



Crown-Indigenous Relations
and Northern Affairs Canada

Relations Couronne-Autochtones
et Affaires du Nord Canada

JERICO DIAMOND MINE OPERATION, MAINTENANCE AND SURVEILLANCE PLAN

NUNAVUT IMPACT REVIEW BOARD FILE NUMBERS 16UN058 & 00MN059 2021 ANNUAL REPORT

December 31, 2021

The Proponent shall submit a comprehensive annual report to the Nunavut Impact Review Board at the end of each year of permitted activities, and before December 31st of each year. It is expected that reporting requirements under NIRB File No. 16UN058 will be coordinated with existing reporting requirements associated with INAC's ongoing site management and monitoring functions related to the Jericho Diamond Mine Project (NIRB File No. 00MN059) as approved to proceed under Project Certificate No. 002. The Board expects to receive the first such report on or before December 31, 2017.

The annual report must contain, but not limited to, the following information:

a) A summary of activities undertaken for the year, including:

- **a map and associated details pertaining to remediation activities and site operations conducted to-date;**

The activities that took place during the year included:

- The planned freshet site visit in June was canceled due to COVID-19 and associated travel restrictions, all planned activity was completed during the fall site visit.
- Site visit from August 16-20, 2021
 - Mobilization via aircraft
 - Care & Maintenance Activities
 - Removing the Pumphouse from the Jetty
 - General site cleanup
 - Implementation of Year 4 of the Operation, Maintenance and Surveillance (OMS) Plan
 - Installed a new Pano Camera on the remote camera system
 - Site Tour (CIRNAC Inspector, KitlA)
 - Demobilization via aircraft

See Appendix A for maps of the site showing all work areas.

- **a map detailing the locations of all fuel storage areas illustrating all containment structures, accompanied with a description of all containment measures implemented;**

Current fuel storage is limited to drummed fuel located within the Truck Shop Building (see Appendix A, Figure 2). This building has an in-ground sump to contain any fuel spills.

- **a description of local hires and employee training initiatives;**

Due to the short duration of on-site activities there were no local hires or training initiatives.

- **details on transportation activities undertaken including:**
 - 1. aircraft flight frequency, approximate flight routes, and altitudes;**

Transportation to and from the site was completed via flights from Yellowknife using a Dornier 228 aircraft. A total of two flights into the site were completed in conjunction with the one site visit in 2021.

- 2. finalized winter road routing and vehicle traffic information (number of return trips, types of vehicles);**

Not applicable.

- **site photos illustrating site conditions and areas of remediation works;**

Site photos are provided in the following Appendices:

- *Appendix B: Jericho Mine Site – Operation, Maintenance and Surveillance Program – 2021 Report*

- **a summary of wastes disposed on-site as well those transported for disposal offsite, including locations and any required mitigation during transportation;**

During the August 16-20 site visit no wastes were disposed of on-site. All wastes were collected and back-hauled to Yellowknife for disposal.

b) An updated work plan for the following year including an approximate work schedule;

The project is now in long-term Operation, Maintenance and Surveillance (OMS), 2021 was the fourth year of OMS.

The work plan for 2022 currently includes Care & Maintenance (C&M), OMS activities, and a Community Meeting:

- C&M
 - Start operational vehicles and generators
 - Maintenance on Airport Camp Genset
 - General cleanup around site
- OMS Year 5
 - Visual inspections
 - Water sampling

These activities will all be completed during one site visit in late summer 2022.

- Community Meeting
 - Meeting in Kugluktuk to provide residents with an update on the OMS activities to date.

c) A summary of community consultations undertaken throughout the year, providing copy of materials presented to community members, a description of issues and concerns raised, discussions with community members and advice offered to the Proponent, as well as any follow-up actions that were required or taken to resolve any concerns expressed about the project;

A community meeting was scheduled for February 2021 to provide an update on the results of the OMS to date. This was postponed to 2022 due to COVID-19 and the related travel restrictions and is likely to be postponed again (to early 2023) due to the current COVID situation.

d) A log of instances in which community residents occupied or transited through the project area for the purpose of traditional land use or harvesting. This log should include the location and number of people encountered, activity being undertaken (e.g., berry picking, fishing, hunting, camping, etc.), date and time; and any mitigation measures or adaptive management undertaken to prevent disturbance;

There were no instances where community residents occupied or transited through the project area during the 2021 field activities in August.

e) A brief summary of wildlife mitigation and monitoring results as well as any mitigation actions undertaken. In addition, the Proponent shall maintain a record of wildlife observations while operating within the project area and include it as part of the summary report. The summary report should include the following:

Numerous caribou were observed during the August 2021 site visit. Care was taken not to disturb the caribou any more than necessary, however, they were frequently encountered on the roads.

One grizzly bear was observed outside the Airport Camp on August 17th, upon spotting the bear the Wildlife Monitor and other crew members made lots of noise. The bear fled to the east of the airstrip and did not return during site activities.

- **Locations (i.e., latitude and longitude) and species of wildlife observed on-site including number of animals, a description of the animal activity, and a description of the gender and age of animals if possible; Prior to conducting project activities, the Proponent should map the location of any sensitive wildlife sites such as denning sites, calving areas, caribou crossing sites, and raptor nests in the project area, and identify the timing of critical life history events (i.e., calving, mating, denning and nesting);**

A Grizzly Bear was observed on the southern end of the Airstrip near the Airport Camp (66°01'20.00" N, 111°27'54.45" W).

- **The Proponent should indicate potential impacts from the project, and ensure that operational activities are managed and modified to avoid impacts on wildlife and sensitive sites;**

Given the short duration of on-site activities in 2021 (5 days) there were minimal impacts to wildlife.

- **A summary of the effectiveness of mitigation measures for wildlife impacts; and**

A member of the field team was equipped with a firearm and acted as a Wildlife Monitor. The standard approach to a bear encounter is to first attempt to scare the bear away from site using non-lethal tactics (i.e. noise, chase or shoot bear bangers). In this case the approach of scaring the bear away worked effectively.

- **If mitigation measures are observed to be ineffective or not achieving the expected outcomes, a discussion of issues interfering with the mitigation and alternative plans to reduce impacts to the wildlife in the vicinity of the project;**

Not applicable.

f) A summary of any heritage sites encountered during the exploration activities, any follow-up action or reporting required as a result, and how project activities were modified to mitigate impacts on the heritage sites;

No heritage sites were encountered during the site activities.

g) A summary of its knowledge of Inuit land use in/near the project area and how project activities were modified to mitigate impacts on Inuit land use; and

Inuit land use in/near the project area is limited and mostly consists of winter access (via snowmobile) to Contwoyto Lake. There was no need to alter project activities to mitigate impacts on Inuit land use due to the fact that:

- the main area of use, Contwoyto Lake, is over 3 kilometres from the main part of the Jericho site; and
- project activities took place in August when snowmobile access is not possible

h) A summary of how the Proponent has complied with conditions contained within the Screening Decision Report, and all conditions as required by other authorizations associated with the project proposal.

The Proponent complied with the Screening Decision Report and all other Permits, Licences and Authorizations throughout the completion of the site stabilization work. Compliance was achieved by:

- discussing all regulatory requirements during the pre-mobilization and all other project meetings;
- copies of all regulatory documents are readily available to the project team;
- the Crown had site representatives on-site during all activities to ensure compliance with contracts and regulatory authorizations; and
- Inspectors were given access to the site in order to complete compliance inspections.

Supplemental Questions

The Nunavut Impact Review Board issued Board Recommendations with the *2016-2017 Annual Monitoring Report for the Jericho Diamond Mine Project* on November 27, 2017. Below are the recommendations and responses:

By way of a motion carried during its regular meeting held in November 2017, Board via Recommendation #5 requests that Indigenous and Northern Affairs Canada (INAC) requests that Indigenous and Northern Affairs Canada provide the NIRB with a detailed report of the stabilization works undertaken at the Jericho site under NIRB File No. 16UN058. The report should include details related to all activities conducted, results of the work, expected short and long-term management requirements, community consultation conducted or to be conducted, and an outline of the expected monitoring and management program. The Board requests that the report include, but not be limited to, the following information in addition to what is required by the Screening Decision Report for 16UN058. This report should be provided as part of the annual report to be submitted to the NIRB on or before December 31st of each year:

a) Details related to water monitoring, sampling, treatment, and discharge activities conducted during the reporting year;

Details on the water monitoring, sampling, treatment and discharge activities that took place in 2021 can be found in the *Jericho Mine Site – Operation, Maintenance and Surveillance Program – 2021 Report* in Appendix B.

A summary of water sampling activities and associated laboratory analyses can be found in Appendix A of the *Jericho Mine Site – Operation, Maintenance and Surveillance Program – 2021 Report* in Appendix B.

b) Details related to earthworks conducted during the reporting year including modifications to water management structures, berms, dykes, and pads;

No earthworks were completed in 2021.

c) Details related to stabilization activities in the open pit area;

No stabilization activities took place in the open pit area in 2021. The OMS activities completed in the open pit area are detailed in the *Jericho Mine Site – Operation, Maintenance and Surveillance Program – 2021 Report* in Appendix B.

d) Details related to the covering of the Processed Kimberlite Containment Area;

The covering of the Processed Kimberlite Containment Area (PKCA) was completed in 2017. The OMS activities completed on the PKCA are detailed in the *Jericho Mine Site – Operation, Maintenance and Surveillance Program – 2021 Report* in Appendix B.

e) Details related to the collection and disposal of hazardous wastes;

No hazardous waste was collected for disposal in 2021. All known hazardous wastes were previously addressed.

f) Details related to the collection, treatment/disposal of contaminated soils;

No contaminated soils were collected, treated or disposed of in 2021.

g) Plans to manage deteriorating structures on-site;

A long-term Operation, Maintenance and Surveillance (OMS) Plan has been drafted for the site. Implementation of the OMS Plan began in 2018 and included surveillance activities to ensure the stabilization actions completed (e.g. West Dam Breach, PKCA Cover) are meeting their design intent.

With respect to the buildings, tanks, and camp, all hazardous materials have been removed and disposed of off-site. Since the deteriorating structures are considered a low risk to human and environmental health we do not have a plan to manage them. However, as issues arise we may add them to the C&M plan for the following year. In 2021 the Pumphouse located on the water intake Jetty was removed as ice and wave erosion had partly undermined the building. In 2022 we do not have specific C&M activities planned, however general cleanup around the site will continue.

h) Details related to any other remediation activities undertaken and any additional hazards identified;

No remedial activities were undertaken in 2021. No additional hazards were identified during the site activities.

i) Community consultation summaries; and

No community consultations were conducted this year. The 2021 meeting was postponed to 2022 due to the COVID-19 Pandemic and it is likely the 2022 meeting will be postponed to 2023.

j) Monitoring and management plans to ensure the environmental stability of the site and to ensure the effectiveness of the stabilization activities undertaken.

A long-term Operation, Maintenance and Surveillance (OMS) Plan is being implemented at the site. Year 4 of OMS activities were completed in 2021, the results of these activities are provided in the *Jericho Mine Site – Operation, Maintenance and Surveillance Program – 2021 Report* in Appendix B. These results will be used to inform and plan OMS activities going forward.

2019-2020 Annual Monitoring Report for the Jericho Diamond Mine Project and Board's Recommendations

In the above noted report the Board issued the following recommendation to Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC).

Recommendation 3: The Board requests that Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) provide a contingency plan for inspection and potential moving or dismantling of the Carat Lake pumphouse in order to prevent collapse into Carat Lake in the event of erosion or future ice buildup and movement. This information should be provided to the Board in the 2021 CIRNAC site report.

In response to this recommendation CIRNAC removed the Pumphouse from the Jetty during the 2021 field program. Details on the work can be found in this Annual Report. CIRNAC now considers this recommendation closed.

2020-2021 Annual Monitoring Report for the Jericho Diamond Mine Project and Board's Recommendations

In the above noted report the Board did not make any recommendations to Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC).

**APPENDIX A:
JERICHO DIAMOND MINE
SITE MAPS**



Figure 1: Site Overview

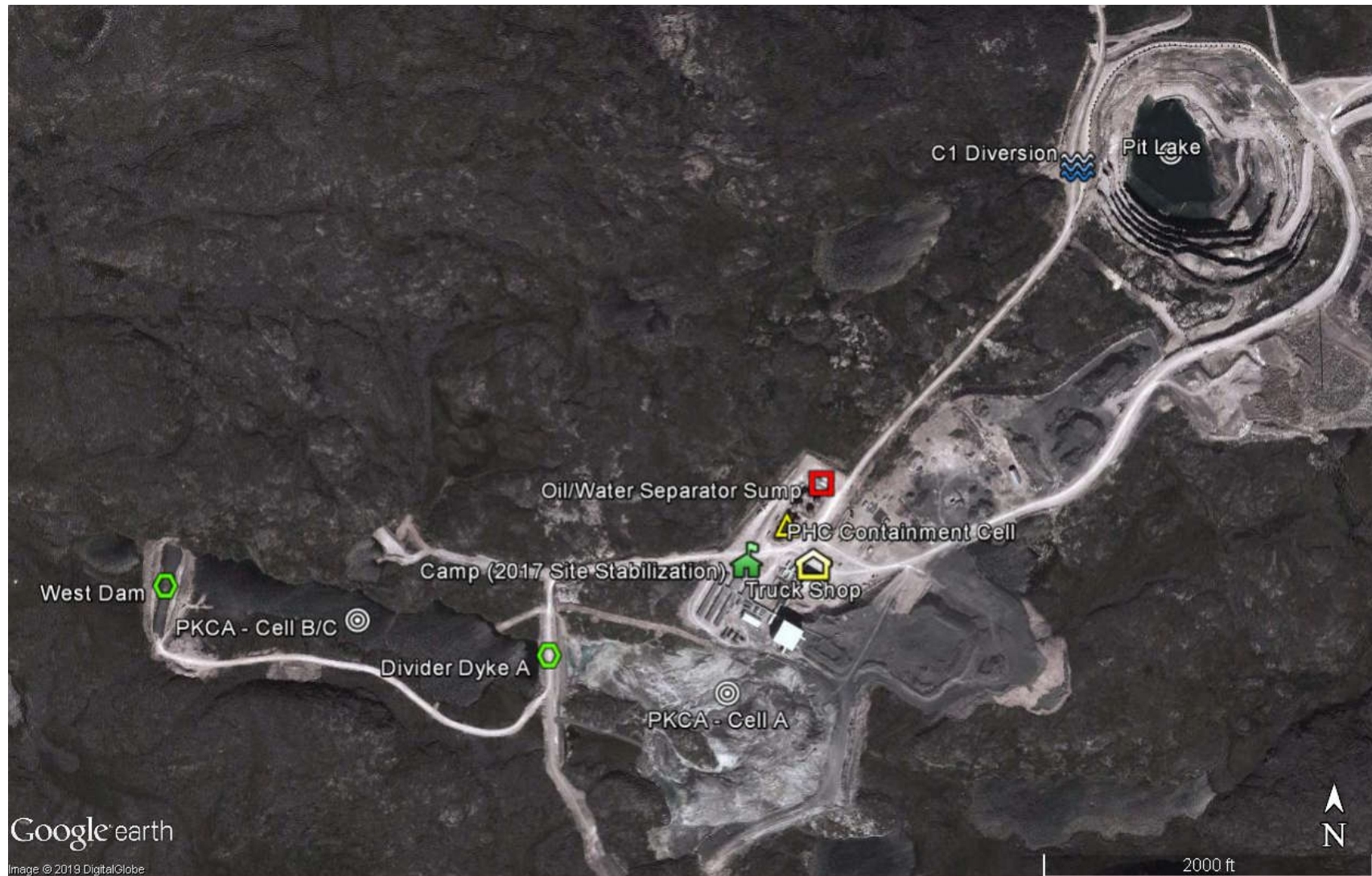


Figure 2: South End of Site – Showing 2021 OMS Activity Areas

**APPENDIX B:
JERICHO MINE SITE
OPERATION, MAINTENANCE AND SURVEILLANCE PROGRAM
2021 REPORT – FINAL**

**JERICO MINE SITE – OPERATION, MAINTENANCE AND SURVEILLANCE PROGRAM
2021 REPORT-FINAL**

Prepared for:

Public Services and Procurement Canada

By:

DXB Projects

December 15, 2021

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- Photo 6: Aug. 17, 2021 PHC Containment Cell Cover, Looking N (to airstrip) – Protection soil cover in good condition.
- Photo 7: Aug. 17, 2021 PHC Containment Cell Cover, Looking NE – Erosion channels from previous years not observed.
- Photo 8: Sept 1, 2020 PHC Containment Cell Cover – 2020 photo of some minor drainage erosion in north corner of East Bank.*
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- Photo 11: Aug. 17, 2021 PKCA Cover, North PKCA, Looking E.
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- Photo 14: Sept. 1, 2020 PKCA Cover, Looking W – 2020 photo of North PKCA (Very little ponded water).*
- Photo 15: Sept. 12, 2019 PKCA Cover, Looking W – 2019 photo of remaining ponded water during Fall visit.*
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Photo 23: Sept. 11, 2019 PKCA Cover, Looking N – 2019 photo of potholes.

Photo 24: Sept. 1, 2020 PKCA Cover, East PKCA – 2020 photo of erosion from drainage into PKCA (some expansion from 2019).

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Photo 26: Aug. 16, 2021 C1 Channel, Looking E –Channel Base and inflow into Pit.

Photo 27: Sept. 1, 2020 C1 Channel, Looking E – 2020 photo of eroded section into Open Pit (no significant change).

Photo 28: Sept. 10, 2019 C1 Channel, Looking W – 2019 photo of Channel Base and inflow into Pit.

Photo 29: Sept. 10, 2019 C1 Channel, Looking E – 2019 photo of eroded section into Open Water @ 6.3 m in Fall.

Photo 30: Sept. 1, 2020 C1 Channel, Looking W – 2020 photo of upstream water during Fall visit.

Photo 31: Sept. 10, 2019 C1 Channel, Looking W – 2019 photo of upstream water during Fall visit.

Photo 32: Aug. 16, 2021 Pit Outflow, Looking W.

Photo 33: Aug. 16, 2021 Road adjacent Open Pit towards mine site, Looking S.

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ABBREVIATIONS

CCME	Canadian Council of Ministers of the Environment
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
LOD	Letter of Decision
NIRB	Nunavut Impact Review Board
NPC	Nunavut Planning Commission
NWB	Nunavut Water Board
NWNSRTA	Nunavut Waters and Nunavut Surface Rights Tribunal Act, S.C. 2002, c. 10
OMS	Operation, Maintenance and Surveillance
PHC	Petroleum Hydrocarbon
PKCA	Processed Kimberlite Containment Area
PSPC	Public Services and Procurement Canada

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1.0 INTRODUCTION

Public Services and Procurement Canada (PSPC) retained DXB Projects (DXB) on behalf of Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) to undertake the 2021 Operation, Maintenance and Surveillance Program for the Jericho Mine Site (OMS Program). The OMS program for the Jericho site focuses on surveillance activities to assure the physical and environmental stability of the site and a framework to address potential operational or maintenance requirements. The terms of reference for the work are based on the *Operation, Maintenance and Surveillance (OMS) Plan – Jericho Diamond Mine Site* (Arcadis, 2018) (OMS Plan), developed following completion of the 2017 Jericho Mine Site Stabilization Project.

The OMS Program entered Year 4 in 2021, consisted of a site inspection in August, and the evaluation of conditions to date as outlined in this report. Although the OMS Plan did not list a Year 4 site visit, the inspection was completed in coordination with site care and maintenance activities.

This report presents the findings from the 2021 surveillance activities and the evaluation of site conditions observed to date (Years 1 to 4, 2018 to 2021). General background information for the Jericho Mine Site is found in Section 2, a summary of the key points from the OMS Plan in Section 3, a description of the OMS Program-to-Date in Section 4; findings from the 2021 surveillance activities in Sections 5 through 7, and summary and conclusions in Section 8.

2.0 SITE BACKGROUND

The Jericho Mine Site is in Nunavut; approximately 420 km northeast of Yellowknife, NT and 260 km southeast of Kugluktuk, NU, the closest local community. The former Jericho Diamond Mine was Nunavut's first and, to-date, only diamond mine. The mine was opened and operated in 2006, by the Tahera Diamond Mine Corporation (Tahera). In early 2008, after less than 2 years of operation and reported financial losses, active mining ceased at Jericho; and Tahera filed for creditor protection. Shear Diamonds Corp. eventually purchased the mine in 2010; and after limited re-processing of the existing recovery reject piles in early 2012, shut down all activities and abandoned the site in September of 2012.

CIRNAC assumed custodial responsibility of the Jericho Mine Site in 2014. In parallel with continued environmental protection of the site, development of a site stabilization plan was initiated in 2014; and implementation of the remediation construction carried out in 2017. The scope of the remedial work focused on addressing priority human health and environmental hazards at the site; and included removal and off-site disposal of hazardous waste materials, construction of a tailings cover, and breaching of the former West Dam to reinstate natural drainage across the site. The site stabilization project was successfully executed and fully completed following corrective work in 2018. Given that no further remediation or risk management activities were planned, the Jericho OMS Plan was developed, and Year 1 carried out in 2018.

3.0 OMS PLAN

The Jericho OMS Plan was developed as a guide for management of the Jericho site in its post-stabilized state. The key points and findings identified from the plan, in reference to its stated objectives, are listed below:

Objective	Key points/ Findings
Summarize site stabilization activities that have occurred at the Jericho Mine Site	A summary of the completed remedial activities was presented to provide context for the OMS Program.
Summarize surveillance activities that are planned for the Jericho Mine Site	Visual inspections would be required to assess the stability of physical features, including; <ul style="list-style-type: none"> • covers and cells • dams and dykes • pits (including water level) • roads Long-term monitoring would be required to monitor the expected change in Pit water uranium concentration, as it filled.
Describe residual risks following implementation of the stabilization activities	Seven (7) residual risks were identified, with accompanying risk levels and proposed actions.
Describe operation and maintenance activities required following stabilization activities to mitigate residual risks	The plan did not find requirements that warranted preventative maintenance.
Describe surveillance (i.e., long term monitoring, LTM) activities required at the site to mitigate residual risks	The surveillance program would include; <ol style="list-style-type: none"> Visual inspection of the <u>West Dam breach</u> for slope instability and sediment release, Visual inspection for changes in the <u>PKCA potholes</u>, Visual inspection of the <u>pit lake elevation</u>, Visual inspection of the <u>pit lake road</u> as the pit lake fills, Visual inspection of the stability and integrity of the <u>PHC containment cell</u>, Long term monitoring of the <u>pit water uranium concentration</u> trend, No action with respect to <u>building condition</u>.

Objective	Key points/ Findings
Describe iterative process to assess and adapt OMS activities over time, as evidence gathers to support reductions or discontinuation of one or more OMS activities	<p>A framework based on the OMS Decision Criteria Table was developed to;</p> <ul style="list-style-type: none"> • facilitate decisions on whether there should be modifications to the OMS activities during each phase review period, • organize activities, triggers and contingency/ closure actions.

4.0 OMS PROGRAM TO DATE (LEADING INTO 2021)

The 2020 program marked the 3rd year of the Jericho OMS Program. No significant change in site conditions or identification of new residual risks were noted for 2020. As a part of the fall work program, a new power control system was installed for the remote satellite camera system (overlooking the Open Pit and Carat Lake) and an additional water sample collected from Cell B/C.

Following the 2020 surveillance session, the Jericho site was in an environmentally stable condition and physical features trending towards physical stability. The Pit Water Uranium concentration remained above CCME guideline but continued to show a decreasing trend.

Table 1 presents a summary of the updated residual risks leading into the 2021 program; those from the original 2018 OMS Plan (seven original risks) and changes as a result of finding/ results from the yearly inspections (one additional risk added). A column was inserted to the table to note post-original conditions and recommended new actions, if applicable.

Table 1 – Summary of Residual Risks-to-Date

Risk ID	Residual Risk	Level	OMS Plan – Proposed Action	New OMS Program Notes/ Recommendations
1	Sediment release and instability of side slopes could result in poor performance of the West Dam breach.	Low	Surveillance of the West Dam breach. Erosion and slope failure not expected to pose a risk.	Not applicable.
2	Potholes in the PKCA cover were observed near the end of the 2017 field season. Further erosion could result in localized failure of the tailings cover and release windblown tailings.	Moderate	Potholes will be filled in 2018 field season and monitoring of the PKCA cover.	Continue assessment of potholes, and fill, if appropriate.
3	The Open Pit could result in injury to third party, as there are no access restrictions.	Moderately high	The Open Pit is being converted to a pit lake which is expected to take 11 to 15 years. Signage has been posted near the pit, at the airstrip and at the southwest end of site.	Not applicable.
4	Due to design inconsistencies, the road adjacent to the Open Pit could hold water and eventually wash out, resulting in a sediment release to Carat Lake.	Low	Survey the existing conditions and take corrective actions as appropriate.	A survey of the outflow area, relative to the pit perimeter road, showed that the channel inlet was lower than the rest of the road; and therefore, the road would not eventually hold back any of the pit lake. <u>The residual risk is recommended to be closed.</u>
5	Hydrocarbon contaminated soils have been placed into a lined containment cell. The liner could be compromised resulting in water contacting soil and contaminated water release to the environment.	Low	Surveillance of the PHC containment cell.	Not applicable.

Risk ID	Residual Risk	Level	OMS Plan – Proposed Action	New OMS Program Notes/ Recommendations
6	The water in the pit contains uranium concentrations above CCME guidelines for the protection of aquatic life. Eventually the pit lake will overflow into Carat Lake.	Low	Long term monitoring of the pit lake water, to determine if there is a risk prior to overflow.	Not applicable.
7	Building condition will deteriorate over time, resulting in loss of asset value.	Low	No action. Building asset value to progress towards \$0.	Not applicable.
8 (2018)	Washout erosion from the underside of the C1 Channel, at the outlet into the Open Pit, could cause sediment release and instability of side slopes and result in poor performance of the C1 Channel.	Low	<p>New risk noted for 2018.</p> <p>The risk level is assessed to be 'low', since vehicular access to the area is restricted and immediate environmental impact mitigated by flow directly into the open pit.</p> <p>Erosion and slope failure not expected to pose a risk.</p>	New surveillance of C1 Channel.

5.0 FINDINGS AND RESULTS OF 2021 SURVEILLANCE

5.1 Site Visits

5.1.1 Fall Session – August 16 – August 20, 2021

Although a Year 4 surveillance session was not listed in the OMS Plan, the site inspection was carried out in coordination with planned care and maintenance work at the Jericho Site. The planned work included removal of the water pump shed off the receding jetty on Carat Lake, reset of the remote satellite camera system and general site cleanup (i.e. wood and debris).

The work was completed over a planned four-day site visit (August 16 to August 19), and extended one day (to August 20) due to weather issues with the inbound departure flight. Weather conditions were generally clear and warm the first two days, gradually worsening to overcast and light rain the remainder of trip. There was no snow on the ground and overall surface water levels were low. The work was carried out by a five-person team; PSPC representative, CIRNAC representative and 3x DXB Projects personnel.

Driving access was available to all the mine features identified for inspection. Visual inspections of the Open Pit, C1 Channel, Pit Outflow, PKCA, Divider Dike A, PHC Containment Cell and roads were completed on the second day; and water samples collected from the Open Pit on the fourth. Aerial photos were taken by drone of the inspected features.

One water sample and a blind duplicate were collected from the Open Pit on the morning of August 19, packaged in a cooler, and then flown out with the team on August 20. The cooler was dropped off at the ALS Environmental Laboratory (Yellowknife depot), a CALA accredited laboratory, and samples submitted for total uranium analysis, as specified in the OMS Program. Results were reported on September 3, 2021.

Figure 2 shows an image of the Open Pit in 2021, from the remote camera system. Figure 2 and Figure 3 show the images from 2019 and 2020 and the progression of pit filling.



Figure 1 – Remote Camera Image of Open Pit from September 26, 2021



Figure 2 – Remote Camera Image of Open Pit from September 26, 2020



Figure 3 – Remote Camera Image of Open Pit from September 23, 2019

5.2 Surveillance Requirements

The OMS Plan identified a low level of residual risk post stabilization. Surveillance requirements were focused on assuring that the site remains in a physically and environmentally stable condition. The planned surveillance activities (i.e. visual inspection and monitoring) were designed to mitigate the residual risks, and, based on the low-risk impacts, expected to show evidence of natural attenuation over time. The evaluations of the following were outlined in the plan:

- i) Stability of physical features.
 - There are several physical features, both natural and “human made”, at the Jericho site that require visual inspection
 - If the surveillance identifies significant structural changes, maintenance activities may be required
- ii) Requirements for long-term monitoring.
 - Environmental long-term monitoring considerations are anticipated to be contained within the boundaries of the site and largely be addressed through stabilization
 - The only residual risk identified that required long-term monitoring was the uranium concentration in the pit water
 - The concentration has been trending downward and the monitoring to confirm if water quality will meet guidelines prior to it overflowing from the pit
- iii) Frequency of future surveillances.
 - Generally, the frequency of surveillance activities for the Jericho site was minimized given the low level of residual risk
 - Site-based visual inspections and monitoring will be conducted at regular intervals to provide assurance that the site is stable and below acceptable thresholds
- iv) Contingency plans.
 - Based on the residual risk items identified, some will potentially require contingency plans if further action is required
 - Contingency actions and their triggers are listed in the OMS Decision Criteria table
 - Specifically, in advance of the pit water overflowing, a risk assessment and contingency plan should be developed if uranium concentrations in pit water are expected to still be above CCME guidelines
- v) OMS Decision Criteria.
 - OMS Decision Criteria are used to facilitate decisions on whether there should be modifications to OMS activities during each phase review period

5.2.1 Inspection of Physical Features/ Long-Term Infrastructure

The visual inspections of the mine features are showing only minor changes and appear to be trending towards stability. The most notable change is the continued slow erosion of the west end (downstream) PKCA cover, in the area of seasonally ponded water. The area was designed to allow water to back-up following the winter season, to provide additional time for particulate settlement. As the water seasonally filters through the dike, the leading edge of the cover is slowly eroding away.

A summary and comparison of the 2021, and 2018 through 2020 inspections are presented in Table 2. Photos from the inspections are included at the end of the report.

Table 2 – Comparison Summary 2020 and new 2021 Inspections

Feature ID	Physical Feature	2018-2020 Inspections	2021 Inspection	Photos
1	West Dam Breach	<p>No noticeable change in the West Dam breach has been observed from 2018 to 2020. Cell C (upstream of West Dam) remains at the designed water elevation; with water observed and heard continuously flowing through the rip-rap channel base.</p> <p>Minor erosion and settlement have been noted in the north and south side-slope banks. The observed surface changes are not expected to affect the slope stability or downstream water quality.</p>	<p>Walking visual inspection during August site visit.</p> <p>No noticeable change to the West Dam breach or minor erosion areas on the slopes.</p>	1 to 5
2	PHC Containment Cell	<p>The protective soil cover of PHC Containment Cell is intact and appears in good condition, i.e. no significant settlement or erosion. An area at the north end of the East bank has some minor drainage erosion and not expected to affect the integrity of the liner system.</p>	<p>Walking visual inspection – August</p> <p>No significant change observed to the integrity of the cell cover.</p>	6 to 10
3	PKCA	<p>Ponded water has been generally observed in the downstream end of the PKCA (against Divider Dike A), as well as the South PKCA area. The water level against Divider Dike A has been observed to fluctuate seasonally likely directly correlating to the rate of thaw of the dike core. The water in the South PKCA area appears permanently in place.</p> <p>The leading edge of the tailings cover, in the area of seasonally ponded water, appears to be receding, being washed back away from the dike.</p>	<p>Walking visual inspection – August.</p> <p>No significant change observed in the overall integrity of the cover. However, new puddles/ depressions were observed at the Northern end and ponded water continues to be observed at the downstream area of PKCA and varying receding areas of the tailing cover leading edge.</p>	11 to 25

Feature ID	Physical Feature	2018-2020 Inspections	2021 Inspection	Photos
		<p>Although most of the seasonal water flow appears to move through the constructed coarse rock channels, towards the divider dike, minor erosion channels have been observed in different areas of the PKCA.</p> <p>The ‘potholes’ in the South PKCA appear to change from year to year, both increasing and decreasing in size, as snow and water washes out and fills in the depressions.</p>	The ‘potholes’ in the South PKCA appear to change from year to year, both increasing and decreasing in size, as snow and water washes out and fills in the depressions.	
4	C1 Channel	<p>The majority of the C1 Channel cover is in in good condition. Water is typically observed upstream and heard and seen flowing through the channel.</p> <p>Significant erosion of the channel outlet was noted in 2018, the first winter following construction of the channel cover. Since 2018, some additional material has washed into the pit, but the area does not appear to be unravelling any further.</p>	<p>Walking visual inspection – August.</p> <p>No significant change observed to the cover or the outlet erosion area.</p>	26 to 31
5	Pit Outflow Channel	No significant change since construction of the channel.	<p>Walking visual inspection – August.</p> <p>No change observed to the constructed channel.</p>	32
6	Open Pit	Pit filling has been observed on-going. Estimate rates of filling appear consistent with the original Tetra-Tech Remedial Options Analysis report.	<p>Visual inspection – August.</p> <p>Based on visual observations of the pit water level and reference benches, the water has risen an estimated 4 meters from 2020 (half a bench).</p>	

Feature ID	Physical Feature	2018-2020 Inspections	2021 Inspection	Photos
7	Roads	Some deterioration of the main access roads have been observed since 2018. The sections between the former Hazard Waste Transfer Area (HWTa) and Open Pit, and a section of the Main Road past the north Open Pit access should continued to be monitored, notably if vehicle access to the site is continued to be required.	No significant change in road conditions was noted in 2021.	33

5.2.2 Long-Term Monitoring – Water Quality

The water level in the former Open Pit continues to rise, as precipitation and water from the catchment area continues to flow in.

A sample (plus duplicate) was collected of the Pit Water on August 19. The 2021 laboratory result for total uranium was higher than the 2020 result and marks a change in the recent decreasing concentrations. However, the 2021 result is still lower than the 2019 and 2018 values. The result likely indicates some year-to-year fluctuations in the water quality and should continue to be monitored.

Although still currently above the CCME guideline, the current fall season water quality, after 4 years, is near the predicted 9 – 13-year final Uranium concentration.

A summary of the uranium concentrations measured to date is shown in Table 3. The results are shown separately for the spring and fall monitoring periods to account for seasonal dilution.

Table 3 – Uranium Concentrations in Open Pit Water

Project Phase	Sample Date	Open Pit Water Uranium – Spring (mg/L)	Open Pit Water Uranium - Fall (mg/L)
CCME CWQG for Uranium (Total, unfiltered) for PFAL ¹ Long-Term Exposure		0.015	0.015
Mining	Jun. 27, 2007	0.0508	
Mining	Jul. 22, 2007	0.0184	
Mining	Aug. 25, 2007		0.12
Mining	Oct. 9, 2008		0.234
2014 Assessment Work	Aug. 29, 2014		0.117
2017 Stabilization Work	Jun. 19, 2017	0.035	
	Sep. 22, 2017		0.094
2018 Surveillance	Aug. 5, 2018		0.075
2018 Project Close-out	Aug. 28, 2018		0.069
2019 Spring Surveillance	Jun. 19, 2019	0.0185	
2019 Fall Surveillance	Sep. 12, 2019		0.0576
2020 Fall Surveillance	Sep. 2, 2020		0.0304
2021 Fall Surveillance	Aug. 19, 2020		0.0469

The lab certificate of analyses for the 2021 water samples have been included in Appendix A.

¹ Canadian Water Quality Guidelines for the Protection of Aquatic Life, Canadian Council of Ministers of the Environment, 2011

5.2.3 Frequency Assessment

The frequency of the surveillance activities for the Jericho site was intended to be minimal, given the low level of residual risk. In accordance with the OMS Plan, visual inspection and long-term monitoring at Jericho were planned for Years 1 (2018), 2 (2019), 3 (2020) and an evaluation of conditions and adjustment of surveillance/ update risks scheduled to occur in Year 4.

Following the completion of the Year 3 surveillance program, the site appears to be trending towards stability, with only minor erosion observed after the recent year. The Pit continues to fill with water at a rate close to the original estimate; an overflow timeline of 11 – 15 years, i.e. 2028 – 2032.

Based on the findings to date, DXB recommends keeping with the frequency of surveillance activities outlined in the OMS Plan; that is planned surveillance sessions for Years 5, 7 and 9, and leading into a Year 10 evaluation timetable.

6.0 SUMMARY OF OMS DECISION CRITERIA

Table 4 presents an overview of findings from the 2021 surveillance activities, in reference to triggers established for contingency actions.

Table 4 – OMS Decision Criteria

Parameter	Activity	Trigger
Monitoring	The uranium concentration was measured for the Pit water in September 2021.	Uranium remains above the CCME guideline and therefore, does not trigger action to discontinue monitoring.
Visual Inspection	Inspection for the development of potholes, and changes to the stability of the long-term infrastructure components (i.e., roads, tailings cover, PHC containment cell, west dam breach, C1 channel).	Some new puddles/ ponds and continued minor erosion observed at the PKCA cover. The changes, at this time, are not expected to affect the overall stability of cover and therefore not warrant any action for maintenance.
Frequency	Site visit requirements	<p>Visual inspections are showing minor changes and appear be trending towards stability. Uranium levels in the Open Pit water were higher in 2021 than 2020; however, lower than the 2019 results. The Pit Lake is not expected to overflow for several more years.</p> <p>Based on the findings to date and with no described action triggers, we recommend keeping with the outlined scheduled in the OMS Plan; that is planned surveillance sessions for Years 5, 7 and 9, and leading into a Year 10 evaluation timeline.</p>

7.0 CONTINGENCY ACTIONS

Further to the findings of the surveillance activities, i.e.;

- Minor erosion observed,
- Pit Lake water levels rising as expected,
- Although slight increase in 2021, Pit Lake Uranium concentration generally decreasing but still above CCME standards,

No described contingency actions were warranted.

The first evaluation period of the OMS was complete in 2020. Based on the information to date, site conditions are still undergoing minor changes but appear to be moving towards short-term (environmentally and geotechnically short-term) stability. In DXB's opinion, the stated frequency of

surveillance for the second phase, as outlined in the OMS Plan for Years 5, 7 and 9, is appropriate and monitoring should continue as planned.

8.0 REGULATORY REQUIREMENTS

The Jericho Site Stabilization Project obtained the following authorizations prior to implementing the remedial activities:

- Nunavut Planning Commission (NPC) Conformity Check (File #148350)
- Nunavut Impact Review Board (NIRB) Screening Decision (File #16UN058)
- Crown Land Use Permit (#N2016U0013)
- Inuit Owned Land Use Permit from the Kitikmeot Inuit Association (#KTX117X009)
- Nunavut Water Board Letter of Decision accepting the Site Stabilization Project to be implemented under the Minister's powers under Section 89 of the Nunavut Waters and Nunavut Surface Rights Tribunal Act, S.C. 2002, c. 10 (NWNSTRA)

The Jericho OMS Program maintains compliance with these authorizations through regular communications with the authorities and submission of annual reports.

In consideration of a recommendation from the Nunavut Impact Review Board (NIRB or the Board), per 2018-2019 Annual Monitoring Report for the Jericho Diamond Mine, CIRNAC has now included a larger suite of water quality testing parameters for the Pit Lake sample and a sample of the Cell B/C water at the final year of each phase of the OMS Plan. The first expanded sampling event was completed in 2020 (Year 3), and next scheduled for Year 9 and Year 25.

Further to the recent 2019-20 Annual Monitoring Report, the Board requested an action plan for the pumphouse on Carat Lake. The base of the pumphouse, a constructed aggregate jetty on Carat Lake, has been observed eroding and receding back, likely due to ice and wave action. During the 2021 care and maintenance activities, the pumphouse was hauled off the jetty and set onto the mainland. Photos of the pumphouse on the lake, pre-removal and post-removal are shown in Figure 4, Figure 5 and Figure 6.



Figure 4 – Pumphouse on Carat Lake jetty from August 16, 2021



Figure 5 – Pumphouse on jetty



Figure 6 – Pumphouse removed off jetty

9.0 SUMMARY AND RECOMMENDATIONS

The Jericho site remains in an environmentally stable condition and physical features appear to be trending towards physical stability. Although a slight increase in the Pit Water Uranium concentration was observed in 2021 and continues remains above CCME guideline, the trend since stabilization of the site continues to show a decreasing concentration. The recession of the PKCA cover edge at the downstream ponded water area should continue to be monitored, along with the Pit overflow, and uranium concentration in the water.

Ongoing surveillance is recommended to include all current items, no items are recommended for closure.

With no increase or decrease to the frequency of surveillance activities triggered following findings from 2021, Year 5 is scheduled to include surveillance sessions (visual inspection and Pit Lake water sampling).

Table 5 presents an on-going summary of the residual risks and potential actions for consideration, following the 2020 OMS Program.

Table 5 – Post-2021 Update of Residual Risk

Risk ID	Residual Risk	OMS Plan Proposed Action	Post-2021 Update
1	Sediment release and instability of side slopes could result in poor performance of the West Dam breach.	Surveillance of the West Dam breach. Erosion and slow failure not expected to pose a risk.	No update for proposed action.
2	Potholes in the PKCA cover were observed near the end of the 2017 field season. Further erosion could result in localized failure of the tailings cover and release windblown tailings.	Potholes will be filled in 2018 field season and monitoring of the PKCA cover.	Continue assessment of potholes, and fill, if appropriate. Monitor new ponds/ puddles.
3	The Open Pit could result in injury to third party, as there are no access restrictions.	The Open Pit is being converted to a pit lake which is expected to take 11 to 15 years. Signage has been posted near the pit, at the airstrip and at the southwest end of site.	No update for proposed action.

Risk ID	Residual Risk	OMS Plan Proposed Action	Post-2021 Update
4	Due to design inconsistencies, the road adjacent to the Open Pit could hold water and eventually wash out, resulting in a sediment release to Carat Lake.	Survey the existing conditions and take corrective actions as appropriate.	<p>A survey of the outflow area, relative to the pit perimeter road, showed that the channel inlet was lower than the rest of the road; and therefore, the road would not eventually hold back any of the pit lake.</p> <p>The residual risk is recommended to be closed and removed as a residual risk as part of the planned evaluation of conditions scheduled to occur after the completion of Year 3 OMS work.</p>
5	Hydrocarbon contaminated soils have been placed into a lined containment cell. The liner could be compromised resulting in water contacting soil and contaminated water release to the environment.	Surveillance of the PHC containment cell.	No update for proposed action.
6	The water in the pit contains uranium concentrations above CCME guidelines for the protection of aquatic life. Eventually the pit lake will overflow into Carat Lake.	Long term monitoring of the pit lake water, to determine if there is a risk prior to overflow.	No update for proposed action.
7	Building condition will deteriorate over time, resulting in loss of asset value.	No action. Building asset value to progress towards \$0.	No update for proposed action.

Risk ID	Residual Risk	OMS Plan Proposed Action	Post-2021 Update
8 (2018)	Washout erosion from the underside of the C1 Channel, at the outlet into the Open Pit. Noted following the first winter cycle after construction.	<p>New residual risk noted for 2018.</p> <p>The risk level is assessed to be 'low', since physical access to the area is restricted and immediate environmental impact mitigated by flow directly into the open pit.</p> <p>Erosion and slow failure not expected to pose a risk.</p>	Continued surveillance of C1 Channel.

10.0 CLOSING

We trust this report suitable and in accordance with the terms of reference for the Jericho 2021 OMS Program.

Prepared by:

Reviewed by:



Henry Wong, P.Eng.
DXB Projects – Senior Engineer
Date: December 15, 2021

David Bynski, P.Eng.
DXB Projects – Principal
Date: December 15, 2021

11.0 REFERENCES

Arcadis. 2018. *Operation, Maintenance and Surveillance (OMS Plan) – Jericho Diamond Mine Site.*

DXB. 2018. *Jericho Mine Site – Operation, Maintenance and Surveillance Program, 2018 Report – Final.*

DXB. 2019. *Jericho Mine Site – Operation, Maintenance and Surveillance Program, 2019 Report – Final.*

DXB. 2020. *Jericho Mine Site – Operation, Maintenance and Surveillance Program, 2020 Report – Final.*

TetraTech. 2015. *Options Analysis Rev 02 – Jericho Diamond Mine, Nunavut.*



Photo 1: Aug. 17, 2021 West Dam Breach, Looking E – Fall inlet and outlet water level.



Photo 2: Aug. 17, 2021 West Dam Breach, Looking W.



Photo 3: Aug. 17, 2021 West Dam Breach, Looking E – Erosion gully from North slope no longer observed.



Photo 4: June 17, 2019 West Dam Breach – 2019 photo of erosion gully on North Bank.



Photo 5: Aug. 3, 2018 West Dam Breach – 2018 photo of North Bank Erosion Gully.



Photo 6: Aug. 17, 2021 PHC Containment Cell Cover, Looking N (to airstrip) – Protection soil cover in good condition.



Photo 7: Aug. 17, 2021 PHC Containment Cell Cover, Looking NE – Erosion channels from previous years not observed.



Photo 8: Sept 1, 2020 PHC Containment Cell Cover – 2020 photo of some minor drainage erosion in north corner of East Bank.



Photo 9: June 18, 2019 PHC Containment Cell Cover – 2019 photo looking N, some settlement and drainage erosion along East Bank.



Photo 10: *June 17, 2019* PHC Containment Cell Cover – *2019* photo looking S, drainage erosion on East Bank.



Photo 11: Aug. 17, 2021 PKCA Cover, North PKCA, Looking E.



Photo 12: Aug. 17, 2021 PKCA Cover, East PKCA, Looking E.



Photo 13: Aug. 17, 2021 PKCA Cover, East PKCA, Looking E – New ponds and puddles.



Photo 14: Sept. 1, 2020 PKCA Cover, Looking W – 2020 photo of North PKCA (Very little ponded water).



Photo 15: Sept. 12, 2019 PKCA Cover, Looking W – 2019 photo of remaining ponded water during Fall visit.



Photo 16: Aug. 4, 2018 PKCA Cover, North PKCA – 2018 photo of Surface Water Channels.



Photo 17: Aug. 17, 2021 PKCA Cover, West PKCA, Looking S – Downstream ponded water (note caribou tracks).



Photo 18: Sept. 1, 2020 PKCA Cover, Looking N – 2020 photo of west end of North PKCA.



Photo 19: June 18, 2019 PKCA Cover – 2019 photo looking W, ponded water covering access road.



Photo 20: Aug. 3, 2018 PKCA Cover, North PKCA – 2018 photo of Outlet of Erosion Channel near ponded water adjacent Divider Dike A.

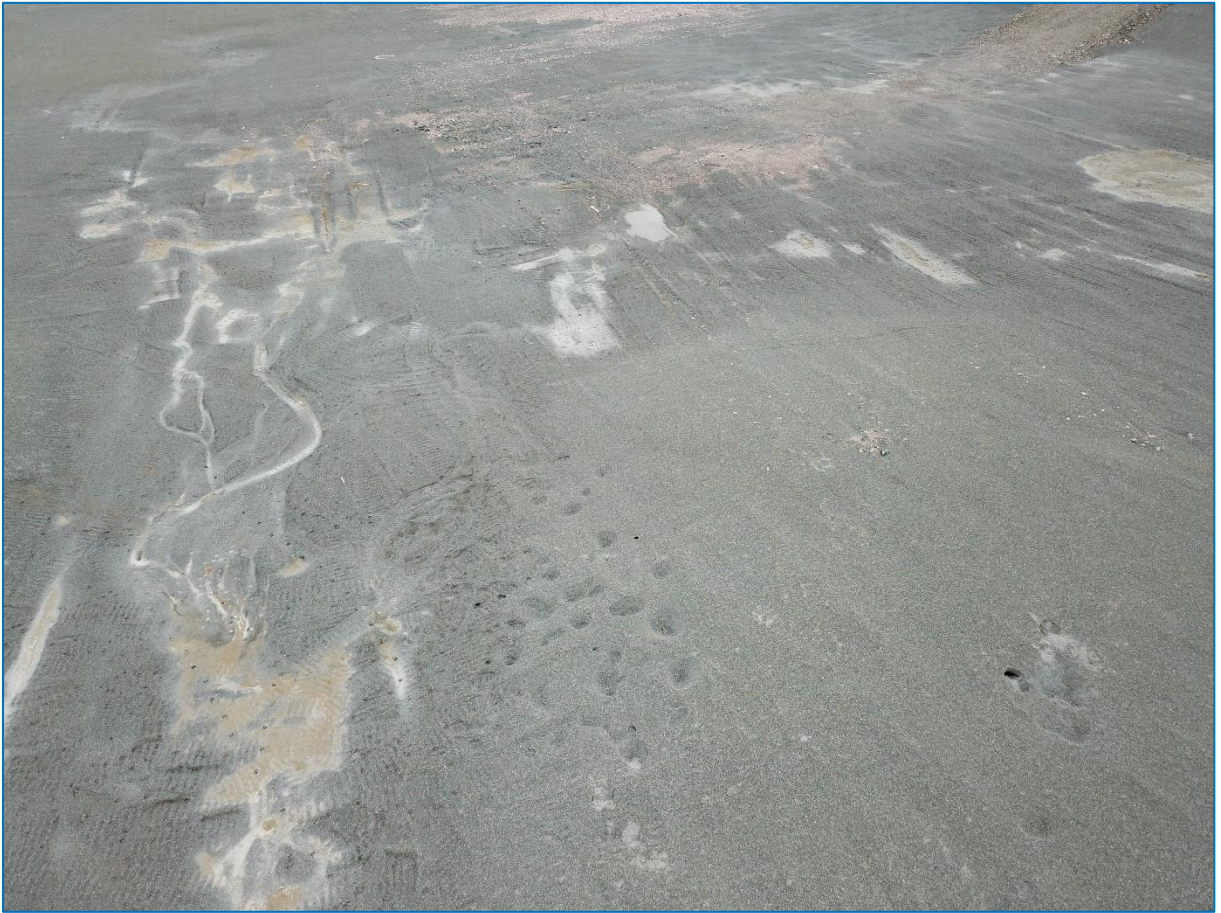


Photo 21: Aug. 17, 2021 PKCA Cover, Southwest PKCA, Looking N – Pothole configurations changing seasonally.



Photo 22: Sept. 1, 2020 PKCA Cover – 2020 photo of potholes (seasonally collapsed).



Photo 23: Sept. 11, 2019 PKCA Cover, Looking N – 2019 photo of potholes.



Photo 24: *Sept. 1, 2020 PKCA Cover, East PKCA – 2020 photo of erosion from drainage into PKCA (some expansion from 2019).*



Photo 25: Sept. 11, 2019 PKCA Cover, East PKCA – 2019 photo of erosion from drainage into PKCA.



Photo 26: Aug. 16, 2021 C1 Channel, Looking E –Channel Base and inflow into Pit.



Photo 27: Sept. 1, 2020 C1 Channel, Looking E – 2020 photo of eroded section into Open Pit (no significant change).



Photo 28: Sept. 10, 2019 C1 Channel, Looking W – 2019 photo of Channel Base and inflow into Pit.



Photo 29: *Sept. 10, 2019* C1 Channel, Looking E – *2019* photo of eroded section into Open Water @ 6.3 m in Fall.



Photo 30: Sept. 1, 2020 C1 Channel, Looking W – 2020 photo of upstream water during Fall visit.



Photo 31: Sept. 10, 2019 C1 Channel, Looking W – 2019 photo of upstream water during Fall visit.



Photo 32: Aug. 16, 2021 Pit Outflow, Looking W.



Photo 33: Aug. 16, 2021 Road adjacent Open Pit towards mine site, Looking S.

APPENDIX A

Appendix A – Water Quality Monitoring Laboratory Certificate of Analyses (2018-2021)

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CERTIFICATE OF ANALYSIS

Work Order : **YL2101083**
Client : **DXB PROJECT MANAGEMENT INC.**
Contact : Henry Wong
Address : 315 Montgomery Avenue
 Winnipeg MB Canada R3L 1T6
Telephone : ----
Project : ----
PO : ----
C-O-C number : 17-818852
Sampler : Henry Wong
Site : ----
Quote number : ----
No. of samples received : 2
No. of samples analysed : 2

Page : 1 of 2
Laboratory : Yellowknife - Environmental
Account Manager : Ashton Ostrander
Address : 314 Old Airport Road, Unit 116
 Yellowknife NT Canada X1A 3T3
Telephone : +1 867 873 5593
Date Samples Received : 23-Aug-2021 07:30
Date Analysis Commenced : 27-Aug-2021
Issue Date : 02-Sep-2021 17:16

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Angela Ren	Team Leader - Metals	Metals, Burnaby, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key : CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances
 LOR: Limit of Reporting (detection limit).

Unit	Description
mg/L	milligrams per litre

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical Results

Sub-Matrix: Surface Water

(Matrix: Water)

					Client sample ID	2021-PIT-01	2021-PIT-02	----	----	----
					Client sampling date / time	19-Aug-2021 07:00	19-Aug-2021 07:00	----	----	----
Analyte	CAS Number	Method	LOR	Unit		YL2101083-001	YL2101083-002	-----	-----	-----
						Result	Result	----	----	----
Total Metals										
uranium, total	7440-61-1	E420	0.000010	mg/L		0.0469	0.0479	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.



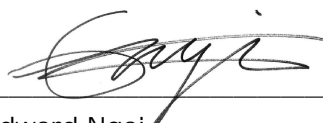
DXB PROJECT MANAGEMENT INC.
ATTN: Henry Wong
315 Montgomery Avenue
Winnipeg MB R3L 1T6

Date Received: 03-SEP-20
Report Date: 18-SEP-20 12:35 (MT)
Version: FINAL

Client Phone: 204-795-5508

Certificate of Analysis

Lab Work Order #: L2498404
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers: 17-818286
Legal Site Desc:



Edward Ngai
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID	L2498404-1	L2498404-2		
		Description	WATER	WATER		
		Sampled Date	02-SEP-20	02-SEP-20		
		Sampled Time	10:30	10:00		
		Client ID	2020-09-02-PIT	2020-09-02-WD		
Grouping	Analyte					
WATER						
Physical Tests	pH (pH)	7.72	8.00			
	Total Suspended Solids (mg/L)	<3.0	<3.0			
	Total Dissolved Solids (mg/L)	61	92			
Anions and Nutrients	Chloride (Cl) (mg/L)	1.74	2.22			
	Nitrate (as N) (mg/L)	1.74	0.152			
	Nitrite (as N) (mg/L)	0.0046	0.0019			
	Sulfate (SO4) (mg/L)	5.64	16.9			
Bacteriological Tests	Fecal Coliforms (CFU/100mL)	1	3			
Total Metals	Aluminum (Al)-Total (mg/L)	0.0485	0.0147			
	Antimony (Sb)-Total (mg/L)	0.00011	<0.00010			
	Arsenic (As)-Total (mg/L)	0.00039	0.00037			
	Barium (Ba)-Total (mg/L)	0.0120	0.0195			
	Beryllium (Be)-Total (mg/L)	<0.00010	<0.00010			
	Bismuth (Bi)-Total (mg/L)	<0.000050	<0.000050			
	Boron (B)-Total (mg/L)	0.013	0.016			
	Cadmium (Cd)-Total (mg/L)	<0.0000050	<0.0000050			
	Calcium (Ca)-Total (mg/L)	8.42	10.1			
	Cesium (Cs)-Total (mg/L)	0.000029	0.000043			
	Chromium (Cr)-Total (mg/L)	0.00024	0.00011			
	Cobalt (Co)-Total (mg/L)	<0.00010	<0.00010			
	Copper (Cu)-Total (mg/L)	0.00326	0.00170			
	Iron (Fe)-Total (mg/L)	0.048	0.067			
	Lead (Pb)-Total (mg/L)	0.000095	<0.000050			
	Lithium (Li)-Total (mg/L)	0.0011	<0.0010			
	Magnesium (Mg)-Total (mg/L)	4.02	8.57			
	Manganese (Mn)-Total (mg/L)	0.00123	0.0613			
	Molybdenum (Mo)-Total (mg/L)	0.00231	0.00308			
	Nickel (Ni)-Total (mg/L)	0.00154	0.00115			
	Phosphorus (P)-Total (mg/L)	<0.050	<0.050			
	Potassium (K)-Total (mg/L)	1.53	4.85			
	Rubidium (Rb)-Total (mg/L)	0.00257	0.0101			
	Selenium (Se)-Total (mg/L)	0.000116	0.000157			
	Silicon (Si)-Total (mg/L)	1.09	0.20			
	Silver (Ag)-Total (mg/L)	<0.000010	<0.000010			
	Sodium (Na)-Total (mg/L)	2.57	6.09			
	Strontium (Sr)-Total (mg/L)	0.0761	0.184			

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L2498404-1 WATER 02-SEP-20 10:30 2020-09-02-PIT	L2498404-2 WATER 02-SEP-20 10:00 2020-09-02-WD		
Grouping	Analyte					
WATER						
Total Metals	Sulfur (S)-Total (mg/L)	1.96	5.88			
	Tellurium (Te)-Total (mg/L)	<0.00020	<0.00020			
	Thallium (Tl)-Total (mg/L)	<0.000010	<0.000010			
	Thorium (Th)-Total (mg/L)	<0.00010	<0.00010			
	Tin (Sn)-Total (mg/L)	<0.00010	0.00020			
	Titanium (Ti)-Total (mg/L)	0.00086	<0.00030			
	Tungsten (W)-Total (mg/L)	0.00013	<0.00010			
	Uranium (U)-Total (mg/L)	0.0304	0.00325			
	Vanadium (V)-Total (mg/L)	0.00057	<0.00050			
	Zinc (Zn)-Total (mg/L)	<0.0030	<0.0030			
	Zirconium (Zr)-Total (mg/L)	<0.00020	<0.00020			
Dissolved Metals	Dissolved Metals Filtration Location	LAB	LAB			
	Aluminum (Al)-Dissolved (mg/L)	0.0208	0.0055			
Aggregate Organics	Biochemical Oxygen Demand (mg/L)	<2.0	<2.0			
	Oil and Grease (mg/L)	<5.0	<5.0			
Volatile Organic Compounds	Benzene (mg/L)	<0.00050	<0.00050			
	Ethylbenzene (mg/L)	<0.00050	<0.00050			
	Methyl t-butyl ether (MTBE) (mg/L)	<0.00050	<0.00050			
	Styrene (mg/L)	<0.00050	<0.00050			
	Toluene (mg/L)	<0.00045	<0.00045			
	ortho-Xylene (mg/L)	<0.00050	<0.00050			
	meta- & para-Xylene (mg/L)	<0.00050	<0.00050			
	Xylenes (mg/L)	<0.00075	<0.00075			
	F1 (C6-C10) (mg/L)	<0.10	<0.10			
	Surrogate: 4-Bromofluorobenzene (SS) (%)	86.8	88.7			
	Surrogate: 1,4-Difluorobenzene (SS) (%)	107.7	112.0			
Hydrocarbons	F1-BTEX (mg/L)	<0.10	<0.10			
	TEH10-30 (mg/L)	<0.25	<0.25			
	F2 (C10-C16) (mg/L)	<0.30	<0.30			
	F3 (C16-C34) (mg/L)	<0.30	<0.30			
	F4 (C34-C50) (mg/L)	<0.30	<0.30			
	Surrogate: 2-Bromobenzotrifluoride (%)	85.6	91.3			
	Surrogate: 2-Bromobenzotrifluoride, F2-F4 (%)	76.9	80.4			
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	106.8	104.9			

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Calcium (Ca)-Total	MS-B	L2498404-2
Matrix Spike	Lithium (Li)-Total	MS-B	L2498404-2
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2498404-2
Matrix Spike	Nickel (Ni)-Total	MS-B	L2498404-2
Matrix Spike	Potassium (K)-Total	MS-B	L2498404-2
Matrix Spike	Sodium (Na)-Total	MS-B	L2498404-2
Matrix Spike	Strontium (Sr)-Total	MS-B	L2498404-2
Matrix Spike	Sulfur (S)-Total	MS-B	L2498404-2
Matrix Spike	Uranium (U)-Total	MS-B	L2498404-2

Qualifiers for Individual Parameters Listed:

Qualifier	Description
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BOD5-TG	Water	Biochemical Oxygen Demand- 5 day (TAIGA)	SM5210B
CL-IC-N-VA	Water	Chloride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
EC-SCREEN-VA	Water	Conductivity Screen (Internal Use Only)	APHA 2510
Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.			
EPH-ME-FID-VA	Water	EPH in Water	BC Lab Manual
EPH is extracted from water using a hexane micro-extraction technique, with analysis by GC-FID, as per the BC Lab Manual. EPH results include PAHs and are therefore not equivalent to LEPH or HEPH.			
F1-BTX-CALC-VA	Water	F1-Total BTX	CCME CWS PHC TIER 1 (2001)
This analysis is based on the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment, December 2000." For F1 (C6-C10), the sample undergoes a purge and trap extraction prior to analysis by GC/FID. The F1-BTEX result is calculated as follows:			
F1-BTEX: F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).			
F1-HSFID-VA	Water	CCME F1 By Headspace with GCFID	EPA 5021A/CCME CWS PHC (Pub# 1310)
This analysis is based on the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment, December 2000." For F1 (C6-C10), the sample undergoes a headspace purge prior to analysis by GC/FID.			
F1 (C6-C10): Sum of all hydrocarbons that elute between nC6 and nC10.			
F2-F4-ME-FID-VA	Water	CCME F2-F4 Hydrocarbons in Water	CCME CWS-PHC, Pub #1310, Dec 2001
F2-F4 is extracted from water using a hexane micro-extraction technique. Instrumental analysis is by GC-FID, as per the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Tier 1 Method, CCME, Dec 2001.			
FC-MF-TG	Water	Fecal Coliforms by MF	SM9222D
MET-D-XXX-CCMS-VA	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020B (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-T-CCMS-VA	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020A (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
NO2-L-IC-N-VA	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-VA	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			

Reference Information

OGG-SF-VA	Water	Oil & Grease by Gravimetric	BCMOE (2010), EPA1664A
The procedure involves an extraction of the entire water sample with hexane. This extract is then evaporated to dryness, and the residue weighed to determine Oil and Grease.			
PH-PCT-VA	Water	pH by Meter (Automated)	APHA 4500-H pH Value
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode			
It is recommended that this analysis be conducted in the field.			
SO4-IC-N-VA	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-VA	Water	Total Suspended Solids by Gravimetric	APHA 2540 D - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, TSS is determined by drying the filter at 104 degrees celsius. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.			
VH-SURR-FID-VA	Water	VH Surrogates for Waters	BC Env. Lab Manual (VH in Solids)
VOC7-HSMS-VA	Water	BTEX/MTBE/Styrene by Headspace GCMS	EPA 5021A/8260C
The water sample, with added reagents, is heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.			
VOC7/VOC-SURR-MS-VA	Water	VOC7 and/or VOC Surrogates for Waters	EPA 5035A/5021A/8260C
XYLENES-CALC-VA	Water	Sum of Xylene Isomer Concentrations	CALCULATION
Calculation of Total Xylenes			
Total Xylenes is the sum of the concentrations of the ortho, meta, and para Xylene isomers. Results below detection limit (DL) are treated as zero. The DL for Total Xylenes is set to a value no less than the square root of the sum of the squares of the DLs of the individual Xylenes.			

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

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

Laboratory Definition Code	Laboratory Location
TG	TAIGA ENVIRONMENTAL LABORATORY (INAC)
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

17-818286

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200706

- FINAL REPORT -

Prepared For: ALS Environmental

Address: 314 Old Airport Road
Unit 116
Yellowknife, NT
X1A 2R1

Attn: Oliver Gregg

Facsimile:

Final report has been reviewed and approved by:

Glen Hudy
Quality Assurance Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) to ISO/IEC 17025 as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Wednesday, September 09, 2020

Print Date: *Wednesday, September 09, 2020*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200706

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **L2498404-1 2020-09-02-PIT**

Taiga Sample ID: **001**

Client Project:

Sample Type: Water

Received Date: 03-Sep-20

Sampling Date: 02-Sep-20

Sampling Time:

Location:

Report Status: **Final**

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Biochemical Oxygen Demand	< 2	2	mg/L	03-Sep-20	SM5210:B	
<u>Microbiology</u>						
Coliforms, Fecal	1	1	CFU/100mL	03-Sep-20	SM9222:D	

ReportDate: Wednesday, September 09, 2020

Print Date: **Wednesday, September 09, 2020**

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Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
200706

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **L2498404-2 2020-09-02-WD**

Taiga Sample ID: **002**

Client Project:

Sample Type: Water

Received Date: 03-Sep-20

Sampling Date: 02-Sep-20

Sampling Time:

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifier
<u>Inorganics - Nutrients</u>						
Biochemical Oxygen Demand	< 2	2	mg/L	03-Sep-20	SM5210:B	
<u>Microbiology</u>						
Coliforms, Fecal	3	1	CFU/100mL	03-Sep-20	SM9222:D	

ReportDate: Wednesday, September 09, 2020

Print Date: *Wednesday, September 09, 2020*

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Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

200706

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **L2498404-2 2020-09-02-WD**

Taiga Sample ID: **002**

*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

Comments **L2498404**

ReportDate: Wednesday, September 09, 2020

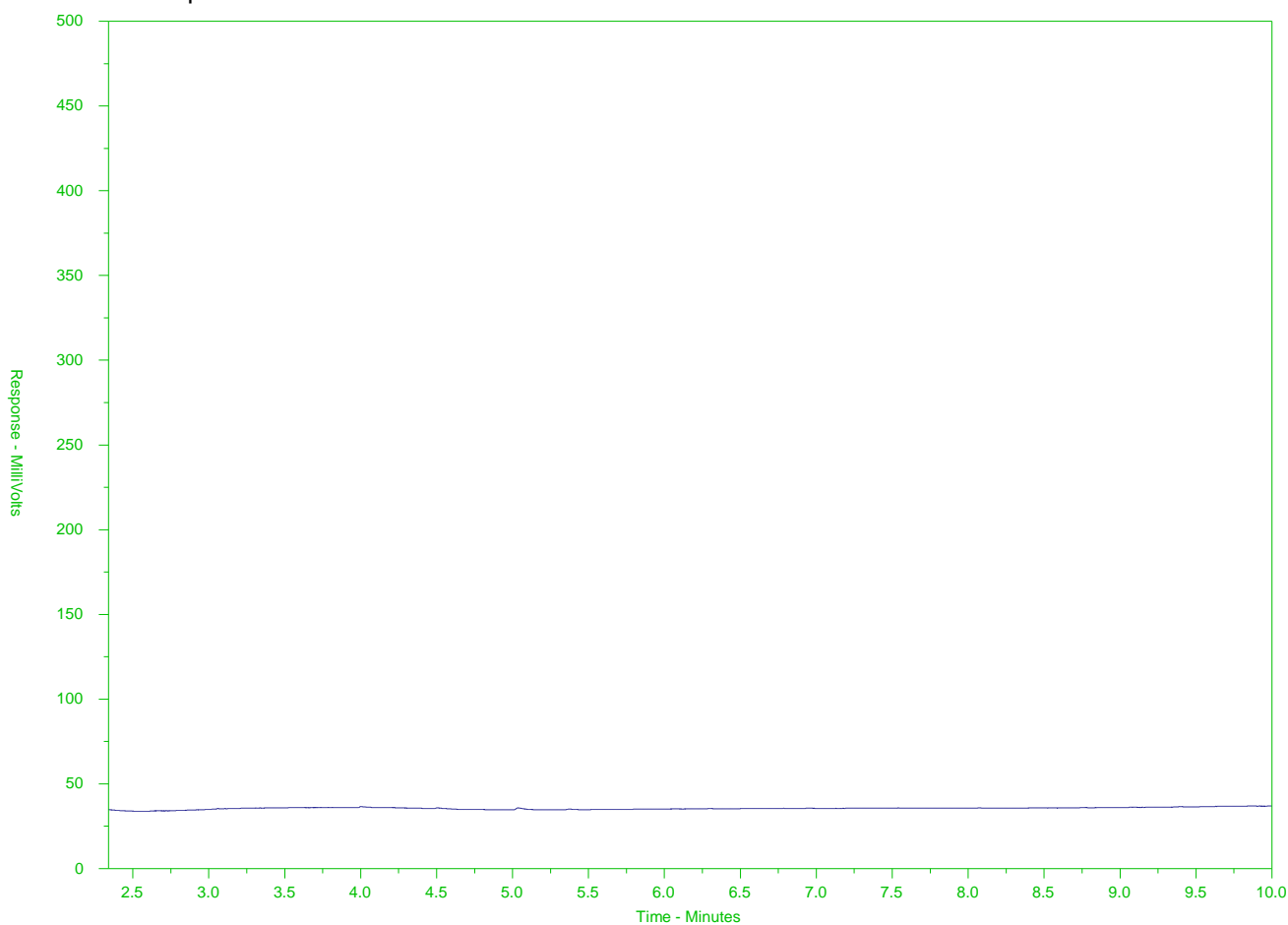
Print Date: **Wednesday, September 09, 2020**

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BC EPH HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L2498404-1
Client Sample ID: 2020-09-02-PIT



← EPH10-19 →		← EPH19-32 →	
nC10		nC19	nC32
174°C		330°C	467°C
346°F		626°F	873°F
← Gasoline →	← Motor Oils/ Lube Oils/ Grease →		
← Diesel/ Jet Fuels →			

The BC EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

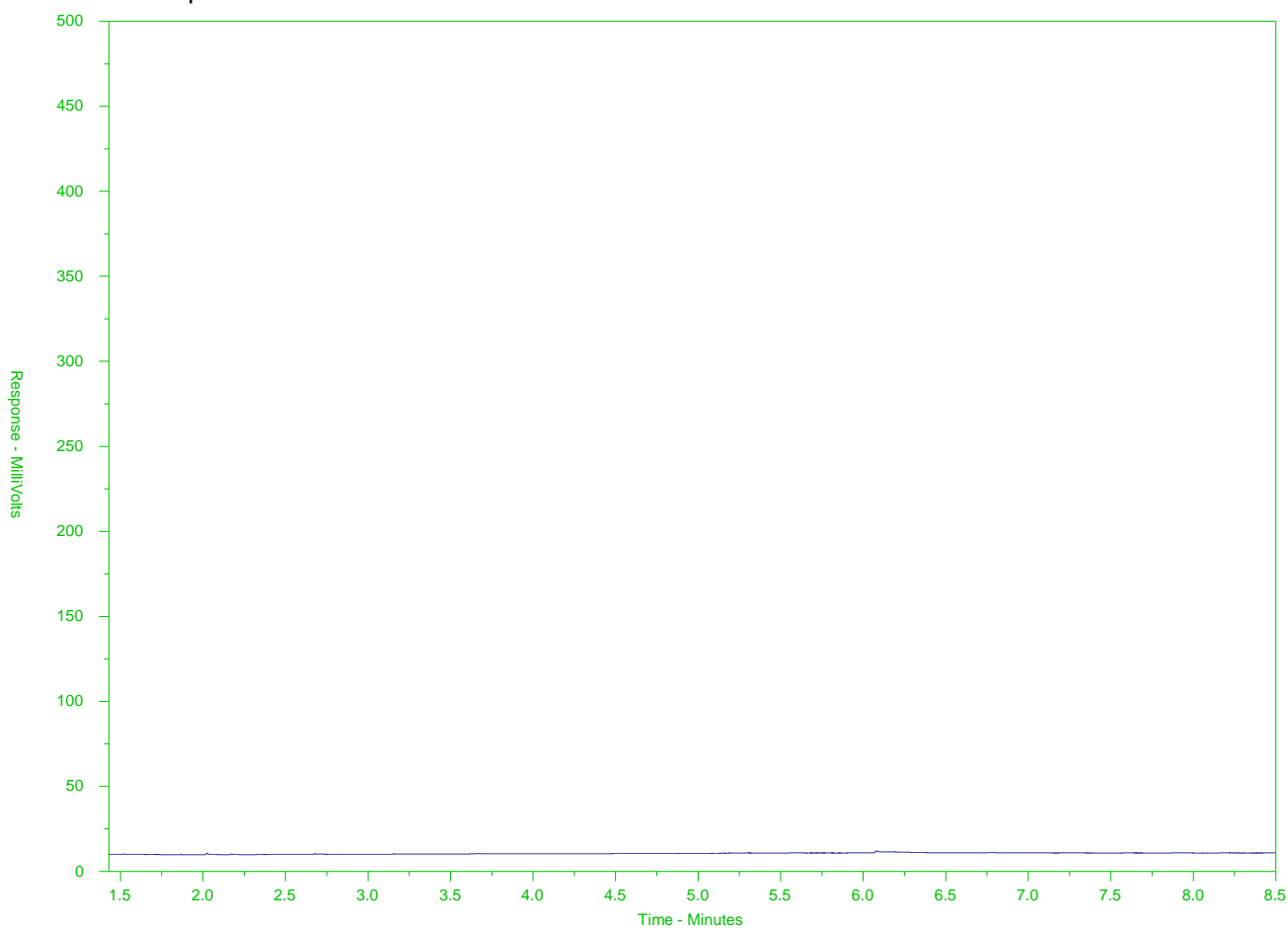
A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Note: This chromatogram was produced using GC conditions that are specific to the ALS Canada EPH method. Refer to the ALS Canada EPH Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L2498404-C-1
Client Sample ID: 2020-09-02-PIT



← F2 →		← F3 →		← F4 →	
nC10	nC16		nC34		nC50
174°C	287°C		481°C		575°C
346°F	549°F		898°F		1067°F
← Gasoline →		← Motor Oils/ Lube Oils/ Grease →			
← Diesel/ Jet Fuels →					

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

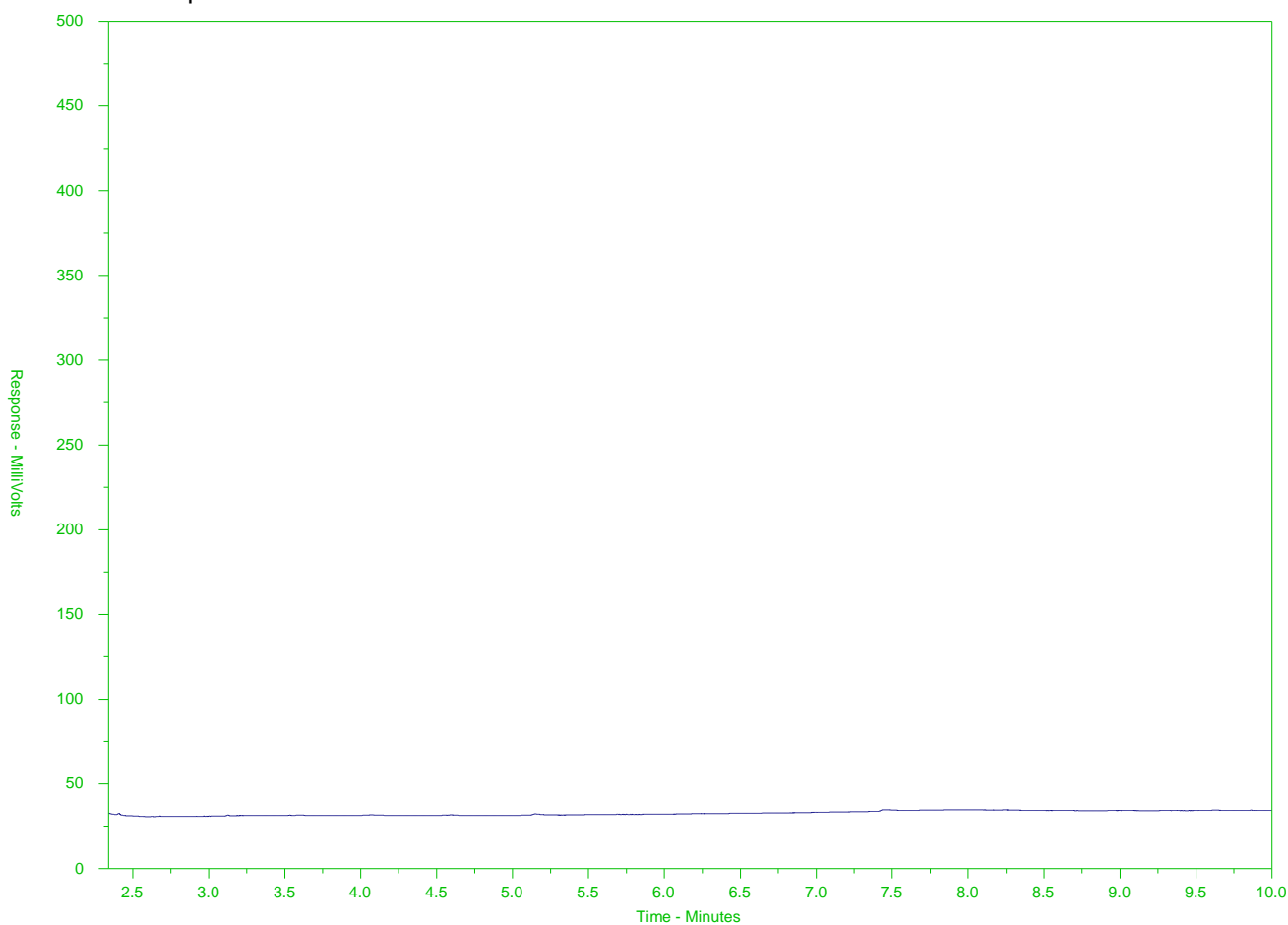
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

BC EPH **HYDROCARBON DISTRIBUTION REPORT**

ALS Sample ID: L2498404-2
 Client Sample ID: 2020-09-02-WD



← EPH10-19 →		← EPH19-32 →	
nC10	nC19		nC32
174°C	330°C		467°C
346°F	626°F		873°F
← Gasoline →		← Motor Oils/ Lube Oils/ Grease →	
← Diesel/ Jet Fuels →			

The BC EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

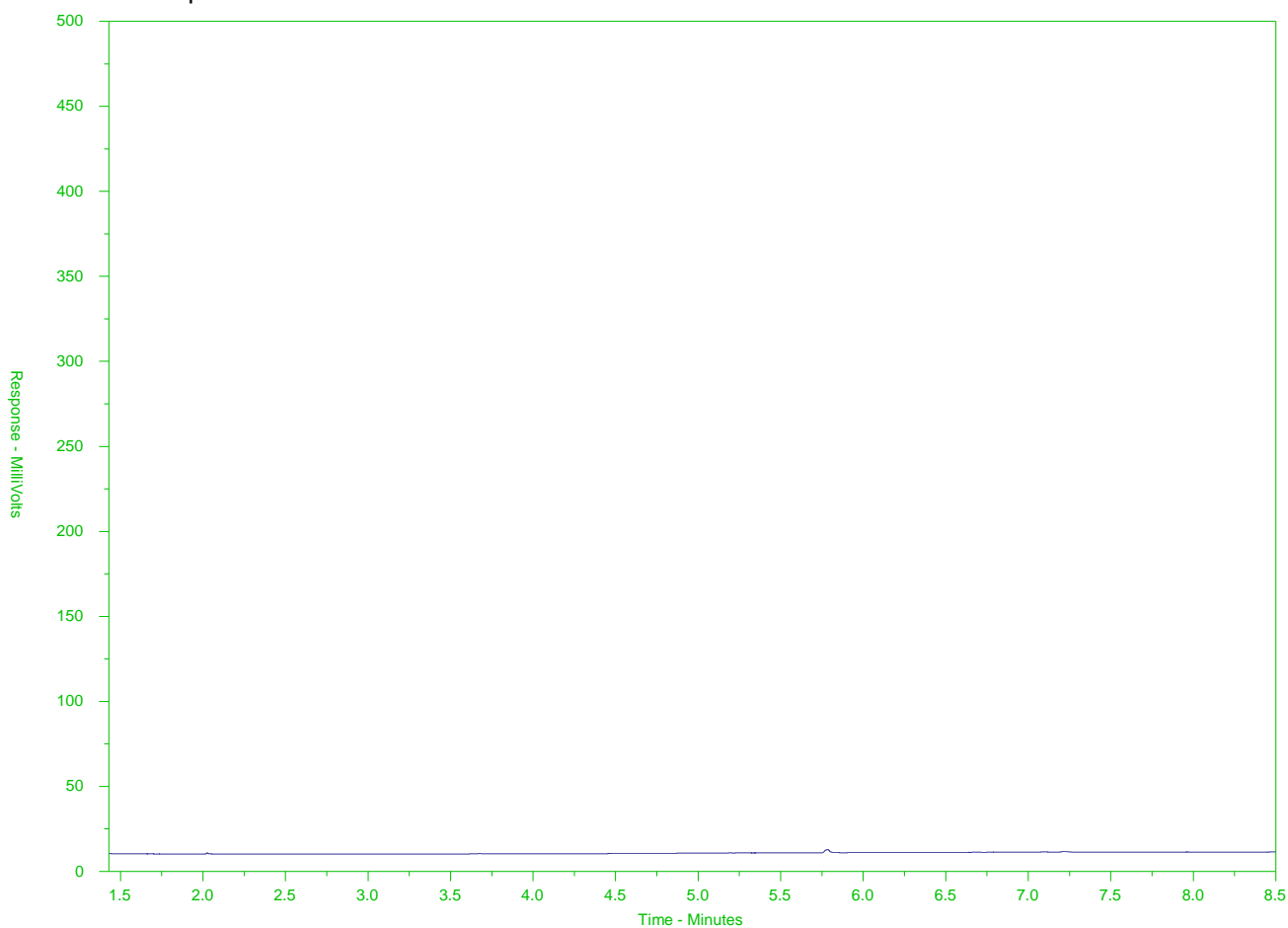
A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Note: This chromatogram was produced using GC conditions that are specific to the ALS Canada EPH method. Refer to the ALS Canada EPH Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L2498404-C-2
Client Sample ID: 2020-09-02-WD



← F2 →		← F3 →		← F4 →	
nC10	nC16		nC34		nC50
174°C	287°C		481°C		575°C
346°F	549°F		898°F		1067°F
← Gasoline →		← Motor Oils/ Lube Oils/ Grease →			
← Diesel/ Jet Fuels →					

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

www.alsglobal.com

Affix ALS barcode label here
(lab use only)

COC Number: 17 - 818286

Page of

Report To Company: DXB Project Management Contact: HENRY WONG Phone: 416 515 8064 Company address below will appear on the final report		Report Format / Distribution Select Report Format: <input type="checkbox"/> PDF <input type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL) Quality Control (QC) Report with Report <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked Select Distribution: <input type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply) Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply 4 day [P4-20%] <input type="checkbox"/> 1 Business day [E - 100%] 3 day [P3-25%] <input type="checkbox"/> Same Day, Weekend or Statutory holiday [E2 - 200%] 2 day [P2-50%] <input type="checkbox"/> (Laboratory opening fees may apply)] Date and Time Required for all E&P TATs: dd-mm-yy hh:mm For tests that can not be performed according to the service level selected, you will be contacted.	
Street: City/Province: Postal Code:		Invoice To Same as Report To <input type="checkbox"/> YES <input type="checkbox"/> NO Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO Company: Contact:		Analysis Request Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below	
ALS Account # / Quote #: Job #: PO / AFE: LSD:		Oil and Gas Required Fields (client use) AFE/Cost Center: PO# Major/Minor Code: Routing Code: Requisitioner: Location:		SAMPLES ON HOLD SUSPECTED HAZARD (see Special Instructions)	
ALS Lab Work Order # (lab use only): L2498404		Project Information			
ALS Sample # (lab use only): 2020-04-02 - PIT 2020-04-02 - WD		ALS Contact: Date (dd-mm-yy) Time (hh:mm) Sample Type 02/09/20 1030 water 02/04/20 1000 water		NUMBER OF CONTAINERS	
Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)		Sampler:			
Drinking Water (DW) Samples¹ (client use) Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Are samples for human consumption/ use? <input type="checkbox"/> YES <input type="checkbox"/> NO		SHIPMENT RELEASE (client use) Released by: Date: Time: SHIPMENT RELEASE (client use)		SAMPLE CONDITION AS RECEIVED (lab use only) Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input type="checkbox"/> INITIAL COOLER TEMPERATURES °C FINAL COOLER TEMPERATURES °C	
Initial Shipment Reception (lab use only) Received by: Date: Time: INITIAL SHIPMENT RECEPTION (lab use only)		Final Shipment Reception (lab use only) Received by: Date: Time: FINAL SHIPMENT RECEPTION (lab use only)			

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

GENERAL TERMS AND CONDITIONS:

These terms and conditions are incorporated in and form part of the Agreement between ALS Group's Environmental Division and the party named in the Offer (the "Client").

1. **Definitions.** Capitalized Terms not defined in these Terms and Conditions have the definitions set out in the other Agreement documents.
2. **The Services.** ALS will provide the Services to the Client as described in the Offer and in any chain of custody form provided with any sample.
3. **Prices.** ALS may review and change all prices, fees, surcharges or other charges set out in the Agreement if there are changes to ALS's cost beyond ALS's control, including changes in legislative requirements, Client variations of sample numbers and Client requests for changes to standard reporting requirements. Notwithstanding Condition 3, all quotations expire after three years.
4. **Payment Terms.** The Client shall pay ALS within 30 days of the invoice date OAC. ALS may, for reasonable business reasons, require the Client to arrange for payment in advance.
5. **Quotation Numbers.** The Client shall provide the quotation number to ALS (where applicable) to ensure correct pricing.
6. **Taxes.** Applicable taxes are not included in prices. Applicable surcharges and additional fees will be added at the time of invoicing.
7. **Quality Control.** ALS has an extensive QA/QC program. Clients' samples are analyzed using approved, referenced procedures followed by thorough data validation prior to reporting of the analytical results.
8. **Test Results.** Results are obtained from analytical measurements that are subject to inherent variability. Measurement results reflect characteristics of submitted test samples at time of analysis. The Client is responsible for informing itself on the limitation of test results and acknowledges that test results are not guaranteed. When statements of conformity are requested on test reports (e.g. within Criteria Reports), measurement uncertainty is not applied to test results prior to the evaluation.
9. **Standard of Care.** ALS will use reasonable care and diligence as required by the laws of the province or territory where the sample is tested.
10. **Storage.** Where possible, ALS will store; soil and water samples for 45 days from date of receipt, tissue/blota samples for 6 months from date of receipt, air samples or re-usable media for 14 days from date of receipt, and microbiological samples for 3 days from date of receipt.
11. **Holds.** If the Client requests a sample to be placed on hold, ALS will store the samples according to paragraph 10, after which ALS will invoice the Client and discard the sample. Each sample is subject to a minimum \$5.00 hold fee. Longer hold periods are available upon request. See paragraph 12.
12. **Archives.** If the Client requests a sample be archived, ALS will invoice in advance and store the sample for the period requested, after which ALS may discard the sample.
13. **Legal Sample Handling Protocol.** Legal sample handling protocol must be arranged before samples are collected. ALS charges a surcharge on the list price plus the hourly technologist or chemist rates for legal sample protocol. Additional charges will apply for samples that require storage by ALS.
14. **Samples.** The quality, condition, content and source of samples stored and tested are not known to ALS except as declared and described on the chain of custody form completed and submitted by the Client and accompanying the sample.
15. **Risk of Loss.** ALS will use reasonable care to protect samples during storage, however all samples are stored at the Client's risk and the Client is responsible for obtaining appropriate insurance, if desired. The Client acknowledges that during the performance of the Services samples may be altered, lost, damaged, or destroyed and the Client releases ALS from any claim the Client may have for any loss or damage to the sample.
16. **Environmental.** The Client must comply with all applicable environment legislation, including labeling all hazardous samples to comply with GHS and TDG regulations, and must provide appropriate Safety Data that include the nature of the hazard and a contact name and phone number to call for information. The Client will indemnify ALS for all loss or damages, including any fine or cost of complying with an order of any government authority, resulting from the Client's breach of this paragraph.
17. **Hazardous Materials Disposal.** ALS may return, at the Client's cost, hazardous material to the Client for disposal.
18. **Hazardous Materials Surcharge.** ALS may apply an additional surcharge for handling of hazardous samples or samples with Naturally Occurring Radioactive Materials (NORM), H2S, CN, etc.
19. **Sample Containers.** ALS may ship sample containers to the Client's location by the most cost effective means using ALS preferred courier suppliers, within the specified project timeline.
20. **Additional Charges.** ALS may charge the Client (a) its cost for emergency bottle shipments and shipments to and from a remote site, and (b) where pick up and delivery services are provided, subject in each instance to a minimum charge of \$25.00.
21. **Re-Tests.** ALS reserves the right to re-test any samples that remain in its possession. Re-tests requested by the Client may be subject to charges.
22. **Waiver.** The Client is responsible for making any assessment regarding the suitability of the Services and the intended results for the Client's purposes and waives any claims against ALS it may have as a result of the interpretation of the results. The Client shall indemnify ALS for all claims made by any third party against ALS in respect of all losses however arising from the performance of the Services or the use of any report provided in the performance of the Services.
23. **Limitation of Liability.** In no event shall ALS be liable for any consequential, indirect, incidental, special, exemplary, or punitive damages, whether foreseeable or unforeseeable (including claims for loss of profits or revenue or losses caused by stoppage of other work or impairment of other assets), incurred by the Client arising out of breach or failure of express or implied warranty, breach of contract, breach of warranty, misrepresentation, negligence, strict liability in tort or otherwise. In any event, the liability of ALS to the Client shall be limited to the cost of testing the sample as requested in the chain of custody form under which the sample was originally deposited. For the purposes of this paragraph and paragraphs 8, 15, 16, 22 and 24, as applicable, "ALS" includes without limitations its directors, officers, employees and affiliates and the "Client" includes without limitation any third party that may have a claim against ALS through the Client.
24. **Notice of Liability.** Notwithstanding paragraph 23, ALS shall not be liable to the Client unless the Client provides notice in writing to ALS of such loss or damage, together with full particulars thereof, within 30 days of the Client's receipt of the report of the analysis of the sample giving rise to such liability. The provisions of this paragraph allocate the risk under the Agreement between the Client and ALS, and the fees to be paid by the Client to ALS reflect this allocation of risks and the limitations of liability in this Agreement.
25. **Third Party Service Provider Indemnity.** For testing not performed at ALS, and where the Client requires ALS to forward samples to a third party service provider, the Client indemnifies ALS against any breach of this Agreement, all liabilities or losses incurred in connection with the third party service provider, including but not limited to courier services, testing turn-around time, and any additional costs associated with such third party.
26. **Third Party Service Provider Indemnity.** If ALS is required to engage a third party service provider for whatever reason, the Client indemnifies ALS against any breach of this Agreement, liabilities, or losses incurred in connection with the third party service provider, including but not limited to courier services, testing turn-around time, and any additional costs associated with such third party.
27. **Entire Agreement.** The Agreement is the entire agreement between the parties and supersedes and takes precedence over any terms and conditions contained in any documentation provided by the Client. ALS's execution of any subsequent documentation from the Client only acknowledges receipt and not acceptance of any terms or conditions therein. If there is a conflict between these terms and conditions and any other Agreement document, these terms and conditions prevail.
28. **Term.** Providing the first batch of samples to which this tender refers is submitted within three months of the starting date of this quotation, the following prices, terms and conditions will remain firm until the closing date. This offer, and its terms and conditions will automatically lapse if the offer has not been accepted and samples not delivered to ALS by the Closing Date.
29. **Termination.** (a) Either party may terminate this Agreement for any reason by giving the other party thirty (30) days written notice (Notice Period). (b) If the Agreement is terminated pursuant to clause (a), then the Client must pay ALS for all Services performed up to the expiry of the Notice Period.



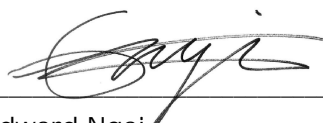
DXB PROJECT MANAGEMENT INC.
ATTN: Henry Wong
315 Montgomery Avenue
Winnipeg MB R3L 1T6

Date Received: 19-JUN-19
Report Date: 28-JUN-19 17:19 (MT)
Version: FINAL

Client Phone: 416-575-8064

Certificate of Analysis

Lab Work Order #: L2294955
Project P.O. #: NOT SUBMITTED
Job Reference: 2019 JERICO OMS
C of C Numbers: 17-817568
Legal Site Desc:



Edward Ngai
Account Manager

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ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

		Sample ID Description Sampled Date Sampled Time Client ID	L2294955-1 WATER 19-JUN-19 10:00 2019-PIT-01	L2294955-2 WATER 19-JUN-19 10:00 2019-C1			
Grouping	Analyte						
WATER							
Total Metals	Uranium (U)-Total (mg/L)		0.0185	0.00154			

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
MET-T-XXX-CCMS-VA	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020B (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			

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

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

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

Chain of Custody Numbers:

17-817568

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



ALS Environmental

www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here

COC Number: 17 - 817568

Page of

Report To		Contact and company name below will appear on the final report		Company: DAB Projects		Contact: Henry Wong		Phone: 416.575.8064		Street: City/Province: Postal Code:	
Invoice To		Same as Report To		Copy of Invoice with Report		YES <input type="checkbox"/> NO <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>		Company: DAB Projects	
Contact:		Project Information		Email 1 or Fax: dave.bysak@dabprojects.ca		Email 2: Henry.Wong@dabprojects.ca		Project Information		Company: DAB Projects	
ALS Account # / Quote #		Job #: 2019 Jericho 0MS		Major/Minor Code:		Routing Code:		Requisitioner:		Location:	
ALS Lab Work Order # (lab use only): L2294955		ALS Contact:		Sampler: Henry W.		Date: 19-Jun-19 10:00		Time: 10:00		Sample Type: Water	
(lab use only)		Sample description will appear on the report		Date: 19-Jun-19 10:00		Time: 10:00		Sample Type: Water		NUMBER OF CONTAINERS	
ALS Sample #		Sample Identification and/or Coordinates		Date: 19-Jun-19 10:00		Time: 10:00		Sample Type: Water		NUMBER OF CONTAINERS	
Drinking Water (DW) Samples (client use)		Spec:		Frozen		SIF Observations		Yes <input type="checkbox"/> No <input type="checkbox"/>		Cooling Initiated	
Are samples taken from a Regulated DW System?		Are samples for human consumption/use?		YES <input type="checkbox"/> NO <input type="checkbox"/>		Ice Packs		Ice Cubes		Custody seal intact	
SHIPMENT RELEASE (client use)		Date: 19-Jun-19 14:30		Received by: [Signature]		Date: 19-Jun-19 14:30		Received by: [Signature]		Time: 14:30	
INITIAL SHIPMENT RECEPTION (lab use only)		Date: 19-Jun-19 14:30		Received by: [Signature]		Date: 19-Jun-19 14:30		Received by: [Signature]		Time: 14:30	
FINAL SHIPMENT RECEPTION (lab use only)		Date: 19-Jun-19 14:30		Received by: [Signature]		Date: 19-Jun-19 14:30		Received by: [Signature]		Time: 14:30	
OWN LIST BELOW		SAMPLE CONDITION AS RECEIVED (lab use only)		Frozen		SIF Observations		Yes <input type="checkbox"/> No <input type="checkbox"/>		Cooling Initiated	
Ice Packs		Ice Cubes		Custody seal intact		Yes <input type="checkbox"/> No <input type="checkbox"/>		Cooling Initiated		Yes <input type="checkbox"/> No <input type="checkbox"/>	
INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C		133		133		133		133	
WHITE - LABORATORY COPY		YELLOW - CLIENT COPY		JUNE 2019 PROTON		JUNE 2019 PROTON		JUNE 2019 PROTON		JUNE 2019 PROTON	



SAMPLES ON HOLD

SUSPECTED HAZARD (see Special Instructions)

GENERAL TERMS AND CONDITIONS:

These terms and conditions are incorporated in and form part of the Agreement between ALS Group's Environmental Division and the party named in the Offer (the "Client").

1. Definitions. Capitalized Terms not defined in these Terms and Conditions have the definitions set out in the other Agreement documents.
2. The Services. ALS will provide the Services to the Client as described in the Offer and in any chain of custody form provided with any sample.
3. Prices. ALS may review and change all prices, fees, surcharges or other charges set out in the Agreement if there are changes to ALS's cost beyond ALS's control, including changes in legislative requirements, Client variations of sample numbers and Client requests for changes to standard reporting requirements. Notwithstanding Condition 3, all quotations expire after three years.
4. Payment Terms. The Client shall pay ALS within 30 days of the invoice date OAC. ALS may, for reasonable business reasons, require the Client to arrange for payment in advance.
5. Quotation Numbers. The Client shall provide the quotation number to ALS (where applicable) to ensure correct pricing.
6. Taxes. Applicable taxes are not included in prices. Applicable surcharges and additional fees will be added at the time of invoicing.
7. Quality Control. ALS has an extensive QA/QC program. Clients' samples are analyzed using approved, referenced procedures followed by thorough data validation prior to reporting of the analytical results.
8. Test Results. Results are obtained from analytical measurements that are subject to inherent variability. Measurement results reflect characteristics of submitted test samples at time of analysis. The Client is responsible for informing itself on the limitation of test results and acknowledges that test results are not guaranteed. When statements of conformity are requested on test reports (e.g. within Criteria Reports), measurement uncertainty is not applied to test results prior to the evaluation.
9. Standard of Care. ALS will use reasonable care and diligence as required by the laws of the province or territory where the sample is tested.
10. Storage. Where possible, ALS will store; soil and water samples for 45 days from date of receipt, tissue/biota samples for 6 months from date of receipt, air samples or re-usable media for 14 days from date of receipt, and microbiological samples for 3 days from date of receipt.
11. Holds. If the Client requests a sample to be placed on hold, ALS will store the samples according to paragraph 10, after which ALS will invoice the Client and discard the sample. Each sample is subject to a minimum \$5.00 hold fee. Longer hold periods are available upon request. See paragraph 12.
12. Archives. If the Client requests a sample be archived, ALS will invoice in advance and store the sample for the period requested, after which ALS may discard the sample.
13. Legal Sample Handling Protocol. Legal sample handling protocol must be arranged before samples are collected. ALS charges a surcharge on the list price plus the hourly technologist or chemist rates for legal sample protocol. Additional charges will apply for samples that require storage by ALS.
14. Samples. The quality, condition, content and source of samples stored and tested are not known to ALS except as declared and described on the chain of custody form completed and submitted by the Client and accompanying the sample.
15. Risk of Loss. ALS will use reasonable care to protect samples during storage, however all samples are stored at the Client's risk and the Client is responsible for obtaining appropriate insurance, if desired. The Client acknowledges that during the performance of the Services samples may be altered, lost, damaged, or destroyed and the Client releases ALS from any claim the Client may have for any loss or damage to the sample.
16. Environmental. The Client must comply with all applicable environment legislation, including labeling all hazardous samples to comply with GHS and TDG regulations, and must provide appropriate Safety Data that include the nature of the hazard and a contact name and phone number to call for information. The Client will indemnify ALS for all loss or damages, including any fine or cost of complying with an order of any government authority, resulting from the Client's breach of this paragraph.
17. Hazardous Materials Disposal. ALS may return, at the Client's cost, hazardous material to the Client for disposal.
18. Hazardous Materials Surcharge. ALS may apply an additional surcharge for handling of hazardous samples or samples with Naturally Occurring Radioactive Materials (NORM), H2S, CN, etc.
19. Sample Containers. ALS may ship sample containers to the Client's location by the most cost effective means using ALS preferred courier suppliers, within the specified project timeline.
20. Additional Charges. ALS may charge the Client (a) its cost for emergency bottle shipments and shipments to and from a remote site, and (b) where pick up and delivery services are provided, subject in each instance to a minimum charge of \$25.00.
21. Re-Tests. ALS reserves the right to re-test any samples that remain in its possession. Re-tests requested by the Client may be subject to charges.
22. Waiver. The Client is responsible for making any assessment regarding the suitability of the Services and the intended results for the Client's purposes and waives any claims against ALS it may have as a result of the interpretation of the results. The Client shall indemnify ALS for all claims made by any third party against ALS in respect of all losses however arising from the performance of the Services or the use of any report provided in the performance of the Services.
23. Limitation of Liability. In no event shall ALS be liable for any consequential, indirect, incidental, special, exemplary, or punitive damages, whether foreseeable or unforeseeable (including claims for loss of profits or revenue or losses caused by stoppage of other work or impairment of other assets), incurred by the Client arising out of breach or failure of express or implied warranty, breach of contract, breach of warranty, misrepresentation, negligence, strict liability in tort or otherwise. In any event, the liability of ALS to the Client shall be limited to the cost of testing the sample as requested in the chain of custody form under which the sample was originally deposited. For the purposes of this paragraph and paragraphs 8, 15, 16, 22 and 24, as applicable, "ALS" includes without limitations its directors, officers, employees and affiliates and the "Client" includes without limitation any third party that may have a claim against ALS through the Client.
24. Notice of Liability. Notwithstanding paragraph 23, ALS shall not be liable to the Client unless the Client provides notice in writing to ALS of such loss or damage, together with full particulars thereof, within 30 days of the Client's receipt of the report of the analysis of the sample giving rise to such liability. The provisions of this paragraph allocate the risk under the Agreement between the Client and ALS, and the fees to be paid by the Client to ALS reflect this allocation of risks and the limitations of liability in this Agreement.
25. Third Party Service Provider Indemnity. For testing not performed at ALS, and where the Client requires ALS to forward samples to a third party service provider, the Client indemnifies ALS against any breach of this Agreement, all liabilities or losses incurred in connection with the third party service provider, including but not limited to courier services, testing turn-around time, and any additional costs associated with such third party.
26. Third Party Service Provider Indemnity. If ALS is required to engage a third party service provider for whatever reason, the Client indemnifies ALS against any breach of this Agreement, liabilities, or losses incurred in connection with the third party service provider, including but not limited to courier services, testing turn-around time, and any additional costs associated with such third party.
27. Entire Agreement. The Agreement is the entire agreement between the parties and supersedes and takes precedence over any terms and conditions contained in any documentation provided by the Client. ALS's execution of any subsequent documentation from the Client only acknowledges receipt and not acceptance of any terms or conditions therein. If there is a conflict between these terms and conditions and any other Agreement document, these terms and conditions prevail.
28. Term. Providing the first batch of samples to which this tender refers is submitted within three months of the starting date of this quotation, the following prices, terms and conditions will remain firm until the closing date. This offer, and its terms and conditions will automatically lapse if the offer has not been accepted and samples not delivered to ALS by the Closing Date.
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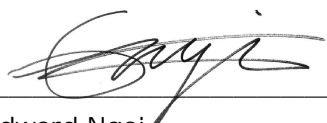
DXB PROJECT MANAGEMENT INC.
ATTN: Henry Wong
315 Montgomery Avenue
Winnipeg MB R3L 1T6

Date Received: 13-SEP-19
Report Date: 24-SEP-19 13:28 (MT)
Version: FINAL

Client Phone: 204-795-5508

Certificate of Analysis

Lab Work Order #: L2346946
Project P.O. #: NOT SUBMITTED
Job Reference: JERICH0
C of C Numbers: 17-817795
Legal Site Desc:



Edward Ngai
Account Manager

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ADDRESS: 8081 Lougheed Hwy, Suite 100, Burnaby, BC V5A 1W9 Canada | Phone: +1 604 253 4188 | Fax: +1 604 253 6700
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID	L2346946-1 WATER 12-SEP-19 10:00 2019-PIT-02	L2346946-2 WATER 12-SEP-19 10:00 2019-PIT-03			
Grouping	Analyte						
WATER							
Total Metals	Uranium (U)-Total (mg/L)	0.0576	0.0579				

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
MET-T-XXX-CCMS-VA	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020B (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			

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

Chain of Custody Numbers:

17-817795

GLOSSARY OF REPORT TERMS

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DXB PROJECT MANAGEMENT INC.
ATTN: Henry Wong
315 Montgomery Avenue
Winnipeg MB R3L 1T6

Date Received: 28-AUG-18
Report Date: 13-SEP-18 08:25 (MT)
Version: FINAL

Client Phone: 204-795-5508

Certificate of Analysis

Lab Work Order #: L2154839
Project P.O. #: TA8
Job Reference: JERICO MINE SITE STABILIZATION
C of C Numbers: 20180828-1
Legal Site Desc:

Rick Zolkiewski
General Manager

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ADDRESS: 314 Old Airport Road, Unit 116, Yellowknife, NT X1A 3T3 Canada | Phone: +1 867 873 5593 |
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID				
		L2154839-1 WATER 28-AUG-18 11:45 2018-2 OPEN PIT				
Grouping	Analyte					
WATER						
Physical Tests	pH (pH)	7.89				
	Total Suspended Solids (mg/L)	<3.0				
	Total Dissolved Solids (mg/L)	107				
Anions and Nutrients	Ammonia, Total (as N) (mg/L)	0.0090				
	Chloride (Cl) (mg/L)	4.52				
	Nitrate and Nitrite (as N) (mg/L)	5.22				
	Nitrate (as N) (mg/L)	5.21				
	Nitrite (as N) (mg/L)	0.0148				
Bacteriological Tests	MPN-Fecal Coliform (MPN/100mL)	<1				
Total Metals	Aluminum (Al)-Total (mg/L)	0.0768				
	Antimony (Sb)-Total (mg/L)	0.00023				
	Arsenic (As)-Total (mg/L)	0.00053				
	Barium (Ba)-Total (mg/L)	0.0241				
	Beryllium (Be)-Total (mg/L)	<0.00010				
	Bismuth (Bi)-Total (mg/L)	<0.000050				
	Boron (B)-Total (mg/L)	0.028				
	Cadmium (Cd)-Total (mg/L)	<0.0000050				
	Calcium (Ca)-Total (mg/L)	13.9				
	Cesium (Cs)-Total (mg/L)	0.000053				
	Chromium (Cr)-Total (mg/L)	0.00031				
	Cobalt (Co)-Total (mg/L)	<0.00010				
	Copper (Cu)-Total (mg/L)	0.00315				
	Iron (Fe)-Total (mg/L)	0.073				
	Lead (Pb)-Total (mg/L)	0.000114				
	Lithium (Li)-Total (mg/L)	0.0021				
	Magnesium (Mg)-Total (mg/L)	6.69				
	Manganese (Mn)-Total (mg/L)	0.00241				
	Mercury (Hg)-Total (mg/L)	<0.0000050				
	Molybdenum (Mo)-Total (mg/L)	0.00500				
	Nickel (Ni)-Total (mg/L)	0.00212				
	Phosphorus (P)-Total (mg/L)	<0.050				
	Potassium (K)-Total (mg/L)	3.12				
	Rubidium (Rb)-Total (mg/L)	0.00608				
	Selenium (Se)-Total (mg/L)	0.000212				
	Silicon (Si)-Total (mg/L)	1.78				
	Silver (Ag)-Total (mg/L)	<0.000010				

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

ALS ENVIRONMENTAL ANALYTICAL REPORT

		Sample ID Description Sampled Date Sampled Time Client ID				
		L2154839-1 WATER 28-AUG-18 11:45 2018-2 OPEN PIT				
Grouping	Analyte					
WATER						
Total Metals	Sodium (Na)-Total (mg/L)	5.59				
	Strontium (Sr)-Total (mg/L)	0.177				
	Sulfur (S)-Total (mg/L)	3.51				
	Tellurium (Te)-Total (mg/L)	<0.00020				
	Thallium (Tl)-Total (mg/L)	<0.000010				
	Thorium (Th)-Total (mg/L)	<0.00010				
	Tin (Sn)-Total (mg/L)	<0.00010				
	Titanium (Ti)-Total (mg/L)	0.00224				
	Tungsten (W)-Total (mg/L)	0.00030				
	Uranium (U)-Total (mg/L)	0.0687				
	Vanadium (V)-Total (mg/L)	0.00091				
	Zinc (Zn)-Total (mg/L)	<0.0030				
	Zirconium (Zr)-Total (mg/L)	0.000149				
Aggregate Organics	Biochemical Oxygen Demand (mg/L)	<2.0				
	Oil and Grease (mg/L)	<5.0				
Volatile Organic Compounds	Benzene (mg/L)	<0.00050				
	Ethylbenzene (mg/L)	<0.00050				
	Methyl t-butyl ether (MTBE) (mg/L)	<0.00050				
	Styrene (mg/L)	<0.00050				
	Toluene (mg/L)	<0.00045				
	ortho-Xylene (mg/L)	<0.00050				
	meta- & para-Xylene (mg/L)	<0.00050				
	Xylenes (mg/L)	<0.00075				
	F1 (C6-C10) (mg/L)	<0.10				
	Surrogate: 4-Bromofluorobenzene (SS) (%)	92.1				
	Surrogate: 1,4-Difluorobenzene (SS) (%)	101.9				
Hydrocarbons	F1-BTEX (mg/L)	<0.10				
	TEH10-30 (mg/L)	<0.25				
	F2 (C10-C16) (mg/L)	<0.30				
	F3 (C16-C34) (mg/L)	<0.30				
	F4 (C34-C50) (mg/L)	<0.30				
	Surrogate: 2-Bromobenzotrifluoride (%)	103.1				
	Surrogate: 2-Bromobenzotrifluoride, F2-F4 (%)	91.7				
	Surrogate: 3,4-Dichlorotoluene (SS) (%)	67.1				
		SURR-ND				

* Please refer to the Reference Information section for an explanation of any qualifiers detected.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Barium (Ba)-Total	MS-B	L2154839-1
Matrix Spike	Calcium (Ca)-Total	MS-B	L2154839-1
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2154839-1
Matrix Spike	Manganese (Mn)-Total	MS-B	L2154839-1
Matrix Spike	Potassium (K)-Total	MS-B	L2154839-1
Matrix Spike	Silicon (Si)-Total	MS-B	L2154839-1
Matrix Spike	Sodium (Na)-Total	MS-B	L2154839-1
Matrix Spike	Strontium (Sr)-Total	MS-B	L2154839-1
Matrix Spike	Uranium (U)-Total	MS-B	L2154839-1

Qualifiers for Individual Parameters Listed:

Qualifier	Description
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
SURR-ND	Surrogate recovery marginally exceeded ALS DQO. Reported non-detect results for associated samples were deemed to be unaffected.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ANIONS-N+N-CALC-VA	Water	Nitrite & Nitrate in Water (Calculation)	EPA 300.0
Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).			
BOD5-TG	Water	Biochemical Oxygen Demand- 5 day (TAIGA)	SM5210B
CL-IC-N-VA	Water	Chloride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
EC-SCREEN-VA	Water	Conductivity Screen (Internal Use Only)	APHA 2510
Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.			
EPH-ME-FID-VA	Water	EPH in Water	BC Lab Manual
EPH is extracted from water using a hexane micro-extraction technique, with analysis by GC-FID, as per the BC Lab Manual. EPH results include PAHs and are therefore not equivalent to LEPH or HEPH.			
F1-BTX-CALC-VA	Water	F1-Total BTX	CCME CWS PHC TIER 1 (2001)
This analysis is based on the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment, December 2000." For F1 (C6-C10), the sample undergoes a purge and trap extraction prior to analysis by GC/FID. The F1-BTEX result is calculated as follows:			
F1-BTEX: F1 (C6-C10) minus benzene, toluene, ethylbenzene and xylenes (BTEX).			
F1-HSFID-VA	Water	CCME F1 By Headspace with GCFID	EPA 5021A/CCME CWS PHC (Pub# 1310)
This analysis is based on the "Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil - Tier 1 Method, Canadian Council of Ministers of the Environment, December 2000." For F1 (C6-C10), the sample undergoes a headspace purge prior to analysis by GC/FID.			
F1 (C6-C10): Sum of all hydrocarbons that elute between nC6 and nC10.			
F2-F4-ME-FID-VA	Water	CCME F2-F4 Hydrocarbons in Water	CCME CWS-PHC, Pub #1310, Dec 2001
F2-F4 is extracted from water using a hexane micro-extraction technique. Instrumental analysis is by GC-FID, as per the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Tier 1 Method, CCME, Dec 2001.			
FCOLI-MPN-YL	Water	Thermotolerant (Fecal) Coliforms	APHA 9223B, 2004 Enzyme Substrate Method
Analysis is carried out using procedures adapted from APHA 9223 "Enzyme Substrate Coliform Test". Fecal Coliform (Thermotolerant) bacteria are determined by mixing sample with a mixture of hydrolyzable substrates and then sealing in a multi-well packet. The packet is incubated for 18-24 hours and the number of wells exhibiting a positive response are counted. The final result is obtained by comparing the positive responses to a probability table.			
HG-T-CVAA-VA	Water	Total Mercury in Water by CVAAS or CVAFS	EPA 1631E (mod)
Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.			
MET-T-CCMS-VA	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020A (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			

Reference Information

NH3-F-VA	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC
This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.			
NO2-L-IC-N-VA	Water	Nitrite in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-L-IC-N-VA	Water	Nitrate in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
OGG-SF-VA	Water	Oil & Grease by Gravimetric	BCMOE (2010), EPA1664A
The procedure involves an extraction of the entire water sample with hexane. This extract is then evaporated to dryness, and the residue weighed to determine Oil and Grease.			
PH-PCT-VA	Water	pH by Meter (Automated)	APHA 4500-H pH Value
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode			
It is recommended that this analysis be conducted in the field.			
TDS-VA	Water	Total Dissolved Solids by Gravimetric	APHA 2540 C - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, TDS is determined by evaporating the filtrate to dryness at 180 degrees celsius.			
TSS-VA	Water	Total Suspended Solids by Gravimetric	APHA 2540 D - GRAVIMETRIC
This analysis is carried out using procedures adapted from APHA Method 2540 "Solids". Solids are determined gravimetrically. Total Suspended Solids (TSS) are determined by filtering a sample through a glass fibre filter, TSS is determined by drying the filter at 104 degrees celsius. Samples containing very high dissolved solid content (i.e. seawaters, brackish waters) may produce a positive bias by this method. Alternate analysis methods are available for these types of samples.			
VH-SURR-FID-VA	Water	VH Surrogates for Waters	BC Env. Lab Manual (VH in Solids)
VOC7-HSMS-VA	Water	BTEX/MTBE/Styrene by Headspace GCMS	EPA 5021A/8260C
The water sample, with added reagents, is heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.			
VOC7/VOC-SURR-MS-VA	Water	VOC7 and/or VOC Surrogates for Waters	EPA 5035A/5021A/8260C
XYLENES-CALC-VA	Water	Sum of Xylene Isomer Concentrations	CALCULATION
Calculation of Total Xylenes			
Total Xylenes is the sum of the concentrations of the ortho, meta, and para Xylene isomers. Results below detection limit (DL) are treated as zero. The DL for Total Xylenes is set to a value no less than the square root of the sum of the squares of the DLs of the individual Xylenes.			

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

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

Laboratory Definition Code	Laboratory Location
TG	TAIGA ENVIRONMENTAL LABORATORY (INAC)
YL	ALS ENVIRONMENTAL -YELLOWKNIFE, NORTHWEST TERRITORIES CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

20180828-1

Reference Information

GLOSSARY OF REPORT TERMS

Surrogate - A compound that is similar in behaviour to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

mg/kg - milligrams per kilogram based on dry weight of sample.

mg/kg ww - milligrams per kilogram based on wet weight of sample.

mg/kg lw - milligrams per kilogram based on lipid-adjusted weight of sample.

mg/L - milligrams per litre.

< - Less than.

D.L. - The reported Detection Limit, also known as the Limit of Reporting (LOR).

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Taiga Environmental Laboratory
4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9
Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180832

- FINAL REPORT -

Prepared For: ALS Environmental

Address: 314 Old Airport Road
Unit 116
Yellowknife, NT
X1A 2R1

Attn: Rick Zolkiewski

Facsimile:

Final report has been reviewed and approved by:

Glen Hudy
Quality Assurance Officer

NOTES:

- Test methods and data are validated by the laboratory's Quality Assurance Program. Taiga Environmental Laboratory is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) to ISO/IEC 17025 as a testing laboratory for specific tests registered with CALA.
- Routine methods are based on recognized procedures from sources such as
 - Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF;
 - Environment Canada
 - USEPA
- Samples shall be kept for thirty (30) days after the final report is issued. All microbiological samples shall be disposed of immediately upon completion of analysis to minimize biohazardous risks to laboratory personnel. Please contact the laboratory if you have any special requirements.
- Final results are based on the specific tests at the time of analysis and do not represent the conditions during sampling.

ReportDate: Sunday, September 09, 2018

Print Date: *Sunday, September 09, 2018*

Page 1 of 3



Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:
180832

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **L2154839-1 JERICHO PIT-0828**

Taiga Sample ID: **001**

Client Project:

Sample Type: Water

Received Date: 29-Aug-18

Sampling Date: 28-Aug-18

Sampling Time: 11:45

Location:

Report Status: Final

Test Parameter	Result	Detection Limit	Units	Analysis Date	Analytical Method *	Qualifer
<u>Inorganics - Nutrients</u>						
Biochemical Oxygen Demand	< 2	2	mg/L	29-Aug-18	SM5210:B	

ReportDate: Sunday, September 09, 2018

Print Date: *Sunday, September 09, 2018*

Page 2 of 3



Taiga Environmental Laboratory

4601-52nd Ave., Box 1320, Yellowknife, NT. X1A 2L9

Tel: (867)-767-9235 Fax: (867)-920-8740

Taiga Batch No.:

180832

- CERTIFICATE OF ANALYSIS -

Client Sample ID: **L2154839-1 JERICHO PIT-0828**

Taiga Sample ID: **001**

*** Taiga analytical methods are based on the following standard analytical methods**

SM - Standard Methods for the Examination of Water and Wastewater

EPA - United States Environmental Protection Agency

Comments **L2154839**

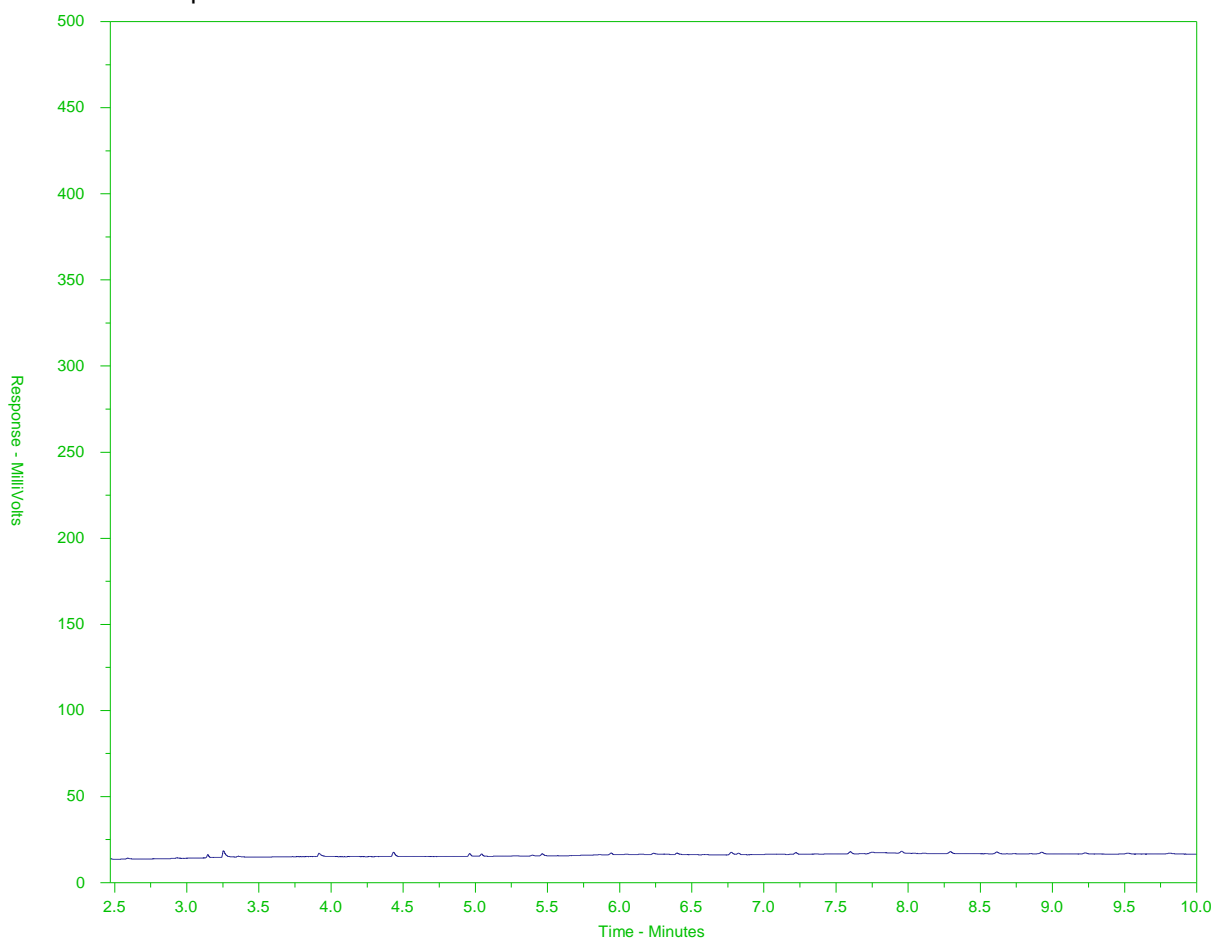
ReportDate: Sunday, September 09, 2018

Print Date: *Sunday, September 09, 2018*

Page 3 of 3

BC EPH **HYDROCARBON DISTRIBUTION REPORT**

ALS Sample ID: L2154839-1
Client Sample ID: 2018-2 OPEN PIT



← EPH10-19 →		← EPH19-32 →	
nC10	nC19	nC32	
174°C	330°C	467°C	
346°F	626°F	873°F	
← Gasoline →	← Motor Oils/ Lube Oils/ Grease →		
← Diesel/ Jet Fuels →			

The BC EPH Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and three n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

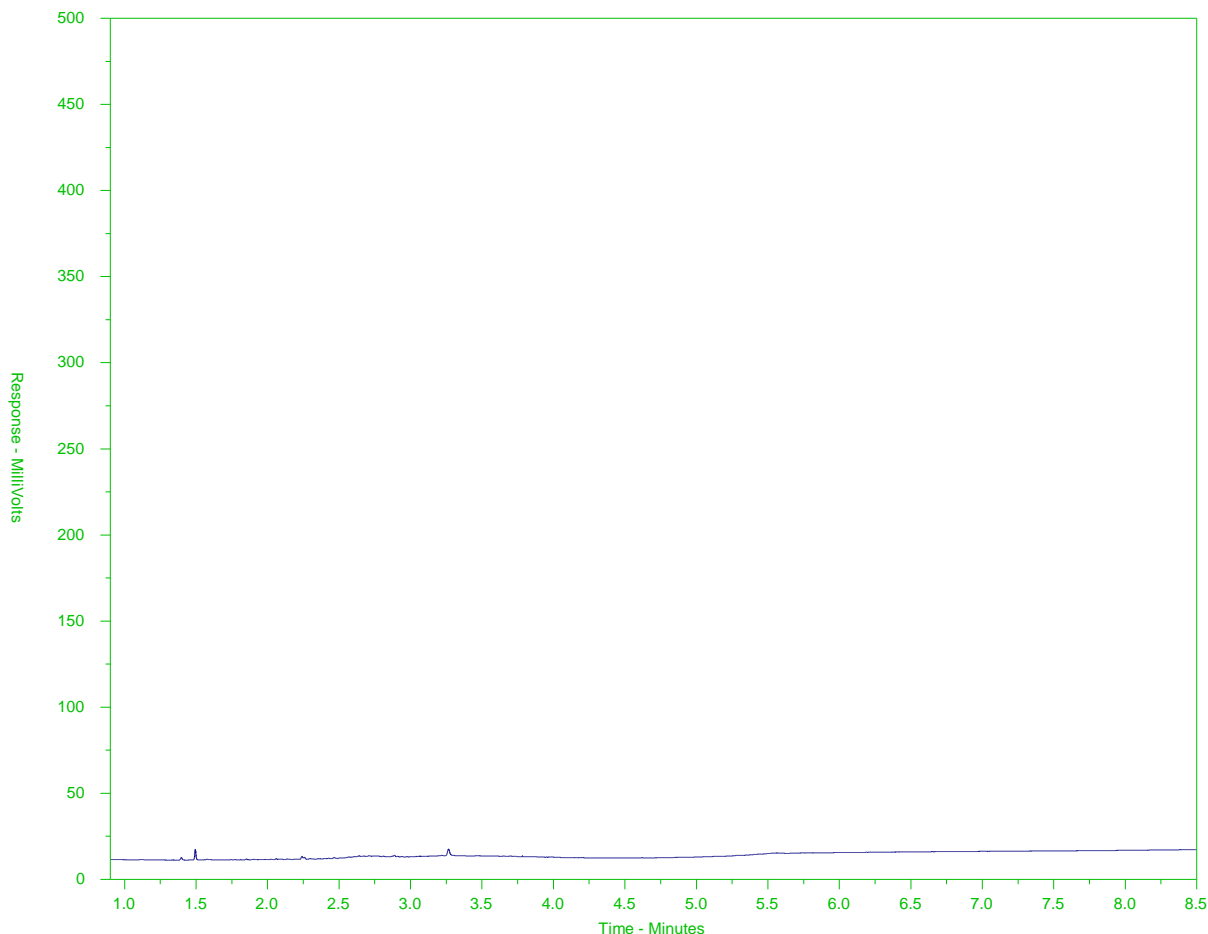
A "-L-" in the sample ID denotes a low level sample. A "-S-" denotes a silica gel cleaned sample.

Note: This chromatogram was produced using GC conditions that are specific to the ALS Canada EPH method. Refer to the ALS Canada EPH Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L2154839-C-1
Client Sample ID: 2018-2 OPEN PIT



← F2 →		← F3 →		← F4 →	
nC10	nC16		nC34		nC50
174°C	287°C		481°C		575°C
346°F	549°F		898°F		1067°F
← Gasoline →		Motor Oils/ Lube Oils/ Grease →			
← Diesel/ Jet Fuels →					

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.



Canada Toll Free: 1 800 668 9878

COC Number: 15 - 584733

Page { of

Affix ALS barcode label here
(lab use only)

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ACTIVATION OF THE EFFECT

REFER TO BACK PAGE FOR ALL LOCATIONS AND SAMPLING INFORMATION

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy

If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

GENERAL TERMS AND CONDITIONS:

1. Definitions. Capitalized Terms not defined in these Terms and Conditions have the definitions set out in the other Agreement documents.
2. The Services. ALS will provide the Services to the Client as described in the Offer and in any chain of custody form provided with any sample.
3. Prices. ALS may review and change all prices, fees, surcharges or other charges set out in the Agreement if there are changes to ALS's cost beyond ALS's control, including changes in legislative requirements, Client variations of sample numbers and Client requests for changes to standard reporting requirements. Notwithstanding Condition 3, all quotations are reviewed and updated on a yearly basis or expire after one year.
4. Payment Terms. The Client shall pay ALS within 30 days of the invoice date OAC. ALS may, for reasonable business reasons, require the Client to arrange for payment in advance.
5. Quotation Numbers. The Client shall provide the quotation number to ALS (where applicable) to ensure correct pricing.
6. Taxes. Applicable taxes are not included in prices - surcharges and additional fees will be added at the time of invoicing.
7. Quality Control. ALS has an extensive QA/QC program. Clients' samples are analyzed using approved, referenced procedures followed by thorough data validation prior to reporting the analytical results.
8. Test Results are Not Guaranteed. Results are obtained from analytical measurements that are subject to inherent variability. Measurement results reflect characteristics of submitted test samples at time of analysis. The Client is responsible for informing itself on the limitation of test results and acknowledges that test results are not guaranteed.
9. Standard of Care. ALS will use reasonable care and diligence as required by the laws of the province or territory where the sample is tested.
10. Storage. Where possible, ALS will store samples for 30 days from the date a final report is issued to the Client, after which ALS may discard the samples.
11. Holds. If the Client requests a sample to be placed on hold, ALS will store the sample for 30 days from date of receipt, after which ALS will invoice the Client and discard the sample. Longer hold periods are available upon request.
12. Archives. If the Client requests a sample be archived, ALS will invoice in advance and store the sample for the period requested, after which ALS may discard the sample.
13. Handling Protocol. Legal sample handling protocol must be arranged before samples are collected. ALS charges a surcharge on the list price plus the hourly technologist or chemist rates for legal sample protocol. Additional charges will apply for samples that require storage by ALS.
14. Samples. The quality, condition and source of samples stored and tested are not known to ALS except as declared and described on the chain of custody form completed and submitted by the Client and accompanying the sample.
15. Risk of Loss. ALS will use reasonable care to protect samples during storage, however all samples are stored at the Client's risk and the Client is responsible for obtaining appropriate insurance, if desired. The Client acknowledges that during the performance of the Services samples may be altered, lost, damaged or destroyed and the Client releases ALS from any claim the Client may have for any loss or damage to the sample.
16. Environmental. The Client must comply with all applicable environmental legislation, including labeling all hazardous samples to comply with WHMIS and TDG regulations, and must provide appropriate Safety Data Sheets (previously referred to as "MSDS") that include the nature of the hazard and a contact name and phone number to call for information. The Client will indemnify ALS for all loss or damages, including any fine or cost of complying with an order of any government authority, resulting from the Client's breach of this paragraph.
17. Hazardous Materials Disposal. ALS may return, at the Client's cost, hazardous material to the Client for disposal.
18. Hazardous Materials Surcharge. ALS may apply an additional surcharge for handling of hazardous samples or samples with Naturally Occurring Radioactive Materials (NORM), H2S, CN, etc.
19. Sample Containers. ALS may ship sample containers to the Client's location by the most cost effective means using ALS preferred courier suppliers, within the specified project timeline.
20. Additional Charges. ALS may charge the Client (a) its cost for emergency bottle shipments and shipments to and from a remote site, and (b) where pick up and delivery services are provided, subject in each instance to a minimum charge of \$25.00.
21. Re-Tests. ALS reserves the right to re-test any samples that remain in its possession. Re-tests requested by the Client may be charged.
22. Waiver. The Client is responsible for making any assessment regarding the suitability of the Services and the intended results for the Client's purposes and waives any claims against ALS it may have as a result of the interpretation of the results. The Client shall indemnify ALS for all claims made by any third party against ALS in respect of all losses however arising from the performance of the Services or the use of any report provided in the performance of the Services.
23. Limitation of Liability. In no event shall ALS be liable for any consequential, special, exemplary or punitive damages, whether foreseeable or unforeseeable, (including claims for loss of profits or revenue or losses caused by stoppage of other work or impairment of other assets) incurred by the Client arising out of breach or failure of express or implied warranty, breach of contract, breach of warranty, misrepresentation, negligence, strict liability in tort or otherwise. In any event, the liability of ALS to the Client shall be limited to the cost of testing the sample as requested in the chain of custody form under which the sample was originally deposited. For the purposes of this paragraph and paragraphs 8, 15, 16, 22 and 24, as the applicable, "ALS" includes without limitation its directors, officers, employees and affiliates and the "Client" includes without limitation any third party that may have a claim against ALS through the Client.
24. Notice of Liability. Notwithstanding paragraph 23, ALS shall not be liable to the Client unless the Client provides notice in writing to ALS of such loss or damage, together with full particulars thereof, within 30 days of the Client's receipt of the report of the analysis of the sample giving rise to such liability. The provisions of this paragraph allocate the risk under the Agreement between the Client and ALS, and the fees to be paid by the Client to ALS reflect this allocation of risks and the limitations of liability in this Agreement.
25. Entire Agreement. The Agreement is the entire agreement between the parties and supersedes and takes precedence over any terms and conditions contained in any documentation provided by the Client. ALS's execution of any subsequent documentation from the Client only acknowledges receipt and not acceptance of any terms or conditions therein. If there is a conflict between these terms and conditions and any other Agreement document, these terms and conditions prevail.
26. Term. Providing the first batch of samples to which this tender refers is submitted within three months of the starting date of this quotation, the following prices, terms and conditions will remain firm until the closing date. This offer and terms and conditions will automatically lapse if the offer has not been accepted and samples not delivered to ALS within the Closing Date.
27. Termination. (a) Either party may terminate this Agreement for any reason by giving the other party thirty (30) days written notice (Notice Period). (b) If the Agreement is terminated pursuant to clause (a), then the Client must pay ALS for all Services performed up to the expiry of the Notice Period.

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NA-FM-0326a v29 Front04 January 2014

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.