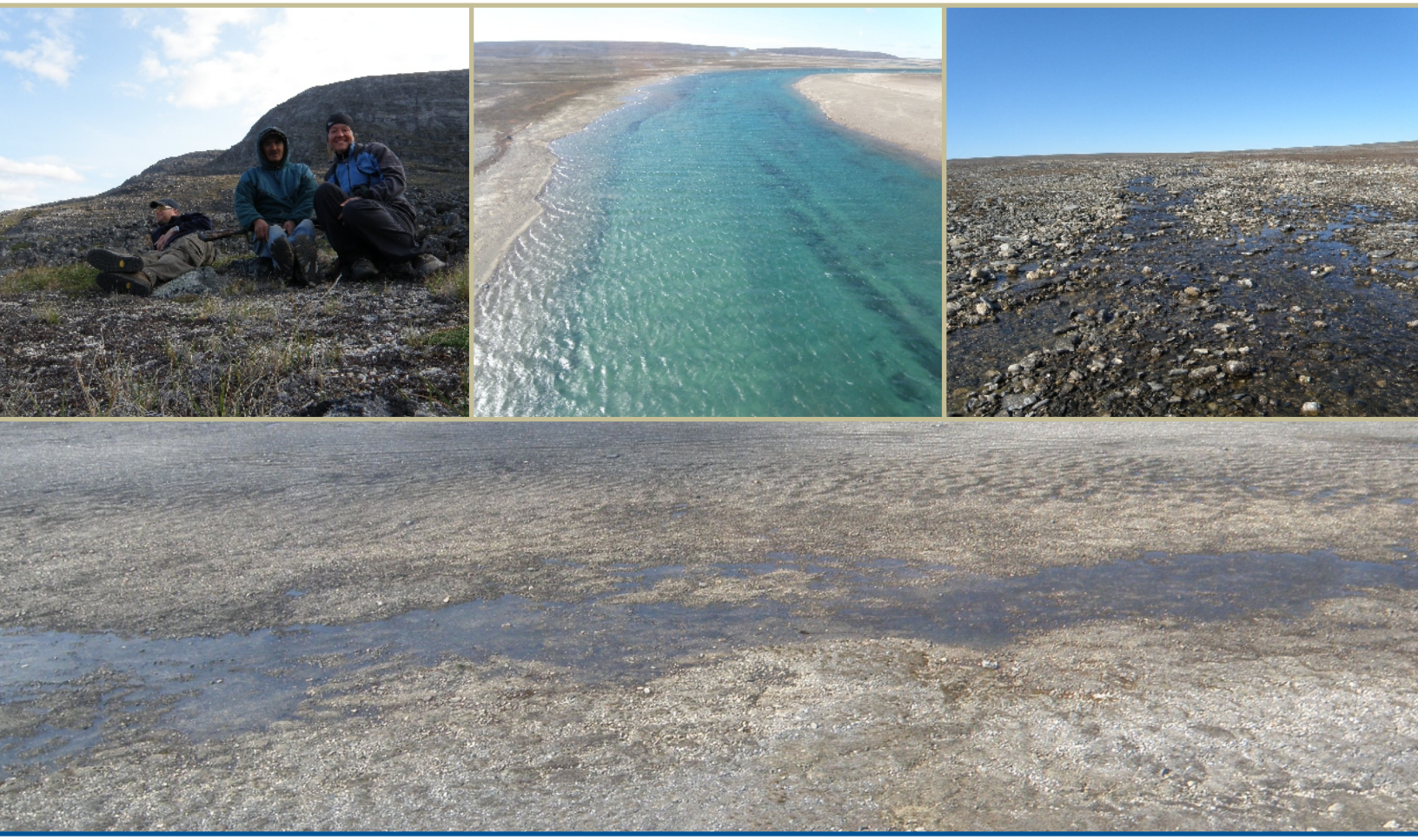
PEREGRINE
DIAMONDS LTD.

2013 ENVIRONMENTAL BASELINE PROGRAM

CHIDLIAK PROJECT, BAFFIN ISLAND, NUNAVUT



TETRA TECH EBA

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EXECUTIVE SUMMARY

The Chidliak Project site (the Project site), owned and operated by Peregrine Diamonds Ltd. (Peregrine) is situated on Hall Peninsula, southeast Baffin Island, Nunavut approximately 120 kilometres (km) northeast of Iqaluit (Map 1, Appendix B). Tetra Tech EBA Inc. (Tetra Tech EBA) was retained by Peregrine to conduct the 2013 studies on the Project site to gain an understanding of the environmental baseline conditions, which would then function as a key management tool for planning exploration activities to avoid or minimize impacts to the surrounding environment. Baseline environmental studies at the Project site began in 2009 and have continued annually.

Baseline environmental surveys were carried out during one field event undertaken during the period August 15 to 16, 2013. Surveys were conducted within the 2013 Regional Study Area of approximately 2,637 square kilometres (km^2), which includes a Priority Area of approximately 546 km^2 where Peregrine has focused their exploration efforts (Map 1, Appendix B). Mr. Amie Nashalik (from Pangnirtung) and Mr. David Willis, Peregrine's Lands Administrator, assisted throughout the baseline studies.

During this field event, the following five baseline surveys were conducted:

1. Surface Water Quality Sampling

The objective of the surface water quality program was to conduct baseline surface water grab sampling down-gradient of exploration activities and at reference lakes/streams. A total of 12 water quality stations were sampled (two additional sampling stations were dry and therefore not sampled) for routine, nutrients, total metals, total organic carbon, and oil and grease on August 15 and 16 (Map 2, Appendix B). The laboratory analytical results indicated that all sampled parameters were within the Canadian Council of Ministers of the Environment for the Protection of Freshwater Aquatic Life (CCME FAL) guidelines at all sampling stations, except pH and total Aluminum. However, the surface water quality results reported for the study area are considered to be representative of natural background conditions.

2. Camp Potable Water Quality Sampling

The objective of the potable water quality sampling was to ensure that the raw water at Discovery camp (the only camp in operation at the time of the field event; Map 1, Appendix B) met the Canadian Drinking Water Quality guidelines for total coliforms, faecal coliforms, and *Escherichia coli* (*E. coli*). Potable water at Discovery Camp was disinfected using UV filtration (Trojan UV Max) and bleach systems. Potable water quality samples were collected on August 16 from the raw water source (the nearby stream) and from the taps in the bathroom, kitchen, and two Dry tents. Potable water quality samples have a short life, and must be analyzed by the laboratory within 24 hours of sample collection to minimize bacterial growth in the samples.

Upon arrival at Ottawa for analysis, the 2013 potable water quality samples were delayed in transit to the laboratory, and subsequently the integrity of the samples was compromised. As a result, the laboratory analysis of the potable water samples indicated that total coliform concentrations were above guideline levels; however, *E.coli* and faecal coliform levels remained below the laboratory detectable level.

3. Aerial Caribou Survey

The main objective of the aerial caribou survey was to determine the distribution and relative abundance of caribou within the study area in relation to the main activity areas at the time of the survey event. A single aerial caribou survey was conducted on August 15, which included five north-south transects (length totalling 324 km). The proposed sixth transect was not flown due to mechanical issues with the helicopter.

No caribou were observed at the time of the August 15 aerial survey; however, Peregrine staff reported six caribou observations totaling 13 caribou from July 19 to August 15, 2013 (when Peregrine staff were present in the study area). These caribou observations may have included multiple sightings of the same individuals.

4. Aerial Carnivore Survey

An aerial carnivore survey was carried out opportunistically and concurrently with the aerial caribou survey. As encountered, sites that had potential carnivore denning habitat such as eskers were surveyed. No carnivores or carnivore dens were observed during this aerial survey, and no sensitive carnivore habitats were identified near the 2013 exploration or camp sites.

Peregrine staff reported observing one fox and one wolf in the camp wildlife logs.

5. Aerial Raptor Nest Reconnaissance Survey

A raptor nest occupancy survey was conducted opportunistically at four known raptor nest sites while flying to and from water sampling stations. The objective of this survey was to determine the frequency of occupation at these known nest sites and species use. Of the four known nest sites, one is located approximately 6 km from Sunrise Camp (the nearest exploration site) and the remaining three are located well beyond 10 km from the Priority Area.

During the nest reconnaissance survey on August 15, two adult Peregrine Falcons were observed near a cliff site approximately 45 km north of the nearest exploration activity site (Discovery Camp). In addition, a Gyrfalcon nest with four abandoned eggs was observed at the cliff site approximately 6 km from Sunrise Camp. This nest was located approximately 8 m above ground level. A Snowy Owl was also observed during the caribou survey, and two Gyrfalcons, two Snowy Owls, and eight Common Ravens were recorded in the camp wildlife logs.

Raptors are sensitive to disturbance at their nest sites during nesting season and a conservative 1.5 km buffer is recommended near known raptor nests (including those identified from previous years) from early May to mid-August.

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ACRONYMS & ABBREVIATIONS

%	Percent
°C	Degrees Celsius
agl	Above ground level
ALS	ALS Laboratory Group
CCME FAL	Canadian Council of Ministers of the Environment for the Protection of Freshwater Aquatic Life
COC	Chain-of-custody form
EC	Electrical conductivity
E. coli	*Escherichia coli*, a member of the faecal pathogen coliform group
GPS	Global Positioning System
Hydro	Hydrology station (includes surface water quality and water discharge)
km	Kilometre
km^2	Square kilometre
km/hr	Kilometres per hour
m	Metre
mg/L	Milligram per litre
mL	Millilitre
mm	Millimetre
Maxxam	Maxxam Analytics Inc.
MPN	Most Probable Number
NTS	National Topographic System
Peregrine	Peregrine Diamonds Ltd.
RPD	Relative Percent Difference
TOC	Total organic carbon
µS/cm	Microsiemens per centimetre
UV	Ultra-Violet
WQ	Water quality (surface water)
QA/QC	Quality Assurance/Quality Control

LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of Peregrine Diamonds Ltd. and their agents. Tetra Tech EBA Inc. (Tetra Tech EBA) does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Peregrine Diamonds Ltd., or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this report is subject to the terms and conditions stated in Tetra Tech EBA's Services Agreement. Tetra Tech EBA's General Conditions are provided in Appendix A of this report.

1.0 INTRODUCTION

The Chidliak Project ("the Project"), owned and operated by Peregrine Diamonds Ltd. ("Peregrine"), is located on the Hall Peninsula of Baffin Island, Nunavut, approximately 120 kilometres (km) northeast of Iqaluit (Map 1, Appendix B). Tetra Tech EBA Inc. (Tetra Tech EBA) was retained by Peregrine to conduct the 2013 baseline environmental studies to facilitate understanding of the environmental baseline conditions in the area and to provide baseline data as a management tool for planning exploration activities to avoid or minimize impacts to the surrounding environment.

1.1 2013 Baseline Environmental Studies Objectives

The objective of the 2013 environmental studies program was to continue collecting environmental baseline data for the following five key environmental components: 1) surface water quality, 2) potable water quality at operating camps, 3) barrenground caribou (*Rangifer tarandus groenlandicus*), 4) carnivores, and 5) raptor nest occupancy at known nest sites. The scope of the baseline environmental studies was to maintain survey protocols and station locations similar to previous years' programs. The studies were undertaken from August 15 to August 16, 2013, and were based out of Peregrine's Discovery Camp.

2.0 BACKGROUND

Peregrine began systematic exploration within their Chidliak Project block in the summer of 2008 following receipt of necessary permits and licences. Since this time, Peregrine has conducted ground and airborne geophysical surveys, land and lake-based drilling programs, mini-bulk sampling (by hand and small equipment), and have operated four (4) exploration camps (Discovery Camp in 2008, addition of Sunrise Camp in 2009, Aurora Camp in 2011, and CH-6 Camp in 2013) across their Chidliak Project site.

Exploration activities have focused on activities within a small area near the geographic centre of the project. This area is commonly referred to as the "Priority Area" and is a 20 km diameter circle covering the most prospective kimberlites (Map 1, Appendix B). In the winter of 2012/2013, an overland cat-train was used to mobilize equipment and consumables from Iqaluit to the Chidliak property (as approved under Land Use Permit #N2012C0024). In April 2013, under winter conditions, Peregrine undertook bulk sampling by blasting and excavating a trench at the CH-6 Kimberlite. Subsequently in July and August 2013, De Beers Canada Inc. ("De Beers") undertook a field mapping and geophysics program on the Chidliak Property.

Environmental baseline studies were initiated by EBA in 2009, and have continued annually across the Project site for select key disciplines (EBA 2009, 2011, 2012a, and 2012b).

3.0 2013 REGIONAL STUDY AREA

The environmental baseline 2013 Regional Study Area (the "study area") encompasses Peregrine's Priority Area as well as a broader geographical area. The study area has evolved slightly over the program years to reflect Peregrine's potential exploration activities. However, the boundaries and dimensions of the study area have remained consistent since 2011, and measure 2,639 square kilometres (km^2) (Map 1, Appendix B).

The study area is approximately 550 to 850 m in elevation with higher land to the east, which is covered by glaciers. Approximately half of the study area drains north and east into Cumberland Sound, while the remainder drains west via the McKeand River and its tributaries. Peak runoff typically occurs in June as a result of snowmelt and subsequently declines from July to October (EBA 2011).

The dominant land-cover types across the study area are sparsely vegetated bedrock (barren, and ice/snow types), with small discrete patches of moist to dry non-tussock graminoid/dwarf shrub tundra (Natural Resources Canada 2008).

4.0 2013 BASELINE STUDY METHODS

In 2013, the environmental baseline studies concentrated on five key environmental components including regional water quality, camp potable water quality, caribou and carnivore surveys, and a raptor nest reconnaissance survey.

Ms. Karla Langlois, P.Biol with Tetra Tech EBA, has carried out the baseline field programs since 2009 with help from local field assistants (from Pangnirtung and Iqaluit) provided by Peregrine. In 2013, Mr. Amie Nashalik (from Pangnirtung) assisted Tetra Tech EBA during all baseline environmental studies, as well, Mr. David Willis, Peregrine's Lands Administrator acted as a quality control assessor throughout the program.

4.1 Surface Water Quality Sampling

The main objective of the surface water quality sampling program was to measure baseline August water quality conditions within the surface waters of the Chidliak Project area. For comparative purposes, the water quality data were evaluated against the Canadian Council of the Ministers of the Environment Freshwater Aquatic Life (CCME FAL) guidelines.

The surface water quality sampling methods employed in 2013 followed standard grab-sampling methods and were consistent with those employed during previous baseline programs conducted in the study area since 2009. ALS Laboratory Group (ALS) (an accredited laboratory) supplied the sample bottles, preservatives, coolers, and ice packs used in the collection and shipment of the field and quality control samples. All sample bottles and preservatives were supplied in clean coolers and were secured throughout transport.

Water quality samples were collected at the water surface and routine parameters (including major ions and inorganics), nutrients, total metals, total organic carbon (TOC), and oil and grease samples were collected for subsequent laboratory analysis. Samples (including the field and quality control samples) were collected in a manner consistent with standard field sampling methods, and included:

- Collection of in-situ field pH, water temperature, and electrical conductivity (EC) using a calibrated Oakton® Multi-Parameter 35 Series meter, which was allowed sufficient time to come to equilibrium before recording the field parameter;
- Use of disposable, powder-less, nitrile gloves during handling of all the bottles and equipment;
- Care to avoid touching the inner portions of the sample and preservative bottles and caps even with gloved hands;
- Approaching the water quality stations along watercourses downstream of the intended water quality sampling location;
- Collection of surface water quality samples into the current or wind, where possible, and plunging the sample bottle held in a horizontal position with the bottle opening held below the water surface to minimize the collection of bottom sediment and any surface material;
- Care to avoid disturbing the bottom sediment of the lake or watercourse;

- Preservation of samples using appropriate acid concentrations provided by ALS;
- Sealing together the water quality samples in a Ziploc bag to prevent any possible cross-contamination to other water quality station samples while in transportation;
- Storing and transporting the water quality samples in laboratory-issued portable coolers with ice packs, to ensure that the water quality samples remain below 4 degrees Celsius (°C), as much as possible;
- Ensuring water quality samples remain upright and secured in the cooler, and the cooler sealed with tape prior to shipping;
- Preparing and shipping a chain-of-custody (COC) with the water quality samples to ALS for laboratory analysis; and
- Shipping samples to the laboratory as quickly as possible to ensure hold times were met and to prevent the deterioration of the water quality samples.

4.1.1 Quality Controls

Three types of quality control samples were collected with the field sampling program:

1. Trip blank: prepared by ALS, accompanied the sample bottles to the site, was left intact (e.g., unopened), and returned to the laboratory with the water quality samples. One trip blank was submitted for the August field event. This trip blank was used to test for possible contamination or parameter loss that might arise during the handling, transport, and storage of samples.
2. Field blank: prepared in the field using de-ionized water supplied by ALS. One field blank sample was collected and analyzed for the full suite of parameters. This field blank was used to test for contamination arising from the sampling equipment, handling, or from ambient conditions during sampling.
3. Duplicate samples: collected in direct association with the field samples using source water. Duplicate samples were collected to test the validity and precision of sampling procedures and laboratory methodology. At least one duplicate sample was collected for every 10 field samples, representing 10 percent (%) (or greater) replicate sampling, and were analyzed for the full suite of parameters. Duplicate samples were compared to their respective field samples using a Relative Percent Difference (RPD) Assessment, which provides an index for the sampling and analytical precision. The RPD Assessment meets the British Columbia Field Sampling Manual (Clark 2003) methods.

4.1.2 Field Samples

Fourteen surface water quality stations were sampled; the majority of which have been monitored since 2009. These water quality stations were established along lakes and streams in direct association with proposed exploration activities since 2009. The sampling stations represent water quality sites above and down-gradient of known project footprints, as well as outside of the proposed Project's anticipated zone of influence. The field water quality stations are listed below, and shown on Map 2, Appendix B.

Table 4-1: Water Quality Sampling Station Locations

#	Sampling Station	Latitude	Longitude	Description
1.	Hydro-1	64.264010	-66.354760	▪ First Order watercourse; down gradient from CH-01

2.	Hydro-2	64.270990	-66.390520	▪ First-order watercourse
3.	WQ-3	64.169770	-66.056500	▪ Lake outlet; up-gradient from exploration activity (reference location)
4.	WQ-4	64.225480	-66.099342	▪ Sunrise Camp Lake (lakeshore)
5.	WQ-5	64.230090	-66.174420	▪ Sunrise Camp Lake outlet (McKeand River); down-gradient from Sunrise Camp
6.	WQ-6	64.185870	-66.290880	▪ McKeand River; down-gradient from Discovery and Sunrise camps
7.	WQ-7	64.275530	-66.620830	▪ McKeand River; down-gradient from most exploration activity
8.	WQ-8	64.368090	-66.344080	▪ Third-order watercourse (reference location)
9.	Hydro-9	64.241530	-66.43222	▪ Second-order watercourse; down-gradient from CH-01
10.	Hydro-10	64.201930	-66.315850	▪ Second-order watercourse; down-gradient from Discovery Camp
11.	Hydro-11	64.311590	-66.616040	▪ First-order watercourse; down-gradient from CH-06
12.	WQ-12	64.245372	-66.349017	▪ First-order watercourse; down-gradient from CH-07
13.	WQ-13	64.161491	-66.458077	▪ Second-order watercourse (reference location)
14.	WQ-14	64.743469	-66.515615	▪ Third-order watercourse near Ptarmigan Fiord (reference location)
Note: Latitude and Longitudes presented in NAD 83 map datum				

4.2 Camp Potable Water Quality Sampling

The main objective of the 2013 camp potable water quality sampling program was to determine if potable water at the camp(s) in operation at the time of the field event met the Guidelines for Canadian Drinking Water Quality (Federal-Provincial-Territorial Committee on Drinking Water of the Federal-Provincial-Territorial Committee on Health and the Environment 2010) and to minimize potential contamination and deterioration of the samples before analysis, to the extent possible.

During the August 2013 field event, Discovery Camp was the only camp in operation. Potable water quality samples were collected from taps at the beginning and end of the camps' water distribution system, as well as at the raw water source (e.g., at the pump intake pipe). This included the collection of potable water quality samples from a total of five locations:

1. Kitchen tap;
2. Dry 1 tap;
3. Dry 2 tap;
4. Bathroom tap; and
5. Raw water source (local glacial rill).

Discovery Camp has two water holding tanks that were filled from the local water source (from the proximal glacial rill). One water tank supplies water to the Kitchen and Dry 2 tents, and is sanitized using ultra-violet (UV) filtration (Trojan UVMax®) and sodium hypochlorite (household bleach) to disinfect the distribution system. The second water tank supplies water to the wash basins in the Bathroom and Dry 1 tents, and is sanitized using the

addition of household bleach only. At the time of the August field event, potable-water samples were collected at the Discovery Camp raw water intake source, and from the taps located in the Kitchen, Dry 1, Dry 2, and Bathroom tents.

The sample bottles, preservatives, coolers, and ice packs used in the collection and shipment of the camp and quality control samples were supplied by Maxxam Analytics (Maxxam) laboratory from Ottawa. Maxxam in Ottawa was contracted to facilitate sample transport (daily flight service from Iqaluit) to ensure samples were analyzed within 24 hours of collection (thus minimizing sample deterioration and loss of data).

Potable-water quality sampling methods included the following:

- Immediately prior to collecting potable water quality samples, the water distribution lines were purged by running water through the taps for ten minutes;
- Disposable, powderless, nitrile gloves were worn during handling of all the bottles and equipment;
- Sample bottles filled to the laboratory designated volume (appropriate headspace given) and inverted multiple times to mix the preservatives;
- Sample bottles were transported in sealed laboratory-issued portable coolers with ice packs, to ensure that the water quality samples remained below 4°C;
- A COC form was prepared and shipped with the water quality samples to the laboratory for analysis; and
- Samples were shipped priority class to ensure samples met the required 24 hour holding time, and Maxxam was immediately informed of the samples' arrival time.

Two quality control samples were collected in the field, including a field blank and a duplicate sample. A trip blank, supplied by the lab, was not included in the potable water field event, since the trip blank could not meet the 24 hour hold time for analysis. The camp potable water quality samples and the two quality control samples were submitted to Maxxam laboratories for analysis of total and faecal coliforms and *Escherichia Coli* (*E. coli*).

4.3 Aerial Caribou Survey

The main objectives of the aerial caribou survey were to determine the distribution and relative abundance of caribou in the study area at the time of the August field event (when caribou were in their post-calving range). The study area was divided into six parallel north-south oriented transects, totalling 404 km in length. Transects were identical to the same flight transects flown in 2012 and 2011, and covered approximately 12% of the entire study area.

Immediately prior to beginning the survey, the Summit Helicopters Bell 206 LongRanger windows were calibrated to represent a 400 metre (m) boundary on each side of the helicopter flying at 150 m above ground level (agl). Calibrating the aircraft windows allows observers to determine which caribou are inside 400 m and which ones are beyond (outside) 400 m from the flight transect. All caribou inside and outside the 400 m boundary on either side of the helicopter were counted.

If it had been necessary, the helicopter would have passed over the observed caribou, gained altitude, and then circled back to the general area where the caribou were last seen to ensure all caribou in the group were recorded. The helicopter would perform no more than one additional pass near the caribou before continuing the survey on transect.

Since caribou are highly mobile, the aerial survey was completed in its entirety once the survey began, to reduce possible double counting. Flight altitude and ground speed was 150 m agl and 120 kilometres per hour (km/hr) (average), respectively. All caribou and caribou sign observed were recorded on standardized datasheets, including the GPS location, number of caribou observed, activity, and herd composition (if possible without disturbing the animal(s)). Following the caribou survey, caribou density estimates were calculated using Jolly's Method 2 (Jolly 1969) using unequal length transects.

Incidental observations of caribou seen outside the caribou survey, as well as other species, including carnivores, waterfowl/water birds, and raptors, were also recorded.

4.4 Aerial Carnivore Survey

The main objectives of the carnivore survey were to document the presence of carnivores such as wolves (*Canis lupus manningi*), foxes (*Vulpes vulpes* and *Alopex lagopus*), wolverine (*Gulo gulo*)) and the location of potentially sensitive carnivore areas (i.e., carnivore dens) at the time of the August field event.

Prior to field mobilization, potential denning habitat for foxes and wolves was reviewed within the study area using 1:20,000 National Topographic System (NTS) maps. Due to the limited amount of suitable denning habitat potentially available in the study area, the carnivore and carnivore den survey was completed in conjunction with the aerial caribou survey. Sites that possess potential carnivore denning habitat, as encountered, were targeted.

A specific den assessment, including general habitat characterization, GPS location, slope aspect, estimated distance to the nearest waterbody, and the activity status (active vs. inactive) were recorded for all dens identified, if encountered.

The aerial carnivore survey was done concurrently with the aerial caribou survey.

4.5 Aerial Raptor Nest Reconnaissance Survey

Although no raptor nests are known to occur within the Priority Area, several raptor cliff-nesting sites are known to occur throughout the study area. The objective of this survey was to determine the frequency of occupation at these known nest sites and species use.

The LongRanger helicopter was used as the survey platform. To minimize any potential disturbance to nesting raptors, the helicopter remained approximately 30 m from the cliff face and slowly approached in view of the specific known nest site. As required, evidence of nest occupancy (including seeing at least one adult bird at the nest site, two adults together, finding a nest containing eggs or young, and flushing an adult from a nest) was determined by slowly passing by the nest site. A maximum of two flight passes were performed to establish the location and occupancy of nest sites.

Nest occupation and species presence data will be reported, and sensitive areas and timing restrictions, if any, will be determined in association with the Priority Area.

5.0 2013 BASELINE STUDY RESULTS

The 2013 environmental studies program was conducted from August 15 to 16, 2013. During this time, conditions at the eastern most portion of the study area near the glacier was described as 5% snow cover, with a gradual loss of snow cover further west into the remaining study area (average approximately <1% snow cover). All lakes and streams were ice-free.

While on site, five baseline environmental studies were conducted over the two day period (Table 5-1).

Table 5-1: Summary of Baseline Studies Conducted in 2013, Chidliak Property

Discipline	Survey Type	Survey Date	Description
1	Surface Water Quality	August 15 and 16, 2013	14 surface water quality stations
2	Camp Potable Water Quality	August 16, 2013	Five sampling stations throughout the Discovery Camp water distribution system
3	Caribou	August 15, 2013	Aerial survey consisting of north-south transects
4	Carnivores	August 15, 2013	Aerial survey consisting of north-south transects
5	Raptor Nest Reconnaissance	August 15 and 16, 2013	Four known raptor nest sites investigated

5.1 Surface Water Quality Sampling

5.1.1 Quality Control Samples

Water quality control samples were collected and analyzed for routine parameters, nutrients, total metals, total organic carbon, and oil and grease. The laboratory results for the quality control samples are provided in Tables 1, 2a, and 2b (Appendix C) and the detailed laboratory reports are provided in Appendix E.

5.1.2 Field and Trip Blanks

Field and trip blank samples were collected and analyzed for the August field event. Based on the laboratory results of the field and trip blanks, 98% of the parameters were below the applicable laboratory detection limits (Table 1, Appendix C). Turbidity levels in the field blank (0.11 NTU) was the only parameter reported slightly above the detection limit (0.1 NTU). However, this reported turbidity level was attributed to analytical error, as the analytical error increases near the detection limit (Clark 2003).

Sampling methods employed during the collection, transportation, and analyses of the 2013 surface water quality samples were satisfactory and did not lead to the introduction of potential contaminants.

5.1.3 Duplicate Samples

Two duplicate water quality samples were collected; representing 17% of the total field samples. Blind duplicate samples were collected with Hydro 9 and -10 field samples, and their analytical results were compared to their respective field sample results using a RPD assessment (Tables 2a and 2b, Appendix C). Results from the RPD assessments indicate that the duplicate samples collected during the August field event were reliable and therefore, the sampling and analytical methods employed were acceptable.

5.1.4 Field Samples

Dry conditions at sampling stations Hydro 1 and -2 precluded sampling, and therefore, water quality samples were collected from only 12 of the 14 stations. At each station, the in-situ aquatic chemistry (e.g., pH, EC, and water temperature) was characterized using a handheld Oakton® Multi-Parameter probe. During this time, the surface water was described as clear, neutral to slightly acidic (average pH 6.56) with very low EC (average 8.6 µS/cm) and cool water temperatures (average 8.3°C). A general summary of the water quality conditions is presented in Table 5-2, and the in-situ water quality parameters averages, minimum, and maximum values of are presented in Figure 5-1. The water quality sampling station locations are identified in Map 2, Appendix C and site photos are presented in Appendix D.

Table 5-2: Water Quality Station Site Conditions

#	Sampling Station	August 15-16, 2013 Site Conditions
1.	Hydro-1	▪ First Order watercourse; down gradient from CH-01 ▪ Dry at time of August field event
2.	Hydro-2	▪ First-order watercourse ▪ Dry at the time of August field event
3.	WQ-3	▪ Lake outlet; up-gradient from exploration activity (reference location) ▪ pH 6.24; EC 4.0 µS/cm; water temperature 3.5°C ▪ Water clear, 7 cm depth at sampling station
4.	WQ-4	▪ Sunrise Camp Lake (lakeshore) ▪ pH 6.73; EC 7.4 µS/cm; water temperature 6.9°C ▪ Water clear, 23 cm depth at sampling station
5.	WQ-5	▪ Sunrise Camp Lake outlet (McKeand River); down-gradient from Sunrise Camp ▪ pH 6.46; EC 6.2 µS/cm; water temperature 5.0°C ▪ Water clear, 21 cm depth at sampling station
6.	WQ-6	▪ McKeand River; down-gradient from Discovery and Sunrise camps ▪ pH 6.39; EC 5.0 µS/cm; water temperature 8.1°C ▪ Water clear, 20 cm depth at sampling station
7.	WQ-7	▪ McKeand River; down-gradient from most exploration activity ▪ pH 6.41; EC 5.2 µS/cm; water temperature 9.4°C ▪ Water clear, 28 cm depth at sampling station
8.	WQ-8	▪ Third-order watercourse (reference location) ▪ pH 6.82; EC 7.0 µS/cm; water temperature 10.1°C ▪ Water clear, 22 cm depth at sampling station
9.	Hydro-9	▪ Second-order watercourse; down-gradient from CH-01 ▪ pH 6.36; EC 7.3 µS/cm; water temperature 9.6°C ▪ Water clear, 15 cm depth at sampling station
10.	Hydro-10	▪ Second-order watercourse; down-gradient from Discovery Camp ▪ pH 6.52; EC 7.6 µS/cm; water temperature 9.1°C ▪ Water clear, 17 cm depth at sampling station
11.	Hydro-11	▪ First-order watercourse; down-gradient from CH-06 ▪ Dry at station, but moved downstream 225 m to collect the water sample ▪ pH 6.18; EC 20.6 µS/cm; water temperature 11.4°C ▪ Water clear, 7 cm depth at sampling station
12.	WQ-12	▪ First-order watercourse; down-gradient from CH-07 ▪ pH 6.63; EC 9.0 µS/cm; water temperature 10.5°C ▪ Water clear, 7 cm depth at sampling station
13.	WQ-13	▪ Second-order watercourse (reference location) ▪ pH 6.74; EC 7.6 µS/cm; water temperature 11.5°C ▪ Water clear, 14 cm depth at sampling station
14.	WQ-14	▪ Third-order watercourse near Ptarmigan Fiord (reference location) ▪ pH 7.23; EC 10.5 µS/cm; water temperature 9.6°C ▪ Water clear, 19 cm depth at sampling station

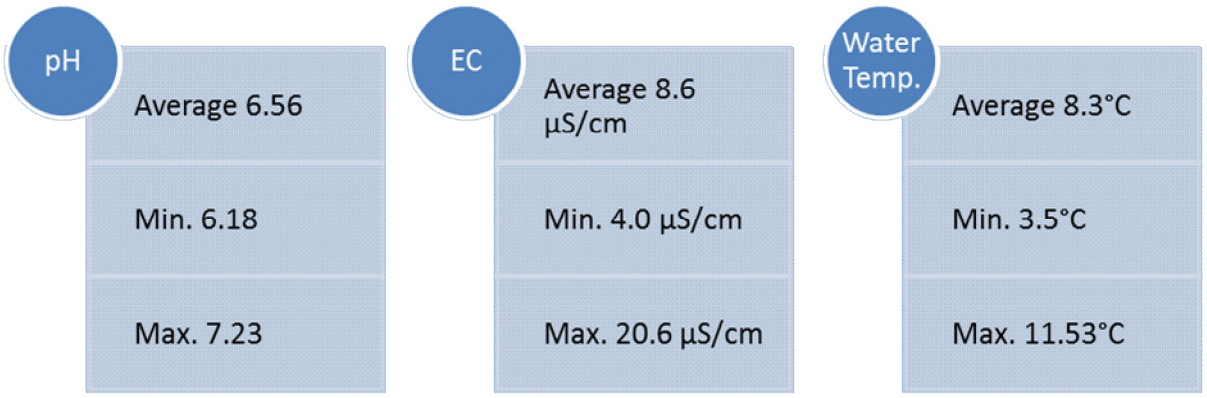

Figure 5-1: Summary of In-Situ Surface Water Quality Conditions, August 2013

The analytical results indicate that approximately 80% of the analyzed parameters were below the laboratory detection limits (Table 3, Appendix C). In addition, all sampled water quality parameters were within the CCME FAL guideline levels except pH, which was consistently measured below guideline levels (6.50 – 9.00) at all water quality stations (Figure 5-2).

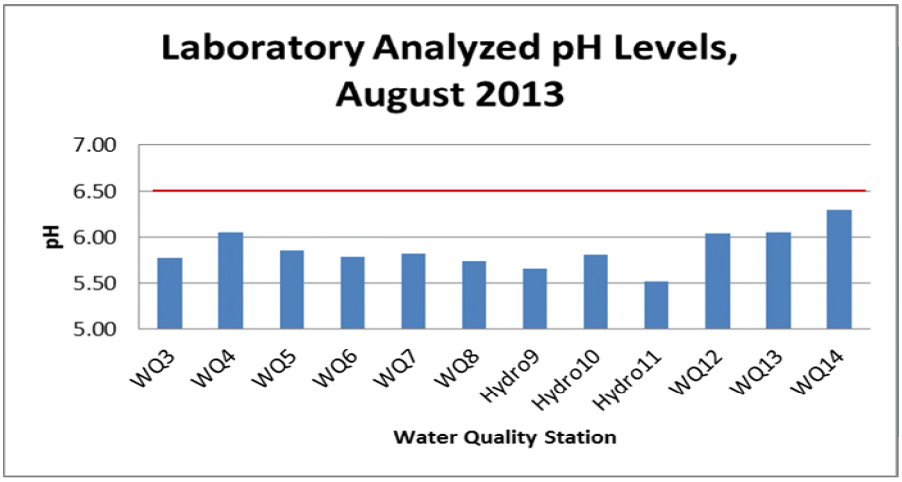

Figure 5-2: pH Water Quality Results and the CCME FAL pH Guideline Level (shown in red), August 2013

In the past, Aluminum concentrations across the study area were also consistently reported above the CCME FAL guideline levels. However, CCME has withdrawn their previous recommended Aluminum guideline levels, and have yet to determine contemporary guidelines for this parameter. For comparison purposes, results indicate that the water sampled from all water quality stations were above the withdrawn CCME FAL Aluminum guideline level of 0.005 mg/L (Figure 5-3).

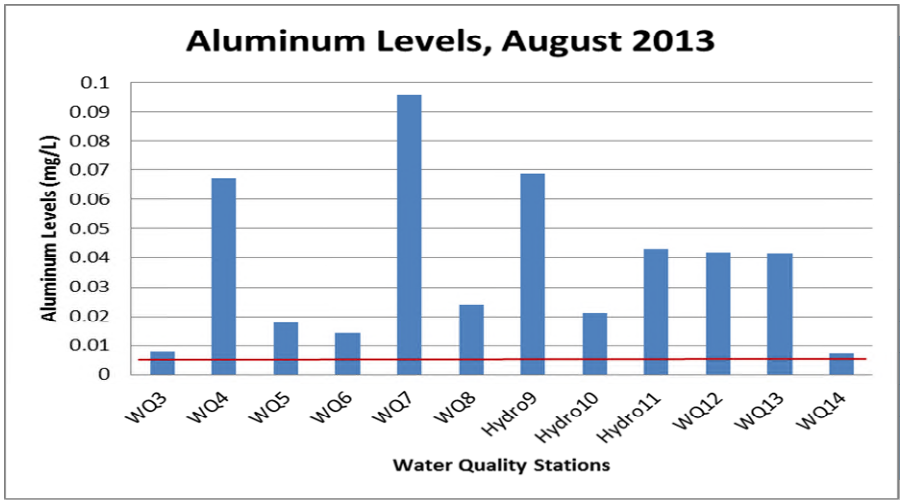

Figure 5-3: Aluminum Water Quality Results and the CCME FAL Aluminum Guideline Level (shown in red), August 2013

Laboratory results for the field samples are summarized in Table 3 (Appendix C), and the detailed laboratory report is included in Appendix E.

5.2 Camp Potable Water Sampling

Discovery Camp was the only camp in operation at the time of the August field event. This camp has been in seasonal operation since 2008; and potable-water quality sampling has been conducted at this site since 2010. Potable-water quality samples, as well as quality control samples, were collected at the conclusion of the August field event and submitted to Maxxam in Ottawa for analysis of total and faecal coliforms, and *E. coli.* The duplicate sample was collected with the Bathroom tent potable water quality sample. An additional potable water quality sample was collected at the raw water intake hose in the water-supply stream.

The samples were received by Maxxam in Ottawa within approximately 8.5 hours of sample collection. However, once received by Maxxam in Ottawa, they were subsequently 'lost' while en-route to another Maxxam lab for analysis. Once located, the sample temperatures averaged 27.3°C (10°C guideline maximum) and the sample hold time had expired (maximum 24 hour hold time). Consequently, the potable water quality samples were highly compromised.

As expected, laboratory analysis of these compromised potable water samples reported total coliform levels above guideline levels in the raw water source, and the Dry 1 and Bathroom tent taps (Dry 1 and Bathroom water sources from the household bleach disinfectant water system). However, *E.coli* and faecal coliform levels remained below the laboratory detectable level in all potable water samples (Table 4, Appendix C).

The detailed laboratory report is included in Appendix F.

5.3 Aerial Caribou and Carnivore Survey

The aerial caribou and carnivore survey was conducted on August 15, 2013. Helicopter mechanical problems were encountered during the survey, and consequently, the sixth and final transect near the western study area boundary was omitted. The total survey was reduced from six transects (404 kilometres) to five transects (324

kilometres). No caribou or carnivores were detected during the aerial survey. However, a shed caribou antler was incidentally observed near Ptarmigan Fiord (Map 3, Appendix B).

Additional incidental caribou and carnivore observations were reported by Peregrine staff in the 2013 Wildlife Log and are summarized in Section 5.6.

5.4 Aerial Raptor Nest Reconnaissance Survey

A total of four known or probable raptor nest sites detected during the previous years' surveys were visited during the August, 2013 field event (Map 4). During the aerial survey, a Snowy Owl (*Bubo* scandiacus) was observed flying approximately 17 km northwest of the Priority Area, and two Peregrine Falcons (*Falco peregrinus*) flushed from a cliff near one of the four known nesting sites (Nest Site 4). Although a possible scrape was observed from the location where the falcons were flushed, no active scape was detected. This possible scrape was situated on the east facing cliff, rocky ledge, approximately 30 m above the lake level, and in proximity to a previously identified stick nest.

In addition, a Gyrfalcon (*Falco rusticolus*) nest with four eggs was observed. Based on the date (mid-August), fledglings should have been in or near the nest site, and would be protected by the adult pair. No adults were detected in the area. Therefore, this nest site was considered abandoned. This nest site was located on a grassy ledge, approximately eight (8) metres above ground level, with a protective overhang. This nest site was proximal to another known stick nest (Nest Site 2) (Photo 1).

Photo 5-1: Gyrfalcon nest (indicated by black arrow) detected approximately 4 km southwest of the Priority Area

All four known nesting sites surveyed were located on east and southeast facing cliffs, approximately 8 to 30 m above ground level, and within 650 m of the nearest waterbody. Summary descriptions of the four known raptor nesting sites are provided in Figure 5-4.

Figure 5-4: Summary of Known Raptor Nesting Sites

A Rough-legged Hawk was also detected incidentally during water quality sampling at Station WQ14, the northern most edge of the study area.

5.5 Incidental Observations of Non-Targeted Wildlife Species

During the August 15-16, 2013 surveys, additional non-targeted wildlife species were observed and recorded as encountered. These included:

- Arctic Char (Salvelinus alpinus): approximately 15 juvenile Arctic Char were observed near shore in Sunrise Camp Lake (at water quality station WQ4);
- Iceland Gull1 (Larus glaucoides): a total of three adults were observed flying near the eastern and southern study area boundaries; and

[1] The taxonomy of Iceland Gull (*L. g. kumlieni*) and Thayers Gull (*L. g. glaucoides*) is in dispute. Since morphology and plumage characteristics broadly overlap, and hybridization occurs, these gulls are recognized as Iceland Gulls (Snell 2002), for the purposes of this report. In addition, any morphological differences between the two are difficult to determine while in flight.

- Glaucous Gull (Larus hyperboreus): a total of five adults, a nest, and two chicks were observed. A single adult was later observed further inland from the nest. The chicks were approximately 4 weeks of age (± week). The nest was located on an open cliff ledge approximately 15 m above the lake level (Photo 2), and near a probable Peregrine Falcon scrape.

Photo 5-2: Active Glaucous Gull nest (indicated by black arrow) in the northern portion of the study area

5.6 Camp Wildlife Sightings Logs

In 2013, Peregrine and their contractors were on site from mid-February to early May, and again from mid-July to mid-August. When present, Peregrine staff reported wildlife that they observed while carrying out their daily activities, and recorded these observations in a wildlife sightings log. A total of 12 wildlife observations were recorded in the wildlife logs from mid-February to early May report (Table 5-3; Map 5). Of particular interest, these observations included a single group of 20 caribou, a polar bear track, two fox, and a Gyrfalcon.

From July 19 to August 15, 2013 Peregrine staff recorded a total of 30 wildlife observations (Table 5-3; Map 5). These observations included caribou, carnivores, raptors, and other birds and small mammals. Of particular interest, a total of 13 caribou were recorded, one wolf, three fox, three Gyrfalcons, and two Snowy Owls. In addition, two species: 1) an Arctic Tern, and; 2) a Least Weasel were recorded in the wildlife sightings logs, representing the first recording of these species in the study area during the baseline environmental program (Table 5-3).

Table 5-3: Summary of the Camp Wildlife Sightings Logs

Species/Species Group	Date of Observation(s)	Observation(s) Highlights
Caribou	February 27, 2013	▪ A single group of 20 caribou were seen
Caribou	July 26 to August 12	▪ Six observations, totaling 13 caribou ▪ Average group size was 2.1 individuals. Largest group size was 4 ▪ Although age and sex generally unreported, 3 “youths” and 1 male recorded
Carnivores	February to August 15	▪ Five observations, totaling one wolf, one polar bear track, and three fox species
Raptors	March 18 to August 13	▪ Thirteen observations, totaling 19 raptors ▪ Observations include three Gyrfalcons, two Snowy Owls, and fourteen Common Ravens*
Other Birds	July 19 to August 14	▪ Thirteen observations, totaling 25 other bird species ▪ Observations include two ptarmigan, one Arctic Tern and nest with two eggs, one gull species, six Snow Buntings, and 15 loon species
Other Mammals	July 27 to August 8	▪ Four observations, totaling two lemmings, one Least Weasel, and one Arctic Hare

* Common Ravens are functional raptors, and therefore, for the purposes of this report are grouped as such.

Since this is an anecdotal Wildlife Log, the same individual(s) wildlife may have been observed and recorded over multiple days and records may be biased towards species, such as caribou. Whereas, species groups such as birds and small mammals may be reported less often. In addition, it is noted that camps and other work areas of greatest use had higher wildlife sightings than areas of little use.

6.0 DISCUSSION

6.1 Surface Water Quality

The chemistry of the surface water quality samples analyzed is considered to be representative of natural background conditions. Natural water quality in the study area is characterized by oligotrophic or relatively unproductive waters with poor nutrient loads, low water hardness (soft water), slightly acidic, and generally low metal concentrations. Total Aluminum levels across the study area, as previously noted, were consistently above the CCME FAL guideline level, but are also considered to be representative of natural background conditions.

The water quality results collected at sampling stations within the Priority Area, including downstream from the exploration activities and camp sites, are comparable to the water quality results collected at stations located well beyond the likely zone-of-influence of project activities. Over the past four years, the reported surface water chemistry results have remained consistent among years. This includes pH and total aluminium levels outside the CCME FAL guidelines. Naturally low pH levels are common across the Arctic. Church (1974) reported similar surface water quality conditions in eastern and central Baffin Island from 1963 to 1972. This historical report indicates stream pH levels ranged from 5.2 to 6.7, and water hardness levels were very soft (Church 1974).

The CCME FAL guideline level for total Aluminum is positively correlated to water pH; as the pH lowers the CCME FAL guideline level for total Aluminum decreases. Since the water within the study area is slightly acidic, the guideline level for total Aluminum is low. However, the CCME FAL guideline for total Aluminum has been withdrawn, and is provided here for comparison purposes only.

Aquatic environments with soft water hardness, such as that noted within the study area, represent poorly buffered systems that are sensitive to changes in pH from both natural and human sources.

6.2 Camp Potable Water Quality

The August 2013 potable water quality samples were highly compromised and the laboratory results do not accurately represent camp potable water conditions. Since 2010 when potable water quality sampling began at Discovery Camp, the potable water quality results have indicated that the disinfectant systems used are effective, and the water within the camp's distribution system tests within the appropriate health criteria.

6.3 Caribou

No caribou were observed during the aerial caribou survey (total survey length 324 km). Similarly, evidence of caribou seasonal movement routes, by way of well-worn trails, was not observed. Results from the August 2013 caribou survey indicate that caribou were present at low densities at the time of this field event. Since 2009, the calculated relative density within the study area has ranged from 0 – 0.009 caribou/km^2 (or 0 to 9 caribou per 1,000 km^2) and the estimated population abundance has ranged from 0 – 18 (± Standard Error (SE)). The measured low caribou densities correlate with the Inuit Traditional Knowledge that has been shared with Peregrine during community consultations.

The Government of Nunavut, Department of Environment conducted an aerial caribou survey across south Baffin Island (encompassing the Chidliak study area) from March 27 to May 27, 2012 (Jenkins et al. ND). During this regional caribou survey, caribou were encountered approximately every 200 km; totaling 185 caribou observations (Jenkins et al. ND). Based on these results, an estimated 1,065 – 2,067 caribou (1 year and older) (with 95% confidence interval) occur on south Baffin Island (Jenkins et al. ND). The density estimate across south Baffin Island was 0.0053 caribou per km^2 (or 5.3 caribou per 1,000 km^2) (Jenkins et al. ND). Representing greater than a 95% decline in abundance since the early 1990's (Jenkins et al. ND).

Specific to the habitat conditions existing within the study area, the Government of Nunavut's aerial caribou survey detected a total of eight caribou across the entire Hall Peninsula Upland Ecoregion (the dominant ecoregion covering the Chidliak study area). This equates to an estimated density of 0.00228 caribou per km^2 (or 2.28 caribou per 1,000 km^2) within this ecoregion (Jenkins et al. ND). Both Inuit Traditional Knowledge and scientific estimates of caribou densities (e.g., Government of Nunavut and the Chidliak baseline aerial caribou surveys) support the current understanding of low caribou densities within the study area.

Based on the Government of Nunavut's aerial caribou survey across south Baffin Island and in response to community consultations and workshops, an additional regional aerial caribou survey was conducted by the Government of Nunavut to estimate the abundance and late winter distribution of caribou across Baffin Island from February to March 2014 (Department of Environment 2014). To date, results from this complete Baffin Island caribou survey have not been published.

In addition, Chowns and Popko (1980) delineated several suspected caribou calving areas, the nearest being located approximately 40 km southeast of the Priority Area (at the head of Smith Channel). From this aerial calving ground survey, Chowns and Popko (1980) indicated that female caribou may have an affinity for large valley habitats at elevations less than 450 m, where snow melt is advanced during the peak calving season (early to mid-June). It is these areas, large valleys at lower elevations, where the suspected caribou calving areas exist. In contrast, the majority of the Chidliak study area and the entire Priority Area are situated in higher elevation upland-plateau habitat. Over the past four years, few caribou calves (total of seven) have been detected within the study area. All calf observations have occurred in the month of July, indicating that the study area lies within their post-calving range.

While on their post-calving range, cows and calves are particularly sensitive to disturbance.

6.4 Carnivores

No carnivores (e.g., wolves, foxes, Wolverines) or their dens were detected during the August 2013 survey. However, one wolf and fox were recorded in the camp wildlife sighting logs. Although wolves and foxes have infrequently been observed and recorded in the wildlife sighting logs, no dens or young have been reported to date.

Thus the abundance of wolf and fox within the study area is anticipated to be low, due primarily to limited prey densities (e.g., caribou, small mammals, birds).

Carnivores and their tracks were also incidentally recorded during the south Baffin Island caribou survey carried out by the Government of Nunavut (Jenkins et al. 2012). This survey included over 27,000 km of transects flown across the range of the South Baffin caribou. Although carnivores were not the target survey species, and records may be incomplete, it provides a general understanding of carnivores present across south Baffin Island from March to May, 2012. During this time, Polar Bear was the most common carnivore observed, followed by fox (species not identified), and wolf. A total of 36 individual Polar Bears, 14 foxes (mostly Arctic Fox with only one recorded Red Fox), and 13 wolves were documented (Jenkins et al. 2012). No Wolverines were observed (Jenkins et al. 2012).

6.5 Raptors

One potentially active Peregrine Falcon nesting site was documented, as well as an abandoned Gyrfalcon nest. The Peregrine Falcon nesting site was considered active based on the presence of the breeding pair. At the time of the field event, Peregrine Falcon chicks would likely still be present within their scrapes and the breeding pair would share feeding and protective duties at the nest site (Peck et al. 2014). Peregrine Falcons typically depart to their wintering areas in mid-September (Peck et al. 2014).

The Gyrfalcon nest observed was assumed to be unproductive and deserted. This nest had not previously been identified during past surveys but was located close to a known stick nest that was occupied by Rough-legged Hawks in 2010 and probably by Common Ravens in 2009. Gyrfalcons in the Baffin region begin clutch laying in early to mid-May (Bromley and McLean 1986). By mid-August, fledglings would be leaving their nests. Barichello and Mossop (2011) reported the main cause of Gyrfalcon nest failures was due to desertion (55%), followed by egg/brood predation (17%), and unknown causes (28%). Egg desertion was strongly associated with egg-laying date, where 59% of late nests were deserted as compared to 5% of early nests (Barichello and Mossop 2011).

Clutch initiation was delayed when ptarmigan (main prey species) abundance was low. Consequently, during years of low ptarmigan abundance, 38% of all clutches laid were deserted, compared to 9% desertion of clutches during high ptarmigan abundance years (Barichello and Mossop 2011). However, the success of each nesting may be dependent on a number of factors also including, but not limited to, spring weather, territory quality, nest site quality, age of nest site, and previous nesting success.

Raptors are sensitive to disturbance at their nest sites during nesting season and a conservative 1.5 km buffer is recommended near known raptor nests (including those identified from previous years) from early May to mid-August.

7.0 CONCLUSIONS

The study area is considered a pristine environment. Concluding statements regarding the 2013 baseline studies are:

- The quality of the surface water sampled was characteristic of oligotrophic waterbodies, which exhibit low nutrients and pH values. The water quality sample results are considered to be representative of natural background conditions;
- Potable water treatment practices used at Discovery Camp are appropriate disinfectant systems, and achieve applicable health criteria. The integrity of the potable water quality samples collected during the August 2013 field event were compromised, and do not accurately reflect potable water chemistry at Discovery Camp;
- No caribou were observed during the aerial survey on August 15, and caribou were likely present at very low densities in the study area at the time of the field event. Thirteen additional caribou were recorded in the camp wildlife sightings logs from July 19 to August 15, 2013. Caribou occur within the study area at very low densities;
- No carnivores were observed during the aerial survey on August 15. Carnivores are likely present at very low densities in the study area; and
- Evidence of four raptor species was documented (i.e., Peregrine Falcon, Snowy Owl, Gyrfalcon, and Rough-legged Hawk) within the study area during the August field event. Common Raven (considered a functional raptor for the purposes of this report) was also reported within the wildlife sightings logs. During the August field survey, a suspected Peregrine Falcon nest site was observed, and an abandoned Gyrfalcon nest. Raptors occur throughout the study area, wherever, suitable nesting and hunting habitat exist. Raptors are sensitive to disturbance at their nest sites during nesting season and a conservative 1.5 km buffer is recommended near known raptor nests from early May to mid-August.

8.0 CLOSURE

We trust this report meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted,
Tetra Tech EBA Inc.

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APPENDIX A
TETRA TECH'S GENERAL CONDITIONS

GENERAL CONDITIONS

GEOENVIRONMENTAL REPORT

This report incorporates and is subject to these “General Conditions”.

1.0 USE OF REPORT AND OWNERSHIP

This report pertains to a specific site, a specific development, and a specific scope of work. It is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site or proposed development would necessitate a supplementary investigation and assessment.

This report and the assessments and recommendations contained in it are intended for the sole use of Tetra Tech EBA’s client. Tetra Tech EBA does not accept any responsibility for the accuracy of any of the data, the analysis or the recommendations contained or referenced in the report when the report is used or relied upon by any party other than Tetra Tech EBA’s Client unless otherwise authorized in writing by Tetra Tech EBA. Any unauthorized use of the report is at the sole risk of the user.

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2.0 ALTERNATE REPORT FORMAT

Where Tetra Tech EBA submits both electronic file and hard copy versions of reports, drawings and other project-related documents and deliverables (collectively termed Tetra Tech EBA’s instruments of professional service), only the signed and/or sealed versions shall be considered final and legally binding. The original signed and/or sealed version archived by Tetra Tech EBA shall be deemed to be the original for the Project.

Both electronic file and hard copy versions of Tetra Tech EBA’s instruments of professional service shall not, under any circumstances, no matter who owns or uses them, be altered by any party except Tetra Tech EBA. The Client warrants that Tetra Tech EBA’s instruments of professional service will be used only and exactly as submitted by Tetra Tech EBA.

Electronic files submitted by Tetra Tech EBA have been prepared and submitted using specific software and hardware systems. Tetra Tech EBA makes no representation about the compatibility of these files with the Client’s current or future software and hardware systems.

3.0 NOTIFICATION OF AUTHORITIES

In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by Tetra Tech EBA in its reasonably exercised discretion.

4.0 INFORMATION PROVIDED TO TETRA TECH EBA BY OTHERS

During the performance of the work and the preparation of the report, Tetra Tech EBA may rely on information provided by persons other than the Client. While Tetra Tech EBA endeavours to verify the accuracy of such information when instructed to do so by the Client, Tetra Tech EBA accepts no responsibility for the accuracy or the reliability of such information which may affect the report.

APPENDIX B
MAPS

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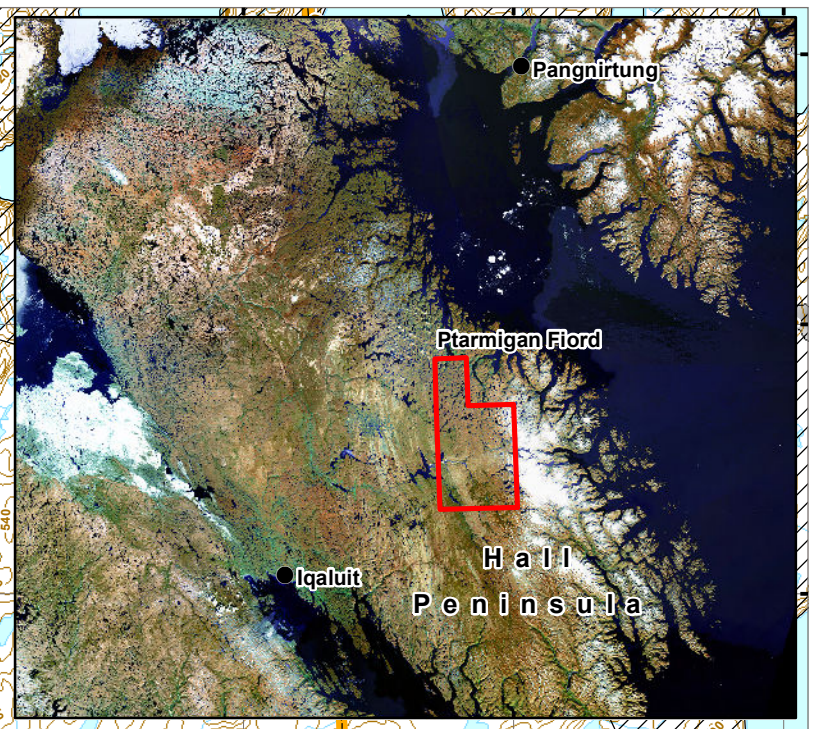

PA-27
PA-22
PA-24
PA-29
IQ-12
Chidliak Bay
Ptarmigan Fiord
Littlecote Channel
McKeand River
Aurora Camp
CH-06 Temporary Camp
Discovery Camp
Sunrise Camp
Zone 19
Zone 20

590000 600000 610000 620000 630000 640000 650000 660000
7190000 7180000 7170000 7160000 7150000 7140000 7130000 7120000 7110000 7100000

LEGEND

- Camp Location
- 2013 Study Area
- Priority Area
- Inuit-Owned Lands (IOLs)
- UTM Zone Boundary
- Contour (60 m)
- Watercourse
- Sand
- Permanent Snow and Ice
- Waterbody
- Wetland

N W E S

GRID NORTH

NOTES
Base data source: NTS 1:250,000

STATUS
ISSUED FOR USE

CHIDLIAK BASELINE STUDIES 2013

Regional Area Map

PROJECTION UTM Zone 19			**DATUM** NAD83	**CLIENT** PEREGRINE DIAMONDS LTD.
Scale: 1:280,000 — 5 2.5 0 5 — Kilometres				TETRA TECH EBA
FILE NO. Y22103023-01_Figure01_RegionalArea.mxd				
PROJECT NO. Y22103023-01	**DWN** MEZ	**CKD** SL	**APVD** KL	**REV** 1
OFFICE Tt EBA-VANC	**DATE** June 19, 2014			**Map 1**

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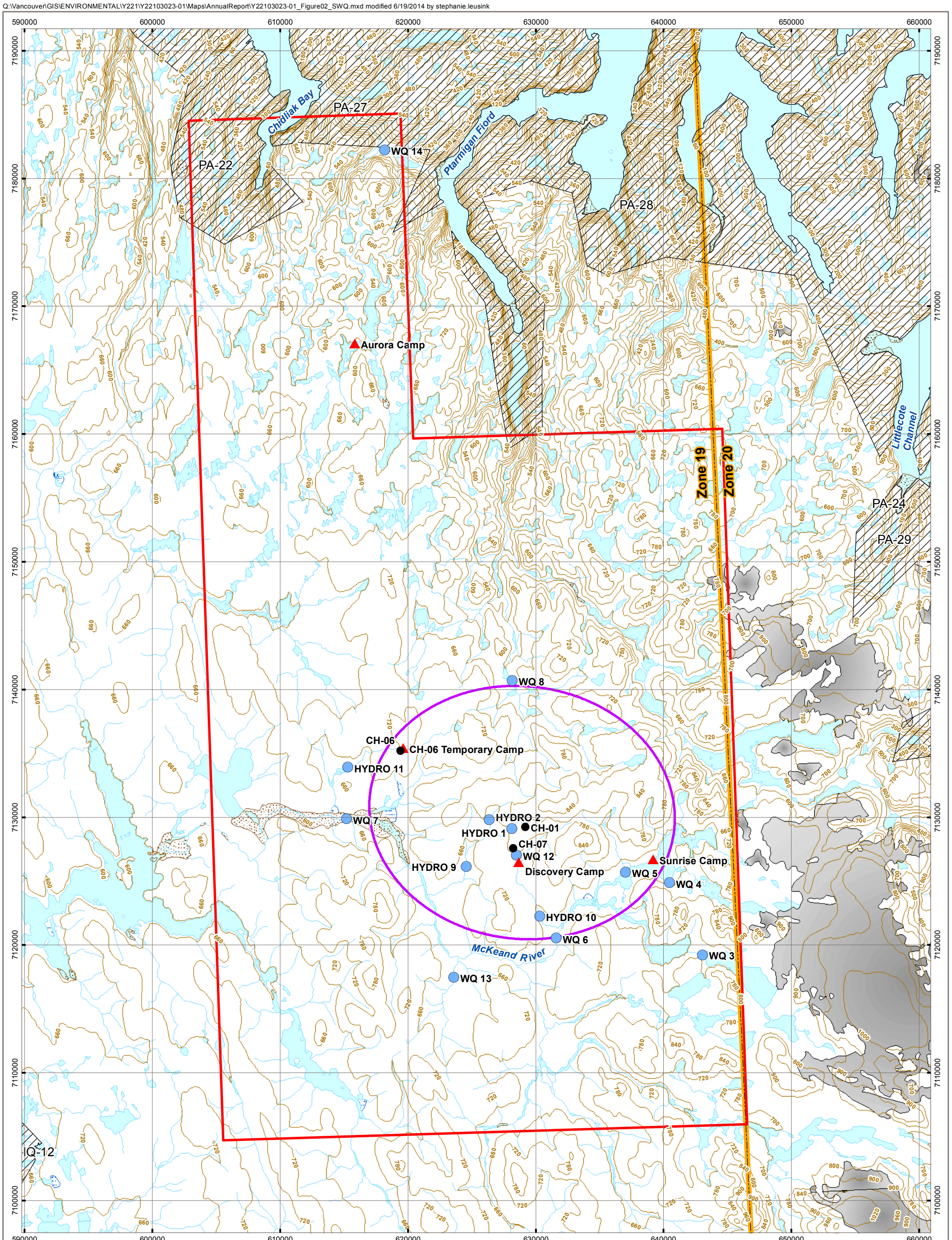

LEGEND

- Surface Water Quality Station
- Exploration Activity Site
- Camp Location
- 2013 Study Area
- Priority Area
- Inuit-Owned Lands (IOLs)
- UTM Zone Boundary
- Contour (60 m)
- Watercourse
- Sand
- Permanent Snow and Ice
- Waterbody
- Wetland

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GRID NORTH

NOTES
Base data source: NTS 1:250,000

STATUS
ISSUED FOR USE

CHIDLIAK BASELINE STUDIES 2013

Surface Water Quality Stations, 2013

PROJECTION	DATUM	CLIENT
UTM Zone 19	NAD83	PEREGRINE DIAMONDS LTD.

Scale: 1:280,000
5 2.5 0 5
Kilometres

TETRA TECH EBA

FILE NO. Y22103023-01_Figure02_SWQ.mxd

PROJECT NO.	DWN	CKD	APVD	REV
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OFFICE	DATE
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Map 2

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PA-27
PA-22
PA-28
PA-24
PA-29
IQ-12
Chidliak Bay
Ptarmigan Fiord
Littlecote Channel
McKeand River
Aurora Camp
CH-06 Temporary Camp
Discovery Camp
Sunrise Camp
Zone 19
Zone 20

LEGEND

Caribou Observation
- Sign
- 2013 Caribou Survey Transect
- Camp Location
- 2013 Study Area
- Priority Area
- Inuit-Owned Lands (IOLs)
- UTM Zone Boundary
- Contour (60 m)
- Watercourse
- Sand
- Permanent Snow and Ice
- Waterbody
- Wetland

N W E S

GRID NORTH

NOTES
Base data source: NTS 1:250,000
Note: Caribou transects are based on True Geodetic North.

STATUS
ISSUED FOR USE

CHIDLIAK BASELINE STUDIES 2013

Caribou Observations, 2013

PROJECTION	DATUM	CLIENT
UTM Zone 19	NAD83	PEREGRINE DIAMONDS LTD.

Scale: 1:280,000
5 2.5 0 5
Kilometres

TETRA TECH EBA

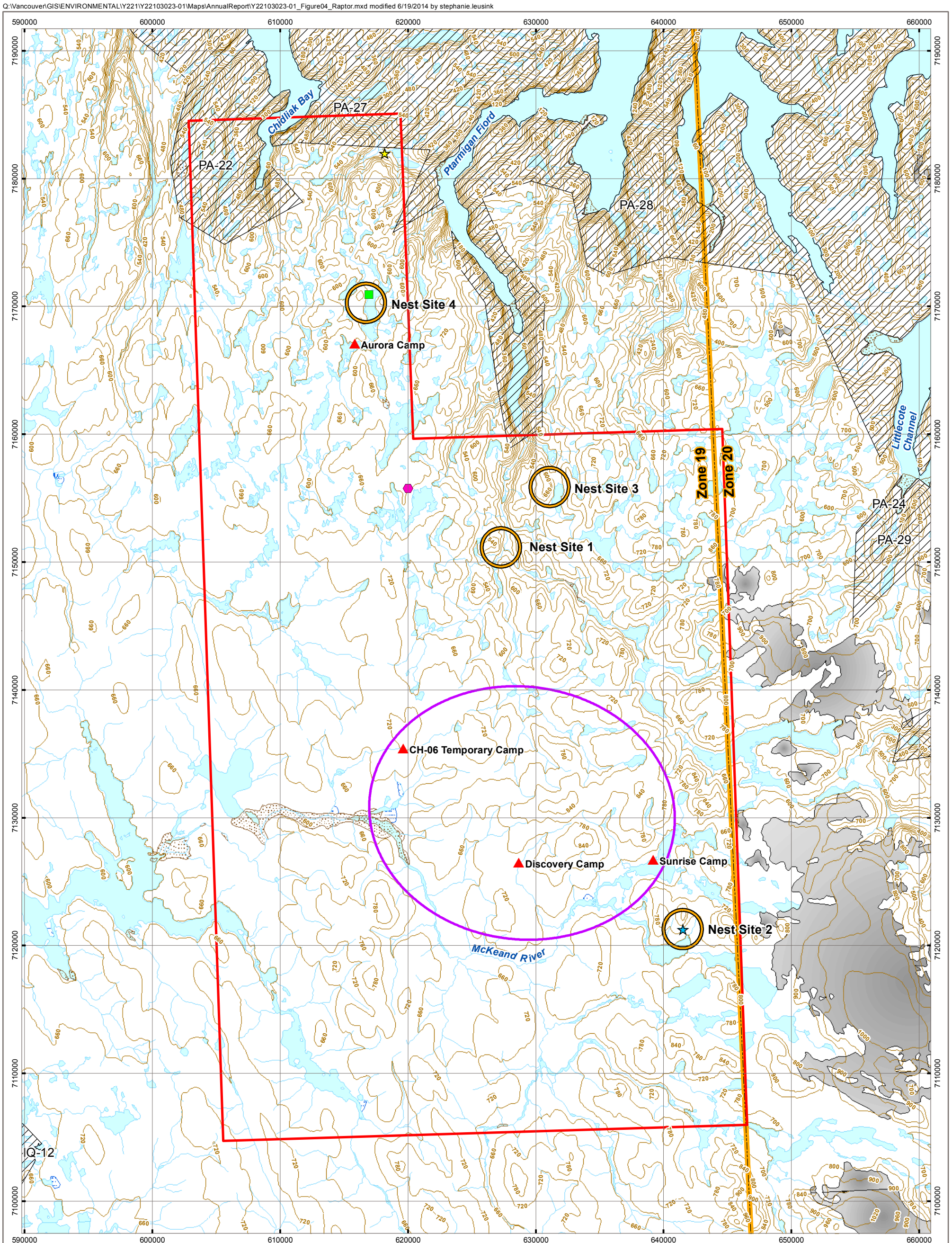
FILE NO. Y22103023-01_Figure03_Caribou.mxd

PROJECT NO.	DWN	CKD	APVD	REV
Y22103023-01	MEZ	SL	KL	1

OFFICE	DATE
Tt EBA-VANC	June 19, 2014

Map 3

Q:\Vancouver\GIS\ENVIRONMENTAL\Y221\Y22103023-01\Maps\AnnualReport\Y22103023-01_Figure04_Raptor.mxd modified 6/19/2014 by stephanie.leusink



LEGEND

Raptor Observations

- Peregrine Falcon, Visual
- Rough-legged Hawk, Visual
- Rough-legged Hawk, Nest
- Snowy Owl, Visual
- Raptor Sensitive Zone
- Camp Location
- 2013 Study Area
- Priority Area
- Inuit-Owned Lands (IOLs)
- UTM Zone Boundary
- Contour (60 m)
- Watercourse
- Sand
- Permanent Snow and Ice
- Waterbody
- Wetland

N / W / E / S

GRID NORTH

NOTES
Base data source: NTS 1:250,000

STATUS
ISSUED FOR USE

CHIDLIAK BASELINE STUDIES 2013

Raptor Observations, 2013

PROJECTION	DATUM	CLIENT
UTM Zone 19	NAD83	PEREGRINE DIAMONDS LTD.

Scale: 1:280,000
5 2.5 0 5
Kilometres

TETRA TECH EBA

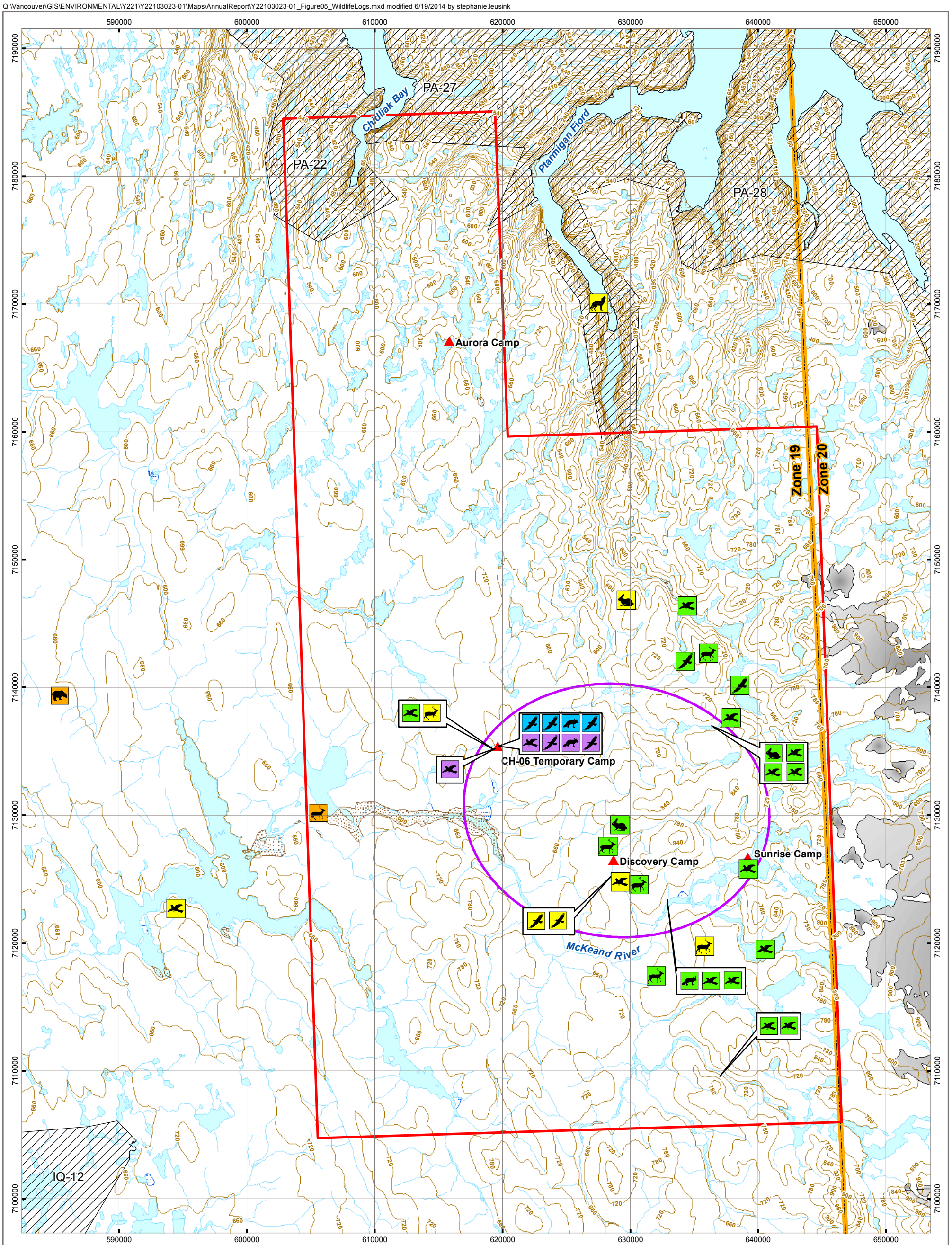
FILE NO.
Y22103023-01_Figure04_Raptor.mxd

PROJECT NO.	DWN	CKD	APVD	REV
Y22103023-01	MEZ	SL	KL	1

OFFICE	DATE
Tt EBA-VANC	June 19, 2014

Map 4

Q:\Vancouver\GIS\ENVIRONMENTAL\Y221\Y22103023-01\Maps\AnnualReport\Y22103023-01_Figure05_WildlifeLogs.mxd modified 6/19/2014 by stephanie.leusink



LEGEND

Species
- Small Mammal
- Caribou
- Polar Bear
- Wolf
- Fox Species
- Raptor
- Other Bird

Observation Month
- February
- March
- April
- July
- August

- Camp Location
- 2013 Study Area
- Priority Area
- Inuit-Owned Lands (IOLs)
- UTM Zone Boundary
- Contour (60 m)
- Watercourse
- Sand
- Permanent Snow and Ice
- Waterbody
- Wetland

N / W / E / S

GRID NORTH

NOTES
Base data source: NTS 1:250,000
A weasel also reported in the Camp Wildlife Sightings Logs on August 9, 2013; however, no location was provided and therefore, it is not represented in this figure.

STATUS
ISSUED FOR USE

CHIDLIAK BASELINE STUDIES 2013

Camp Wildlife Sighting Logs, 2013

PROJECTION: UTM Zone 19	DATUM: NAD83			CLIENT: PEREGRINE DIAMONDS LTD.
Scale: 1:280,000 (5 2.5 0 5 Kilometres)				TETRA TECH EBA
FILE NO.: Y22103023-01_Figure05_WildlifeLogs.mxd				
PROJECT NO.: Y22103023-01	DWN: MEZ	CKD: SL	APVD: KL	REV: 1
OFFICE: Tt EBA-VANC	DATE: June 19, 2014			Map 5

APPENDIX C
TABLES

Table 1: QA/QC Results, August 2013

Parameter	August 15-16, 2013		Units	Detection Limit
	Trip Blank	Field Blank		
Major Ions, Nutrients, and Inorganics				
Calcium (Ca)-Total	<0.50	<0.50	mg/L	0.5
Chloride (Cl)- Total	<0.50	<0.50	mg/L	0.5
Magnesium (Mg)-Total	<0.10	<0.10	mg/L	0.1
Phosphorus (P), Total	<0.020	<0.020	mg/L	0.02
Potassium (K)-Total	<0.50	<0.50	mg/L	0.5
Sodium (Na)-Total	<1.0	<1.0	mg/L	1
Hardness (as CaCO3)	<1.3	<1.3	mg/L	1.3
Alkalinity, Total (as CaCO3)	<2.0	<2.0	mg/L	2
Nitrate (as N)	<0.050	<0.050	mg/L	0.05
Nitrate and Nitrite as N	<0.071	<0.071	mg/L	0.071
Nitrite (as N)	<0.050	<0.050	mg/L	0.05
Total Kjeldahl Nitrogen	<0.20	<0.20	mg/L	0.2
Nitrogen, Total	<0.21	<0.21	mg/L	0.21
Ammonia-N	<0.0050	<0.0050	mg/L	0.005
pH	5.07	5.18	pH	0.1
Electrical Conductivity (EC)	0.62	0.61	uS/cm	0.2
Total Organic Carbon	<1.0	<1.0	mg/L	1
Total Suspended Solids	<3.0	<3.0	mg/L	3
Turbidity	<0.10	0.11	NTU	0.1
Organics				
Oil and Grease	<1.0	<1.0	mg/L	1
Total Metals				
Aluminum (Al)	<0.0050	<0.0050	mg/L	0.005
Antimony (Sb)	<0.00040	<0.00040	mg/L	0.0004
Arsenic (As)	<0.00040	<0.00040	mg/L	0.0004
Barium (Ba)	<0.0030	<0.0030	mg/L	0.003
Beryllium (Be)	<0.0010	<0.0010	mg/L	0.001
Boron (B)	<0.050	<0.050	mg/L	0.05
Cadmium (Cd)	<0.000010	<0.000010	mg/L	0.00001
Chromium (Cr)	<0.0010	<0.0010	mg/L	0.001
Cobalt (Co)	<0.0020	<0.0020	mg/L	0.002
Copper (Cu)	<0.0010	<0.0010	mg/L	0.001
Iron (Fe)	<0.010	<0.010	mg/L	0.01
Lead (Pb)	<0.00010	<0.00010	mg/L	0.0001
Lithium (Li)	<0.010	<0.010	mg/L	0.01
Manganese (Mn)	<0.0020	<0.0020	mg/L	0.002
Mercury (Hg)	<0.000020	<0.000020	mg/L	0.00002
Molybdenum (Mo)	<0.0050	<0.0050	mg/L	0.005
Nickel (Ni)	<0.0020	<0.0020	mg/L	0.002
Selenium (Se)	<0.00040	<0.00040	mg/L	0.0004
Silver (Ag)	<0.000020	<0.000020	mg/L	0.00002
Strontium (Sr)	<0.00010	<0.00010	mg/L	0.0001
Thallium (Tl)	<0.00010	<0.00010	mg/L	0.0001
Tin (Sn)	<0.050	<0.050	mg/L	0.05
Titanium (Ti)	<0.0010	<0.0010	mg/L	0.001
Uranium (U)	<0.00010	<0.00010	mg/L	0.0001
Vanadium (V)	<0.0010	<0.0010	mg/L	0.001
Zinc (Zn)	<0.0040	<0.0040	mg/L	0.004

Legend

Detectable Levels

Table 2a: August Field Event Duplicate 1 Assessment (Relative Percent Difference), 2013

Parameter	August Field Event Results		Units	Detection Limit	Duplicate Assessment			RPD[2]	Duplicate Reliable? Yes or No[3]
	HYDRO 10	Duplicate 1			HYDRO 10	Duplicate 1	Applicable? Yes or No[1]		
Major Ions, Nutrients, and Inorganics									
Calcium (Ca)-Total	<0.50	<0.50	mg/L	0.5	-	-	No	-	Yes
Chloride (Cl)- Total	NA	<0.50	mg/L	0.5	-	-	No	-	Yes
Magnesium (Mg)-Total	0.13	0.13	mg/L	0.5	0.26	0.26	No	-	Yes
Phosphorus (P), Total	<0.020	<0.020	mg/L	0.1	-	-	No	-	Yes
Potassium (K)-Total	<0.50	<0.50	mg/L	0.02	-	-	No	-	Yes
Sodium (Na)-Total	<1.0	<1.0	mg/L	1	-	-	No	-	Yes
Hardness (as CaCO3)	<1.3	<1.3	mg/L	1.3	-	-	No	-	Yes
Alkalinity, Total (as CaCO3)	<2.0	<2.0	mg/L	2	-	-	No	-	Yes
Nitrate (as N)	0.173	0.169	mg/L	0.05	3.46	3.38	No	-	Yes
Nitrate and Nitrite as N	0.173	0.169	mg/L	0.071	2.44	2.38	No	-	Yes
Nitrite (as N)	<0.050	<0.050	mg/L	0.05	-	-	No	-	Yes
Total Kjeldahl Nitrogen	<0.20	<0.20	mg/L	0.2	-	-	No	-	Yes
Nitrogen, Total	<0.21	<0.21	mg/L	0.21	-	-	No	-	Yes
Ammonia-N	0.0101	0.0130	mg/L	0.005	2.02	2.60	No	-	Yes
pH	5.81	5.73	pH	0.1	58.1	57.3	Yes	1.39	Yes
Electrical Conductivity (EC)	6.69	6.59	uS/cm	0.2	33.45	32.95	Yes	1.51	Yes
Total Organic Carbon	1.3	1.3	mg/L	1	1.3	1.3	No	-	Yes
Total Suspended Solids	<3.0	<3.0	mg/L	3	-	-	No	-	Yes
Turbidity	0.53	0.51	NTU	0.1	5.3	5.1	Yes	3.85	Yes
Organics									
Oil and Grease	<1.0	<1.0	mg/L	1	-	-	No	-	Yes
Total Metals									
Aluminum (Al)	0.0214	0.0185	mg/L	0.005	4.28	3.70	No	-	Yes
Antimony (Sb)	<0.00040	<0.00040	mg/L	0.0004	-	-	No	-	Yes
Arsenic (As)	<0.00040	<0.00040	mg/L	0.0004	-	-	No	-	Yes
Barium (Ba)	0.0030	<0.0030	mg/L	0.003	1.0	-	No	-	Yes
Beryllium (Be)	<0.0010	<0.0010	mg/L	0.001	-	-	No	-	Yes
Boron (B)	<0.050	<0.050	mg/L	0.05	-	-	No	-	Yes
Cadmium (Cd)	<0.000010	<0.000010	mg/L	0.00001	-	-	No	-	Yes
Chromium (Cr)	<0.0010	<0.0010	mg/L	0.001	-	-	No	-	Yes
Cobalt (Co)	<0.0020	<0.0020	mg/L	0.002	-	-	No	-	Yes
Copper (Cu)	<0.0010	<0.0010	mg/L	0.001	-	-	No	-	Yes
Iron (Fe)	0.013	0.011	mg/L	0.01	1.3	1.1	No	-	Yes
Lead (Pb)	<0.00010	<0.00010	mg/L	0.0001	-	-	No	-	Yes
Lithium (Li)	<0.010	<0.010	mg/L	0.01	-	-	No	-	Yes
Manganese (Mn)	<0.0020	<0.0020	mg/L	0.002	-	-	No	-	Yes
Mercury (Hg)	<0.000020	<0.000020	mg/L	0.00002	-	-	No	-	Yes
Molybdenum (Mo)	<0.0050	<0.0050	mg/L	0.005	-	-	No	-	Yes
Nickel (Ni)	<0.0020	<0.0020	mg/L	0.002	-	-	No	-	Yes
Selenium (Se)	<0.00040	<0.00040	mg/L	0.0004	-	-	No	-	Yes
Silver (Ag)	<0.000020	<0.000020	mg/L	0.00002	-	-	No	-	Yes
Strontium (Sr)	0.00205	0.00202	mg/L	0.0001	20.5	20.2	Yes	1.47	Yes
Thallium (Tl)	<0.00010	<0.00010	mg/L	0.0001	-	-	No	-	Yes
Tin (Sn)	<0.050	<0.050	mg/L	0.05	-	-	No	-	Yes
Titanium (Ti)	0.0015	<0.0010	mg/L	0.001	1.5	-	No	-	Yes
Uranium (U)	<0.00010	<0.00010	mg/L	0.0001	-	-	No	-	Yes
Vanadium (V)	<0.0010	<0.0010	mg/L	0.001	-	-	No	-	Yes
Zinc (Zn)	<0.0040	<0.0040	mg/L	0.004	-	-	No	-	Yes

Legend

1. Applicability to the Relative Percent Difference (RPD) Assessment requires that results be at least 5 x the detection limit since analytical error increases near the detection limit. Results not applicable to the RPD assessment do not imply an unreliable duplicate.
2. Relative Percent Difference. RPD(%) = 200 x ABS(x - y)/(x + y), where ABS = Absolute difference, x = the analytical result of the original sample, y = the analytical result of the blind field duplicate sample.
3. Duplicate samples are reliable when their RPD is less than 20%.

- = not applicable to the RPD Assessment.

Table 2b: August Field Event Duplicate 2 Assessment (Relative Percent Difference), 2013

Parameter	August Field Event Results		Units	Detection Limit	Duplicate Assessment			RPD[2]	Duplicate Reliable? Yes or No[3]
	HYDRO 9	Duplicate 2			HYDRO 9	Duplicate 2	Applicable? Yes or No[1]		
Major Ions, Nutrients, and Inorganics									
Calcium (Ca)-Total	<0.50	<0.50	mg/L	0.5	-	-	No	-	Yes
Chloride (Cl)- Total	<0.50	<0.50	mg/L	0.5	-	-	No	-	Yes
Magnesium (Mg)-Total	0.12	0.12	mg/L	0.5	0.24	0.24	No	-	Yes
Phosphorus (P), Total	<0.020	<0.020	mg/L	0.1	-	-	No	-	Yes
Potassium (K)-Total	<0.50	<0.50	mg/L	0.02	-	-	No	-	Yes
Sodium (Na)-Total	<1.0	<1.0	mg/L	1	-	-	No	-	Yes
Hardness (as CaCO3)	<1.3	<1.3	mg/L	1.3	-	-	No	-	Yes
Alkalinity, Total (as CaCO3)	<2.0	<2.0	mg/L	2	-	-	No	-	Yes
Nitrate (as N)	0.233	0.233	mg/L	0.05	4.66	4.66	No	-	Yes
Nitrate and Nitrite as N	0.233	0.233	mg/L	0.071	3.28	3.28	No	-	Yes
Nitrite (as N)	<0.050	<0.050	mg/L	0.05	-	-	No	-	Yes
Total Kjeldahl Nitrogen	<0.20	<0.20	mg/L	0.2	-	-	No	-	Yes
Nitrogen, Total	0.23	0.23	mg/L	0.21	1.1	1.1	No	-	Yes
Ammonia-N	0.0123	0.0128	mg/L	0.005	2.46	2.56	No	-	Yes
pH	5.65	5.56	pH	0.1	56.5	55.6	Yes	1.61	Yes
Electrical Conductivity (EC)	6.62	6.53	uS/cm	0.2	33.1	32.7	Yes	1.37	Yes
Total Organic Carbon	<1.0	1.1	mg/L	1	-	1.1	No	-	Yes
Total Suspended Solids	<3.0	<3.0	mg/L	3	-	-	No	-	Yes
Turbidity	1.85	1.79	NTU	0.1	18.5	17.9	Yes	3.30	Yes
Organics									
Oil and Grease	<1.0	<1.0	mg/L	1	-	-	No	-	Yes
Total Metals									
Aluminum (Al)	0.0687	0.0665	mg/L	0.005	13.74	13.3	Yes	3.25	Yes
Antimony (Sb)	<0.00040	<0.00040	mg/L	0.0004	-	-	No	-	Yes
Arsenic (As)	<0.00040	<0.00040	mg/L	0.0004	-	-	No	-	Yes
Barium (Ba)	<0.0030	<0.0030	mg/L	0.003	-	-	No	-	Yes
Beryllium (Be)	<0.0010	<0.0010	mg/L	0.001	-	-	No	-	Yes
Boron (B)	<0.050	<0.050	mg/L	0.05	-	-	No	-	Yes
Cadmium (Cd)	<0.000010	<0.000010	mg/L	0.00001	-	-	No	-	Yes
Chromium (Cr)	<0.0010	<0.0010	mg/L	0.001	-	-	No	-	Yes
Cobalt (Co)	<0.0020	<0.0020	mg/L	0.002	-	-	No	-	Yes
Copper (Cu)	<0.0010	<0.0010	mg/L	0.001	-	-	No	-	Yes
Iron (Fe)	0.050	0.048	mg/L	0.01	5.0	4.8	No	-	Yes
Lead (Pb)	<0.00010	<0.00010	mg/L	0.0001	-	-	No	-	Yes
Lithium (Li)	<0.010	<0.010	mg/L	0.01	-	-	No	-	Yes
Manganese (Mn)	<0.0020	<0.0020	mg/L	0.002	-	-	No	-	Yes
Mercury (Hg)	<0.000020	<0.000020	mg/L	0.00002	-	-	No	-	Yes
Molybdenum (Mo)	<0.0050	<0.0050	mg/L	0.005	-	-	No	-	Yes
Nickel (Ni)	<0.0020	<0.0020	mg/L	0.002	-	-	No	-	Yes
Selenium (Se)	<0.00040	<0.00040	mg/L	0.0004	-	-	No	-	Yes
Silver (Ag)	<0.000020	<0.000020	mg/L	0.00002	-	-	No	-	Yes
Strontium (Sr)	0.00184	0.00187	mg/L	0.0001	18.4	18.7	Yes	1.62	Yes
Thallium (Tl)	<0.00010	<0.00010	mg/L	0.0001	-	-	No	-	Yes
Tin (Sn)	<0.050	<0.050	mg/L	0.05	-	-	No	-	Yes
Titanium (Ti)	0.0039	0.0036	mg/L	0.001	3.9	3.6	No	-	Yes
Uranium (U)	<0.00010	<0.00010	mg/L	0.0001	-	-	No	-	Yes
Vanadium (V)	<0.0010	<0.0010	mg/L	0.001	-	-	No	-	Yes
Zinc (Zn)	<0.0040	<0.0040	mg/L	0.004	-	-	No	-	Yes

Legend

1. Applicability to the Relative Percent Difference (RPD) Assessment requires that results be at least 5 x the detection limit since analytical error increases near the detection limit. Results not applicable to the RPD assessment do not imply an unreliable duplicate.
2. Relative Percent Difference. RPD(%) = 200 x ABS(x - y)/(x + y), where ABS = Absolute difference, x = the analytical result of the original sample, y = the analytical result of the blind field duplicate sample.
3. Duplicate samples are reliable when their RPD is less than 20%.

- = not applicable to the RPD Assessment.

Table 3: Surface Water Quality Laboratory Results, August 2013

Parameter	Water Quality Station Results August 15-16, 2013												Units	Detection Limit	CCME FAL Guideline
	WQ3	WQ4	WQ5	WQ6	WQ7	WQ8	HYDRO9	HYDRO10	HYDRO11	WQ12	WQ13	WQ14			
Major Ions, Nutrients, and Inorganics															
Calcium (Ca)-Total	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.05	<0.50	<0.50	0.64	mg/L	0.5	-
Cloride (Cl)- Total	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	0.59	<0.50	0.53	mg/L	0.5	120
Magnesium (Mg)-Total	<0.10	0.14	0.11	<0.10	0.15	0.14	0.12	0.13	0.67	0.28	0.10	0.20	mg/L	0.1	-
Phosphorus (P), Total	<0.020	<0.020	<0.020	<0.020	<0.50	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	mg/L	0.02	-
Potassium (K)-Total	<0.50	<0.50	<0.50	<0.50	<0.020	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	mg/L	0.5	-
Sodium (Na)-Total	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	mg/L	1	-
Hardness (as CaCO3)	<1.3	<1.3	<1.3	<1.3	NA	<1.3	<1.3	<1.3	5.4	<1.3	<1.3	2.4	mg/L	1.3	-
Alkalinity, Total (as CaCO3)	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	mg/L	2	-
Nitrate (as N)	<0.050	0.121	<0.050	<0.050	<0.050	0.055	0.233	0.173	<0.050	0.173	0.072	<0.050	mg/L	0.05	2.935
Nitrate and Nitrite as N	<0.071	0.121	<0.071	<0.071	<0.071	<0.071	0.233	0.173	<0.071	0.173	0.072	<0.071	mg/L	0.071	-
Nitrite (as N)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	mg/L	0.05	0.06
Total Kjeldahl Nitrogen	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	mg/L	0.2	-
Nitrogen, Total	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	0.23	<0.21	<0.21	<0.21	<0.21	<0.21	mg/L	0.21	-
Ammonia-N	0.0406	0.0504	0.0111	<0.0050	<0.0050	0.0075	0.0123	0.0101	0.0160	0.0088	0.0258	0.0223	mg/L	0.005	125.8*
pH	5.78	6.05	5.86	5.79	5.82	5.74	5.65	5.81	5.52	6.04	6.05	6.30	pH	0.1	6.50 - 9.00
Electrical Conductivity (EC)	3.52	6.59	5.45	4.24	4.64	6.33	6.62	6.69	19.2	8.32	7.01	10.0	uS/cm	0.2	-
Total Organic Carbon	1.1	1.3	1.1	1.0	1.2	1.3	<1.0	1.3	1.4	1.4	2.1	1.2	mg/L	1	-
Total Suspended Solids	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	mg/L	3	-
Turbidity	0.31	1.76	0.41	0.39	0.68	0.66	1.85	0.53	0.85	0.99	0.91	0.19	NTU	0.1	-
Organics															
Oil and Grease	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	mg/L	1	-
Total Metals															
Aluminum (Al)	0.0079	0.0671	0.0180	0.0142	0.0959	0.0240	0.0687	0.0214	0.0429	0.0417	0.0416	0.0070	mg/L	0.005	0.005**
Antimony (Sb)	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	mg/L	0.0004	-
Arsenic (As)	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	mg/L	0.0004	0.005
Barium (Ba)	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.0030	0.0058	0.0035	<0.0030	0.0055	mg/L	0.003	-
Beryllium (Be)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001	-
Boron (B)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	mg/L	0.05	1.5
Cadmium (Cd)	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000032	<0.000010	<0.000010	<0.000010	mg/L	0.00001	0.00004
Chromium (Cr)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001	0.001
Cobalt (Co)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	mg/L	0.002	-
Copper (Cu)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001	0.002
Iron (Fe)	<0.010	0.118	<0.010	<0.010	0.114	0.024	0.050	0.013	0.033	0.028	0.030	<0.010	mg/L	0.01	0.3
Lead (Pb)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	mg/L	0.0001	0.001
Lithium (Li)	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	mg/L	0.01	-
Manganese (Mn)	<0.0020	0.0028	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0183	<0.0020	<0.0020	<0.0020	mg/L	0.002	-
Mercury (Hg)	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	mg/L	0.00002	0.000026
Molybdenum (Mo)	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	mg/L	0.005	0.073
Nickel (Ni)	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0033	<0.0020	<0.0020	<0.0020	mg/L	0.002	0.025
Selenium (Se)	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	mg/L	0.0004	0.001
Silver (Ag)	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	mg/L	0.00002	0.0001
Strontium (Sr)	0.00133	0.00233	0.00217	0.00165	0.00182	0.00198	0.00184	0.00205	0.00535	0.00240	0.00232	0.00529	mg/L	0.0001	-
Thallium (Tl)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	mg/L	0.0001	0.0008
Tin (Sn)	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	mg/L	0.05	-
Titanium (Ti)	<0.0010	0.0046	<0.0010	<0.0010	0.0133	0.0016	0.0039	0.0015	0.0030	0.0019	0.0017	<0.0010	mg/L	0.001	-
Uranium (U)	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	mg/L	0.0001	0.015
Vanadium (V)	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	mg/L	0.001	-
Zinc (Zn)	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	mg/L	0.004	0.03

Legend

Stations Hydro 1 and -2 were dry at the time of the field program.

Canadian Council of Ministers of the Environment - Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (December 2007).

Outside CCME FAL Guideline

= Not Analyzed by the laboratory

- = No CCME FAL Guideline

* = CCME guideline for Ammonia-N (Total Ammonia) is pH and water temperature dependent at each station. The calculation of the guideline assumes the water temperature is 5 °C and rounds the analyzed pH to the nearest guideline value. There is no guideline value for water with pH <6.0.

** CCME guideline for Aluminum has been withdrawn.

Table 4: Potable Water Quality Laboratory Results: Discovery Camp, August 2013

Analyte	Field Blank	Raw Water Source	Dry 1 Tap	Bathroom Tap	Duplicate	Dry 2 Tap	Kitchen Tap	Units	Detection Limit	Drinking Water Quality Guideline^
Faecal Coliforms	0	0	0	0	0	0	0	CFU/100 mL	0	---
Total Coliforms	0	80	70	100	100	0	0	CFU/100 mL	0	0
Escherichia coliforms (*E.coli*)	0	0	0	0	0	0	0	CFU/100 mL	0	0

Legend
^ Federal-Provincial-Territorial Committee on Drinking Water (2008) Guidelines for Canadian Drinking Water Quality
Outside the Canadian Drinking Water Quality Guideline
--- denotes no Canadian Drinking Water Quality Guideline

APPENDIX D
PHOTOS

Photo 1	Hydro-1 water quality station, as seen here, was dry at the time of the August field event.
Photo 2	Hydro-2 water quality station, as seen here, was dry at the time of the August field event; however, had isolated pockets of water and snow downstream from the sampling station.
Photo 3	Water quality station WQ-3 is located at a lake outlet. This photo looks downstream from the sampling station.
Photo 4	WQ-4 water quality station, as seen here, is located in a small bay on Sunrise Camp Lake.
Photo 5	Water quality station WQ-5 is located at the outlet of Sunrise Camp Lake, downstream from Sunrise Camp.
Photo 6	WQ-6 water quality station, as seen here, is located on the McKeand River and is downstream from both the Discovery and Sunrise camps.
Photo 7	Water quality station WQ-7 is also located on the McKeand River, as seen here, and is downstream from most of the exploration activities.
Photo 8	Water quality station WQ-8, as seen here, is located on a watercourse that flows north towards Ptarmigan Fiord.
Photo 9	Hydro-9 water quality station, as seen here, is a second order watercourse and located downstream of the CH-01 exploration activity site.
Photo 10	Hydro-10 water quality station, as seen here, is located downstream from Discovery Camp.
Photo 11	Hydro-11 water quality station was dry at the time of the August field event; however, the sampling location was moved downstream 225 metres to this location.
Photo 12	Water quality station WQ-12 is a first order watercourse downstream from CH-07.
Photo 13	WQ-13 water quality station, as seen here, is located on a watercourse outside the current exploration activities' zone of influence.
Photo 14	Water quality station WQ-14, as seen here, is located near Ptarmigan Fiord, and is well outside the current exploration activities' zone of influence.

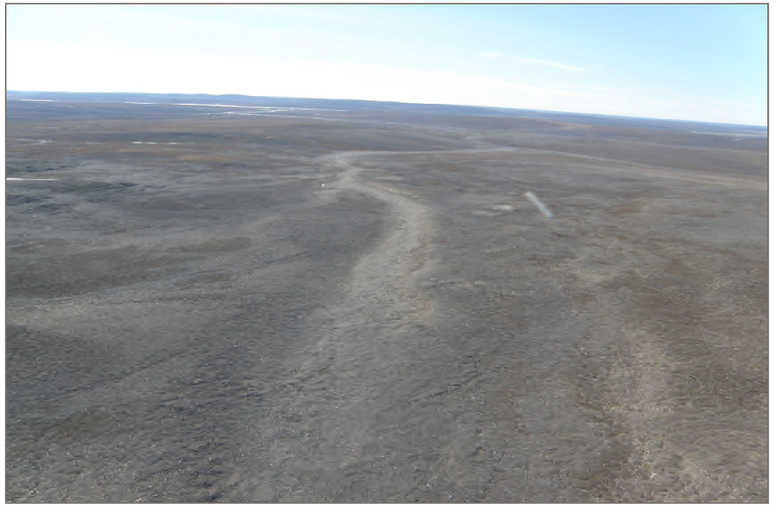


Photo 1: Hydro-1 water quality station, as seen here, was dry at the time of the August field event.

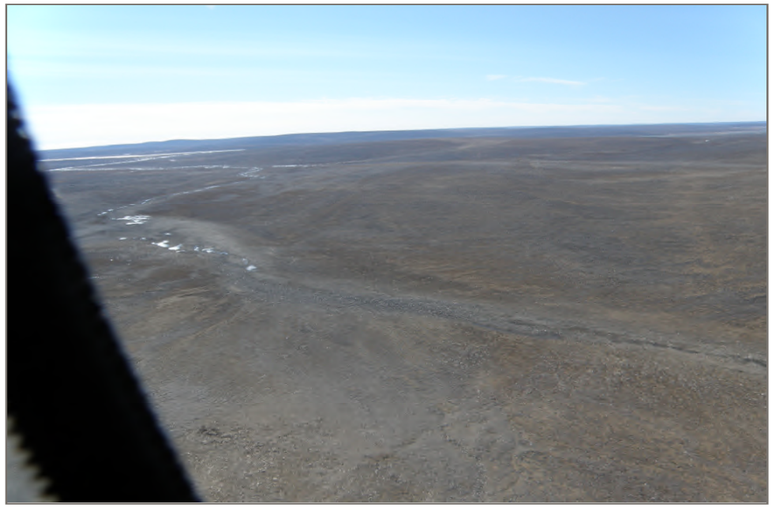


Photo 2: Hydro-2 water quality station, as seen here, was dry at the time of the August field event; however, had isolated pockets of water and snow downstream from the sampling station.

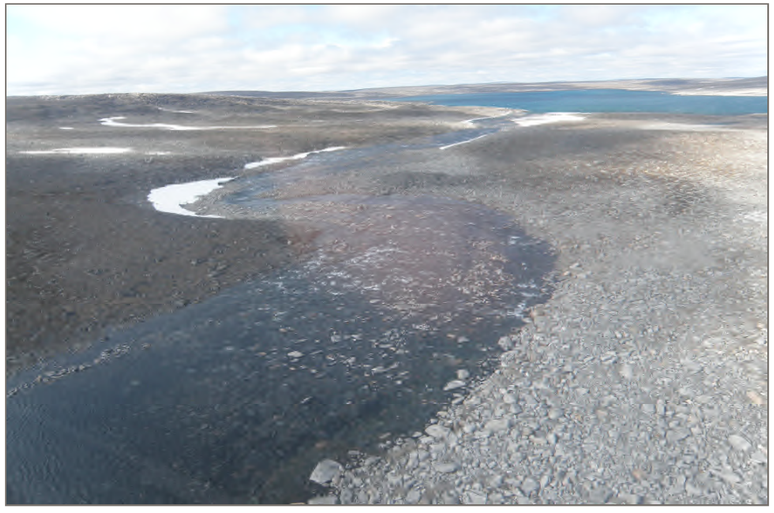


Photo 3: Water quality station WQ-3 is located at a lake outlet. This photo looks downstream from the sampling station.

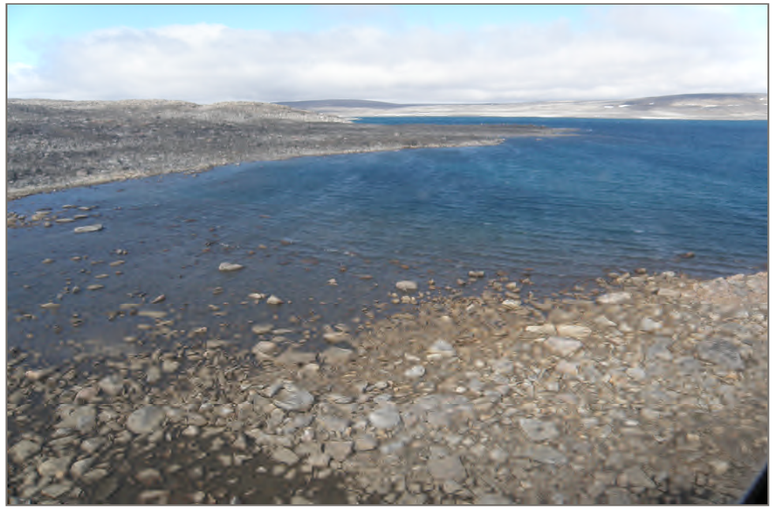


Photo 4: WQ-4 water quality station, as seen here, is located in a small bay on Sunrise Camp Lake.

Photo 5: Water quality station WQ-5 is located at the outlet of Sunrise Camp Lake, downstream from Sunrise Camp.

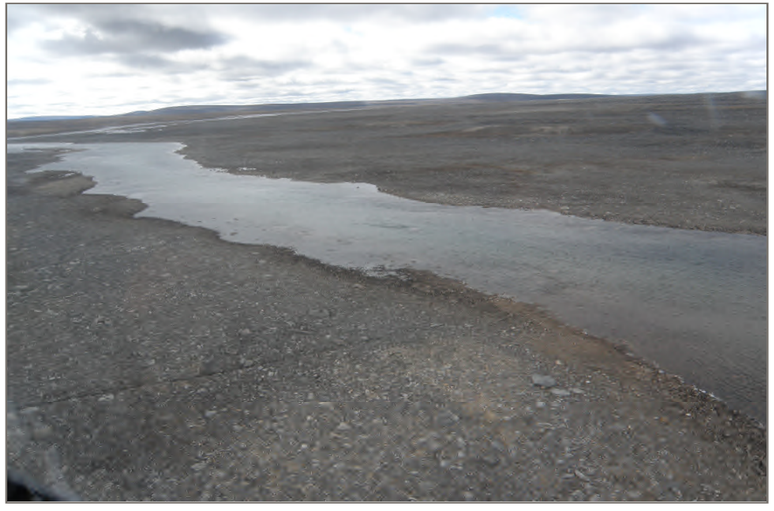


Photo 6: WQ-6 water quality station, as seen here, is located on the McKeand River and is downstream from both the Discovery and Sunrise camps.

Photo 7: Water quality station WQ-7 is also located on the McKeand River, as seen here, and is downstream from most of the exploration activities.

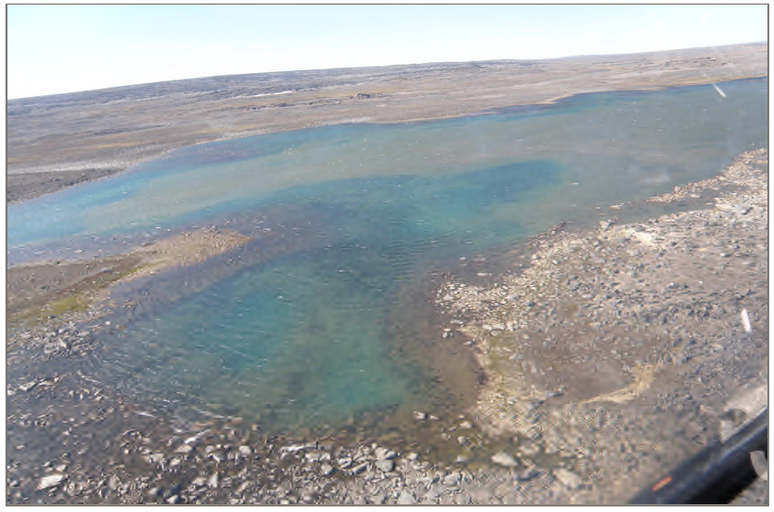


Photo 8: Water quality station WQ-8, as seen here, is located on a watercourse that flows north towards Ptarmigan Fiord.

Photo 9: Hydro-9 water quality station, as seen here, is a second order watercourse and located downstream of the CH-01 exploration activity site.

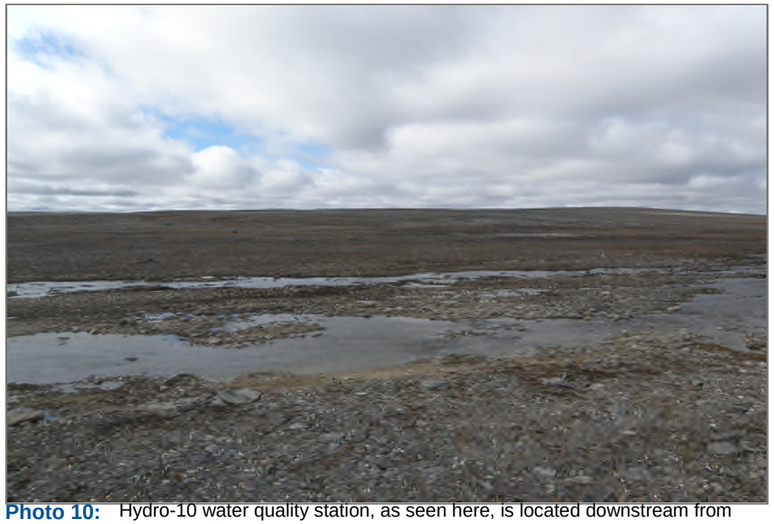


Photo 10: Hydro-10 water quality station, as seen here, is located downstream from Discovery Camp.

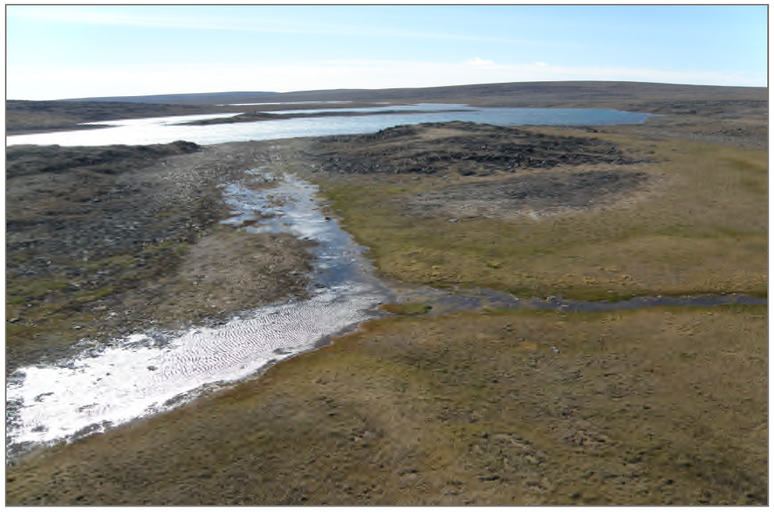


Photo 11: Hydro-11 water quality station was dry at the time of the August field event; however, the sampling location was moved downstream 225 metres to this location.

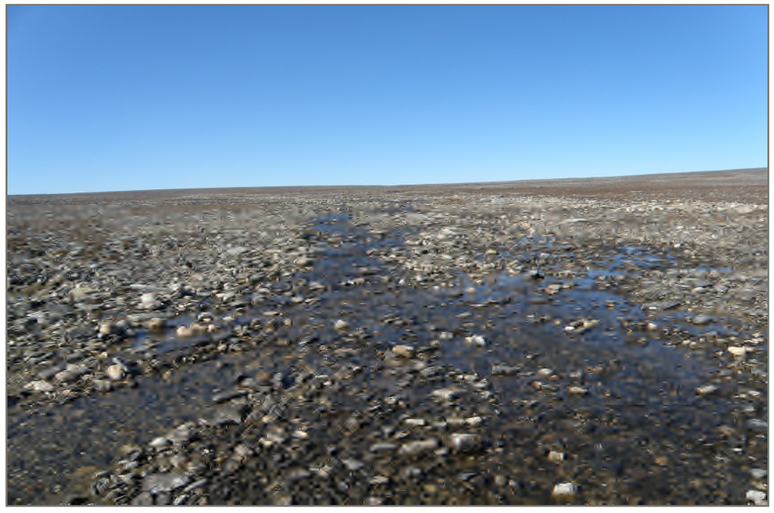


Photo 12: Water quality station WQ-12 is a first order watercourse downstream from CH-07.

Photo 13: WQ-13 water quality station, as seen here, is located on a watercourse outside the current exploration activities' zone of influence.

Photo 14: Water quality station WQ-14, as seen here, is located near Ptarmigan Fiord, and is well outside the current exploration activities' zone of influence.

APPENDIX E
SURFACE WATER QUALITY LABORATORY ANALYSIS

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-3	WQ14								
Sample Date:	15-AUG-13								
Matrix:	Water								
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	1.30		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low EC			%		29-AUG-13	
		TDS (Calculated)	2.7			mg/L		29-AUG-13	
		Hardness (as CaCO3)	2.5			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	0.64		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	0.21		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	0.53		0.5	mg/L		17-AUG-13	AMY
		Total Nitrogen							
		Nitrate and Nitrite (as N)	<0.071		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0070		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	0.0055		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	0.64		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.20		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00529		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-3	WQ14								
Sample Date:	15-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	2.4			mg/L		29-AUG-13	
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Total Organic Carbon	1.2		1	mg/L		29-AUG-13	ZOW
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Turbidity	0.19		0.1	NTU		18-AUG-13	BLW
		Ammonia, Total (as N)	0.0223		0.005	mg/L		29-AUG-13	LMK
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		pH, Conductivity and Total Alkalinity							
		pH	6.30		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	10.0		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
L1349303-4	WQ3								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Ammonia, Total (as N)	0.0406	RRV	0.005	mg/L		29-AUG-13	LMK
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Total Organic Carbon	1.1		1	mg/L		29-AUG-13	ZOW
		Turbidity	0.31	RRV	0.1	NTU		31-AUG-13	SVG
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		pH, Conductivity and Total Alkalinity							
		pH	5.78		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	3.52		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
		Total Nitrogen							
		Nitrate and Nitrite (as N)	<0.071		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-4	WQ3								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low TDS			%		30-AUG-13	
		TDS (Calculated)	<1.0			mg/L		30-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		30-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	<0.10		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0079		0.005	mg/L		30-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	<0.10		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00133		0.0001	mg/L		30-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-4	WQ3								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		30-AUG-13	
L1349303-5	WQ4								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							
		Nitrate and Nitrite (as N)	0.121		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	0.121		0.05	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0671		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	0.118		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.14		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	0.0028		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00233		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	0.0046		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-5	WQ4								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low TDS			%		29-AUG-13	
		TDS (Calculated)	<1.0			mg/L		29-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	0.13		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Total Organic Carbon	1.3		1	mg/L		29-AUG-13	ZOW
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Turbidity	1.76		0.1	NTU		18-AUG-13	BLW
		Ammonia, Total (as N)	0.0504		0.005	mg/L		29-AUG-13	LMK
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		pH, Conductivity and Total Alkalinity							
		pH	6.05		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	6.59		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
L1349303-6	WQ5								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low TDS			%		29-AUG-13	
		TDS (Calculated)	<1.0			mg/L		29-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	0.11		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-6	WQ5								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Routine Water Analysis							
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0180		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.11		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00217		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
		Ammonia, Total (as N)	0.0111		0.005	mg/L		29-AUG-13	LMK
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Turbidity	0.41		0.1	NTU		18-AUG-13	BLW
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Total Organic Carbon	1.1		1	mg/L		29-AUG-13	ZOW
		pH, Conductivity and Total Alkalinity							
		pH	5.86		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	5.45		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-6	WQ5								
Sample Date:	16-AUG-13								
Matrix:	Water								
		pH, Conductivity and Total Alkalinity							
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
		Total Nitrogen							
		Nitrate and Nitrite (as N)	<0.071		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
L1349303-7	WQ6								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Organic Carbon	1.0		1	mg/L		29-AUG-13	ZOW
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Ammonia, Total (as N)	<0.0050		0.005	mg/L		29-AUG-13	LMK
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Turbidity	0.39	RRV	0.1	NTU		31-AUG-13	SVG
		pH, Conductivity and Total Alkalinity							
		pH	5.79		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	4.24		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
		Total Nitrogen							
		Nitrate and Nitrite (as N)	<0.071		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low TDS			%		30-AUG-13	
		TDS (Calculated)	<1.0			mg/L		30-AUG-13	

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-7	WQ6								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Routine Water Analysis							
		Ion Balance Calculation							
		Hardness (as CaCO3)	<1.0			mg/L		30-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	<0.10		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0142		0.005	mg/L		29-AUG-13	JPM
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	<0.10		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00165		0.0001	mg/L		29-AUG-13	JPM
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
L1349303-8	WQ7								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-8	WQ7								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							
		Nitrate and Nitrite (as N)	<0.071		0.071	mg/L		30-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		30-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	<0.050		0.05	mg/L		30-AUG-13	JTV
		Total Organic Carbon	1.2		1	mg/L		29-AUG-13	ZOW
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Ammonia, Total (as N)	<0.0050		0.005	mg/L		29-AUG-13	LMK
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Turbidity	0.68	RRV	0.1	NTU		31-AUG-13	SVG
		pH, Conductivity and Total Alkalinity							
		pH	5.82		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	4.64		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0959		0.005	mg/L		29-AUG-13	JPM
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	0.114		0.01	mg/L		29-AUG-13	JPM
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.15		0.1	mg/L		29-AUG-13	JPM
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00182		0.0001	mg/L		29-AUG-13	JPM
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-8	WQ7								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Titanium (Ti)-Total	0.0133		0.001	mg/L		29-AUG-13	JPM
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low TDS			%		30-AUG-13	
		TDS (Calculated)	<1.0			mg/L		30-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		30-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	<0.10		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
L1349303-9	WQ8								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							
		Nitrate and Nitrite (as N)	<0.071		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	0.055		0.05	mg/L		17-AUG-13	AMY
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	0.52		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low TDS			%		29-AUG-13	
		TDS (Calculated)	<1.0			mg/L		29-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	0.14		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-9	WQ8								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Routine Water Analysis							
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ammonia, Total (as N)	0.0075		0.005	mg/L		29-AUG-13	LMK
		Total Organic Carbon	1.3		1	mg/L		29-AUG-13	ZOW
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Turbidity	0.66		0.1	NTU		18-AUG-13	BLW
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		pH, Conductivity and Total Alkalinity							
		pH	5.74		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	6.33		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0240		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	0.024		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.14		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00198		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	0.0016		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP
		Mercury (Hg)							

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-9	WQ8								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
L1349303-10	HYDRO9								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							
		Nitrate and Nitrite (as N)	0.233		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	0.23		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	0.233		0.05	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0687		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	0.050		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.12		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00184		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	0.0039		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP

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Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-10	HYDRO9								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low EC			%		29-AUG-13	
		TDS (Calculated)	1.1			mg/L		29-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	0.11		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Turbidity	1.85		0.1	NTU		18-AUG-13	BLW
		Total Organic Carbon	<1.0		1	mg/L		29-AUG-13	ZOW
		Ammonia, Total (as N)	0.0123		0.005	mg/L		29-AUG-13	LMK
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		pH, Conductivity and Total Alkalinity							
		pH	5.65		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	6.62		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
L1349303-11	HYDRO10								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Ammonia, Total (as N)	0.0101		0.005	mg/L		29-AUG-13	LMK
		Turbidity	0.53		0.1	NTU		18-AUG-13	BLW
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Total Organic Carbon	1.3		1	mg/L		29-AUG-13	ZOW
		pH, Conductivity and Total Alkalinity							
		pH	5.81		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	6.69		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT

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Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-11	HYDRO10								
Sample Date:	16-AUG-13								
Matrix:	Water								
		pH, Conductivity and Total Alkalinity							
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
		Total Nitrogen							
		Nitrate and Nitrite (as N)	0.173		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	0.173		0.05	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0214		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	0.013		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.13		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00205		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	0.0015		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-12	HYDRO11								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							
		Nitrate and Nitrite (as N)	<0.071		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	4.89		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low EC			%		29-AUG-13	
		TDS (Calculated)	6.6			mg/L		29-AUG-13	
		Hardness (as CaCO3)	5.4			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	1.06		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	0.66		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0429		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	0.0058		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	1.05		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	0.033		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.67		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	0.0183		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	0.0033		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00535		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	0.0030		0.001	mg/L		28-AUG-13	MSP

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-12	HYDRO11								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	0.000032		0.00001	mg/L		28-AUG-13	MSP
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	5.4			mg/L		29-AUG-13	
		Total Organic Carbon	1.4		1	mg/L		29-AUG-13	ZOW
		Turbidity	0.85		0.1	NTU		18-AUG-13	BLW
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Ammonia, Total (as N)	0.0160		0.005	mg/L		29-AUG-13	LMK
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		pH, Conductivity and Total Alkalinity							
		pH	5.52		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	19.2		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
L1349303-13	WQ12								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low EC			%		29-AUG-13	
		TDS (Calculated)	1.6			mg/L		29-AUG-13	
		Hardness (as CaCO3)	1.2			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	0.28		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	0.59		0.5	mg/L		17-AUG-13	AMY
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Turbidity	0.99		0.1	NTU		18-AUG-13	BLW
		Ammonia, Total (as N)	0.0088		0.005	mg/L		29-AUG-13	LMK

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-13	WQ12								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Organic Carbon	1.4		1	mg/L		29-AUG-13	ZOW
		pH, Conductivity and Total Alkalinity							
		pH	6.04		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	8.32		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
		Total Nitrogen							
		Nitrate and Nitrite (as N)	0.173		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	0.173		0.05	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0417		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	0.0035		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	0.028		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.28		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00240		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	0.0019		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-13	WQ12								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
L1349303-14	WQ13								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							
		Nitrate and Nitrite (as N)	0.072		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	0.072		0.05	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0416		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	0.030		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.10		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00232		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	0.0017		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-14	WQ13								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low TDS			%		29-AUG-13	
		TDS (Calculated)	<1.0			mg/L		29-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	0.10		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ammonia, Total (as N)	0.0258		0.005	mg/L		29-AUG-13	LMK
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Total Organic Carbon	2.1		1	mg/L		29-AUG-13	ZOW
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Turbidity	0.91		0.1	NTU		18-AUG-13	BLW
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		pH, Conductivity and Total Alkalinity							
		pH	6.05		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	7.01		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
L1349303-15	FIELD BLANK								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							
		Nitrate and Nitrite (as N)	<0.071		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Total Organic Carbon	<1.0		1	mg/L		29-AUG-13	ZOW

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-15	FIELD BLANK								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Ammonia, Total (as N)	<0.0050		0.005	mg/L		29-AUG-13	LMK
		Turbidity	0.11		0.1	NTU		18-AUG-13	BLW
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		pH, Conductivity and Total Alkalinity							
		pH	5.18		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	0.61		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low TDS			%		29-AUG-13	
		TDS (Calculated)	<1.0			mg/L		29-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	<0.10		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	<0.10		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-15	FIELD BLANK								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Strontium (Sr)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
L1349303-16	TRIP BLANK								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	<0.10		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-16	TRIP BLANK								
Sample Date:	16-AUG-13								
Matrix:	Water								
		TOT Metals CCME Fresh Water Aquatic Life							
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low TDS			%		29-AUG-13	
		TDS (Calculated)	<1.0			mg/L		29-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	<0.10		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Total Organic Carbon	<1.0		1	mg/L		29-AUG-13	ZOW
		Turbidity	<0.10		0.1	NTU		18-AUG-13	BLW
		Ammonia, Total (as N)	<0.0050		0.005	mg/L		29-AUG-13	LMK
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		pH, Conductivity and Total Alkalinity							
		pH	5.07		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	0.62		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
		Total Nitrogen							
		Nitrate and Nitrite (as N)	<0.071		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
L1349303-17	DUP 1								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Organic Carbon	1.3		1	mg/L		29-AUG-13	ZOW

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-17	DUP 1								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		Turbidity	0.51		0.1	NTU		18-AUG-13	BLW
		Ammonia, Total (as N)	0.0130		0.005	mg/L		29-AUG-13	LMK
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		pH, Conductivity and Total Alkalinity							
		pH	5.73		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	6.59		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0185		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	0.011		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.13		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00202		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
		Total Nitrogen							

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Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-17	DUP 1								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							
		Nitrate and Nitrite (as N)	0.169		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	<0.21		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	0.169		0.05	mg/L		17-AUG-13	AMY
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low TDS			%		29-AUG-13	
		TDS (Calculated)	<1.0			mg/L		29-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	0.13		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
L1349303-18	DUP 2								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Total Nitrogen							
		Nitrate and Nitrite (as N)	0.233		0.071	mg/L		25-AUG-13	
		Total Nitrogen (Calculation)							
		Total Nitrogen	0.23		0.21	mg/L		29-AUG-13	
		TKN in Water by Colour							
		Total Kjeldahl Nitrogen	<0.20		0.2	mg/L	29-AUG-13	29-AUG-13	LMK
		Nitrite as N by IC							
		Nitrite (as N)	<0.050		0.05	mg/L		17-AUG-13	AMY
		Nitrate as N by IC							
		Nitrate (as N)	0.233		0.05	mg/L		17-AUG-13	AMY
		Routine Water Analysis							
		Sulfate by IC							
		Sulfate (SO4)	<0.50		0.5	mg/L		17-AUG-13	AMY
		Ion Balance Calculation							
		Ion Balance	Low EC			%		29-AUG-13	
		TDS (Calculated)	1.1			mg/L		29-AUG-13	
		Hardness (as CaCO3)	<1.0			mg/L		29-AUG-13	
		Dissolved Metals in Water by CRC ICPMS							
		Calcium (Ca)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Magnesium (Mg)-Dissolved	0.11		0.1	mg/L		28-AUG-13	MX
		Potassium (K)-Dissolved	<0.50		0.5	mg/L		28-AUG-13	MX
		Sodium (Na)-Dissolved	<1.0		1	mg/L		28-AUG-13	MX

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-18	DUP 2								
Sample Date:	16-AUG-13								
Matrix:	Water								
		Routine Water Analysis							
		Chloride by IC							
		Chloride (Cl)	<0.50		0.5	mg/L		17-AUG-13	AMY
		TOT Metals CCME Fresh Water Aquatic Life							
		Total Metals in Water by CRC ICPMS							
		Aluminum (Al)-Total	0.0665		0.005	mg/L		28-AUG-13	MSP
		Antimony (Sb)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Arsenic (As)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Barium (Ba)-Total	<0.0030		0.003	mg/L		28-AUG-13	MSP
		Beryllium (Be)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Boron (B)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Calcium (Ca)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Chromium (Cr)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Cobalt (Co)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Copper (Cu)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Iron (Fe)-Total	0.048		0.01	mg/L		28-AUG-13	MSP
		Lead (Pb)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Lithium (Li)-Total	<0.010		0.01	mg/L		28-AUG-13	MSP
		Magnesium (Mg)-Total	0.12		0.1	mg/L		28-AUG-13	MSP
		Manganese (Mn)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Molybdenum (Mo)-Total	<0.0050		0.005	mg/L		28-AUG-13	MSP
		Nickel (Ni)-Total	<0.0020		0.002	mg/L		28-AUG-13	MSP
		Potassium (K)-Total	<0.50		0.5	mg/L		28-AUG-13	MSP
		Selenium (Se)-Total	<0.00040		0.0004	mg/L		28-AUG-13	MSP
		Silver (Ag)-Total	<0.000020		0.00002	mg/L		28-AUG-13	MSP
		Sodium (Na)-Total	<1.0		1	mg/L		28-AUG-13	MSP
		Strontium (Sr)-Total	0.00187		0.0001	mg/L		28-AUG-13	MSP
		Thallium (Tl)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Tin (Sn)-Total	<0.050		0.05	mg/L		28-AUG-13	MSP
		Titanium (Ti)-Total	0.0036		0.001	mg/L		28-AUG-13	MSP
		Uranium (U)-Total	<0.00010		0.0001	mg/L		28-AUG-13	MSP
		Vanadium (V)-Total	<0.0010		0.001	mg/L		28-AUG-13	MSP
		Zinc (Zn)-Total	<0.0040		0.004	mg/L		28-AUG-13	MSP
		Total Cd in Water by CCMS (CCME - FAL)							
		Cadmium (Cd)-Total	<0.000010		0.00001	mg/L		28-AUG-13	MSP
		Mercury (Hg)							
		Mercury (Hg)-Total	<0.000020		0.00002	mg/L		27-AUG-13	SS7
		Hardness (from Total Ca and Mg)							
		Hardness (as CaCO3)	<1.3			mg/L		29-AUG-13	
		Oil and Grease	<1.0		1	mg/L	05-SEP-13	05-SEP-13	NGT
		Phosphorus (P)-Total	<0.020		0.02	mg/L	26-AUG-13	26-AUG-13	CLTT
		Ammonia, Total (as N)	0.0128		0.005	mg/L		29-AUG-13	LMK
		Total Organic Carbon	1.1		1	mg/L		29-AUG-13	ZOW
		Turbidity	1.79		0.1	NTU		18-AUG-13	BLW
		Total Suspended Solids	<3.0		3	mg/L		19-AUG-13	SVG
		pH, Conductivity and Total Alkalinity							
		pH	5.56		0.1	pH		26-AUG-13	CLTT
		Conductivity (EC)	6.53		0.2	uS/cm		26-AUG-13	CLTT
		Bicarbonate (HCO3)	<5.0		5	mg/L		26-AUG-13	CLTT

ALS LABORATORY GROUP CHEMICAL ANALYSIS REPORT

Lab ID	Sample ID	Test Description	Result	Qualifier	D.L.	Units	Extracted	Analyzed	By
L1349303-18	DUP 2								
Sample Date:	16-AUG-13								
Matrix:	Water								
		pH, Conductivity and Total Alkalinity							
		Carbonate (CO3)	<5.0		5	mg/L		26-AUG-13	CLTT
		Hydroxide (OH)	<5.0		5	mg/L		26-AUG-13	CLTT
		Alkalinity, Total (as CaCO3)	<2.0		2	mg/L		26-AUG-13	CLTT

Methodology Reference

ALS Test Code	Test Description	Methodology Reference (In-House Standard Operating Procedures which Generally Follow:)
C-TOT-ORG-ED	Total Organic Carbon	APHA 5310 B-Instrumental
CL-IC-ED	Chloride by IC	APHA 4110 B-ION CHROMATOGRAPHY
N-T-CALC-ED	Total Nitrogen (Calculation)	APHA 4500 N-Calculated
NO2+NO3-CALC-ED	Nitrate+Nitrite	CALCULATION
SOLIDS-TOTSUS-ED	Total Suspended Solids	APHA 2540 D-Gravimetric
IONBALANCE-ED	Ion Balance Calculation	APHA 1030E
TURBIDITY-ED	Turbidity	APHA 2130 B-Nephelometer
ETL-HARDNESS-TOT-ED	Hardness (from Total Ca and Mg)	APHA 2340 B-Calculation
HG-T-L-CVAA-ED	Mercury (Hg)	EPA 245.7 / EPA 245.1
MET-D-CCMS-ED	Dissolved Metals in Water by CRC ICPMS	APHA 3030 B&E / EPA SW-846 6020A
NH3-L-CFA-ED	Ammonia in Water by Colour	APHA 4500 NH3-NITROGEN (AMMONIA)
NO3-IC-ED	Nitrate as N by IC	APHA 4110 B-ION CHROMATOGRAPHY
MET-T-CCMS-ED	Total Metals in Water by CRC ICPMS	APHA 3030 B&E / EPA SW-846 6020A
NO2-IC-ED	Nitrite as N by IC	APHA 4110 B-ION CHROMATOGRAPHY
OGG-LLE-ED	Oil and Grease-Gra	APHA 5520 B HEXANE MTBE EXT. GRAVIME
P-T-COL-ED	Total P in Water by Colour	APHA 4500-P PHOSPHORUS
PH/EC/ALK-ED	pH, Conductivity and Total Alkalinity	APHA 4500-H, 2510, 2320
SO4-IC-ED	Sulfate by IC	APHA 4110 B-ION CHROMATOGRAPHY
CD-T-CCMS-FAL-ED	Total Cd in Water by CCMS (CCME - FAL)	APHA 3030 B&E / EPA SW-846 6020A
TKN-CFA-ED	TKN in Water by Colour	APHA 4500-NORG (TKN)

Sample Parameter Qualifier key listed:

Qualifier	Description
RRV	Reported Result Verified By Repeat Analysis

APPENDIX F
POTABLE WATER QUALITY LABORATORY ANALYSIS

PROTECTED A

Your Project #: Y22103023 CHIDLIAK
Your C.O.C. #: 43217601, 432176-01-01

Attention: Karla Langlois
EBA, A Terratech Company
#201 4916 49 Street
Box 2244
Yellowknife, NT
CANADA X1A 2P7

Report Date: 2013/08/21
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B3D6420
Received: 2013/08/19, 09:10

Sample Matrix: Water
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Coliform/ E. coli, CFU/100mL	7	N/A	2013/08/19	CAM SOP-00551	MOE E3407
Fecal coliform, (CFU/100mL)	7	N/A	2013/08/19	CAM SOP-00552	SM 9222D

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Parnian Baber, Project Manager
Email: pbaber@maxxam.ca
Phone# (905) 817-5700

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Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B3D6420
Report Date: 2013/08/21

EBA, A Terratech Company
Client Project #: Y22103023 CHIDLIAK

Sample Details/Parameters	Result	RDL	Units	Extracted	Analyzed	By	Batch
SR9313 DISC. RAW							
Sampling Date 2013/08/16							
Matrix W							
MICROBIOLOGY (WATER)							
Microbiological							
Fecal coliform	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319576
Background	40	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Total Coliforms	80	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Escherichia coli	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
SR9314 DISC. KITCHEN							
Sampling Date 2013/08/16							
Matrix W							
MICROBIOLOGY (WATER)							
Microbiological							
Fecal coliform	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319576
Background	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Total Coliforms	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Escherichia coli	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
SR9315 DISC. DRY 1 LINKED TO BATH							
Sampling Date 2013/08/16							
Matrix W							
MICROBIOLOGY (WATER)							
Microbiological							
Fecal coliform	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319576
Background	23	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Total Coliforms	70	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Escherichia coli	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
SR9316 DISC DRY 2 LINKED TO KITCHEN							
Sampling Date 2013/08/16							
Matrix W							
MICROBIOLOGY (WATER)							
Microbiological							
Fecal coliform	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319576
Background	150	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Total Coliforms	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Escherichia coli	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
SR9317 DISC. BATH							
Sampling Date 2013/08/16							
Matrix W							
MICROBIOLOGY (WATER)							
Microbiological							
Fecal coliform	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319576
Background	350	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Total Coliforms	100	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Escherichia coli	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

EBA, A Terratech Company
Client Project #: Y22103023 CHIDLIAK

Maxxam Job #: B3D6420
Report Date: 2013/08/21

Sample Details/Parameters	Result	RDL	Units	Extracted	Analyzed	By	Batch
SR9318 DUPLICATE 1							
Sampling Date 2013/08/16							
Matrix W							
MICROBIOLOGY (WATER)							
Microbiological							
Fecal coliform	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319576
Background	120	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Total Coliforms	100	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Escherichia coli	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
SR9319 FIELD BLANK							
Sampling Date 2013/08/16							
Matrix W							
MICROBIOLOGY (WATER)							
Microbiological							
Fecal coliform	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319576
Background	260	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Total Coliforms	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559
Escherichia coli	0	N/A	CFU/100mL	2013/08/19	2013/08/19		3319559

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EBA, A Terratech Company
Client Project #: Y22103023 CHIDLIAK

Maxxam Job #: B3D6420
Report Date: 2013/08/21

GENERAL COMMENTS

Revised Report: Samples analyzed 1 day past hold time for microbiology analysis and received at well above the recommended sample temperature of less than 10 degrees celsius (Average Temperature of the coolers as received: 27.3 celsius)

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

EBA, A Terratech Company
Attention: Karla Langlois
Client Project #: Y22103023 CHIDLIAK
P.O. #:
Site Location:

Quality Assurance Report

Maxxam Job Number: MB3D6420

QA/QC Batch Num	Init	QC Type	Parameter	Date Analyzed yyyy/mm/dd	Value	Recovery	Units	QC Limits
3319559	VGU	RPD	Background	2013/08/20	NC		%	N/A
			Total Coliforms	2013/08/20	NC		%	N/A
			Escherichia coli	2013/08/20	NC		%	N/A

N/A = Not Applicable
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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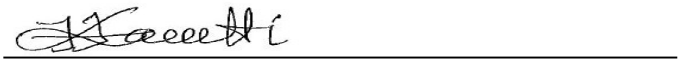
PROTECTED A

Validation Signature Page

Maxxam Job #: B3D6420

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Vimukthi Gunawardhan

==========

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