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PILITAK ENTERPRISES LTD

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NUNAVUT WATER BOARD (NWB)
ANNUAL REPORT
Permit no. 8BC-CLY2225
Clyde River Harbour Development

DFO ET025-222050/A

Submitted to:

Public Services and Procurement Canada

Revision-01: January 2025

Clyde River Harbour Development

NUNAVUT WATER BOARD (NWB) ANNUAL REPORT FOR PROJECT ACTIVITIES

EXECUTIVE SUMMARY

This report addressed to the Nunavut Water Board (NWB) has been prepared to summarize the 2024 project activities that were carried on under the Type 'B' Licence -8BC-CLY2225 issued to the Department of Fisheries and Oceans Canada -Small Craft Harbour (DFO-SCH). The Clyde River Small Craft Harbour Construction's project was awarded to Pilitak Enterprises Ltd in May 2022 by Public Services and Procurement Canada (PSPC) for DFO-SCH.

2024 PROJECT ACTIVITIES

The 2024 construction season started on May 16th, 2024 and ended on October 20th, 2024. Granular material and rocks were prepared at the quarry where about 26,500 cubic meters of bedrock were drilled and blasted. A total of 64,500 tones of rocks and gravel was transported from the quarry to the construction site, which represents about 3,200 truck loads who transited through the Hamlet of Clyde River. The transported material was used for the construction of the Northeast and the sealift breakwaters, which were completed to 100%. Granular material was used for the upland upgrades, which was completed to about 70%. The sealift ramp was completed and received the first sealift barges in September. The fixed wharf, made of steel sheet piles, was completed. The dredging of the 4 areas was completed. The anchor blocks for the floating wharfs were installed.

WATER USAGE AND QUALITY MONITORING

Approximately 361 m^3 of potable water were delivered by the Hamlet during the 2024's operations which represents an average domestic water consumption of 2.3 cubic m^3/day. A total of 150 m^3 of water withdrawn from the Clyde River was used for dust control and other usages. At no time more than 30 m^3/day of water was used for the dust control. The total daily water consumption has never exceeded the licence's maximum daily allowance of 36 m^3/day. No unauthorized discharge occurred during this construction season, except for 5 minors hydrocarbons spills, as indicated in the following section. The surface runoff or discharges impacted by construction activities associated with the Project, where flow may directly or indirectly enter water were monitored for the total suspended solids (TSS), the presence of visible oil and grease and the pH. The monitoring Station 1 and Station 2 were established beside the quarry bridge and at no times, the collected measurements exceeded the parameters thresholds indicated in the Water Licence. The monitoring Station 3 was established downstream from where the water exits from the dredge spoil dewatering area. The Station 4 was used as a background reference for the water flowing upstream of the discharge point of the dredge spoil dewatering area. During the entire monitoring season, the average TSS measured at station 03 was 64.35 mg/L, including the 3 grab sample exceedances. If we exclude these 3 episodes, the average TSS measurements for the entire summer stayed below the threshold value of 50 mg/l. No hydrocarbon sheen was ever observed. The measured pH values stayed within the permit criteria (6.0-9.5), with an average of 7.21 at the station 3.

WASTE MANAGEMENT

The total volume of waste generated during the 2024's construction season is estimated to 492.3 m^3. From this volume, about 385 m^3 of waste were shipped off-site for disposal or recycling. The diverted waste from the community disposal facility represents 78% of the total volume of waste generated during the construction activities.

SPILL

A total of 5 spills of diesel and hydraulic oil, each less than 100 L, occurred during the 2024 construction season.

ᑲᖏᖅᑐᒐᐱᒻᒥ ᐅᒥᐊ□ ᐅᖅᑯᐃᕝᕕᖓᓂ□ ᓴᓇᕙᓪᓕᐊᓂᖅ

ᓄᓇᕗᑦ ᐃᒪᓕᕆᔨᖏᑕ ᑲᑎᒪᔨᖏᓄ□ (NWB) ᐊᕐᕌᒍᑕᒫᖅᓯᐅ□ ᐅᓂᒃᑳᓕᐊᖓ ᐱᔭᒃᓴᕆᔭᓄ□ ᑲᒪᒋᔭᐅᔪᓄ□

ᓇᐃᓪᓕᒋᐊᖓᔪᖅ ᐅᓂᒃᑳᓕᐊᖅ

ᐅᓇ ᐅᓂᒃᑳᓕᐊᖅ ᓵᖓᔭᖅᖁᖅ ᓄᓇᕗᑦ ᐃᒪᓕᕆᔨᖏᑕ ᑲᑎᒪᔨᖏᓄ□ (NWB) ᐸᕐᓈᖑᓯᒪᔪᖅ ᐅᓂᒃᑳᓕᐅᕆᔾᔪᑕᐅᓪᓗᓂ ᑖᒃᑯᐊ 2023ᒥ ᐱᔭᒃᓴᓕᐊᕆᔭ□ ᑲᒪᒋᔭᐅᓯᒪᔪ□ ᐊᑐᖅᐳᑎᒃ ᐃᓕᖅᑯᓯᓕᒃ “ᐅ” ᓚᐃᓴᓐᓯᐊᓂᒃ - 8BC-CLY2225 ᑐᓂᔭᐊᓂᑰᔪᖅ ᑲᓇᑕᐅᑉ ᐱᓕᕆᕝᕙᐊᑕ ᐃᒪᕐᒥᐅᑕᓕᕆᔨᒃᑯ□ ᑲᓇᑕᒧ□ - ᐅᒥᐋᕋᓘᖑᓂᖅᓴᓄ□ ᐅᖅᑯᐃᕝᕚ□ (DFO-SCH). ᑖᓐᓇ ᑲᖏᖅᑐᒐᐱᒻᒥ ᐅᒥᐋᕋᓘᓄ□ ᐅᖅᑯᐃᕝᕕᐅᑦ ᓴᓇᔭᐅᓂᒃᓵ ᑐᓐᓂᕆᔭᐅᓪᓗᓂ ᑖᒃᑯᓄᖓ ᐱᓕᑦᑕᒃ ᑕᑯᒃᓴᕈᐃᔨ□ᑎ ᑎᒥᖓᓄ□ ᒪᐃ 2022ᒥ ᑖᒃᑯᓄᖓ ᑭᒃᑯᓕᒫᓄ□ ᐱᔨ□ᑎᐅᑎ□ ᓂᐅᕕᖃᖅᑕᓄᓪᓗ ᑲᓇᑕᒥ (PSPC) ᑖᒃᑯᓄᖓ DFO-SCH.

2023 ᐱᔭᒃᓴᕆᔭᓄ□ ᑲᒪᒋᔭᐅᓚᐅᖅᑐ□

ᑖᓐᓇ 2023 ᓴᓇᔪᓕᕆᓂᐊ ᑕᖅᑭᕐᔭᖏᒃ ᐱᒋᐊᓚᐅᖅᑐ□ ᒪᐃ 15ᒥ ᐃᓱᓕᕈᓂᓗ ᓄᕕᐱᕆ 2ᒥ. ᑐᐊᐸᓕᐊ□ ᕿᓪᒍᓕᐊᓪᓗ ᐸᕐᓈᖑᓪᓗᑎᒃ ᑐᐊᐸᒃᑕᕝᕕᒻᒥ ᐃᓪᒪᖔ ᑕᐃᑲᓂ 67,500 ᒦᑕᒃ ᑭᐸᕆᓐᖓᔪ□ ᓂᐅᖅᑐᖅᑕᐅᓪᓗᑎᒃ ᐊᓯᐃᓛᒃ ᖃᖅᑎᑕᐅᖃᖅᐳᑎᒃ. ᑲᑎᓕᒫᖅᐳᒍ 87,000 ᑕᓐᓯᓂᒃ ᐅᔭᖃᓂᒃ ᑐᐊᐸᓂᓪᓗ ᐅᓯᒃᖅᑕᓚᐅᖅᑐ□ ᑕᐃᑲᖕᖓ□ ᐅᔭᖄᒃᑕᕝᕕᐊᓂ ᑕᐃᑯᖓ ᓴᓇᔭᐅᕝᕕᐊᑕ ᐃᓂᖓᓄ□, ᑭᓪᖓᖅᑐᐃᔪᖅ ᐃᓪᒪᖔ 4,200 ᐅᓯᒃᖅᑕᐅᑎᒧ□ ᐅᓯᔭᐅᔪ□ ᐊᖅᑯᑖᒧ□ Hᐋᓪᒪᓚᖓᑕ ᑲᖏᖅᑐᒐᐱᐅᑉ ᓴᓇᕝᕕᖓᓄ□. ᑕᒪᓐᓇ ᐅᓯᒃᖅᑕᖅᑕᐅᔪᖅ ᐊᑐᖅᑕᐅᓪᓗᐊᑕᖅᐳᓂ ᓴᓇᔭᐅᓂᐊᓄ□ ᐅᖅᑯᐋᒧ□ ᓯᕿᖅᑕᖅᑕᐅᕝᕕᐊᓂ, ᐱᔮᖅᑕᐅᓪᓗᓂ ᐃᓪᒪᖔ ᑎᑭᕈᒍ 70%. ᐃᓚᖓ ᐊᑐᖅᑕᐅᒋᓪᓗᓂ ᓄᑖᕈᐃᔾᔪᑕᐅᓪᓗᓂ ᑎᒫᒧ□ ᒪᓂᖅᑭᑎᐱᓂᓪᒥᒃ ᓴᓇᔭᐅᕙᓪᓕᐊᓂᐊᑕᓗ ᐊᖅᑯᑖᓄ□ ᐅᐊᖕᓈᒧ□ ᓯᕿᖅᑕᖅᑕᐅᕝᕕᒃᓵᑕ. ᑖᓐᓇ ᑭᓴᖅᑕᐅᕝᕕᐊᑕ ᐃᐱᕝᕙᐊ ᐊᓪᒪᓗ ᓇᐸᔪᖅ ᐊᑮᖓᕆᔭᖅ ᐃᐱᖅᓯᒪᕝᕕᖓ ᐃᓕᔭᐅᓪᓗᓂ ᐊᑐᐃᓐᓇᐅᓕᖅᐳᓂ. ᐃᓚᖓ ᐃᖅᑲᖓ ᐊᓪᓚᒃᑕᐅᓪᓗᓂ ᐃᒃᑲᓗᐊᖅᑐᓕ□ ᑕᐅᕙᓂ ᐅᖅᑯᖔᖓᑕ ᓯᕿᖅᑕᕝᕕᓕᐊᑦ ᓵᖓᒧ□.

ᐃᒥᕐᒥᒃ ᐊᑐᖅᑕᓐᓂᖏ□ ᐊᓪᒪ ᐃᒥ□ᑎᐊᕙᐅᓂᐊᑕ ᖃᐅᔨᓵᕆᔭᐅᓂᖏᓄ□

ᐃᓪᒪᖔ ᑲᑎᓕᒫᖅᐳᒍ 304 ᒦᑕ□ ᑭᐸᕆᓐᖓᔪ□ ᐃᒥ□ᑎᐊᕙᓪᒥᒃ ᐅᓯᒃᖅᑕᕝᕕᐅᓚᐅᖅᑐᒧ□ Hᐋᓪᒪᓚᒃᑯᓐᓄ□ 2023 ᓴᓇᕝᕕᐅᑉ ᑕᖅᑭᖏᒧ□ ᐃᓪᒪᖔ ᑭᓪᖓᖅᑐᐃᔪᖅ ᕿᑎᖃᖅᑐᒥᒃ ᓄᓇᓕᓪᒥ ᐃᒪᖅᑐᓐᓂᓪᒥᒃ 2.4 ᑭᐸᕆᓐᖓᔪ□ ᒦᑕ□ /ᖃᐅᑕᒫᖅ. ᑲᑎᒍᒍ 190 ᒦᑕ□ ᑭᐸᕆᓐᖓᔪ□ ᐊᑐᖅᑕᐅᓚᐅᕆᕗᖅ ᑲᖏᖅᑐᒐᐱᐅᑉ ᐃᒪᖃᕝᕕᐊᓂᒃ ᐳᕼᓗᐊᕐᑯᓇᒍ ᐊᖅᑯᑎᒋᔭᕗ□ ᐊᑐᖅᑕᐅᓕᕌᖓ□. ᑕᐃᒪᖓᓕᒫᖅ ᓴᓇᑎᓪᓗᑕ ᐅᖓᑖᐅᔾᔨᓚᐅᓐᓇᑕ 30 ᑭᐸᕆᓐᖓᔪ□ ᒦᑕ□ /ᖃᐅᑕᒫ ᐳᕼᖅᑐᒧ□ ᓴᓇᕝᕕ□ᑎᓐᓂ. ᑖᓐᓇ ᑲᑎᓕᒫᖅᐳᒍ ᖃᐅᑕᒫ□ ᐃᒪᖅᑐᓐᓂᕗ□ ᐅᖓᑖᐅᔾᔨᓚᐅᖅᓯᒪᓇᓂ ᓚᐃᓴᓐᓯᐅᑦ ᐳᖅᑐᓘᖑᓂᖃᖅᑖᑕ 36 ᑭᐸᕆᓐᖓᔪ□ ᒦᑕ□ /ᖃᐅᑕᒫ. ᐊᖏᖅᑕᐅᓯᒪᖏ□ᑐ□ ᑯᕕᔭᐅᔪᓂᒃ ᐱᑕᖃᓚᐅᓐᓇᓂ ᓴᓇᔭᐅᕙᓪᓕᐊᑎᓪᓗᒍ ᑖᓐᓇ ᑕᖅᑭᕐᑯᑎ□ᑎᒧ□. ᓄᓇᖓᓂ ᑰᒍᑎᔪ□ ᐅᕝᕙᔫᓐᓃ□ ᖃᒥ□ᑎᔪ□ ᐊᒃᑐᐊᔪ□ ᓴᓇᔭ□ᑕ ᐱᓕᕆᐋᖏᓐᓄ□ ᐱᔭᒃᓴᓕᐊᖑᔪᒧ□, ᑖᒃᑯᐊ ᑰᓐᓂᖏ□ ᐃᓗᓪᓚᕆᐊᓄ□ ᐅᕝᕙᓗ ᓴᓂᕋᓂ ᐃᓯᒐᓛᓃ□ ᐃᒪᖏ□ ᖃᐅᔾᔮᖑᓪᓗᑎᒃ ᑲᑎᓕᒫᖅᐳᒍ ᐊᐅᒍᑎᓯᒪᔪ□ ᐃᓗᐊ□ᑐᕕᓃ□ (TSS), ᐱᑕᖃᓪᒪᖕᖔ□ ᑕᑯᒃᑕᐅᔪᒥ□ ᐃᔨᒧ□ ᐅᖅᓯᐋᓗᒥᒃ ᑭᓂᖅᑐᒥᓪᓗ ᐊᓪᒪᓗ ᐃᒪᐅᑦ ᓂᕈᒥᓐᓂᖓᒧ□. ᒪᕐᕈᒃ ᖃᐅᔨᓴᐃᕝᕚᒃ ᓴᖅᑭᑕᐅᓪᓗᑎᒃ ᐃᒪᖓᓄ□ ᑕᐃᒪᖕᖓᓗ ᑲᑎᖅᓯᒐᐅᓃ□ ᖃᐅᔨᓴᕈᐃᓐ□ ᐃᒪᖓᓄ□ ᖄᖏᖅᓯᓚᐅᓐᓇᑎᒃ ᑭᓪᓕᓯᓂᐊᕈᑕᐅᔪᓄ□ ᑎᑎᖃᖅᓯᒪᔭ□ ᐃᓗᐊᒧ□ ᐃᒪᕐᒧ□ ᓚᐃᓴᓐᓯᐅᑉ.

ᐊᒃᑕᑯᒃᓴ□ ᑲᒪᒋᔭᐅᓂᒃᓴᖏ□

ᑲᑎᓕᒫᖅᐳᒍ ᐊᒃᑎᒋᓂᖓ ᐊᒃᑕᑯᒃᓴ□ ᑲᒪᒋᔭ□ᑎᒧ□ ᑕᑯᒃᓴᕈᖅᑐ□ ᐃᓗᐊᒧ□ 2023 ᐱᔭᒃᓴᓕᐊ□ᑕ ᐱᓕᕆᐋᖏᒧ□ ᓇᓚᐅ□ᑖᒃᑯ□ ᑎᑭᓚᐅᖅᑐᖅ 110.6 ᒦᑕ□ ᑭᐸᕆᓐᖓᔪᓄ□. ᑖᒃᑯᓇᖓᓗ□, ᐃᓪᒪᖔ 46 ᒦᑕ□ ᑭᐸᕆᓐᖓᔪ□ ᕿᔪᕕᓃ□ ᐅᓯᔭᐅᔾᔪᑎᖏᓪᓗ ᓄᓇᓕᓪᒧ□ ᓇᓪᓖᖅᑕᐅᓪᓗᑎᒃ ᐊᓪᒪᓗ 12.3 ᒦᑕ□ ᑭᐸᕆᓐᖓᔾ ᐃᒋᑕᒃᓴ□ᑎᓐᓂ ᓇᒃᓯᐅᔾᔭᐅᓪᓗᑎᒃ ᐊᓯᖏᓄ□ ᓄᓇᓄ□ ᐃᒋ□ᑎᕙ□ ᐅᕝᕙᓗ ᓴᓗᓪᒪᓚᐅᖅᐳᑎᒃ ᐊᑐᒃᑲᓐᓂᓪᓚᒃᓴᓕᕆᔨᓄ□. ᑖᒃᑯᐊ ᓇᓪᓖᖅᑕᐅᔪᕕᓃ□ ᐃᒋᑕᕗ□ ᓄᓇᓕᓪᒥᐅᓄ□ ᐊᒃᑕᕝᕕᖓᓂᒃ ᑭᓪᖓᖅᑐᐃᔪᖅ ᐃᓪᒪᖔ 53% ᑲᑎᓕᒫᖅᑕ□ᑕ ᐃᒋᑕᒃᓴᓕᐊᕕᓂ□ᑎᓐᓂᒃ ᐱᓕᕆᐋᕆᔭ□ᑎᒧ□.

ᑯᕕᓂᑯ□

ᑲᑎᓕᒫᖅᐳᒋ□ ᑕᓪᓕᒪ□ ᑯᕕᔪ□ ᐃᓗᓯᐅᑎᒥᒃ ᐅᕐᑯᒪᐃ□ᑐᓕᕆᔨᓪᓗ ᑭᓂᖅᑐᒋᔩᖏ□, ᐊᑐᓂ□ ᒥᑭᓐᓂᖅᓴᐃᓐᓇ□ ᑯᕕᔭᖅ 10ᓖᑕᒥᒃ, ᓴᖅᑭᓚᐅᖅᑐ□ ᐃᓗᐊᒧ□ 2023 ᓴᓇᔪᓕᕆᓂᐅᑦ ᑕᖅᑭᕐᑯᑎᖏᒧ□.

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Appendices

DESCRIPTION OF PROGRESS

This report addressed to the Nunavut Water Board (NWB) has been prepared to summarize the 2024 project activities that were carried on under the Type 'B' Licence -8BC-CLY2225 issued to the Department of Fisheries and Oceans Canada -Small Craft Harbour (DFO-SCH). The construction project was awarded to Pilitak Enterprises Ltd (PEL) in May 2022 by Public Services and Procurement Canada (PSPC) for the Department of Fisheries and Ocean (DFO). The project is scheduled to be completed before the end of the summer 2025.

1.1 ACTIVITIES UNDERTAKEN DURING 2024

Our first crew was mobilized to Clyde River on May 16th, 2024, to open the camp, remove snow at the different sites and de-winterizing our equipment. The constructions activities started at the beginning of June 2024 and were ended at mid-October 2024. The following main activities were performed:

- Drilling and blasting: About 26,500 cubic meters of rock were blasted from the existing quarry.
- Road maintenance: Roads from the harbour site to the quarry were maintained frequently to keep them in good condition. The reshaping of the surface was done with a grader and gravel was added on some road sections. Dust control was done by spreading calcium chloride and water on the road.
- Material preparation for the project: The rip rap plant, the screener plant and the rock crusher plant were used to produce gravel and rocks of variable sizes for the project.
- Gravel and rock transportation to harbour site: A total of 64,500 tonnes of rocks and gravel was transported between the quarry and the site this working season.
- Fixed Wharf: The sheet piles were installed, and the wharf was backfilled.
- Upland upgrades: Dredge reuse, shot rock and type 2 gravel was transported and placed in front of the harbour site (uplands).
- The Northeast breakwater was constructed with corestones, filterstones and armourstone. The breakwater was built to the full length and the construction was completed.
- The Sealift breakwater was constructed with armourstone. The breakwater was built to the full length and the construction was completed.
- The sealift ramp was upgraded and completed.
- The concrete anchor blocks for the floating wharf were installed.
- The dredging of the 4 areas was completed.
- Winterization of the equipment and facilities.

Clyde River Harbour Development
Clyde River, Nu

Drilling at the Quarry

Blasting Preparation

Quarry Before Starting the Project

Quarry Operations During the 2024 Construction Season

Material Processing Area before starting the project

Material Processing Area at the end of the 2024 Construction Season

Clyde River Harbour Development
Clyde River, Nu

Quarry and Material Processing Area

Rocks Sorting from the Quarry

Road Maintenance

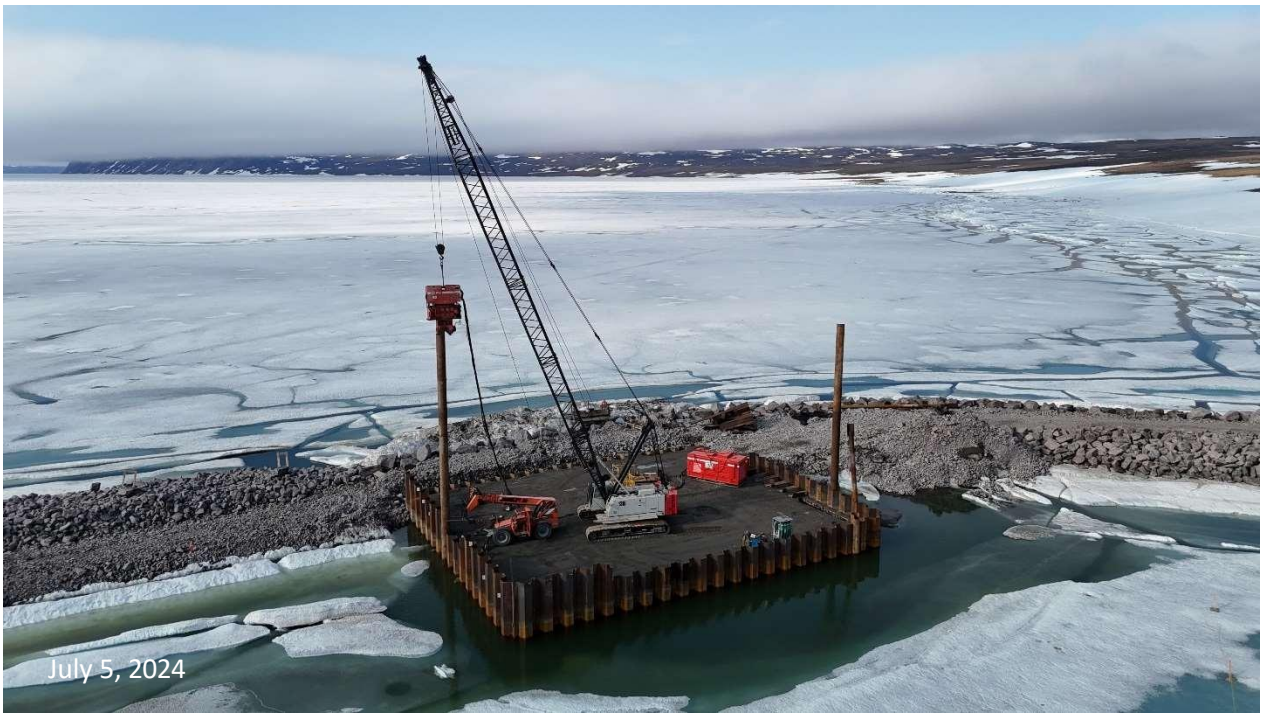
Road Maintenance, Dust Suppression

Fixed Wharf Construction: First Sheet Piles Installation

Underwater Acoustical Monitoring from the Sea Ice During the Sheet Pile Installation

Fixed Wharf Construction: Sheet Piles Installation

Fixed Wharf Construction: Tie Rods Installation



Fixed Wharf Construction: Toe Pin Installation

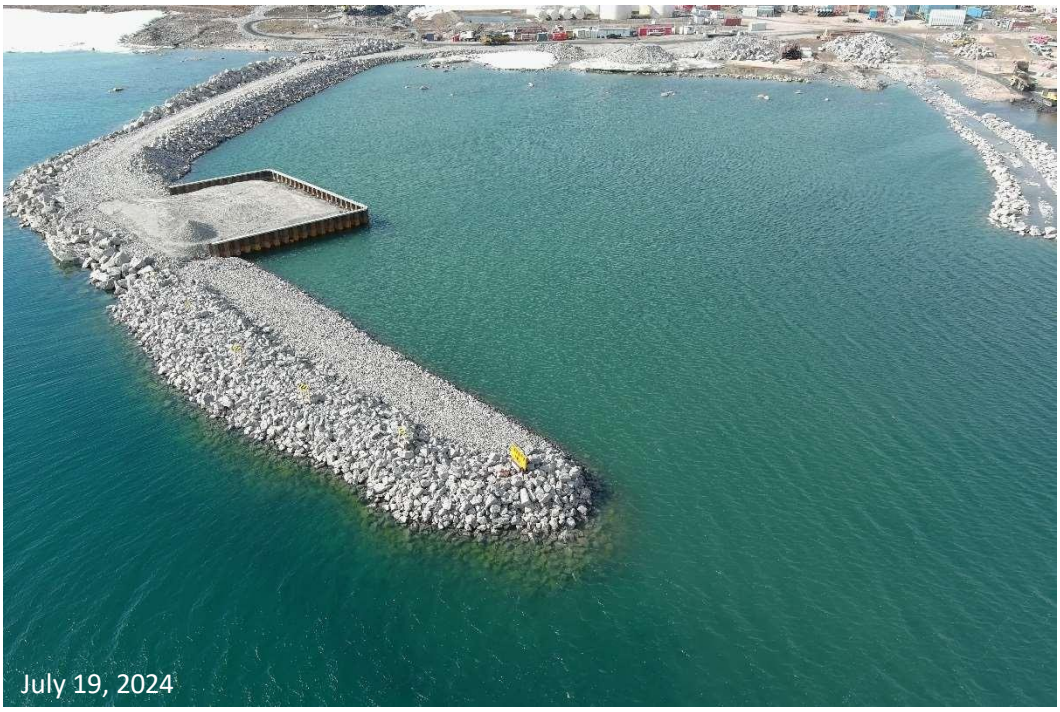
Fixed Wharf Construction: Wheel Guard, Bollards, Light Poles and Mooring Cleats Installed

Existing Sealift Breakwater (right), Before Starting the Construction of the Northeast Breakwater

Northeast Breakwater Construction Beside the Existing Sealift Breakwater

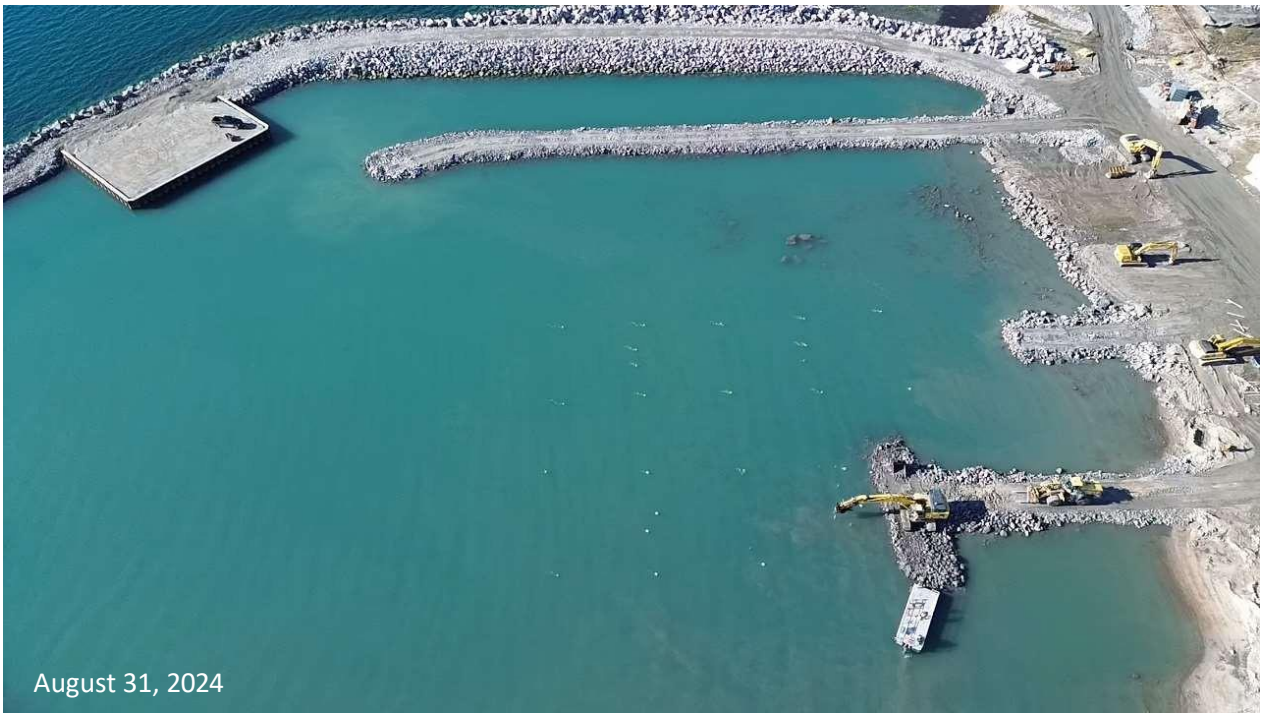
Northeast and Southwest Breakwaters

Northeast Breakwater & Sealift Breakwater Construction Completed

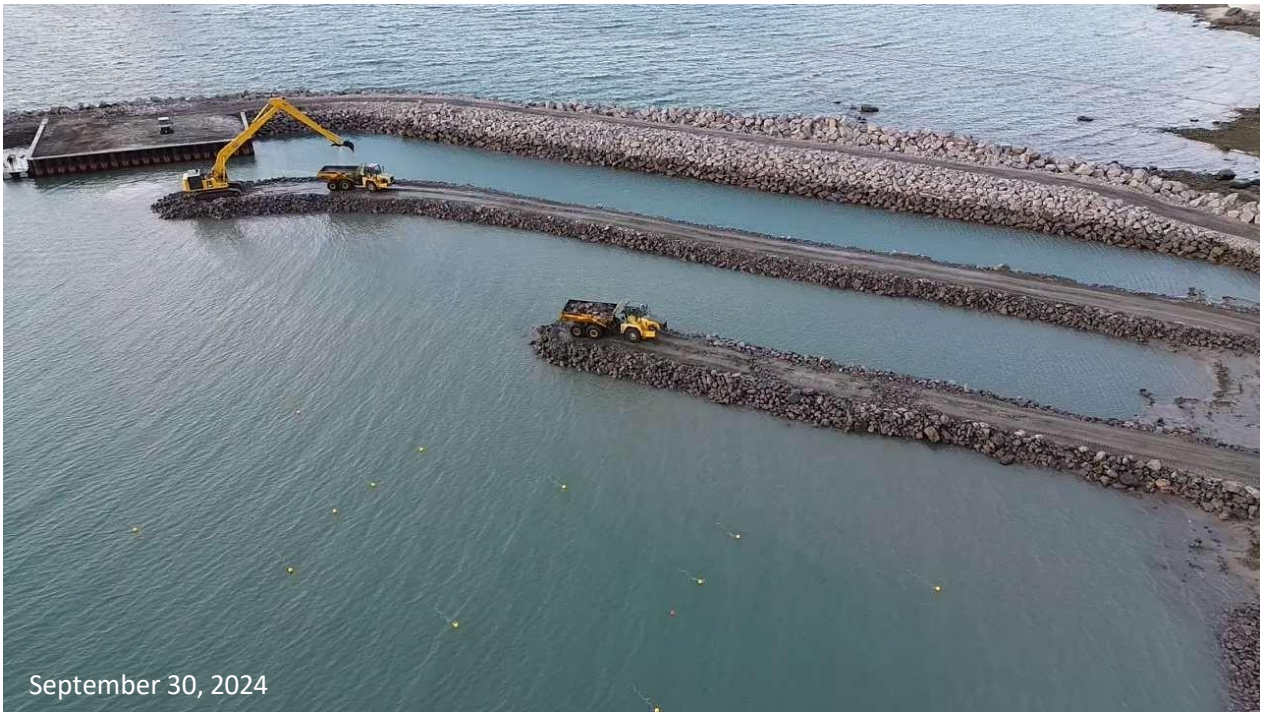


Before Starting the Dredging

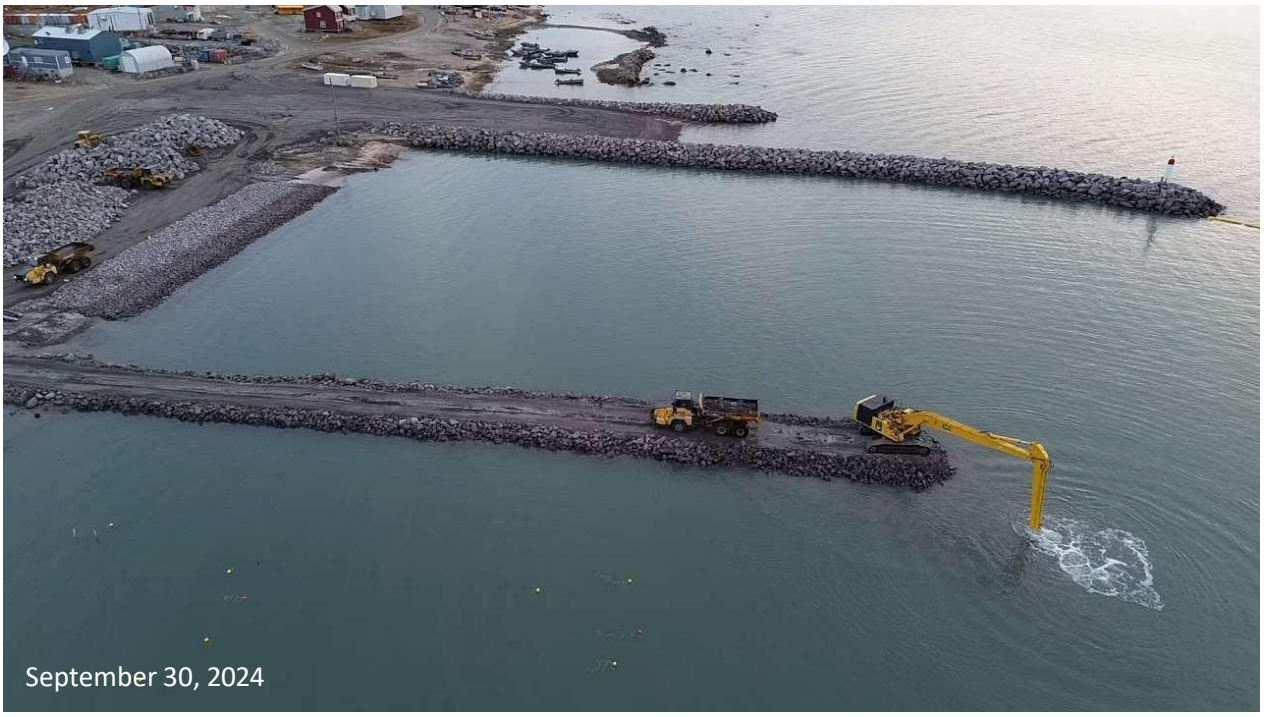
First Day of Dredging from the Temporary Access Road no.2



Completing Dredging Along the Temporary Access Road no.2



Dredging from Temporary Access Road no.5 and Building the Temporary Access Road no.4



Dredging from the Temporary Access Road no.4

Installation of one of the 56 Concrete Anchor Blocks for the Floating Wharfs

Completing the Dredging Operations

Dredge Spoil Dewatering Area Before the Project Beginning

Dredge Spoil Dewatering Area During the 2024 Construction Season

Dredge Spoil Dewatering Area at the end of the 2024 Construction Season

Material Transportation and Weighting

Traffic Control

Uplands (beach area) Before the Project Beginning

Uplands Upgrade -Shot Rock Installation

Uplands Upgrade -Crushed Stone Compaction

WATER USE ACTIVITIES

The type B water licence issued for this project is for the usage of a maximum 36 m^3/day of water supplied by the Hamlet of Clyde River from their domestic water delivery system. The licence was amended to include the withdraw of a maximum 30 m^3/day of water directly from the Clyde River, for dust suppression and/or for other usages. The maximum daily water consumption remains the same, at 36 m^3/day.

2.1 DOMESTIC WATER DELIVERED BY THE HAMLET

Domestic water was used at our 2 houses in Clyde River and at our construction camp. The potable water was delivered by the hamlet water truck. The sewage water was collected by the hamlet sewage truck and disposed at their sewage lagoon facility. Our operations started in mid-May 2024 with a crew of 10 people and ramped up to an average of 17 people from mid-June up to mid-October. Approximately 361,000 litres of potable water were delivered by the hamlet for the entire duration of our 2024's operations. This represents and average domestic water consumption of 2.3 m^3/day.

2.2 WATER PUMPED OUT FROM THE CLYDE RIVER

Dust control measures were needed only on a few occasions during the months of July and August 2024, as summarized in the **Table 1.** Water was poured on the roads with our water truck and calcium chloride was spread with a 2 tonnes spreader installed at the back of a pickup truck.

As presented in **Table 1**, water pumped out from the Clyde River was also used to produce concrete, for the compaction and for rinsing equipment exposed to salt water.

Our water truck, equipped with is own suction pump, was used to withdraw water directly from the Clyde River. The pump that was used have a maximum capacity of 264 GPM or 0.0166 m3/s, which is lower than the maximum allowable flow rate of 0.025 m^3/s, stipulated within the license amendment. A screen was installed at the end of the intake hose, to ensure that fish are not entrained during the pumping operations. At no time during the water pumping dead or injured fishes have been observed. The water was pumped out from the Clyde River on the southwest side of the bridge located nearby our construction camp, about 800 m northeast of the airport terminal, as indicated in **Figure 1**.

***Table 1**: Water Pumped out from the Clyde River*

Date	Water Pumped from the Clyde River	
	Dust Control	**Other Usages**
June 24th, 2024		10 m^3 for concrete fabrication
July 10th, 2024	20 m^3 spread on roads from the harbour site to quarry	
July 11th, 2024		10 m^3 for compaction and for rinsing equipment exposed to salt water
July 14th, 2024	10 m^3 spread on roads from the harbour site to quarry	--
Aug 1st, 2024	10 m^3 spread on roads from the harbour site to quarry	--
Aug 3rd, 2024		10 m^3 for rinsing equipment exposed to salt water
Aug 9th, 2024		10 m^3 for rinsing equipment exposed to salt water and for compaction
Aug 12th, 2024		10 m^3 for rinsing equipment exposed to salt water and for compaction
Aug 17th, 2024	10 m^3 spread on roads from the harbour site to quarry	--
Aug 21st, 2024		10 m^3 for rinsing equipment exposed to salt water and compaction
Aug 22nd 2024		10 m^3 for rinsing equipment exposed to salt water and compaction
Aug 28th, 2024	10 m^3 spread on roads from the harbour site to quarry	
Sept 22, 2024		10 m^3 for concrete production
Oct 3rd 2024		10 m^3 for rising equipment exposed to salt water

Water Spreading on the Road for Dust Control

Fish Screen Installed at the End of the Intake Hose for Pumping Water into the River

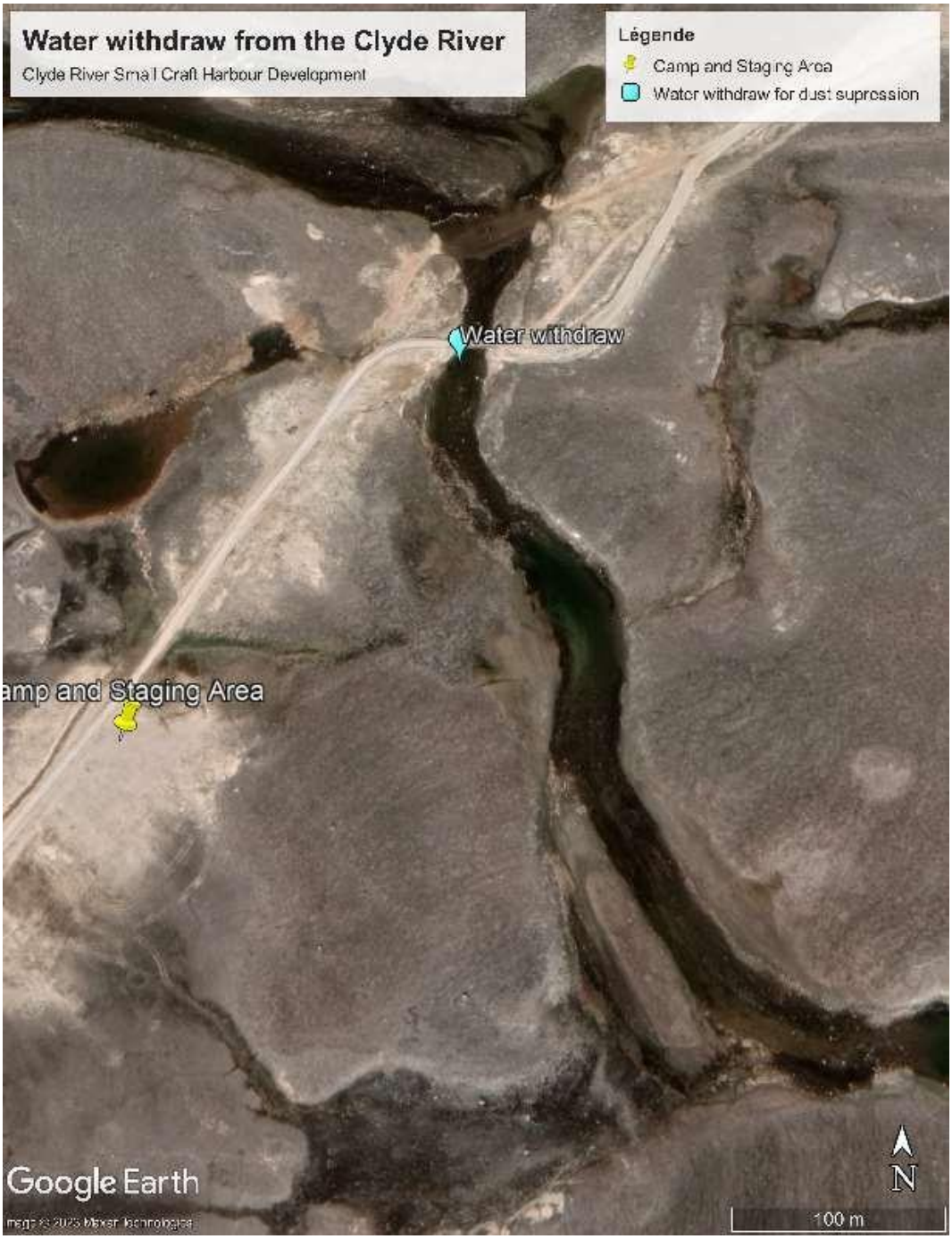


Figure 1: Location of the Water Withdrawn from the Clyde River

2.3 TOTAL WATER USE

The total daily water consumption, including the domestic water and the water withdrawn from the river, has never exceed the licence's maximum daily allowance of 36 m^3/day. The maximum daily usage for 2024 was 22.3 m^3, on July 10th, 2024. This is the only time where 2 water trucks were filled from the river during the same day.

2.4 UNAUTHORIZED DISCHARGE

Except for 5 minor hydraulic oil or diesel spills on land or on the sea water, no unauthorized discharge occurred during this construction season.

2.5 RIVER CROSSING

The Clyde River was crossed with a tracked excavator on August 10th, 2024, at the existing Ford crossing location (70° 28' 26.52'' N 68° 31' 20.89'' O). The excavator Komatsu PC-650 is too heavy and too wide to cross on the existing bridge. The crossing was done at 11:02 AM local time under the supervision of the environmental monitor, the presence of the wildlife monitor and the consultant representative. The procedures stated in the Fisheries Act Authorization were followed. The crossing report, attached in **Appendix 1**, was transmitted to DFO.

REPORTS AND PROGRAMS

The following management plans, in relation with the water licence, were issued for the project. As indicated in **Table 2**, some of these plans were revised last year and were included within the 2023 NWB report.

Table 2: *Plans Submitted in Relation with the Water Licence*

Management Plans	*Included within the 2023 NWB Annual Report*	*Updated Version Attached to this Document*
Waste Management Plan	Rev-02	--
Spill Prevention and Response Plan	Rev-02	--
Quarry Development and Blasting Management Plan	Rev-01	--
Water Quality Monitoring Plan (Included in the Sediment and Erosion Control Plan)	--	--
Sediment and Erosion Control Plan	Rev-03	--
Closure and Reclamation Plan for the Quarry Site (included in the Quarry Development and Blasting Management Plan	--	--

3.1 WASTE MANAGEMENT

The waste management for the 2024's construction season is summarized in **Table 3**. A considerable volume steel coming from the unused toe pins and the sheet pile cut-off were shipped back to southern facilities for recycling. Waste batteries, scrap metals, used oils, used oil filters, empty gas cylinders and some mechanical parts were also shipped by sealift to different southern facilities for reusing, recycling or retrofit. The largest volume of waste delivered to the local landfill was domestic garbage coming from the camp operation. The buried barge that was found during the retrofit of the sealift breakwater, was demolished and transported to the local landfill as well. The total volume of waste generated during the 2024's construction season is estimated to 492.3 m^3. From this volume, about 385 m^3 of waste were shipped off-site for disposal or recycling. The diverted waste from the community disposal facility represents 78% of the total volume of waste generated.

Table 3*: 2024 Waste Management*

Steel (unused toe pins and sheet piles cut-off)					359	
Waste Oil and Waste Filters & Grease Container					5	
Waste Batteries					0,3	
Waste Tires					9	
Mechanical Parts Sent for Retrofit					12	
Streams not Contributing to Credit						
Misc. Camp waste	2	8	8	9	10,8	4
Waste wood	0	15	8	4	2	0
Waste metal & misc. From barge demolition			5	31		
Total Diverted Waste	386	m3				
Total Waste	492	m3				
Percentage Diverted	78%					

3.2 SPILLS

A spill prevention & response plan was submitted to PSPC and to the consultant at the end of June 2022. The revised version (rev-02) was issued to includes the comments from all parties. This version was included within the 2023 annual report presented to the Nunavut Water Board. No modifications to the Plan have been done since that time.

A total of 5 spills occurred during the 2024's construction season, as summarized in **Table 4.** Spill reports were sent to the Nunavut Spill Line for the spills that occurred on July 31st, 2024, and September 23rd, 2024. These spills were under 100 litres but considering that they happened on the water, the Nunavut spill line was contacted. No corrective action was instructed by the Nunavut Spill Line authorities. Minor quantities of impacted soils and rocks were placed into one Quatrex bag. It will be shipped by sealift to Bécancour (QC) at the end of the summer 2025 for disposal. The spill reports are presented in **Appendix 2**.

***Table 4**: Spill Log*

Date of Spill & Location	Source	Quantity & Product	Contingency Measures
June 14th, 2024 Northeast breakwater	Broken hydraulic hose on excavator	3 liters of biodegradable hydraulic oil (Panolin)	No direct leak in water. Absorbent pads were used to wipe some rocks and others were containerized into a quatrex bag.
June 18th, 2024 Uplands, in front of the site office	Loader: valve on fuel line broke	5 liters of diesel	A pale was placed rapidly to contain the leak and the loader was drove to the hamlet garage for repair. A small quantity of impacted soil was placed into a Quatrex bag.
June 21st, 2024 Northeast breakwater	Broken excavator hydraulic cylinder	25 liters of biodegradable hydraulic oil (Panolin)	Some oil leaked into water but most part spilled into the excavator bucket. Oil was recovered with absorbent pads and some stained rocks were collected and placed into a Quatrex bag.
July 31st, 2024 Northeast breakwater	Broken hydraulic hose on the hydraulic roc breaker mounted on the excavator	50 liters of biodegradable hydraulic oil (Panolin)	Leak of Panolin biodegradable hydraulic oil on sea water surface. Absorbent pads were immediately placed to collect the surface floating oil. The absorbent pads (20) were removed and containerized for off-site disposal.
September 23rd, 2024 Temporary dredge road no.5	Broken hydraulic hose on the excavator	30 liters of biodegradable hydraulic oil (Panolin)	Leak of Panolin biodegradable hydraulic oil on sea water surface. Absorbent pads and absorbent booms were immediately placed to collect the surface floating oil. The absorbent pads and booms were removed and containerized for off-site disposal.

3.3 QUARRY DEVELOPMENT

A total of 9 blasts was done at the quarry from June 4th, 2024, to August 8th, 2024. About 26,500 cubic meters of rock was extracted to produce a part of the material required for the project. The **Figure 2** shows the quarry expansion limits, the original quarry perimeter before the project starts and the quarry perimeter at the end of the 2024 construction season. The quarry will still be in development in 2025. The reclamation works will be done in 2025. Please see Appendix 5 for Quarry Reclamation Plan.

***Figure 2**: Quarry Expansion Limits and Progress*

3.4 EROSION AND SEDIMENT CONTROL

Erosion was monitored at the different working sites, during the snow melting and during the entire construction season. Erosion and sediment control measures were installed at the harbour site and along the haul road, from the quarry to the airport road.

At the quarry site, silt fences and hay logs were installed between the wetland and the north end of the quarry.

At the harbour site, a dredge spoil dewatering area (DSDA) was built in 2023 including a decantation basin and filtration berm. In 2024, silt fences were added along the east berm. The decantation basin was upgraded. A filtration berm, made of hay logs and clear stone was built at the northeast corner of the DSDA, at the beginning of the community access road.

Silt Fences and Hay Logs Installed Between the Wetland and the Quarry North End

Dredge Spoil Dewatering Area

Filtration Berm Built at the North Corner of the of the DSDA

Improvement of the Decantation Basin at the DSDA

3.5 SURFACE RUNOFF MONITORING

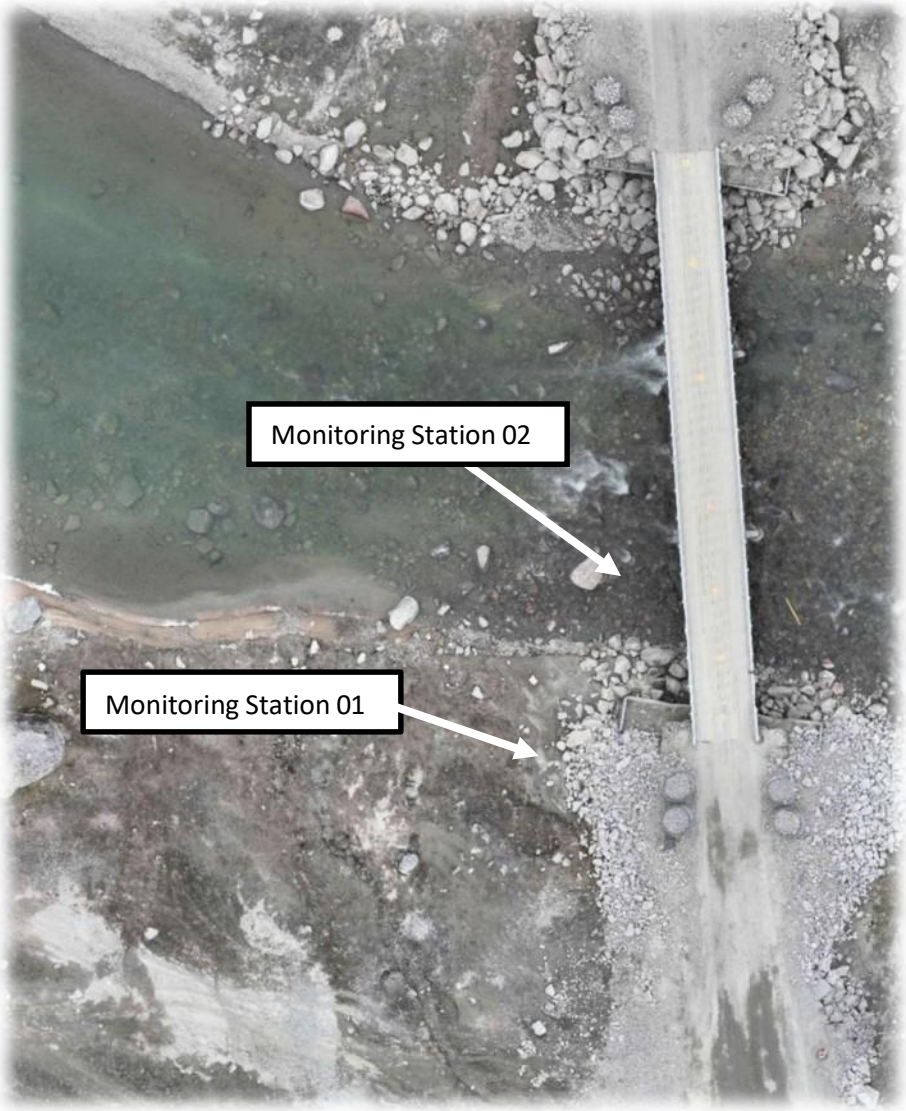
According to the water licence, all surface runoff or discharges impacted by construction activities associated with the Project, where flow may directly or indirectly enter water, shall be monitored for the following parameters:

Parameters	Criteria
Total Suspended Solids (TSS)	Maximum grab sample: 100 mg/L Maximum average: 50 mg/L
pH	Between 6.0 and 9.5
Presence of hydrocarbon sheen	No visible sheen

The TSS was measured with a portable *Hach* turbidity meter LXV322 and the pH with a portable pH meter *Hanna* pHeP 4. Two locations, where runoff from construction activities enter water body, were monitored, as presented within the next pages.

a. Monitoring Stations 01 and 02

The monitoring Stations 01 and 02 were located on the southwest side of the bridge to the quarry. The station 01 was established where the runoff coming out of the rock and granular material processing area reaches the Clyde River. The station 02 was established directly in the river, 3 meters upstream from the station 01. The river started flowing around June 22nd, 2024, and became free of ice a week later. The surface water quality at the stations 01 & 02 was monitored for the first time on June 25th, 2024, and for the last time on October 10th, 2024. The surface water monitoring was done mainly after rain events to make sure that no visual sign of pollution was observed. The pH and the TSS were measured, and observations were done for the presence of hydrocarbon sheen.



Location of Monitoring Stations 01 and 02, Bridge to Quarry

Clyde River Harbour Development
Clyde River, Nu

The results for both monitoring stations 01 and 02 are presented in **Table 5** in **Appendix 3** and summarized here below.

At the station 01, no grab sample exceedance (100 mg/L) was measured during the entire monitoring season. The average measured TSS was 21.8 mg/L. No hydrocarbon sheen was ever observed. The measured pH values stayed within the permit criteria (6.0-9.5), with an average of 7.5.

In the river (station 02), no grab sample exceedance (100 mg/L) was measured during the entire monitoring season. The average measured TSS was 6.67 mg/L. The measured pH values stayed within the permit criteria (6.0-9.5), with an average value of 7.5. No hydrocarbon sheen was ever observed.

Monitoring Station 01

b. Monitoring Stations 03 and 04

The monitoring Station 03 was located just upstream of the culvert that crosses the PPD pipelines, downstream from the water discharge point of the dredge spoil dewatering area (DSDA). The station 04 was established 70 meters upstream from the station 03. Monitoring station 4 is the point that best represents water quality sourced from off-site. Water from upstream sources flows through this area prior to being potentially impacted by the project activities. A sedimentation pond and a filtration berm were built at the drainage exit area of the DSDA. The water coming out of the filtration berm discharges into the existing ditch that drains the area located north of the community tank farm. The surface water quality at the station 03 was monitored for the first time on June 26th, 2024. The surface water quality at the station 4 was started later in the summer, on August 22nd, 2024, after a significant rain event. The last measurements were done on October 10th, 2024. After this date, temperatures went below the freezing point, and no more run-off was observed after.

Location of Monitoring Stations 03 and 04, Dredge Spoil Dewatering Area

Monitoring Station 03

Monitoring Station 04

Results

The results for both monitoring stations 03 and 04 are presented in **Table 5** in **Appendix 3** and summarized here below.

The total suspended solids (TSS) measurements at the station 03 exceeded the grab sample criteria (100 mg/L) at 3 times during the 2024 construction season. Excess values are shown in red in the TABLE 5. The summer was mostly dry until August 22nd, 2024, where rain episodes became more significative. Two grab sample exceedances were monitored on August 22nd and 25th, 2024, after a rain period. The third exceedance was measured on September 7, where extensive work was carried within the dredge spoil dewatering area (DSDA). During the entire monitoring season, the average TSS measured at station 03 was 64.35 mg/L, including the 3 grab sample exceedances. If we exclude these 3 episodes, the average TSS measurements for the entire summer was 30 mg/L.

The station 4 was located upstream of the DSDA discharge point. Data were collected from the first rain episode, on August 22nd, 2024, when a TSS exceedance was measured at the station 3. The TSS measurement done at the station 4 were always higher than at the Station 3. The ditch that runs upstream od the DSDA is draining the area located north of the community tank farm. Please note that the excess values at the Station 4 are not shown in red in the Table 5 as the surface water quality at this location is not impacted by the project activities.

No hydrocarbon sheen was ever observed at both stations. The measured pH values stayed within the permit criteria (6.0-9.5), with an average of 7.21 at the station 3 and 7.7 at the station 4.

Clyde River Harbour Development
Clyde River, Nu

APPENDIX 1
CLYDE RIVER HARBOUR CONSTRUCTION

FORD CROSSING REPORT

Submittals

PILITAK ENTERPRISES LTD

No. :	91
Rev. :	00
Date :	August 13, 2024

Project : CLYDE RIVER HARBOUR DEVELOPMENT
DFO ETO-025-222050
Project No. : 2022-034

Subject : **Ford crossing report Aug 10, 2024**

Submitted to :
CBCL Limited
1505 Barrington St
Halifax, NS, B3J 3K5

David Parsons
davidp@cbcl.ca
506-633-6650 ext 3233

Copy to :
Kenton Thiesson
PSPC

kenton.thiessen@pwgsc-tpsgc.gc.ca
204-229-6375

Speciality :	Environment	**Submitted for :**	review
Specification section :		**Revision required by :**	**August 23, 2024**
Drawing reference :		**Color choice required :**	
Submited as :	review	**Total Page incl. cover :**	**9**

Subcontractor or supplier :

-

Manufacturer :

Description : Ford crossing report Aug 10, 2024

Supplier No :

Comments :

Revised and submitted by :

François Bourassa, P.Eng.
Pilitak Enterprises Ltd.
1519 Federal Road
Iqaluit
418-781-6114 ext 213
fbourassa@pilitak.biz

Review by the consultant or the client :

August 13, 2024

Clyde River Small Craft Harbour Development, FAA ref: 20-HCAA-00154

Clyde River Fording report, August 10, 2024

The Clyde River was crossed with a tracked excavator on August 10, 2024, at the existing Ford crossing location (70° 28’ 26.52’’ N 68° 31’ 20.89’’ O), as presented in **Figure 1**. The excavator Komatsu 650 is too heavy and too wide to cross on the existing bridge. The crossing was done at 11:02 AM local time under the supervision of the environmental monitor and the presence of the wildlife monitor and the consultant representative. The sequence of event is summarized here below:

- Aug 9: Fish monitoring at the Ford crossing location, at 145 m upstream and at 250 m downstream by the wildlife monitor from 11 AM to 6 PM. No fish was observed. The monitoring was witnessed by the environmental monitor, the site superintendent and the consultant, refer to attached signed sheet.
- Aug 10: Fish monitoring at the Ford crossing, upstream and downstream, by the wildlife monitor before crossing the river. No fish was observed. The monitoring was witnessed by the environmental monitor, the site superintendent and the consultant, refer to attached signed sheet.
- Aug 10: The excavator, escorted by the wildlife monitor on an ATV, crossed the river at 11:02. The crossing took one minute, refer to the attached pictures.
- Aug 10: Fish monitoring at the Ford crossing after the excavator crossing. No fish was observed for the rest of the day.


N
Existing Bridge
Downstream monitoring location
Monitoring at Ford crossing
Ford crossing
Upstream monitoring location

PILITAK ENTERPRISES LTD
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River Crossing Monitoring Report

Date (day/Month/Year)	09/08/2024	Equipment Inspector	[signature]	Clyde River Harbour Development
Environmental	[signature]	Superintendant	[signature] John	2022-034
Wildlife Monitor	[signature]	Client Representative	[signature]	[signature] Superintendant

Time	Common Species	Activity/Observation	Mitigation	Comments
11:00 AM				NO Fish observed
12:00 PM				NO Fish observed
13:00 PM				NO Fish observed
14:00 PM				NO Fish observed
15:00 PM				NO Fish observed
16:00 PM				No Fish observed
17:00 PM				NO Fish observed
18:00 PM				NO Fish observed

PILITAK ENTERPRISES LTD

River Crossing Monitoring Report

Date (day/Month/Year)	10/08/2024	**Equipment Inspector**	[illegible]	**Clyde River Harbour Development**
Environmental	[illegible]	**Superintendant**	[illegible]	**2022-034**
Wildlife Monitor	[illegible]	**Client Representative**	[illegible]	[illegible] superintendent

Time	Common Species	Activity/Observation	Mitigation	Comments
11:00 AM				No Fish observed
12:00 PM				No Fish observed
13:00 PM				No Fish observed
14:00 PM				No Fish observed
15:00 PM				No Fish observed
16:00 PM				No Fish observed
17:00 PM				No Fish observed
18:00 PM				No Fish observed

August 10, 2024 11:02 Beginning of the Ford crossing from the south bank


August 10, 2024 11:02 crossing

August 10, 2024 11:03 Ford crossing completed to the north bank


August 12, 2024 Ford crossing conditions

APPENDIX 2
CLYDE RIVER HARBOUR CONSTRUCTION

SPILL REPORTS

SPILL REPORT

OIL, GASOLINE, CHEMICALS AND
OTHER HAZARDOUS MATERIALS

PILITAK ENTERPRISES LTD
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P.O. Box 727, 1519C Federal Road, Iqaluit, NU X0A 0H0

A	Report Date: 06/16/24	Report Time: 10am	☑ Original Spill Report OR ☐ Update # ______ to the Original Spill Report	**Report Number:** 7
B	Occurrence Date: 06/16/24	Occurrence Time: 10am		
C	Land Use Permit Number (if applicable):		Water Licence Number (if applicable):	
D	Geographic Place Name or Distance and Direction from the Named Location: Clyde River Nunavut - Breakwater Site		Region: ☐ NT ☑ Nunavut ☐ Adjacent Jurisdiction or Ocean	
E	Latitude: ______ Degrees ______ Minutes ______ Seconds		Longitude: ______ Degrees ______ Minutes ______ Seconds	
F	Responsible Party or Vessel Name:		Responsible Party Address or Office Location:	
G	Any Contractor Involved:		Contractor Address or Office Location:	

H	Product Spilled: ☐ Potential Spill Panolin HLP Synth oil	Quantity in Litres, Kilograms or Cubic Metres: 3 Litres	U.N. Number:
I	Spill Source: Excavator 650	Spill Cause: Loose hose	Area of Contamination in Square Metres: 2
J	Factors Affecting Spill or Recovery: N/A	Describe Any Assistance Required: —	Hazards to Persons, Property or Environment: —

K — Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials:

Small leak of biodegradable hydraulic oil from a loose hose on the 650 Excavator while it was working on the construction of the north east Breakwater in Clyde River. There was no direct leak in the water and the rocks were wiped out & cleaned using absorbant sheets. We transported those more contaminated rocks in a bag that will be sent south at the end of the season.

L	Reported to Spill Line by: Chloé-Ève Ste-Marie	Position: Site Coordinator	Employer: Pilitak Enterprises	Location Calling From:	Telephone: 514-632-6324
M	Any Alternate Contact: Jean-Marc Ballard	Position: Environment	Employer: Pilitak Enterprises	Alternate Contact Location:	Alternate Telephone: 418-208-1856

REPORT LINE USE ONLY

N	Received at Spill Line by: François Barassa	Position: Project Manager	Employer: Pilitak Enterprises	Location Called:	Report Line Number: 418-930-0850

Lead Agency: ☐ EC ☐ CCG/TCMSS ☐ GNWT ☐ GN ☐ ILA ☐ AANDC ☐ NEB ☐ Other: ______

Significance: ☐ Minor ☐ Major ☐ Unknown

File Status: ☐ Open ☐ Closed

Agency:	**Contact Name:**	**Contact Time:**	**Remarks:**
Lead Agency:			
First Support Agency:			
Second Support Agency:			
Third Support Agency:			

SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

PILITAK ENTERPRISES LTD

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P.O. Box 727, 1519C Federal Road, Iqaluit, NU, X0A 0H0

A	Report Date: 06 18 24	Report Time: 10:30am	☑ Original Spill Report OR	Report Number: 8
B	Occurrence Date: 06 18 24	Occurrence Time: 10:30am	☐ Update # ______ to the Original Spill Report	
C	Land Use Permit Number (if applicable):		Water Licence Number (if applicable):	
D	Geographic Place Name or Distance and Direction from the Named Location: Clyde River Nunavut - Breakwater Site		Region: ☐ NT ☑ Nunavut ☐ Adjacent Jurisdiction or Ocean	
E	Latitude: ______ Degrees ______ Minutes ______ Seconds		Longitude: ______ Degrees ______ Minutes ______ Seconds	
F	Responsible Party or Vessel Name:		Responsible Party Address or Office Location:	
G	Any Contractor Involved:		Contractor Address or Office Location:	
H	Product Spilled: ☐ Potential Spill Diesel	Quantity in Litres, Kilograms or Cubic Metres: 5Litres	U.N. Number:	
I	Spill Source: Loader Komatsu 500	Spill Cause: Valve break on a fuel line	Area of Contamination in Square Metres: 0.25	
J	Factors Affecting Spill or Recovery: N/A	Describe Any Assistance Required: —	Hazards to Persons, Property or Environment: —	

K Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials:

Fuel leak on the 500 Komatsu Loader from a valve break on the Fuel line. The brake occured in front of the office at the beach site at around 200ft from the low water tide mark. The loader was immediatly redirected outside the beach site toward the municipal garage to contain leak in 5 gallons bucket and absorbant pads. Overall, around 25 litres of Fuel was leaked on the ground out of around 5 litres directly at beach site.

L	Reported to Spill Line by: Chloé-Eve Ste-Marie	Position: Site Coordinator	Employer: Pilitak Enterprises	Location Calling From:	Telephone: 514-632-6324
M	Any Alternate Contact: Jean-Marc Ballard	Position: Environment	Employer: Pilitak Enterprises	Alternate Contact Location:	Alternate Telephone: 418-208-1856

REPORT LINE USE ONLY

N	Received at Spill Line by: François Barassa	Position: Project manager	Employer: Pilitak Enterprises	Location Called:	Report Line Number: 418-930-0850
	Lead Agency: ☐ EC ☐ CCG/TCMSS ☐ GNWT ☐ GN ☐ ILA ☐ AANDC ☐ NEB ☐ Other: ______		Significance: ☐ Minor ☐ Major ☐ Unknown		File Status: ☐ Open ☐ Closed

Agency:	Contact Name:	Contact Time:	Remarks:
Lead Agency:			
First Support Agency:			
Second Support Agency:			
Third Support Agency:			

SPILL REPORT

OIL, GASOLINE, CHEMICALS AND
OTHER HAZARDOUS MATERIALS

PILITAK ENTERPRISES LTD
ᐱᓕᑖᒃ ᐃᖃᓇᐃᔭᖅᑎᓚᕆᐊᑦ ᓕᒥᑎᑦ
PO Box 727, 1519C Federal Road, Iqaluit, NU, X0A 0H0

A	Report Date: 06 21 24 · Report Time: 10am	☑ Original Spill Report OR ☐ Update # ____ to the Original Spill Report	Report Number: 9
B	Occurrence Date: 06 21 24 · Occurrence Time: 10 am		
C	Land Use Permit Number (if applicable):	Water Licence Number (if applicable):	
D	Geographic Place Name or Distance and Direction from the Named Location: Clyde River Nunavut - Breakwater site	Region: ☐ NT ☑ Nunavut ☐ Adjacent Jurisdiction or Ocean	
E	Latitude: ____ Degrees ____ Minutes ____ Seconds	Longitude: ____ Degrees ____ Minutes ____ Seconds	
F	Responsible Party or Vessel Name:	Responsible Party Address or Office Location:	
G	Any Contractor Involved:	Contractor Address or Office Location:	
H	Product Spilled: ☐ Potential Spill · Panolin HLP Synth oil	Quantity in Litres, Kilograms or Cubic Metres: 25 Litres	U.N. Number:
I	Spill Source: Excavator Komatsu 450	Spill Cause: Break on a hydraulic Cylinder	Area of Contamination in Square Metres: 4
J	Factors Affecting Spill or Recovery: N/A	Describe Any Assistance Required: ——	Hazards to Persons, Property or Environment: ——
K	Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials: Oil leak on Komatsu 450 excavator from a break on hydraulic cylinder. The break occured in front of the office at the beach site of the NEBW. Some oil was spilled over water, on ice blocks and on the breakwater rocks. Around 25 Litres leaked, most from the broken cylinder emptying itself. Most oil was caught in the bucket of the excavator. Absorbant pads were used to clean oil from rocks and excavator bucket. The excavator was taken out of beach for repair. The contaminated rocks and ice were disposed in shipping bags.		
L	Reported to Spill Line by: Chloé-Eve Ste-Marie · Position: Site Coordinator · Employer: Pilitak Enterprises	Location Calling From:	Telephone: 514-632-6324
M	Any Alternate Contact: Jean-Marc Ballard · Position: Environment · Employer: Pilitak Enterprises	Alternate Contact Location:	Alternate Telephone: 418-208-1856

REPORT LINE USE ONLY

N	Received at Spill Line by: François Bourassa	Position: Project Manager	Employer: Pilitak Enterprises	Location Called:	Report Line Number: 418-930-0850

Lead Agency: ☐ EC ☐ CCG/TCMSS ☐ GNWT ☐ GN ☐ ILA ☐ AANDC ☐ NEB ☐ Other: · Significance: ☐ Minor ☐ Major ☐ Unknown · File Status: ☐ Open ☐ Closed

Agency:	Contact Name:	Contact Time:	Remarks:
Lead Agency:			
First Support Agency:			
Second Support Agency:			
Third Support Agency:			

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 08-01-24	REPORT TIME 16h00	☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER ____-_____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 07-31-24	OCCURRENCE TIME 14h00		
C	LAND USE PERMIT NUMBER (IF APPLICABLE) N2022X2225	WATER LICENCE NUMBER (IF APPLICABLE) 8BC-CLY2225		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION On the new North east Break water	REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 70 MINUTES 28 SECONDS 1	LONGITUDE DEGREES -68 MINUTES 35 SECONDS 41		
F	RESPONSIBLE PARTY OR VESSEL NAME Pilitak	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION		
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION		
H	PRODUCT SPILLED Panolin Hydraulic oil	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 50 liters	U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
I	SPILL SOURCE 400 Komatsu excavator	SPILL CAUSE Loose hydraulic fitting on hose	AREA OF CONTAMINATION IN SQUARE METRES 10m2	
J	FACTORS AFFECTING SPILL OR RECOVERY n.a	DESCRIBE ANY ASSISTANCE REQUIRED n.a.	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT n.a	

K — ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS

Small leak of biodegradable hydraulic oil on rock surface with some drops in the sea water . The rocks were wipped with absordant pads and some pads were also placed in the water to immediately absorbe the floating oil dropplet. The wind was helpfull at keeping all the droplets in the same area. The contaminated pads (20) were placed in a bag to be send south at the end of the season.

L	REPORTED TO SPILL LINE BY Jean-Marc Ballard	POSITION Environm. monitor	EMPLOYER Pilitak	LOCATION CALLING FROM Clyde River	TELEPHONE 418-208-1856
M	ANY ALTERNATE CONTACT Chloé Ste-Marie	POSITION Site coordinator	EMPLOYER Pilitak	ALTERNATE CONTACT LOCATION Clyde River	ALTERNATE TELEPHONE 514-632-6324

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR 09-24-24	REPORT TIME 11h00	☒ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER ____-_____
B	OCCURRENCE DATE: MONTH – DAY – YEAR 09-23-24	OCCURRENCE TIME 10h30		
C	LAND USE PERMIT NUMBER (IF APPLICABLE) N2022X0002	WATER LICENCE NUMBER (IF APPLICABLE) 8BC-CLY2225		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION On dredging temporary road 5	REGION ☐ NWT ☒ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES 70 MINUTES 28 SECONDS 02	LONGITUDE DEGREES -68 MINUTES 35 SECONDS 51		
F	RESPONSIBLE PARTY OR VESSEL NAME Pilitak	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION		
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION		
H	PRODUCT SPILLED Panolin hydraulic oil	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES 30 litres	U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
I	SPILL SOURCE 650 Komatsu excavator	SPILL CAUSE Hydraulic hose break	AREA OF CONTAMINATION IN SQUARE METRES 2m2	
J	FACTORS AFFECTING SPILL OR RECOVERY n.a	DESCRIBE ANY ASSISTANCE REQUIRED n.a.	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT n.a	

K — ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS

Leak of Panolin biodegradable hydraulic oil on sea water surface. Booms absorbent were deployed to surround the area where surface floating oil dropplets were visible and it was left in place all day to absorb all oil presence. In addition, this area is contained within a silt curtain that prevent any contaminant leak into free ocean area. No trace of free oil dropplets were visible as in the morning of the 24 of september. The used booms are kept in closed bags for later disposal.

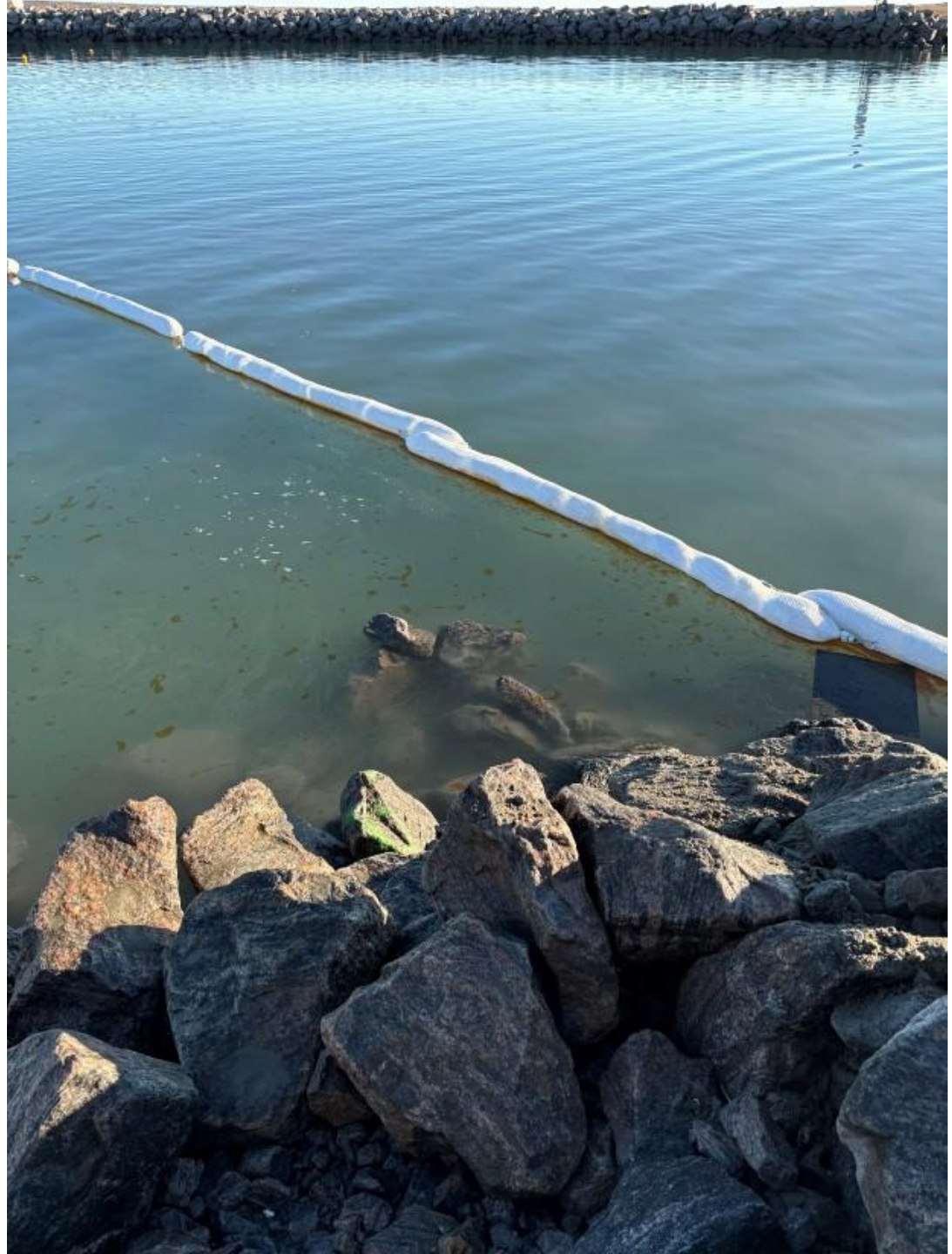
L	REPORTED TO SPILL LINE BY Jean-Marc Ballard	POSITION Environm. monitor	EMPLOYER Pilitak	LOCATION CALLING FROM Clyde River	TELEPHONE 418-208-1856
M	ANY ALTERNATE CONTACT Chloé Ste-Marie	POSITION Site coordinator	EMPLOYER Pilitak	ALTERNATE CONTACT LOCATION Clyde River	ALTERNATE TELEPHONE 514-632-6324

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

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APPENDIX 3
CLYDE RIVER HARBOUR CONSTRUCTION

RUNOFF MONITORING RESULTS

Clyde River Harbour Development
TABLE 5: 2024 Runoff Quality Monitoring

Date	Time	Station	Site/location	TSS (g/L) Max average 50 mg/L Max grab sample 100 mg/L	pH Between 6.0 & 9.5	Presence of HC sheen No visible	Note
June 25	09:30	1	Downstream quarry	20		no	
June 25	09:45	2	River	10		no	
June 26	10:30	3	Downstream Laydown area (at culvert)	10		no	
June 29	07:00	1	Downstream quarry	10		no	
June 29	07:15	2	River	10		no	
June 29	10:00	3	Downstream Laydown area (at culvert)	10		no	
July 07	14:00	3	Downstream Laydown area (at culvert)	10		no	
July 11	11:00	3	Downstream Laydown area (at culvert)	10		no	
July 18	08:45	1	Downstream quarry	10		no	
July 18	09:00	2	River	10		no	
July 25	11:00	1	Downstream quarry	60		no	
July 25	11:15	2	River	10		no	
July 25	10:00	3	Downstream Laydown area (at culvert)	10		no	
July 30	15:00	1	Downstream quarry	10	7,8	no	
July 30	15:10	2	River	10	7,2	no	
July 30	16:00	3	Downstream Laydown area (at culvert)	20	7,8	no	Electrical pole was installed beside culvert
July 31	09:00	1	Downstream quarry	60		no	
July 31	09:15	2	River	10		no	
July 31	10:00	3	Downstream Laydown area (at culvert)	10		no	
Aug 01	13:15	1	Downstream quarry	10	7,8	no	
Aug 01	13:30	2	River	10	7,2	no	

Date	Time	Station	Site/location	TSS (g/L) Max average 50 mg/L Max grab sample 100 mg/L	pH Between 6.0 & 9.5	Presence of HC sheen No visible	Note
Aug 01	15:00	3	Downstream Laydown area (at culvert)	20	7,8	no	
Aug 04	14:00	1	Downstream quarry	10	7,6	no	
Aug 04	14:15	2	River	10	7,3	no	
Aug 04	15:00	3	Downstream Laydown area (at culvert)	20	7,8	no	
Aug 12	16:00	1	Downstream quarry	10	7,6	no	
Aug 12	16:15	2	River	0	7,2	no	
Aug 12	17:00	3	Downstream Laydown area (at culvert)	30	7,1	no	
Aug 20	12:30	1	Downstream quarry	20	7,6	no	
Aug 20	12:45	2	River	10	7,2	no	
Aug 20	17:00	3	Downstream Laydown area (at culvert)	30	7,4	no	
Aug 22	13:10	4	Upstream exit DSA	330	8,4	no	Heavy rain all night
Aug 22	13:15	3	Downstream exit DSA	280	7,3	no	Heavy rain all night
Aug 22	13:20	3	Downstream exit DSA, at culvert	310	7,3	no	Heavy rain all night
Aug 22	14:30	1	Downstream quarry	50	7,7	no	Heavy rain all night
Aug 22	14:45	2	River	10	8,2	no	Heavy rain all night
Aug 23	07:30	3	Upstream exit DSA	50	8	no	
Aug 23	07:30	3	Downstream exit DSA, at culvert	40	7,5	no	
Aug 25	10:45	4	Upstream exit DSA	120	7,8	no	Raining in morning
Aug 25	10:45	3	Downstream exit DSA, at culvert	110	7,5	no	Raining in morning
Aug 26	15:30	1	Downstream quarry	20	7,6	no	
Aug 27	15:45	2	River	10	7,3	no	
Aug 29	10:45	4	Upstream exit DSA	70	7,8	no	Raining in morning
Aug 29	10:45	3	Downstream exit DSA, at culvert	60	7,3	no	Raining in morning
Aug 29	06:30	1	Downstream quarry	50	7,4	no	Raining during night
Aug 29	06:15	2	River	10	8,3	no	Raining during night
Sept 7	10:45	3	Downstream exit DSA, at culvert	210	7,5	no	Sunny
Sept 7	06:30	1	Downstream quarry	10	7,6	no	Sunny
Sept 7	06:15	2	River	0	8,3	no	Sunny
Sept 10	10:45	4	Upstream exit DSA, at culvert	140	7,5	no	Sunny
Sept 10	10:45	3	Downstream exit DSA, at culvert	40	7,4	no	Sunny
Sept 10	06:30	1	Downstream quarry	0	7,2	no	Sunny
Sept 10	06:15	2	River	0	7,5	no	Sunny
Sept 16	10:45	4	Upstream exit DSA	70	6	no	Sunny
Sept 16	10:45	3	Downstream exit DSA, at culvert	20	6,2	no	Sunny
Sept 16	06:30	1	Downstream quarry	0	7,1	no	Sunny

Date	Time	Station	Site/location	TSS (g/L) Max average 50 mg/L Max grab sample 100 mg/L	pH Between 6.0 & 9.5	Presence of HC sheen No visible	Note
Sept 16	06:15	2	River	0	7,2	no	Sunny
Sept 26	00:00	3	Downstream exit DSA, at culvert	30	6,1	no	Cloudy
Sept 26	08:30	4	Upstream exit DSA	110	7,3	no	Cloudy
Sept 26	08:30	3	Downstream exit DSA, at culvert	30	6,9	no	Cloudy
Sept 28	07:00	4	Upstream exit DSA	140	7,2	no	Raining during night
Sept 28	07:10	3	Downstream exit DSA, at culvert	70	6,8	no	Raining during night
Sept 28	07:45	1	Downstream quarry	20	7	no	Raining during night
Sept 28	07:30	2	River	0	7,2	no	Raining during night
Oct 10	09:00	4	Upstream exit DSA	110	7,1	no	low run-off
Oct 10	09:05	3	Downstream exit DSA, at culvert	70	6,7	no	low run-off
Oct 10	09:30	1	Downstream quarry	--	--	--	Dry, no run-off
Oct 10	09:35	2	River	0	7,3	no	Cloudy

APPENDIX 4
CLYDE RIVER HARBOUR CONSTRUCTION

NWB REPORTING FORM

NWB Annual Report **Year being reported:** 2024

License No: 8BC-CLY2225 **Issued Date:** January 20, 2022
Expiry Date: October 31, 2025

Project Name: CLYDE RIVER SMALL CRAFT HARBOUR DEVELOPMENT

Licensee: FISHERIES AND OCEAN CANADA

Mailing Address:
Fisheries and Oceans Canada – Small Craft Harbours
501 University Crescent
Winnipeg, Manitoba R3T 2N6

Name of Company filing Annual Report (if different from Name of Licensee please clarify relationship between the two entities, if applicable):
General Contractor: Pilitak Enterprises Ltd
P.O. Box 727, 1519 Federal Road,
Iqaluit, Nu. X0A 0H0

General Background Information on the Project (*optional):
Construction of a small craft harbour

Licence Requirements: the licensee must provide the following information in accodance with

Part B Item 1

A summary report of water use and waste disposal activities, including, but not limited to: methods obtaining water; sewage and greywater management; drill waste management; solid and hazardous management.

Water Source(s):	Hamlet water for camp	
Water Quantity:	6 m^3/day	Quantity Allowable Domestic (cu.m)
	2.3 m3/day	Actual Quantity Used Domestic (cu.m)

Water Source(s):	Clyde River for dust control	
Water Quantity:	30 m^3/day	Quantity Allowable (cu.m)
	Total for season:150 m3 Max per day: 20 m3	Actual Quantity Used (cu.m)

Waste Management and/or Disposal

- ☑ Solid Waste Disposal
- ☑ Sewage
- ☐ Drill Waste
- ☐ Greywater
- ☑ Hazardous
- ☐ Other:

Additional Details:

Domestic water supplied by hamlet, total 361 m3 for the construction season
Water for dust control: Withdrawn from Clyde River, south side of bridge to Cape Christian, 70 29 21.14 N 68 29 30.64 W
Sewage collected by the hamlet sewage truck
Solide waste: Transported to the hamlet solide waste facility
Hazrdous waste: shipped off-site to a licenced disposal facility

Spill No.: 4 & 5 (as reported to the Spill Hot-line)
Date of Spill: July 31 and Sept 23th
Date of Notification to an Inspector: Aug 1st and Sept 24th
Additional Details: (impacts to water, mitigation measures, short/long term monitoring, etc)

All spills were under 100L. For the two spills happened nearby the water, the Nunavut spill line was contacted. No corrective action was instructed by the Nunavut Spill Line authorities.

Revisions to the Spill Contingency Plan

Other: (see additional details)

Additional Details:

The revision 1 was attached to the 2022's annual report. The rev-02 was issued to adreess the board's comments. No other revision was issued.

Revisions to the Abandonment and Restoration Plan

Other: (see additional details)

Additional Details:

Not applicable, refer to the following section

Progressive Reclamation Work Undertaken

Additional Details (i.e., work completed and future works proposed)

A reclamation plan for the quarry was included in the Quarry Development Plan submitted within the last year's report. No modification to this plan was done. The reclamation works will starts in 2025.

Results of the Monitoring Program including:

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of e location where sources of water are utilized;

Details described below

Additional Details:

- Monitoring station 01: Southwest side of the bridge to quarry, drainage from site
  70 28 29.6 N 68 31 50.0 W
- Monitoring station 02: Southwest side of the bridge to quarry, in river, upstream
  70 28 29.81 N 68 31 59.12 W
- Monitoring station 03: Construction site, downstream from dewatering outlet
  70 28 4.84 N 68 35 59.57 W
- Monitoring station 04: Construction site, upstream from dewatering outlet
  70 28 6.53 N 68 36 3.70 W

Runoff water monitored for TSS, pH and visible hydrocarbon sheen
No exeecdance of these parameters was observed during the monitoring

The GPS Co-ordinates (in degrees, minutes and seconds of latitude and longitude) of e location where wastes associated with the licence are deposited;

Not Applicable (N/A)

Additional Details:

Results of any additional sampling and/or analysis that was requested by an Inspector

No additional sampling requested by an Inspector or the Board

Additional Details: (date of request, analysis of results, data attached, etc)

Any other details on water use or waste disposal requested by the Board by November 1 of the year reported.

No additional sampling requested by an Inspector or the Board

Additional Details: (Attached or provided below)

Any responses or follow-up actions on inspection/compliance reports

No inspection and/or compliance report issued by INAC

Additional Details: (Dates of Report, Follow-up by the Licensee)

Any additional comments or information for the Board to consider

Date Submitted:	January 20, 2025	
Submitted/Prepared by:	François Bourassa	
Contact Information:	**Tel:**	(418) 930-0850
	Fax:	
	email:	fbourassa@gely.biz

APPENDIX 5
CLYDE RIVER HARBOUR CONSTRUCTION

QUARRY RECLAMATION PLAN

4. RECLAMATION

The operation of the quarry is anticipated to continue until mid-July 2025. The quarry will be reclaimed while remaining accessible and developable for the future needs of the Clyde River community. The process of the quarry reclamation will be ongoing and not relegated to the end of operations. As a result, progressive reclamation will be employed as areas of the quarry pit is no longer used. The active quarry site will be kept clean, tidy, trimmed and free of any garbage and debris during the operational. All unused materials will be returned to the quarry, flattened and contoured at the time of final reclamation. Displaced and stored topsoil and overburden will also be returned and placed into selected areas where revegetation will be promoted.

4.1 WATER DIVERSION

As described previously, the quarry development includes a positive drainage management plan for the pit floor. On completion of the operations and final clean-up of the quarry, positive drainage will be maintained or improved to enhance the drainage requirements. Disruption of drainage courses will not be encountered in the development of the quarry. According to the Erosion and Sediment Control Plan (ESCP), adequate mitigation facilities will be installed to reduce the erosion at the discharge point, where the water is coming out from the quarry pit.

4.2 PERMAFROST PROTECTION

Soil permafrost conditions in the quarry are not anticipated. At the end of the quarry operation, the general appearance of the quarry will be of exposed rock, not prone to movement or erosion.

4.3 WILDLIFE HABITAT ENHANCEMENT

Working in conjunction with the environmental monitor, wildlife habitat enhancement will be considered in the reclamation plan. This includes specifics related to the enhancement of revegetation using locally stored materials and if required, reseeding and fertilization using the appropriate and approved mixtures.

4.4 FACE STABILIZATION AND EDGE PROTECTION

Each time a face section of the quarry is completed, loose rocks will be removed with the excavator in order to make sure to avoid future potential rock fall-off. Boulders and rocks will be placed along the top edge of the quarry faces in order to indicate the limit of the quarry perimeter.

4.5 TOP OF QUARRY ACCESS ROADS ABANDONMENT

The temporary access roads that were constructed to access the top of the quarry for blasting will be abandoned and blocked with rocks, as indicated in the below figure.