
Tatelkuz Lake	TLLit2	2023-09-14	15:57	Beach Seine	Clear	3	2	10	0.1	1.5	2	20	200	0	0	-
Tatelkuz Lake	TLLit3	2023-09-12	10:08	Beach Seine	Overcast	3	2	10	0.1	1.5	1	20	200	4	0	-
Tatelkuz Lake	TLLit3	2023-09-12	11:04	Beach Seine	Intermittent Rain	3	2	10	0.1	1.5	2	20	200	2	0	-
Tatelkuz Lake	TLLit4	2023-09-11	10:00	Beach Seine	Partially Cloudy	3	2	10	0.1	0.2	1	20	200	28	0	-
Tatelkuz Lake	TLLit4	2023-09-11	12:06	Beach Seine	Partially Cloudy	3	2	10	0.1	0.2	2	20	200	313	0	-
Tatelkuz Lake	TLLit5	2023-09-13	14:09	Beach Seine	Clear	3	2	10	1.25	0.1	1	20	200	30	0	Lake bottom of seining area began shallow and dropped off steeply towards the north - had to seine close to shore. Net area diminished as we progressed along shoreline. Average distance of capture area was 6 m in length.
Tatelkuz Lake	TLLit5	2023-09-13	14:54	Beach Seine	Clear	3	2	10	1.3	0.1	2	20	200	31	11	Survey started in the lake at 0.15 m depth with net end 9 m apart. Progressed into shore, with net ends ending 4 m apart. Average net distance of 6.5 m.
Tatelkuz Lake	TLLit6	2023-09-14	09:35	Beach Seine	Clear	3	2	10	0.1	0.1	1	20	200	8	1	5 fish netted, 1 escaped net. Escaped fish marked as a "bulk" count as no fish data collected.
Tatelkuz Lake	TLLit6	2023-09-14	09:58	Beach Seine	Clear	3	2	10	0.1	0.1	2	20	200	5	0	-
Tatelkuz Lake	TLLit7	2023-09-14	11:20	Beach Seine	Clear	3	2	10	1.5	0.75	1	20	200	14	0	Large boulders made seining difficult. Lots of vegetation.
Tatelkuz Lake	TLLit7	2023-09-14	11:56	Beach Seine	Clear	3	2	10	1.6	0.75	2	20	200	1	0	Several boulders.
Tatelkuz Lake	TLLit8	2023-09-14	14:39	Beach Seine	Clear	3	2	10	0.1	1.1	1	20	200	13	0	-
Tatelkuz Lake	TLLit8	2023-09-14	15:01	Beach Seine	Clear	3	2	10	0.1	1.5	2	20	200	8	0	-
Tatelkuz Lake	TLLit9	2023-09-12	16:36	Beach Seine	Intermittent Rain	3	2	10	0.1	1.5	1	20	200	2	0	-
Tatelkuz Lake	TLLit9	2023-09-12	17:03	Beach Seine	Intermittent Rain	3	2	10	0.1	1.5	2	20	200	4	0	-
Tatelkuz Lake	TLLit10	2023-09-14	12:59	Beach Seine	Clear	3	2	10	1.6	0.1	1	20	200	37	0	-
Tatelkuz Lake	TLLit10	2023-09-14	13:42	Beach Seine	Clear	3	2	10	1.6	0.1	2	20	200	26	0	-
Tatelkuz Lake	TLLit11	2023-09-13	12:15	Beach Seine	Partially Cloudy	3	2	10	0.1	1.25	1	20	200	9	0	-
Tatelkuz Lake	TLLit11	2023-09-13	13:00	Beach Seine	Partially Cloudy	3	2	10	1.25	0.1	2	20	200	11	0	-

Notes:

mm = millimetre, m = metre, m² = square metres, YYYY-MM-DD = year-month-day, approx. = approximate. ¹Fish were not weighed and measured individually

Appendix B-8: Tatalukz Lake and Lower Chedakuz Creek Individual Fish Data

Water Body	Site	Date (YYYY-MM-DD)	Method	Trap ID	Set	Fish ID	Species ¹	Fish Count (per Set)	Fish Count (per Site)	Fork Length (mm) ¹	Total Length (mm)	Weight (g) ²	Condition Factor (K)	Fate	Sex	Maturity	DELTS	Comments
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_CAS_1_1	Prickly Sculpin	1	-	42	-	0.97	1.31	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_CAS_1_2	Prickly Sculpin	2	-	43	-	1.04	1.31	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_CAS_1_3	Prickly Sculpin	3	-	29	-	0.28	1.15	Released alive	Undetermined	Juvenile	-	Tumour, Deformity
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_CAS_1_4	Prickly Sculpin	4	-	51	-	1.48	1.12	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_CAS_1_5	Prickly Sculpin	5	-	38	-	0.60	1.09	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_CAS_1_6	Prickly Sculpin	6	-	35	-	0.47	1.10	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_CAS_1_7	Prickly Sculpin	7	-	40	-	0.73	1.14	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_CAS_1_8	Prickly Sculpin	8	-	38	-	0.74	1.35	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_CAS_1_9	Prickly Sculpin	9	-	38	-	0.60	1.09	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_CAS_1_10	Prickly Sculpin	10	-	75	-	5.24	1.24	Released alive	Undetermined	Adult	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	1	TL111_bs_20230912_KO_1_11	Kokanee	11	-	51	-	1.16	0.87	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_CAS_2_1	Prickly Sculpin	1	-	30	-	0.31	1.15	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_UKN_2_2	Unknown	2	-	17	-	0.04	0.81	Released alive	Undetermined	Alevin/Larval	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_NSC_2_3	Northern PikeMinnow	3	-	33	-	0.35	0.97	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_CAS_2_4	Prickly Sculpin	4	-	30	-	0.47	1.74	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_CAS_2_5	Prickly Sculpin	5	-	31	-	0.39	1.31	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_NSC_2_6	Northern PikeMinnow	6	-	32	-	0.50	1.33	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_KO_2_7	Kokanee	7	-	51	-	1.27	0.96	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_CAS_2_8	Prickly Sculpin	8	-	33	-	0.36	1.00	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_CAS_2_9	Prickly Sculpin	9	-	30	-	0.37	1.37	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_CAS_2_10	Prickly Sculpin	10	-	18	-	0.04	0.69	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_CAS_2_11	Prickly Sculpin	11	-	31	-	0.50	1.68	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_CAS_2_12	Prickly Sculpin	12	-	42	-	0.94	1.27	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-12	Beach Seine	-	2	TL111_bs_20230912_CAS_2_13	Prickly Sculpin	13	-	62	-	3.20	1.34	Released alive	Undetermined	Adult	-	-
Tatelkuz Lake	TL112	2023-09-14	Beach Seine	-	1	TL112_bs_20230914_CC_1_1	Sculpin (general)	1	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL112	2023-09-14	Beach Seine	-	1	TL112_bs_20230914_NSC_1_2	Northern PikeMinnow	2	-	33	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL113	2023-09-12	Beach Seine	-	1	TL113_bs_20230912_NSC_1_1	Northern PikeMinnow	1	-	24	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL113	2023-09-12	Beach Seine	-	1	TL113_bs_20230912_BMC_1_2	Brassy Minnow	2	-	28	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL113	2023-09-12	Beach Seine	-	1	TL113_bs_20230912_BMC_1_3	Northern PikeMinnow	3	-	31	-	0.33	1.11	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL113	2023-09-12	Beach Seine	-	1	TL113_bs_20230912_NSC_1_4	Northern PikeMinnow	4	-	33	-	0.33	0.92	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL113	2023-09-12	Beach Seine	-	2	TL113_bs_20230912_NSC_2_1	Northern PikeMinnow	1	-	34	-	0.56	1.42	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL113	2023-09-12	Beach Seine	-	2	TL113_bs_20230912_NSC_2_2	Northern PikeMinnow	2	-	54	-	1.96	1.24	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_1	Largescale Sucker	1	-	42	-	0.80	1.08	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_2	White Sucker	2	-	46	-	1.10	1.13	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_3	White Sucker	3	-	44	-	1.20	1.41	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_4	White Sucker	4	-	41	-	1.00	1.45	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_5	White Sucker	5	-	38	-	0.50	0.91	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_6	White Sucker	6	-	50	-	1.60	1.28	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_7	Largescale Sucker	7	-	47	-	1.00	0.96	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_LSU_1_8	Longnose Sucker	8	-	41	-	1.20	1.74	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_9	White Sucker	9	-	44	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_10	White Sucker	10	-	40	-	0.70	1.09	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_11	White Sucker	11	-	49	-	0.70	0.59	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_12	Largescale Sucker	12	-	37	-	0.80	1.58	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_13	Largescale Sucker	13	-	40	-	0.80	1.25	Dead	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_14	White Sucker	14	-	38	-	0.80	1.46	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_15	White Sucker	15	-	39	-	0.70	1.18	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_16	White Sucker	16	-	45	-	1.00	1.10	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_17	Largescale Sucker	17	-	39	-	0.70	1.18	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_18	White Sucker	18	-	41	-	0.80	1.16	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_19	Largescale Sucker	19	-	41	-	0.70	1.02	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_WSU_1_20	White Sucker	20	-	39	-	0.60	1.01	Dead	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_21	Largescale Sucker	21	-	41	-	0.70	1.02	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_22	Largescale Sucker	22	-	40	-	0.50	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_23	Largescale Sucker	23	-	44	-	0.70	0.82	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_24	Largescale Sucker	24	-	34	-	0.40	1.02	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_LKC_1_25	Northern PikeMinnow	25	-	17	-	-	-	Dead	Undetermined	Juvenile	-	Erosion
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_26	Largescale Sucker	26	-	40	-	0.90	1.41	Dead	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_27	Largescale Sucker	27	-	36	-	0.60	1.29	Dead	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	1	TL114_bs_20230911_CSU_1_28	Largescale Sucker	28	-	41	-	0.60	0.87	Dead	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_WSU_2_1	White Sucker	1	-	47	-	1.40	1.35	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_CSU_2_2	Largescale Sucker	2	-	41	-	0.80	1.16	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_BMC_2_3	Northern PikeMinnow	3	-	40	-	0.60	0.94	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_CSU_2_4	Largescale Sucker	4	-	41	-	0.80	1.16	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_CSU_2_5	Largescale Sucker	5	-	41	-	0.70	1.02	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_LSU_2_6	Longnose Sucker	6	-	47	-	1.10	1.06	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_CSU_2_7	Largescale Sucker	7	-	34	-	0.40	1.02	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_NSC_2_8	Northern PikeMinnow	8	-	36	-	0.50	1.27	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_CSU_2_9	Largescale Sucker	9	-	33	-	0.50	1.39	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_BMC_2_10	Brassy Minnow	10	-	21	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_BMC_2_11	Brassy Minnow	11	-	20	-	0.10	1.25	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_CSU_2_12	Largescale Sucker	12	-	46	-	1.10	1.13	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_CSU_2_13	Largescale Sucker	13	-	46	-	1.00	1.03	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL114	2023-09-11	Beach Seine	-	2	TL114_bs_20230911_CSU_2_14	Largescale Sucker	14	-	45	-	1.00						

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Site	Date (YYYY-MM-DD)	Method	Trap ID	Set	Fish ID	Species ¹	Fish Count (per Set)	Fish Count (per Site)	Fork Length (mm) ¹	Total Length (mm)	Weight (g) ²	Condition Factor (K)	Fate	Sex	Maturity	DELTS	Comments	
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_NSC_2_292	Northern PikeMinnow	292	-	29	-	0.20	0.82	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_293	Largescale Sucker	293	-	-	-	-	-	-	Dead	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_294	Largescale Sucker	294	-	-	-	-	-	-	Dead	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_295	Largescale Sucker	295	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_296	Largescale Sucker	296	-	-	-	-	-	-	Dead	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_297	Largescale Sucker	297	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_298	Largescale Sucker	298	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_299	Largescale Sucker	299	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_300	Largescale Sucker	300	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_NSC_2_301	Northern PikeMinnow	301	-	22	-	0.10	0.94	Dead	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_302	Largescale Sucker	302	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_303	Largescale Sucker	303	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_304	Largescale Sucker	304	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_305	Largescale Sucker	305	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_306	Largescale Sucker	306	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_307	Largescale Sucker	307	-	-	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CC_2_308	Prickly Sculpin	308	-	37	-	0.60	1.18	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CC_2_309	Prickly Sculpin	309	-	36	-	0.50	1.07	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_310	Largescale Sucker	310	-	-	-	-	-	-	Dead	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_311	Largescale Sucker	311	-	-	-	-	-	-	Dead	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_312	Largescale Sucker	312	-	-	-	-	-	-	Dead	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH4	2023-09-11	Beach Seine	-	2	TLH4_bs_20230911_CSU_2_313	Largescale Sucker	313	-	-	-	-	-	-	Dead	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_NSC_1_1	Northern PikeMinnow	1	-	98	-	10.80	1.15	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_NSC_1_2	Northern PikeMinnow	2	-	102	-	10.60	1.00	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_MW_1_3	Mountain Whitefish	3	-	68	-	3.20	1.02	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_LSU_1_4	Longnose Sucker	4	-	94	-	9.20	1.11	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_5	Prickly Sculpin	5	-	72	-	4.20	1.13	Released alive	Undetermined	Adult	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_NSC_1_6	Northern PikeMinnow	6	-	21	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_NSC_1_7	Northern PikeMinnow	7	-	19	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_8	Prickly Sculpin	8	-	39	-	1.00	1.69	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_9	Prickly Sculpin	9	-	37	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_10	Prickly Sculpin	10	-	56	-	3.40	1.94	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_11	Prickly Sculpin	11	-	36	-	0.60	1.29	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_12	Prickly Sculpin	12	-	36	-	0.60	1.29	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_13	Prickly Sculpin	13	-	32	-	0.30	0.92	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_14	Prickly Sculpin	14	-	30	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_15	Prickly Sculpin	15	-	29	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_16	Prickly Sculpin	16	-	30	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CC_1_17	Sculpin (general)	17	-	22	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_18	Prickly Sculpin	18	-	29	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CC_1_19	Sculpin (general)	19	-	20	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CC_1_20	Sculpin (general)	20	-	19	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CC_1_21	Sculpin (general)	21	-	17	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_22	Prickly Sculpin	22	-	33	-	0.70	1.95	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CC_1_23	Sculpin (general)	23	-	21	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_24	Prickly Sculpin	24	-	26	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CC_1_25	Sculpin (general)	25	-	14	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_26	Prickly Sculpin	26	-	27	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CC_1_27	Sculpin (general)	27	-	13	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CC_1_28	Sculpin (general)	28	-	12	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CC_1_29	Sculpin (general)	29	-	18	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	1	TLH5_bs_20230913_CAS_1_30	Prickly Sculpin	30	-	14	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_1	Prickly Sculpin	1	-	61	-	2.60	1.15	Released alive	Undetermined	Adult	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_2	Prickly Sculpin	2	-	64	-	2.80	1.07	Released alive	Undetermined	Adult	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_3	Prickly Sculpin	3	-	46	-	1.20	1.23	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_4	Prickly Sculpin	4	-	58	-	2.30	1.18	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_5	Prickly Sculpin	5	-	39	-	0.70	1.18	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_6	Prickly Sculpin	6	-	42	-	0.90	1.21	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_7	Prickly Sculpin	7	-	36	-	0.60	1.29	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CC_2_8	Sculpin (general)	8	-	33	-	0.50	1.39	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_9	Prickly Sculpin	9	-	54	-	1.70	1.08	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_10	Prickly Sculpin	10	-	41	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_11	Prickly Sculpin	11	-	37	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_12	Prickly Sculpin	12	-	34	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_13	Prickly Sculpin	13	-	38	-	0.70	1.28	Released alive	Undetermined	Juvenile	-	-	
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_14	Prickly Sculpin	14	-	37	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_NSC_2_15	Northern PikeMinnow	15	-	24	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_16	Prickly Sculpin	16	-	36	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_17	Prickly Sculpin	17	-	34	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_18	Prickly Sculpin	18	-	36	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_19	Prickly Sculpin	19	-	37	-	-	-	-	Released alive	Undetermined	Adult	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_20	Prickly Sculpin	20	-	35	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_21	Prickly Sculpin	21	-	36	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_22	Prickly Sculpin	22	-	34	-	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLH5	2023-09-13	Beach Seine	-	2	TLH5_bs_20230913_CAS_2_23	Prickly Sculpin	23	-	34	-	-	-	-	Released alive	Undetermined	Juvenile	-	-

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Site	Date (YYYY-MM-DD)	Method	Trap ID	Set	Fish ID	Species ¹	Fish Count (per Set)	Fish Count (per Site)	Fork Length (mm) ¹	Total Length (mm)	Weight (g) ²	Condition Factor (K)	Fate	Sex	Maturity	DELTS	Comments
Tatekuz Lake	TLI16	2023-09-14	Beach Seine	-	1	TLI16_bs_20230914_CAS_1_6	Prickly Sculpin	6	-	56	-	2.22	1.26	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI16	2023-09-14	Beach Seine	-	1	TLI16_bs_20230914_CSU_1_7	Largescale Sucker	7	-	49	-	1.47	1.25	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI16	2023-09-14	Beach Seine	-	1	TLI16_bs_20230914_NSC_1_8	Northern PikeMinnow	8	-	25	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI16	2023-09-14	Beach Seine	-	2	TLI16_bs_20230914_WSU_2_1	White Sucker	1	-	47	-	1.10	0.99	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI16	2023-09-14	Beach Seine	-	2	TLI16_bs_20230914_WSU_2_2	White Sucker	2	-	47	-	1.15	1.11	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI16	2023-09-14	Beach Seine	-	2	TLI16_bs_20230914_WSU_2_3	White Sucker	3	-	57	-	1.85	1.00	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI16	2023-09-14	Beach Seine	-	2	TLI16_bs_20230914_WSU_2_4	White Sucker	4	-	59	-	2.09	1.02	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI16	2023-09-14	Beach Seine	-	2	TLI16_bs_20230914_CAS_2_5	Prickly Sculpin	5	-	57	-	2.23	1.20	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_1	Northern PikeMinnow	1	-	29	-	0.30	1.23	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_2	Northern PikeMinnow	2	-	22	-	0.17	1.60	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_3	Northern PikeMinnow	3	-	11	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_4	Northern PikeMinnow	4	-	23	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_5	Northern PikeMinnow	5	-	13	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_6	Northern PikeMinnow	6	-	23	-	0.19	1.56	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_7	Northern PikeMinnow	7	-	20	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_8	Northern PikeMinnow	8	-	25	-	0.26	1.66	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_9	Northern PikeMinnow	9	-	21	-	0.16	1.73	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_10	Northern PikeMinnow	10	-	21	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_11	Northern PikeMinnow	11	-	20	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_12	Northern PikeMinnow	12	-	20	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_13	Northern PikeMinnow	13	-	18	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	1	TLI17_bs_20230914_NSC_1_14	Northern PikeMinnow	14	-	19	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI17	2023-09-14	Beach Seine	-	2	TLI17_bs_20230914_NSC_2_1	Northern PikeMinnow	1	-	23	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_CAS_1_1	Prickly Sculpin	1	-	51	-	1.70	1.28	Released alive	Undetermined	Adult	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_CAS_1_2	Prickly Sculpin	2	-	54	-	2.00	1.27	Released alive	Undetermined	Adult	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_CAS_1_3	Prickly Sculpin	3	-	54	-	2.10	1.33	Released alive	Undetermined	Adult	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_CAS_1_4	Prickly Sculpin	4	-	34	-	-	-	Released alive	Undetermined	Adult	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_NSC_1_5	Northern PikeMinnow	5	-	31	-	0.50	1.68	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_CAS_1_6	Prickly Sculpin	6	-	25	-	-	-	Released alive	Undetermined	Adult	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_NSC_1_7	Northern PikeMinnow	7	-	28	-	0.20	0.91	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_NSC_1_8	Northern PikeMinnow	8	-	29	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_NSC_1_9	Northern PikeMinnow	9	-	28	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_NSC_1_10	Northern PikeMinnow	10	-	22	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_NSC_1_11	Northern PikeMinnow	11	-	25	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_NSC_1_12	Northern PikeMinnow	12	-	24	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	1	TLI18_bs_20230914_NSC_1_13	Northern PikeMinnow	13	-	23	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	2	TLI18_bs_20230914_CC_2_1	Sculpin (general)	1	-	13	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	2	TLI18_bs_20230914_CAS_2_2	Prickly Sculpin	2	-	35	-	0.50	1.17	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	2	TLI18_bs_20230914_CAS_2_3	Prickly Sculpin	3	-	31	-	0.20	0.67	Released alive	Undetermined	Adult	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	2	TLI18_bs_20230914_CAS_2_4	Prickly Sculpin	4	-	29	-	-	-	Released alive	Undetermined	Adult	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	2	TLI18_bs_20230914_CAS_2_5	Prickly Sculpin	5	-	27	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	2	TLI18_bs_20230914_CAS_2_6	Prickly Sculpin	6	-	26	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	2	TLI18_bs_20230914_CC_2_7	Sculpin (general)	7	-	21	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI18	2023-09-14	Beach Seine	-	2	TLI18_bs_20230914_NSC_2_8	Northern PikeMinnow	8	-	20	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI19	2023-09-12	Beach Seine	-	1	TLI19_bs_20230912_NSC_1_1	Northern PikeMinnow	1	-	21	-	0.17	1.84	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI19	2023-09-12	Beach Seine	-	1	TLI19_bs_20230912_NSC_1_2	Northern PikeMinnow	2	-	21	-	0.17	1.84	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI19	2023-09-12	Beach Seine	-	2	TLI19_bs_20230912_RB_2_1	Rainbow Trout	1	-	54	-	1.70	1.08	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI19	2023-09-12	Beach Seine	-	2	TLI19_bs_20230912_NSC_2_2	Northern PikeMinnow	2	-	29	-	0.40	1.64	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI19	2023-09-12	Beach Seine	-	2	TLI19_bs_20230912_NSC_2_3	Northern PikeMinnow	3	-	110	-	10.43	0.78	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI19	2023-09-12	Beach Seine	-	2	TLI19_bs_20230912_NSC_2_4	Northern PikeMinnow	4	-	30	-	0.31	1.15	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_1	Mountain Whitefish	1	-	87	-	6.90	1.05	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_2	Mountain Whitefish	2	-	102	-	11.00	1.04	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_3	Mountain Whitefish	3	-	87	-	6.83	1.04	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_4	Mountain Whitefish	4	-	94	-	8.62	1.04	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_5	Mountain Whitefish	5	-	102	-	10.42	0.98	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_6	Mountain Whitefish	6	-	96	-	7.93	0.90	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_RB_1_7	Rainbow Trout	7	-	124	-	17.86	0.94	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_8	Mountain Whitefish	8	-	91	-	7.33	0.97	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_RB_1_9	Rainbow Trout	9	-	126	-	21.94	1.10	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_RB_1_10	Rainbow Trout	10	-	92	-	8.30	1.07	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_11	Mountain Whitefish	11	-	99	-	9.53	0.98	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_12	Mountain Whitefish	12	-	95	-	8.54	1.00	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_13	Mountain Whitefish	13	-	88	-	5.91	0.87	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_RB_1_14	Rainbow Trout	14	-	96	-	11.11	1.26	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_15	Mountain Whitefish	15	-	84	-	5.88	0.99	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_16	Mountain Whitefish	16	-	89	-	6.81	0.97	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_CAS_1_17	Prickly Sculpin	17	-	39	-	0.75	1.26	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_18	Mountain Whitefish	18	-	77	-	4.39	0.96	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_MW_1_19	Mountain Whitefish	19	-	82	-	6.39	1.16	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_RB_1_20	Rainbow Trout	20	-	103	-	12.32	1.13	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_CAS_1_21	Prickly Sculpin	21	-	59	-	2.47	1.20	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_CAS_1_22	Prickly Sculpin	22	-	52	-	1.95	1.39	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_LSU_1_23	Longnose Sucker	23	-	56	-	2.17	1.24	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_CAS_1_24	Prickly Sculpin	24	-	59	-	2.62	1.28	Released alive	Undetermined	Juvenile	-	-
Tatekuz Lake	TLI110	2023-09-14	Beach Seine	-	1	TLI110_bs_20230914_CAS_1_25	Prickly Sculpin	25	-	42</								

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Site	Date (YYYY-MM-DD)	Method	Trap ID	Set	Fish ID	Species ¹	Fish Count (per Set)	Fish Count (per Site)	Fork Length (mm) ¹	Total Length (mm)	Weight (g) ²	Condition Factor (K)	Fate	Sex	Maturity	DELTS	Comments
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_RB_2_2	Rainbow Trout	2	-	66	-	2.59	0.90	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_MW_2_3	Mountain Whitefish	3	-	86	-	5.60	0.88	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_4	Prickly Sculpin	4	-	51	-	1.28	0.96	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_5	Prickly Sculpin	5	-	56	-	1.50	0.85	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_6	Prickly Sculpin	6	-	38	-	0.43	0.92	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_7	Prickly Sculpin	7	-	34	-	0.37	0.94	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_8	Prickly Sculpin	8	-	36	-	0.46	0.84	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CC_2_9	Sculpin (general)	9	-	14	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_10	Prickly Sculpin	10	-	36	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_11	Prickly Sculpin	11	-	36	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CC_2_12	Sculpin (general)	12	-	18	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CC_2_13	Sculpin (general)	13	-	24	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CC_2_14	Sculpin (general)	14	-	16	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_15	Prickly Sculpin	15	-	36	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CC_2_16	Sculpin (general)	16	-	17	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_17	Prickly Sculpin	17	-	34	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_18	Prickly Sculpin	18	-	19	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_19	Prickly Sculpin	19	-	22	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CC_2_20	Sculpin (general)	20	-	18	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CC_2_21	Sculpin (general)	21	-	18	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_NSC_2_22	Northern PikeMinnow	22	-	18	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_NSC_2_23	Northern PikeMinnow	23	-	22	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_NSC_2_24	Northern PikeMinnow	24	-	24	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_NSC_2_25	Northern PikeMinnow	25	-	28	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL110	2023-09-14	Beach Seine	-	2	TL110_bs_20230914_CAS_2_26	Prickly Sculpin	26	-	34	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	1	TL111_bs_20230913_MW_1_1	Mountain Whitefish	1	-	79	-	5.17	1.05	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	1	TL111_bs_20230913_RB_1_2	Rainbow Trout	2	-	72	-	4.24	1.14	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	1	TL111_bs_20230913_CAS_1_3	Prickly Sculpin	3	-	66	-	3.80	1.32	Released alive	Undetermined	Adult	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	1	TL111_bs_20230913_CAS_1_4	Prickly Sculpin	4	-	65	-	2.60	0.95	Released alive	Undetermined	Adult	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	1	TL111_bs_20230913_CAS_1_5	Prickly Sculpin	5	-	53	-	2.00	1.34	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	1	TL111_bs_20230913_CAS_1_6	Prickly Sculpin	6	-	30	-	0.34	1.26	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	1	TL111_bs_20230913_CAS_1_7	Prickly Sculpin	7	-	35	-	0.64	1.49	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	1	TL111_bs_20230913_CC_1_8	Sculpin (general)	8	-	16	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	1	TL111_bs_20230913_CC_1_9	Sculpin (general)	9	-	27	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_MW_2_1	Mountain Whitefish	1	-	89	-	6.76	0.96	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_CAS_2_2	Prickly Sculpin	2	-	43	-	1.00	1.26	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_CAS_2_3	Prickly Sculpin	3	-	38	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_CAS_2_4	Prickly Sculpin	4	-	37	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_CAS_2_5	Prickly Sculpin	5	-	34	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_CAS_2_6	Prickly Sculpin	6	-	32	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_CAS_2_7	Prickly Sculpin	7	-	30	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_CC_2_8	Sculpin (general)	8	-	27	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_CC_2_9	Sculpin (general)	9	-	18	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_CAS_2_10	Prickly Sculpin	10	-	27	-	-	-	Released alive	Undetermined	Juvenile	-	-
Tatelkuz Lake	TL111	2023-09-13	Beach Seine	-	2	TL111_bs_20230913_CAS_2_11	Prickly Sculpin	11	-	25	-	-	-	Released alive	Undetermined	Juvenile	-	-
Lower Chedakuz Creek	CC-MT2	2023-09-17	Minnow trapping	1	1	CC-MT2_mt_20230917_NSC_1	Northern PikeMinnow	-	1	108	120	13.30	1.06	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT2	2023-09-17	Minnow trapping	1	1	CC-MT2_mt_20230917_NSC_2	Northern PikeMinnow	-	2	109	118	16.30	1.26	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT3	2023-09-17	Minnow trapping	2	1	CC-MT3_mt_20230917_RB_1	Rainbow Trout	-	3	73	76	4.80	1.23	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT5	2023-09-17	Minnow trapping	1	1	CC-MT5_mt_20230917_RB_1	Rainbow Trout	-	1	46	47	1.20	1.23	Released alive	Unknown	Juvenile	Deformities	-
Lower Chedakuz Creek	CC-MT5	2023-09-17	Minnow trapping	2	1	CC-MT5_mt_20230917_RB_1	Rainbow Trout	-	2	60	64	2.60	1.20	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT6	2023-09-16	Minnow trapping	1	1	CC-mt6_mt_20230916_CAS_1	Prickly Sculpin	-	1	-	42	1.00	1.35	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT6	2023-09-16	Minnow trapping	1	1	CC-mt6_mt_20230916_CAS_2	Prickly Sculpin	-	2	-	44	1.50	1.76	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT6	2023-09-16	Minnow trapping	1	1	CC-mt6_mt_20230916_NSC_3	Northern PikeMinnow	-	3	114	128	16.70	1.13	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT6	2023-09-16	Minnow trapping	1	1	CC-mt6_mt_20230916_NSC_4	Northern PikeMinnow	-	4	121	132	18.70	1.06	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT6	2023-09-16	Minnow trapping	1	1	CC-mt6_mt_20230916_NSC_5	Northern PikeMinnow	-	5	111	121	14.50	1.06	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT6	2023-09-16	Minnow trapping	1	1	CC-mt6_mt_20230916_CAS_6	Prickly Sculpin	-	6	-	113	20.30	1.41	Released alive	Unknown	Adult	None	-
Lower Chedakuz Creek	CC-MT6	2023-09-16	Minnow trapping	1	1	CC-mt6_mt_20230916_NSC_7	Northern PikeMinnow	-	7	109	118	13.50	1.04	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT6	2023-09-16	Minnow trapping	1	1	CC-mt6_mt_20230916_NSC_8	Northern PikeMinnow	-	8	109	118	13.80	1.07	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_NSC_1	Northern PikeMinnow	-	9	115	126	14.30	0.94	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_NSC_2	Northern PikeMinnow	-	10	120	136	17.90	1.04	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_NSC_3	Northern PikeMinnow	-	11	121	135	18.70	1.06	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_NSC_4	Northern PikeMinnow	-	1	97	108	10.00	1.10	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_NSC_5	Northern PikeMinnow	-	2	105	114	12.70	1.10	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_NSC_6	Northern PikeMinnow	-	3	111	123	13.90	1.02	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_NSC_7	Northern PikeMinnow	-	4	103	114	12.80	1.17	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_NSC_8	Northern PikeMinnow	-	1	112	122	14.20	1.01	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_NSC_9	Northern PikeMinnow	-	2	124	132	19.30	1.01	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_NSC_10	Northern PikeMinnow	-	3	115	124	16.20	1.07	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	1	1	CC-mt7_mt_20230916_CAS_11	Prickly Sculpin	-	4	-	76	5.40	1.23	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	2	1	CC-mt7_mt_20230916_NSC_1	Northern PikeMinnow	-	5	119	131	16.60	0.99	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	2	1	CC-mt7_mt_20230916_NSC_2	Northern PikeMinnow	-	6	120	131	17.10	0.99	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	2	1	CC-mt7_mt_20230916_NSC_3	Northern PikeMinnow	-	7	131	146	22.10	0.98	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT7	2023-09-16	Minnow trapping	2	1	CC-mt7_mt_20230916_NSC_4	Northern PikeMinnow	-	8	118	129	16.80	1.02	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT8	2023-09-16	Minnow trapping	1	1	CC-MT8_mt_20230916_NSC_1	Northern PikeMinnow	-	1	131	10	25.60	1.14	Released alive	Unknown	Juvenile	None	-
Lower Chedakuz Creek	CC-MT8	2023																

Blackwater Gold Project
Condition 3.16 Follow-up Program

Water Body	Site	Date (YYYY-MM-DD)	Method	Trap ID	Set	Fish ID	Species ¹	Fish Count (per Set)	Fish Count (per Site)	Fork Length (mm) ²	Total Length (mm)	Weight (g) ²	Condition Factor (K)	Fate	Sex	Maturity	DELTS	Comments
Lower Chedakuz Creek	CC_3.16-KO	2023-09-09	Dead Capture	-	-	CC_3.16_20230909_KO_1	Kokanee	-	2	223	-	-	-	Dead	Male	Adult	-	Weight not measured due to decomposition. Spawning state not assessed for males given that expended milt volume cannot be determined in the field.

Notes:

mm = millimeter, g = gram, YYYY-MM-DD = year-month-date

K = condition factor, K = W / L, where W = measured weight of individual fish (g), L = for length of individual fish (cm)

DELTS = Deformities, erosion, lesions, and tumors.

¹ Unidentified sucker species was suspected to be White Sucker (*Catostomus commersoni*) based on morphological characteristics and catch of another White Sucker individual positively identified in lower Chedakuz Creek, however, uncertainty based on small body size precluded confident species determination.

² Lengths and weights were collected for all adult Brassy Minnow and for a subset of 10 fish for non Brassy Minnow species. Weight measurements were not possible for certain Brassy Minnow due to limited scale precision.

Blackwater Gold Project
Condition 3.16 Follow-up Program

Appendix B-10: Lower Chedakuz Creek Minnow Trapping Effort

Water Body	Site	Method	Trap ID	Bait Type	Date In (YYYY-MM-DD)	Date Out (YYYY-MM-DD)	Time In	Time Out	Total Soak Time (Hours:Min)	Fish Captured	Comments
Lower Chedakuz Creek	CC-MT1	Minnow trapping	1	Wet cat food	2023-09-16	2023-09-17	15:35	14:00	22:25	0	-
Lower Chedakuz Creek	CC-MT1	Minnow trapping	2	Wet cat food	2023-09-16	2023-09-17	15:35	14:00	22:25	0	-
Lower Chedakuz Creek	CC-MT2	Minnow trapping	1	Wet cat food	2023-09-16	2023-09-17	15:20	14:08	22:48	2	-
Lower Chedakuz Creek	CC-MT2	Minnow trapping	2	Wet cat food	2023-09-16	2023-09-17	03:20	14:11	10:51	0	-
Lower Chedakuz Creek	CC-MT3	Minnow trapping	1	Wet cat food	2023-09-16	2023-09-17	02:50	14:47	11:57	0	-
Lower Chedakuz Creek	CC-MT3	Minnow trapping	2	Wet cat food	2023-09-16	2023-09-17	02:50	14:47	11:57	1	-
Lower Chedakuz Creek	CC-MT4	Minnow trapping	1	Wet cat food	2023-09-16	2023-09-17	14:45	14:55	24:10	0	-
Lower Chedakuz Creek	CC-MT4	Minnow trapping	2	Wet cat food	2023-09-16	2023-09-17	14:45	14:56	24:11	0	-
Lower Chedakuz Creek	CC-MT5	Minnow trapping	1	Wet cat food	2023-09-16	2023-09-17	02:35	15:01	12:26	1	-
Lower Chedakuz Creek	CC-MT5	Minnow trapping	2	Wet cat food	2023-09-16	2023-09-17	02:35	15:04	12:29	1	-
Lower Chedakuz Creek	CC-MT6	Minnow trapping	1	Wet cat food	2023-09-16	2023-09-17	04:15	14:16	12:01	8	-
Lower Chedakuz Creek	CC-MT6	Minnow trapping	2	Wet cat food	2023-09-16	2023-09-17	16:15	14:22	22:07	0	-
Lower Chedakuz Creek	CC-MT7	Minnow trapping	1	Wet cat food	2023-09-16	2023-09-17	16:07	13:51	21:36	11	-
Lower Chedakuz Creek	CC-MT7	Minnow trapping	2	Wet cat food	2023-09-16	2023-09-17	16:07	14:04	21:57	4	-
Lower Chedakuz Creek	CC-MT8	Minnow trapping	1	Wet cat food	2023-09-16	2023-09-17	16:00	13:21	21:21	3	-
Lower Chedakuz Creek	CC-MT8	Minnow trapping	2	Wet cat food	2023-09-16	2023-09-17	16:00	13:30	21:30	2	-
Lower Chedakuz Creek	CC-MT9	Minnow trapping	1	Wet cat food	2023-09-16	2023-09-17	15:10	14:23	23:13	3	-
Lower Chedakuz Creek	CC-MT9	Minnow trapping	2	Wet cat food	2023-09-16	2023-09-17	15:10	14:30	23:20	2	-
Lower Chedakuz Creek	CC-MT10	Minnow trapping	1	Wet cat food	2023-09-16	2023-09-17	15:00	14:40	23:30	1	-
Lower Chedakuz Creek	CC-MT10	Minnow trapping	2	Wet cat food	2023-09-16	2023-09-17	15:00	14:41	23:29	0	-

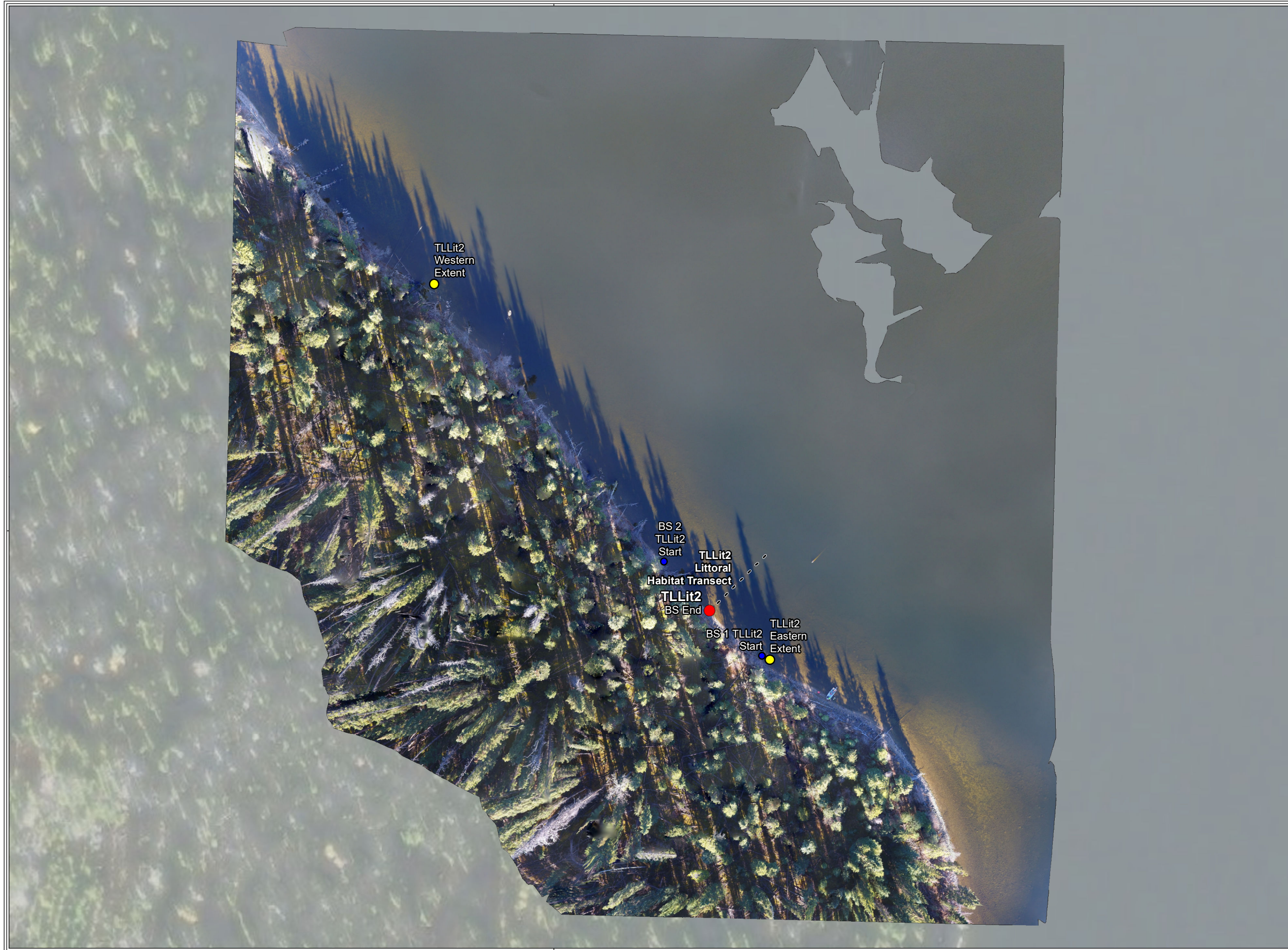
Appendix B-11: Lower Chedakuz Creek Kokanee Spawner Survey

Water Body	Reach	Date (YYYY-MM-DD)	Weather	UTM Location	UTM Zone	UTM Easting	UTM Northing	Start Time	End Time	Survey Length (m)	Average Wetted Width (m)	Average Bankful Width (m)	Estimated Observer Efficiency (%)	Holding / Migrating	Spawning	Spent	Total Live	Redds	Dead Female	Dead Male	Dead Unknown	Total Dead	Proportion of Bankfull Wetted Depth (%)	Water Clarity (m)	Brightness	Cloud Coverage (%)	Precipitation	LWD Cover Abundance (%)	Deep Pool Cover Abundance (%)	Undercut Bank Cover Abundance (%)	Crown Closure (%)	Comments
Lower Chedakuz Creek	CC_3.16-KO	2023-08-17	Clear	Downstream end	10	385026	5908259	11:05	11:54	920	16.87	18.65	50	0	0	0	0	0	0	0	0	0	25-50	1-3	Full	0	None	<5	<5	<5	0	High winds disrupted the surface of the water making it difficult to observe fish.
Lower Chedakuz Creek	CC_3.16-KO	2023-08-28	Clear	Downstream end	10	385026	5908259	13:46	14:52	920	16.87	18.65	40	27	0	0	27	0	0	1	0	1	25-50	1-3	Full	0	None	<5	<5	<5	1-20	High winds disrupted the surface of the water making it difficult to observe fish.
Lower Chedakuz Creek	CC_3.16-KO	2023-09-09	Clear	Downstream end	10	385026	5908259	13:50	14:21	920	16.87	18.65	85	0	0	0	0	0	1	0	1	25-50	0.5-1.0	Full	0	None	<5	<5	<5	1	-	
Lower Chedakuz Creek	CC_3.16-KO	2023-09-24	Partially cloudy	Downstream end	10	385026	5908259	14:37	15:05	920	16.87	18.65	45	1	0	0	1	0	0	0	0	25-50	0.5-1.0	Full	25	None	0	<5	<5	1-20	High winds disrupted the surface of the water making it difficult to observe fish.	

Notes:
UTM = Universal Transverse Mercator, m = meter, % = percent, < = less than, YYYY-MM-DD = year-month-day, (-) = data unavailable or not collected

Appendix C

Tatelkuz Lake UAV Imagery

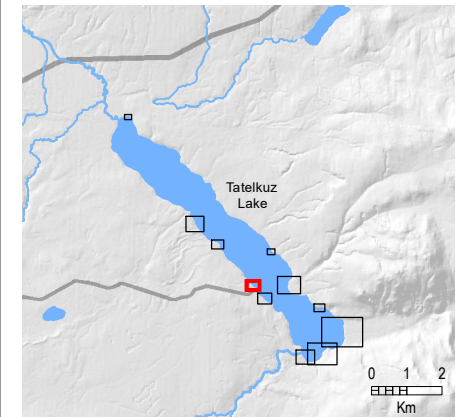


Legend

- Littoral Site
- Habitat Boundary
- Beach Seine (BS)
- - - - Littoral Habitat Transect

Surrounding base imagery from Esri basemap service (for context only)

Overview



Scale 1:1100
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:

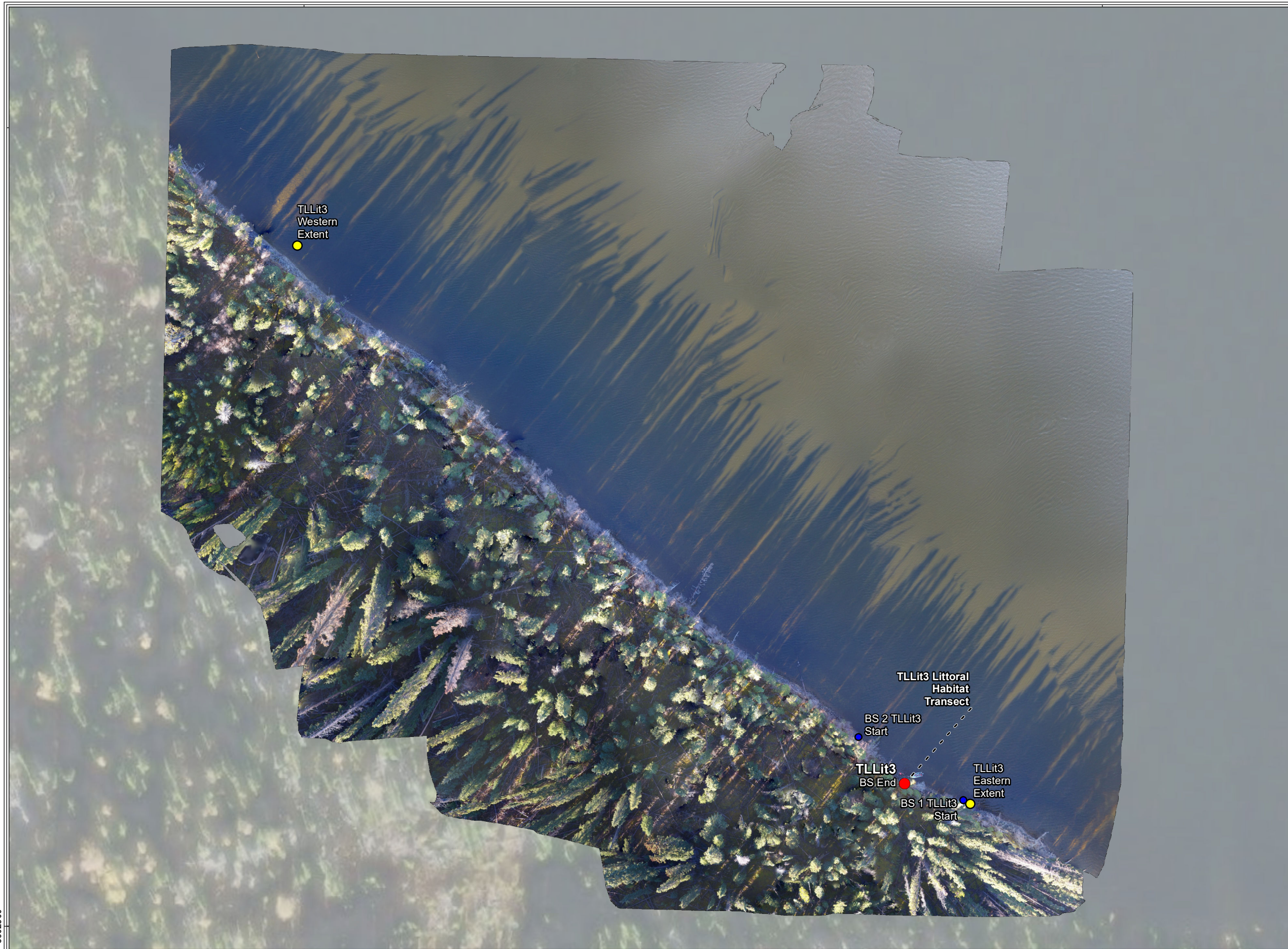
CLIENT: Artemis Gold Inc.
PROJECT: Blackwater
DRAWN: B. Elder
CHECKED: A. Miller
PROJECT: 2006506
DATE: Mar 13, 2024

Prepared by:

Artemis Gold Inc.
Palmer SLR

**Tatelkuz Lake (TLLit2)
 2023 UAV Imagery**

Appendix C-2

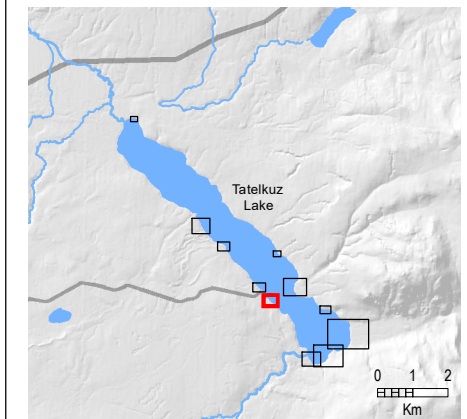


Legend

- Littoral Site
- Habitat Boundary
- Beach Seine (BS)
- - - - Littoral Habitat Transect

Surrounding base imagery from Esri basemap service (for context only)

Overview



Scale 1:1200
 UTM Zone 10N
 NAD 1983 Datum

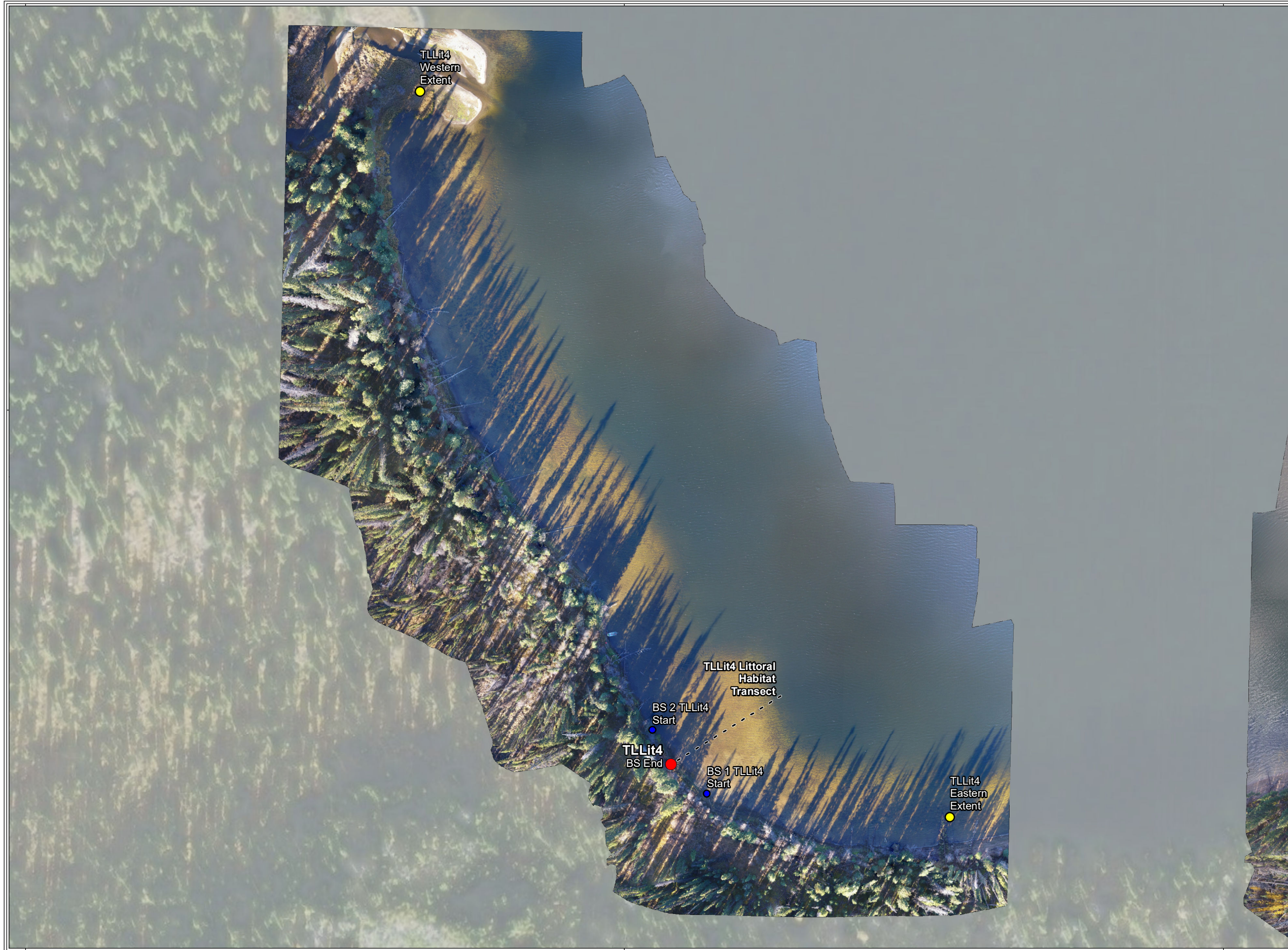
Prepared For:

CLIENT: Artemis Gold Inc.
 PROJECT: Blackwater
 DRAWN: B. Elder
 CHECKED: A. Miller
 PROJECT: 2006506
 DATE: Mar 13, 2024



**Tatelkuz Lake (TLLit3)
 2023 UAV Imagery**

Appendix C-3

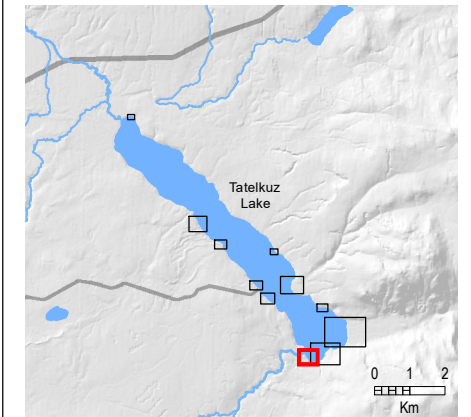


Legend

- Littoral Site
- Habitat Boundary
- Beach Seine (BS)
- - - - Littoral Habitat Transect

Surrounding base imagery from Esri basemap service (for context only)

Overview



Scale 1:1600
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:

CLIENT: Artemis Gold Inc.
 PROJECT: Blackwater
 DRAWN: B. Elder
 CHECKED: A. Miller
 PROJECT: 2006506
 DATE: Mar 13, 2024

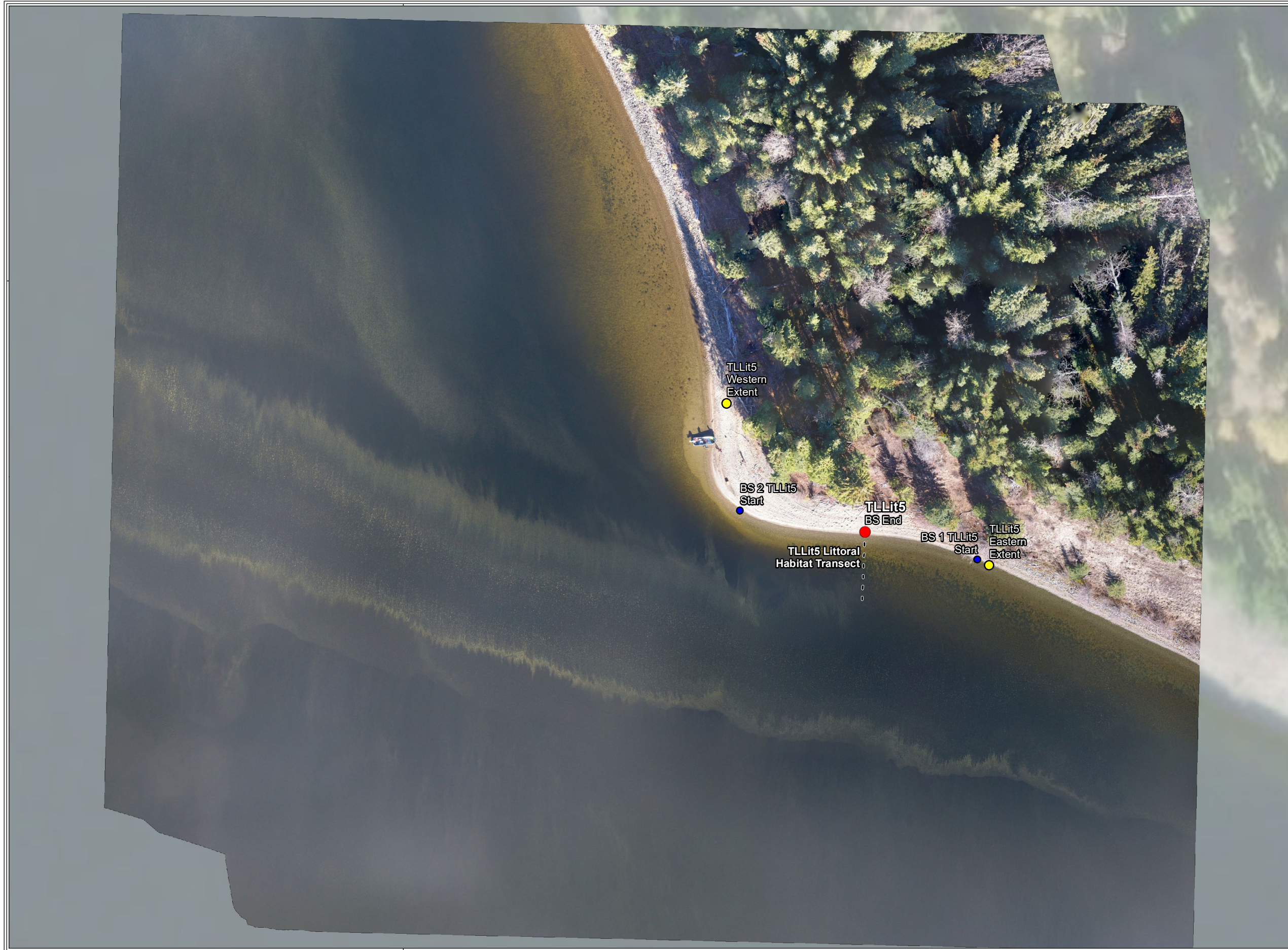


Prepared by:



**Tatelkuz Lake (TLLit4)
 2023 UAV Imagery**

Appendix C-4

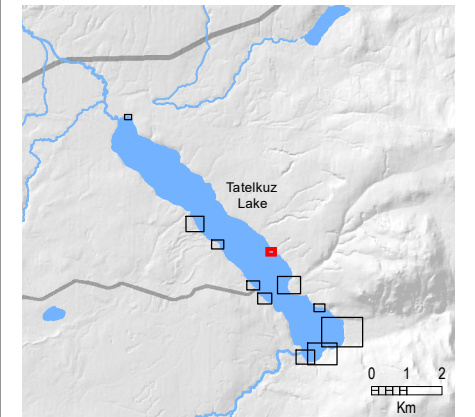


Legend

- Littoral Site
- Habitat Boundary
- Beach Seine (BS)
- - - - Littoral Habitat Transect

Surrounding base imagery from Esri basemap service (for context only)

Overview



Scale 1:650
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:

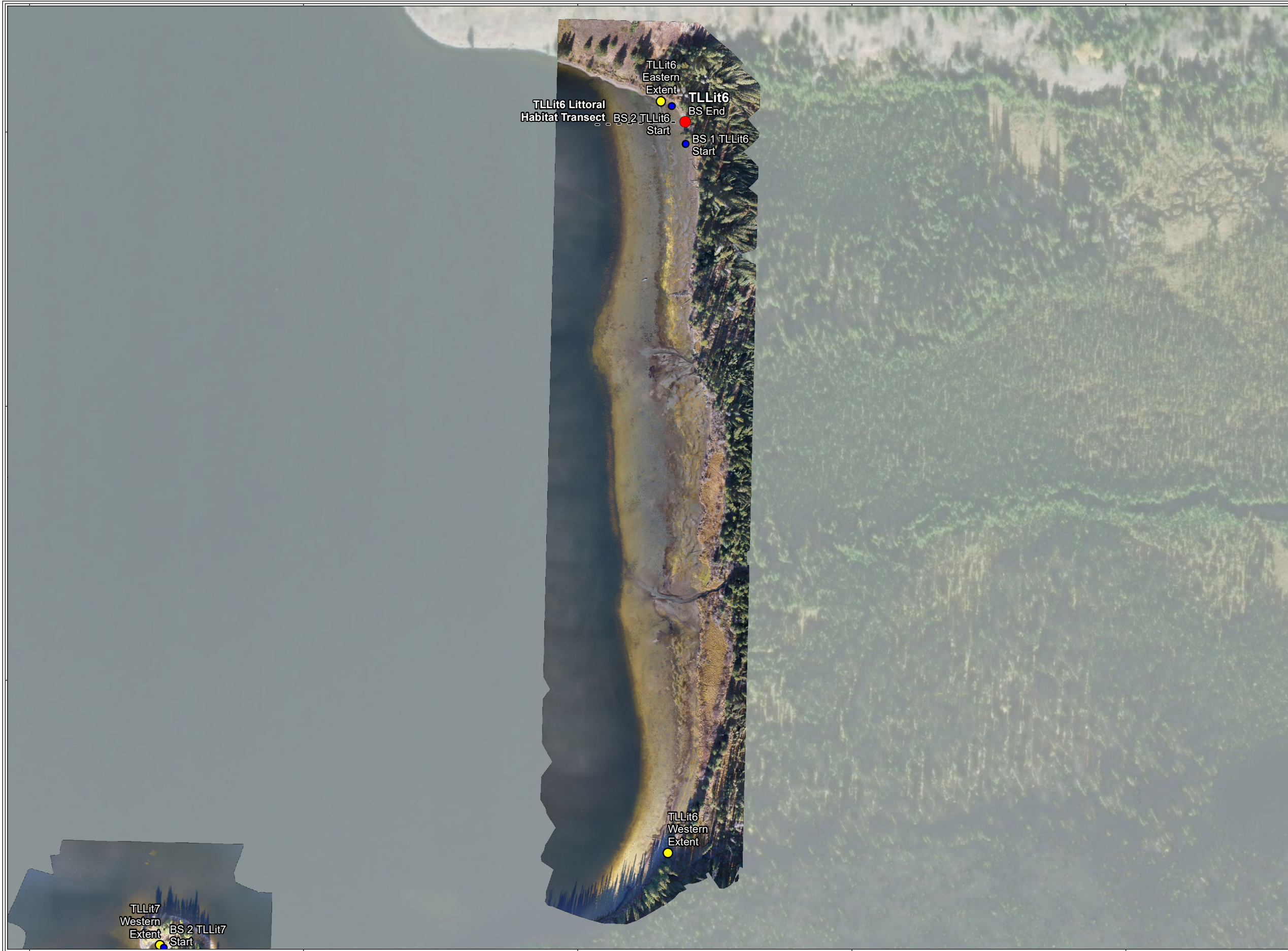
CLIENT: Artemis Gold Inc.
 PROJECT: Blackwater
 DRAWN: B. Elder
 CHECKED: A. Miller
 PROJECT: 2006506
 DATE: Mar 13, 2024

Prepared by:

Palmer SLR PART OF

**Tatelkuz Lake (TLLit5)
2023 UAV Imagery**

Appendix C-5

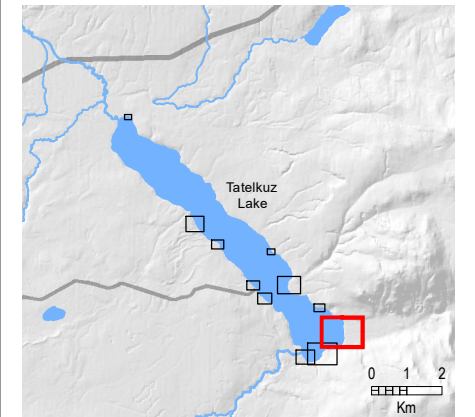


Legend

- Littoral Site
- Habitat Boundary
- Beach Seine (BS)
- - - - Littoral Habitat Transect

Surrounding base imagery from Esri basemap service (for context only)

Overview



Scale 1:3500
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:

CLIENT: Artemis Gold Inc.
 PROJECT: Blackwater
 DRAWN: B. Elder
 CHECKED: A. Miller
 PROJECT: 2006506
 DATE: Mar 13, 2024

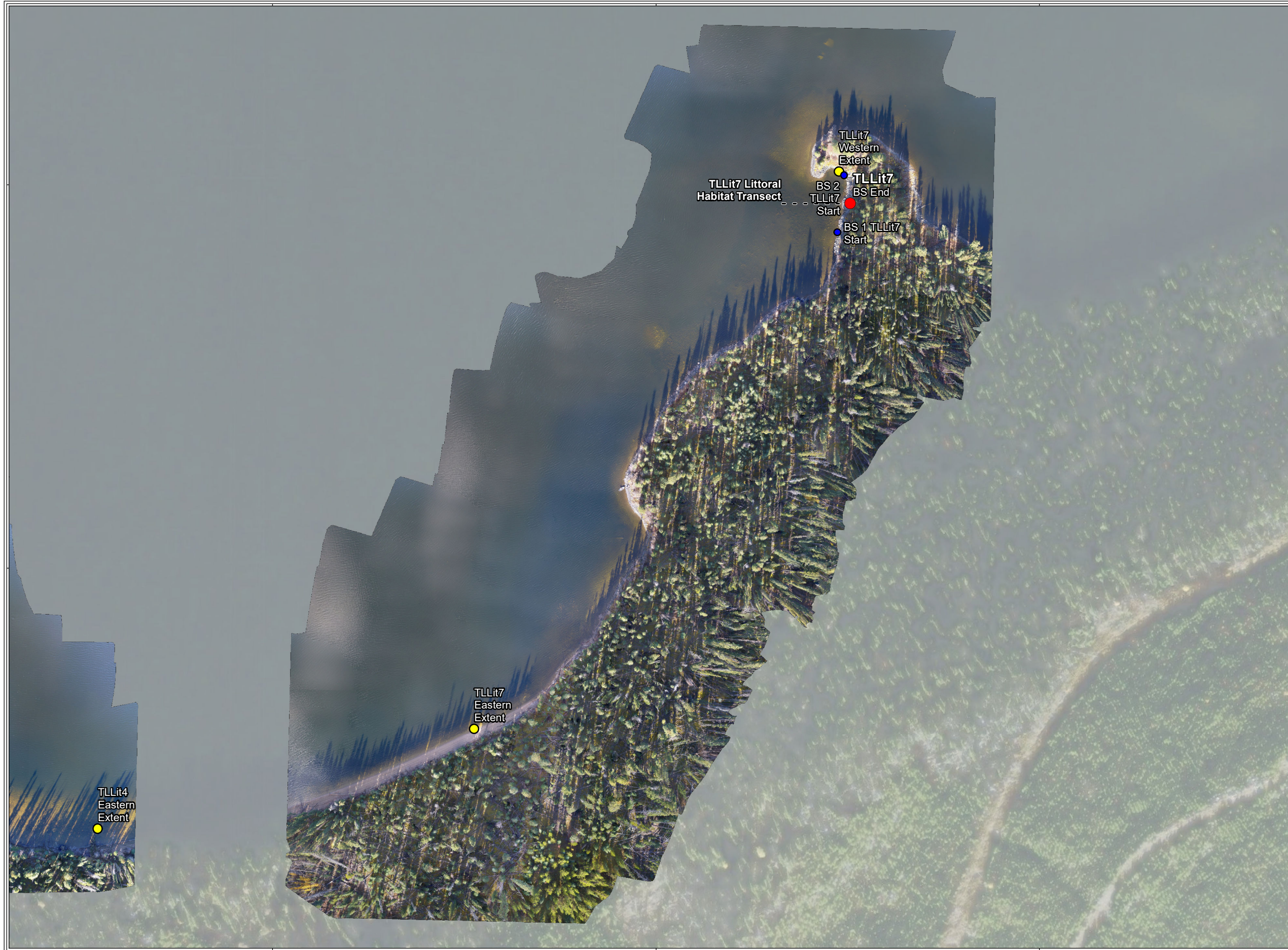


Prepared by:



**Tatelkuz Lake (TLLit6)
 2023 UAV Imagery**

Appendix C-6

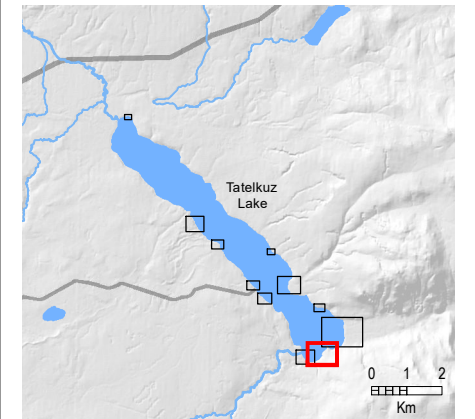


Legend

- Littoral Site
- Habitat Boundary
- Beach Seine (BS)
- - - - Littoral Habitat Transect

Surrounding base imagery from Esri basemap service (for context only)

Overview



Scale 1:2500
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:

CLIENT: Artemis Gold Inc.
PROJECT: Blackwater
DRAWN: B. Elder
CHECKED: A. Miller
PROJECT: 2006506
DATE: Mar 13, 2024

Prepared by:

Palmer PART OF **SLR**

**Tatelkuz Lake (TLLit7)
 2023 UAV Imagery**

Appendix C-7

390000



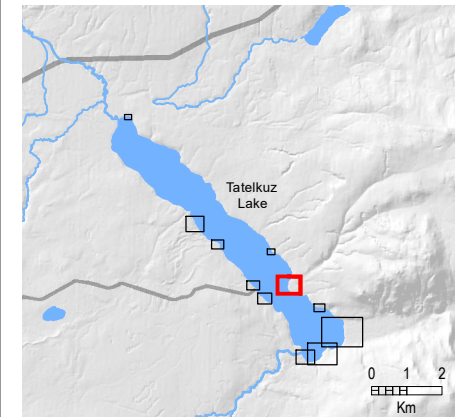
390000

Legend

- Littoral Site
- Habitat Boundary
- Beach Seine (BS)
- - - - Littoral Habitat Transect

Surrounding base imagery from Esri basemap service (for context only)

Overview



Scale 1:2000
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:

CLIENT: Artemis Gold Inc.
 PROJECT: Blackwater
 DRAWN: B. Elder
 CHECKED: A. Miller
 PROJECT: 2006506
 DATE: Mar 13, 2024

Prepared by:

Palmer SLR PART OF

**Tatelkuz Lake (TLLit8)
2023 UAV Imagery**

Appendix C-8

387500



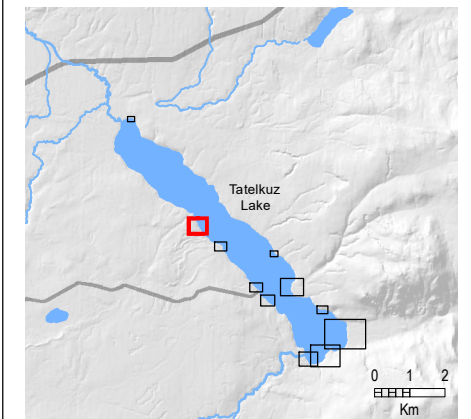
387500

Legend

- Littoral Site
- Habitat Boundary
- Beach Seine (BS)
- - - - Littoral Habitat Transect

Surrounding base imagery from Esri basemap service (for context only)

Overview



Scale 1:1800
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:

CLIENT: Artemis Gold Inc.
 PROJECT: Blackwater
 DRAWN: B. Elder
 CHECKED: A. Miller
 PROJECT: 2006506
 DATE: Mar 13, 2024

Prepared by:

**Tatelkuz Lake (TLLit9)
2023 UAV Imagery**

Appendix C-9

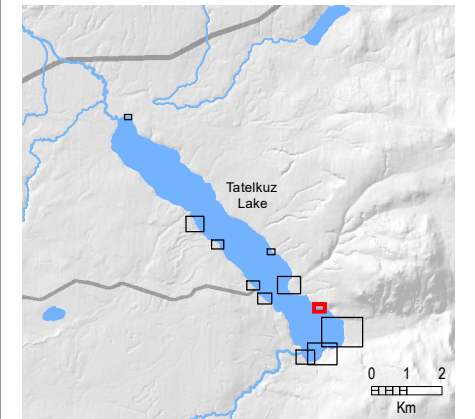


Legend

- Littoral Site
- Habitat Boundary
- Beach Seine (BS)
- - - - Littoral Habitat Transect

Surrounding base imagery from Esri basemap service (for context only)

Overview



Scale 1:900
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:

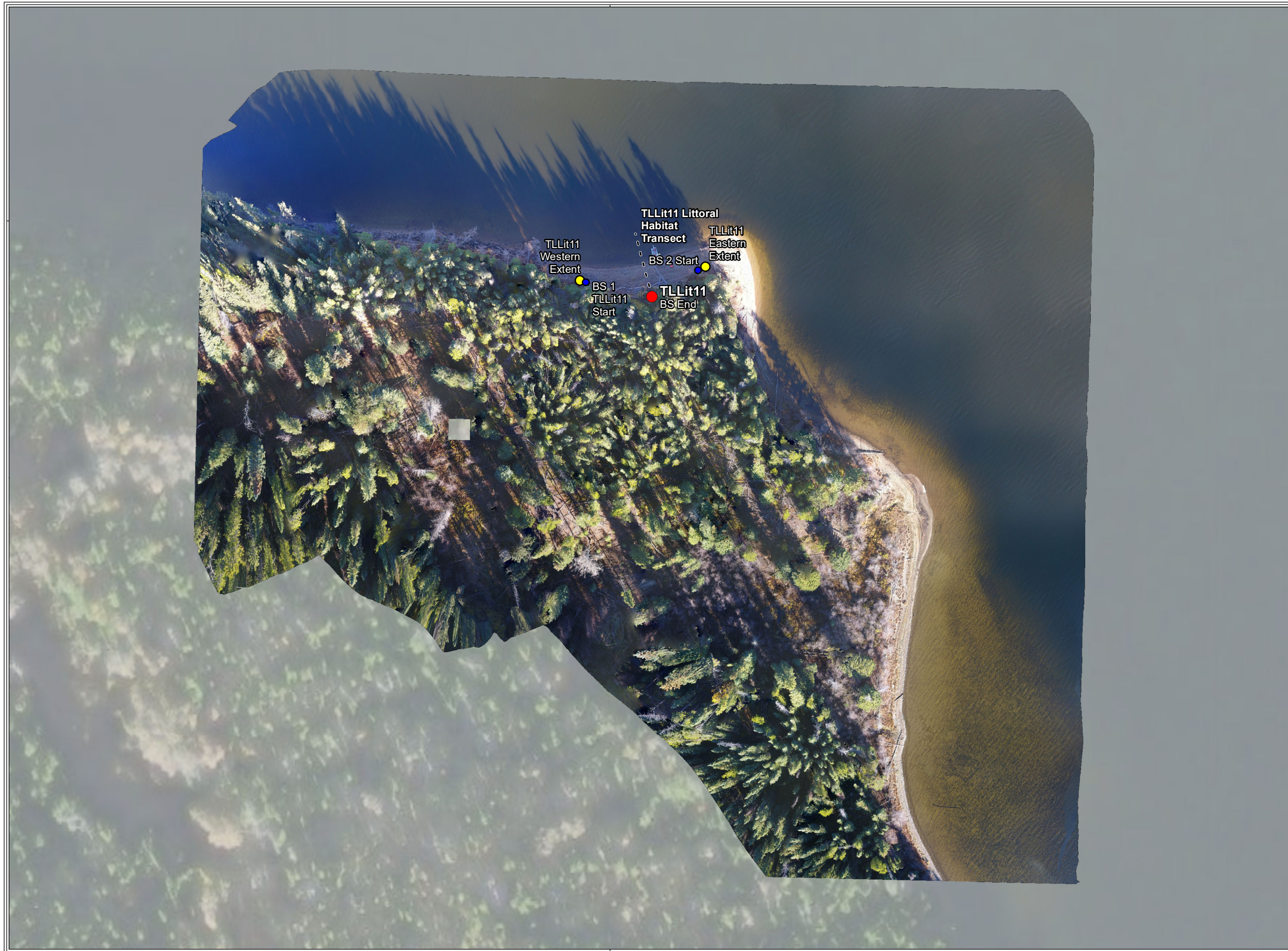
CLIENT: Artemis Gold Inc.
PROJECT: Blackwater
DRAWN: B. Elder
CHECKED: A. Miller
PROJECT: 2006506
DATE: Mar 13, 2024

Prepared by:

Palmer PART OF **SLR**

**Tatelkuz Lake (TLLit10)
 2023 UAV Imagery**

Appendix C-10

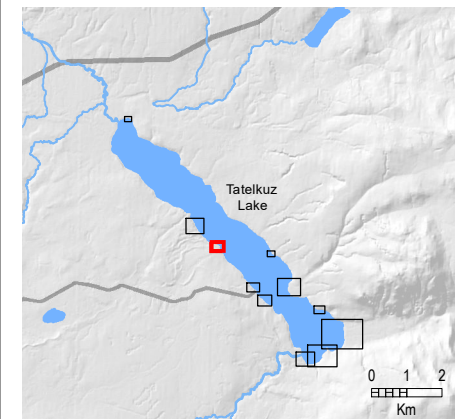


Legend

- Littoral Site
- Habitat Boundary
- Beach Seine (BS)
- - - - Littoral Habitat Transect

Surrounding base imagery from Esri basemap service (for context only)

Overview



Scale 1:1000
 UTM Zone 10N
 NAD 1983 Datum

Prepared For:

CLIENT: Artemis Gold Inc.
PROJECT: Blackwater
DRAWN: B. Elder
CHECKED: A. Miller
PROJECT: 2006506
DATE: Mar 13, 2024

Prepared by:

Palmer PART OF **SLR**

**Tatelkuz Lake (TLLit11)
2023 UAV Imagery**

Appendix C-11