Canadian North Resources Inc.

Ferguson Lake Project: Exploration Trails and Bulk Sample

NWB Type B Amendment

ᒐᔪᓘ ᑕᓯᖏᑦ (FERGUSON LAKE) ᐱᓪᓗᐊᖏᑦ ᖃᓄᖅᓴᐅᓂᖓᑦ ᐊᑦᕋᔨᑎ, ᑲᑎᓯᒪᔨᓄᑦ ᐅᑦᑐᑐᕆᑐᒃᓴᓂ ᐊᓘᒪᓗ ᑐᓴᔪᐊᓇᖅᓱᖅ ᓄᓇᓪᓕᐊᓂᒃ ᐋᖅᖃᐅᓯᖏᓐᓂᖅ (GREEN CAMP SOLUTIONS) (ENGLISH VERSION IS FOUND BELOW)

ᒐᔪᓘ ᑕᓯᖏᑦ (Ferguson Lake) ᐱᓪᓗᐊᖅ, ᓇᖕᒥᓂᓴᐅᔨᖅ ᑲᓇᑕᒥᑦ ᐅᐊᖕᓇᒥᑦ ᐱᖁᐃᐅᖏᑦᑕᖅᑐᑦᓯᓕᓂᑦ (Canadian North Resources Inc. (CNRI)). CNRI, ᐅᖕᓚᓯᑎᑎᔨᖅ 250 ᑭᓯᒥᑕᓪᓗᐊᓂᑦ ᐱᖕᓇᖕᓂᓕᓂᑦ ᑲᖏᖅᓴᓂᖏᒥᑦ ᑭᖕᓂᓪᒥᑦ ᑭᖕᓂᓪᒥᑦ, ᑲᓇᑕᒥᑦ. ᒐᔪᓘ ᑕᓯᖅ (Ferguson Lake) ᐱᑕᖅᐅᖅᑐᓂᑦ ᐱᖅᖅᑐᖅ ᓴᐃᓴᓘᓂᑦ (ᓂᓯᓪ (nickel), ᑲᐳᖏ (copper), ᐊᓚᒪᓗ ᔪᓯᓪᓂᑦ (cobalt) ᐊᓚᒪᓗ ᓯᓪᓚᒥᑦ ᓴᐃᒪᖏᑦ (palladium ᐊᓚᒪᓗ platinum). ᐱᑎᐅᐅᔨᖅ ᐱᓴᐅᓪᓚᐅᖅᑐᖅ Starfield Resources Inc.-ᓯᓴᓂᑦ. (Starfield) 2013-ᒥᑦ, CNRI ᓯᐅᓪᒪᒋᐊᖅᓯᒪᓕᖅᓯᒪᑦ ᒐᔪᓘ ᑕᓯᖏᑦ (Ferguson Lake) ᐱᓪᓗᐊᖅ ᐃᓯᓴᓯᓪᓚᓄᖅᓯᒪᓪᓴᖅᓱᑎᑐᓴ ᖃᓄᖅᓴᐃᓂᖏᒥᑦ ᐊᓚᒪᓗ ᐱᓭᓪᓯᐊᓂᖏᒥᑦ ᐊᓚᒪᓗ ᐃᓯᒪᑎᓴᖅᖃᓪᓚᖅᑐᓂᑦ ᐱᐅᖅᓴᓗᐊᖅᖃᓪᓚᖅᑐᓂᑦ ᐱᐊᓂᔾᑕᐅᓂᖏᓪᓕᓂᓴᓂ ᓯᓄᓕᓯᓯᓂᑦ ᐱᑐᒃᓴᓗᐊᓂᖏᓪᓕᓂᓴᓂ ᐱᓪᓗᐊᓂᒃᑐᐃᓂᖅ, ᐊᓯᖏᑦ ᐱᓪᓗᐊᖏᓪᓕᑦ ᖃᐅᔨᓴᐃᓂᓕᖅ, ᓯᓄᓕᓯᑎᑎᓂᓪᓕᖏᓐᓇᖅᓱᓕᒍ ᖃᓄᖅᓴᐃᓂᖅ ᐊᓚᒪᓗ ᑐᓴᔪᐊᓇᖅᓱᖅ ᓄᓇᓪᓕᐊᓂᓕᑦ (Green Camp) ᐱᓪᓗᐊᓄᓴᑦ.

ᐅᖕᓚᓯᓂᖕᓚᓄᑦ ᐃᓂᐅᔨᖅ, CNRI-ᓄᑦ ᐃᓕᓴᓇ ᐊᖏᕐᕋᓂᒃ ᑲᑎᓯᒪᔨᓂᒃ ᐅᖃᐅᔾᔨᖅ ᑕᓯᖏᑦ (Ferguson Lake) ᐱᓪᓗᐊᒧᖓᐅᔨᓴᖃᑦᑕᖅᑐᑦ ᐊᓚᒪᓗ ᐱᓪᓗᓵᓂᒃ ᖃᓄᖅᓴᐃᓂᖅᓯᒪᑦ ᑕᖕᒫᒃᓴᖅᓱᑎᑦ ᐅᑭᐅᓂᒃᓄᑦ, ᓄᓇᑕᑎᐊᖏᑦ. ᐱᐅᓯᕋᖅᓂᐊᖅᓯᓪᓗᓯᓪᓗᓂᑦ ᓯᓂᒥᓴᓯᒪᔨᖅ ᖃᓄᖅᓴᐃᓂᖅ ᐊᖏᕐᓇᖅᓱᓂᑦ, ᒥᐅᓵᕋᖅᓯᓗᓂᑦ ᐱᑦᑕᐅᖏᑦᑐᑦ ᓯᓚᒥᑦ ᐊᓂᖅᑐᐃᓂᖅ, ᐊᓚᒪᓗ ᐊᑐᖅᑕᐅᓂᖏᓂᑦ ᖁᓂᒥᔨᓂᖅ, CNRI-ᓄᑦ ᓴᓇᔨᒪᔨᓂ ᐊᖏᔪᓚᖅᑐᑦᑐᒥᐅᒃ ᖃᓄᖅᓴᐃᓂᓯᓗᑦ ᐊᓯᖏᑎᒥᑦ (10 ᑭᓯᒥᑕᓂᒃ ᑕᑭᑎᓚᓂᓂ 1.5 ᑭᑕᓂᒃ ᓯᓚᑦᑎᓚᓂᓂ ᐅᕝᕙᓵᓯᓂᑦ, 2.7 ᑭᓯᒥᑕᓂᒃ ᑕᑭᑎᓚᓂᓂ 5 ᑭᑕᓂᒃ ᓯᓚᑦᑎᓚᓂᓂ ᐅᕝᕙᓵᓯᓂᑦ) - ᓄᓇᐅᔨ ᐊᖏᑎᑎᓂᖓᓕ), ᑲᑎᑕᑎᓚᑎᒃ ᐊᖏᕐᕋᓂᒃ ᑲᑎᓯᒪᔨᓂᒃ ᐅᖃᐅᑕᖅᑎᓂᒃ ᐊᓚᒪᓗ ᐊᑐᖅᓚᑎᒃ ᐱᑦᑕᐅᔪᓂᒃ ᐅᖃᓕᖅᑐᖅᓴᐅᑎᓂᒃ ᖃᓄᖅᓴᐃᓂᓯᓗᑦ ᑕᖕᒫᓕᖅᑐᑦ (ᑕᔪᓚᔪ ᐊᑦᔨ ᐃᓕᐅᔨᖅ).

ᐱᓪᓗᐊᖏᑦ ᐃᓕᐅᓂᐊᖕᖏᑦ ᐱᓪᓗᓵᑦ ᓄᓇᒫᓂᐅᖕᓇᑦᑕᓪᓂᐊᖕᖏᑦ ᐃᒪᓗ ᐃᒪᖕᓄᑦ ᖃᓄᖅᓴᐃᓂᓯᓗᑦ ᐊᑐᖅᑐᐊᖕᖏᑦᑕᐅᓕᐅᔨᓵᑦ ᐃᓂᓯᒪᓂᑕᑎᓂᑦ ᐊᐅᖃᑦᓂᑦ 2025-ᒥᑦ 2026-ᒧᑦ. ᐱᓪᓗᓵᑦ ᐃᓂᓪᐅᑦᓂᐊᖕᖏᑦ 1.5 ᑭᑕᓂᒃ ᓯᓚᑦᑎᓚᓂᒃ ᐊᑐᖅᑐᓂᒃ ᐄᐊᑦᓪᓂᓂ ᐊᐅᖃᐅᔨᓂᒃ ᐱᓪᓗᐊᓂᒃ ᐅᓂᐊᖕᖏᑦᑕᐅᓕᐅᔨᓵᑦ. CNRI-ᓄᑦ ᐊᑐᖅᓂᐊᖕᖏᑕᓚᓂ ᐃᓂᐅᔨᖅ ᐊᖏᕐᕋᓂᒃ ᐅᑭᐅᑕᖅᑎᓂᒃ ᐱᖁᐃᐅᖏᑦᑐᓚᓕᐅᔨᖅ ᐊᖏᕐᕋᓂᒃ ᐅᖃᐅᔾᔨᖅ ᐊᑐᖅᑐᐊᖕᖏᑦᑕᐅᓕᐅᔨᓵᑦ ᐱᖅᓯᓂᒃ ᐃᓕᓴᕐᓚᐅᖅᑐᓂᒃ ᐃᓂᓯᒪᓂᑕᑎᓂᒃ ᑕᑭᓚᐅᑦᑎᓂᒃ ᐱᓪᓗᐊᓂᒃ ᐃᓂᓯᒪᓂᑕᑎᓂᒃ ᐊᑐᖅᑐᐊᖕᖏᑦᑕᐅᓕᐅᔨᓵᑦ ᐱᖅᓯᓂᒃ ᐃᓕᓴᕐᓚᐅᖅᑐ

EXECUTIVE SUMMARY

The Ferguson Lake Project, owned by Canadian North Resources Inc. (CNRI), is located approximately 250 kilometres west of Rankin Inlet in the Kivalliq Region of Nunavut, Canada. Ferguson Lake contains rich deposits of base metals (nickel, copper, and cobalt) and platinum group metals (palladium and platinum). Having acquired the property from Starfield Resources Inc. (Starfield) in 2013, CNRI has advanced the Ferguson Lake Project to late-stage exploration and development and is now considering the requirements for completion of preliminary economic assessment, other technical studies, continue advanced exploration and green camp initiatives.

Due to the remote location, CNRI currently moves bulk materials to Ferguson Lake and personnel to the exploration camp via a winter trail from Baker Lake, NU or fixed-wing aircraft from Yellowknife, NWT. To improve advanced exploration efficiency, reduce greenhouse gas emissions, and decrease reliance on helicopters, CNRI are proposing to construct a low-profile exploration trail (10 km x 1.5m wide and 2.7 km x 5m wide), collect a bulk sample and implement green energy solutions for the exploration camp (refer to Figure 1.1).

The project will involve workers accessing land and waters within the exploration leased area during the summer months of 2025 to 2026. Workers will clear a 1.5m wide trail using ATVs, pickup truck and a skid steerer using material from approved Esker 1 and Quarry 1. CNRI will use this trail to access the bulk sample area, prepare the site and carry out exploration activities.

A low-profile exploration trail (1.5m with an upgrade to 5m maximum width to the Bulk Sample) is proposed to be constructed for bulk sample collection. The trails will be the same low profile and width as many of the existing Ferguson Lake Camp trails (refer to Figure 2 in the attachment). The primary work is expected to occur over approximately 75 days x 5 workers (375 worker days): 2 machine operators, 1 supervisor and 2 field technicians.

The construction of the West Direct Trail is expected to begin in July 2025 and be completed in October 2025; the project may extend into 2026. This timeframe will allow for flexibility in constructing the central exploration trail, southwest deposit trail and accommodating any unplanned delays due to weather, cost and logistical constraints. Upon approval, green exploration camp infrastructure materials will be shipped to site in March 2026, constructed and installed in June to July, 2026.

This document supports CNRI's application for a Type B Amendment to the existing NWB license to include quarrying and collecting a bulk sample.

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SECTION 1. INTRODUCTION

1.1 Background

Canadian North Resources Inc. (CNRI) is a Canadian mining company at late-stage exploration and development of a mining property, the Ferguson Lake Project, in the Kivalliq Region of Nunavut, Canada (refer to Figure 1). The company owns 100% of the Ferguson Lake Project that has abundant base metals (nickel-copper-cobalt) and platinum-group metals (palladium, platinum, and rhodium) mineral resources. CNRI maintains strong ties of communication, consultation and community engagement with the Kivalliq Inuit Association (KIA), federal and territorial permitting agencies, local Inuit, Kivalliq business, and surrounding hamlets in the region.

Following acquisition of the Ferguson Lake Project from Starfield, CNRI continued exploration of the deposit that has included spring and summer drilling programs in 2021, 2022, and through 2023 to expand the resource base on the eastern and western sides of the deposit. The expansion and development of the critical minerals at Ferguson Lake will enhance the value chain in Canada for electric vehicles, green energy technology and high-tech sectors, an exciting opportunity for nearby communities, Kivalliq businesses and Nunavummiut.

1.2 Proponent Information

Canadian North Resources Inc. was incorporated in 2013 pursuant to the provisions of the Business Corporations Act (Ontario) under the name “Canadian North Resources and Development Corporation”, which was changed to “Canadian North Resources Inc.” in 2020. Our directors and advisors have significant technical knowledge in advanced exploration projects globally and in the Kivalliq. The Ferguson Lake Project is held 100% by CNRI with no known attached Net Smelter Royalties. CNRI’s audited financial statements are available online at:

https://cnresources.com/financials/

The people who work for CNRI on the exploration trail and bulk sample proposal are listed below:

Canadian North Resources Inc.:	299 Courtneypark Drive East, Mississauga, ON. Canada, L5T 2T6
CEO and President:	Dr. Kaihui Yang
Technical Advisor Exploration:	Trevor Boyd P.Geo.
Project Geologist-in-Training:	Carl-Philippe Folkesson
Technical Advisor - Environment, Sustainability and Regulatory Affairs:	Ryan VanEngen | Consultant to CNRI

1.3 Authorizations

The lead, screening and authorizing agencies for the approval of the construction and use of 1.5m and 5m wide low-profile exploration trails and bulk sample are the Nunavut Planning Commission (NPC), the Nunavut Impact Review Board, and the Nunavut Water Board (NWB).

1.3.1 Land Use Planning, Relevant Screenings, Permits and Leases

On January 20, 2006, Starfield received a positive conformity decision with the Keewatin Regional Land Use Plan from the Nunavut Planning Commission (NPC) to construct the Ferguson Lake Camp, operate the exploration camp, complete advanced exploration activities and haul materials along a winter road from Churchill, MB (NPC file: 149618, 149256 & 148903). On March 26, 2007, the Ferguson Lake Project received a screening decision by NIRB (NIRB File 06EN008 & 07EN001) to construct:

- the exploration camp,
- 1380m x 30m airstrip runway,
- 1.5 km x 6m all-weather access road,
- movement of bulk fuel and storage, and
- a winter trail right of way from Churchill, MB. and Rankin Inlet, NU., to Ferguson Lake.

Various authorizations, extensions and requests between 2008 and 2020 were screened by NPC and NIRB, to include various advanced exploration activities, quarry use and use of a winter road from Baker Lake to Ferguson Lake (NPC File 149256, NIRB File 07EN001 and Screening Decision Report No: 19RA046).

CNRI received an NPC conformity determination for the inclusion of an Exploration Trail on January 6, 2025 (refer to **Appendix A**), which determined the project was within the scope of work previously screened by NIRB (**refer to Appendix B**).

> *"The project proposal is exempt from screening by the NIRB because the NPC is of the understanding that the inclusion of exploration trails and bulk sampling does not change the general scope of the original or previously amended project activities, and the exceptions noted in Section 12.4.3 (a) and (b) of the Nunavut Agreement do not apply."*

CNRI were working with the KIA and now the project is moving into the authorization and licensing phase. This document supports CNRI's amendment to the 2BE-FER 227 to build trails by using available quarries, eskers and collect a bulk sample, while adhering to previous NIRB screening decisions. A list of permits, licenses, agreements and approvals for the operation of the Exploration Trail are presented in Table 1.1.

Table 1.1: Relevant Screenings, Licenses, Leases and Permits Held by CNRI's Ferguson Lake.

License Number	Screening, License, and Permit	Issued By	Date of Expiry	Remarks
NPC File No. 149256	Screening Decision	NPC	NA	Allows project to proceed to screening by NIRB
NIRB File 07 EN0001	Screening Decision	NIRB	N/A	Screened to include camp, site roads and an airstrip extension at Ferguson Lake.
2BE-FER 2227	Type B	NWB	March 30, 2035	*To be Amended to include quarrying and bulk sampling*
N2013X0023	Land Use License	KIA	Feb 29, 2028	Winter Road
KCL305H27	Land Use Permit	KIA	July 22, 2027	Commercial Lease for Exploration
KVCA08Q17	Quarry Permit	KIA	April 20, 2027	Recently renewed

1.4 Project Description

To improved advanced exploration efficiency, reduce green house gas emissions, and decrease reliance on helicopters CNRI have designed a low impact trail route directly to the bulk sample area and exploration targets and will expand the airstrip to accommodate an ATR. More specifically, CNRI are proposing to:

- Construct and operate a series of 10 km x 1.5m wide low-profile exploration trails,
- Construct and operate a 2.7km x 5m direct trail,
- Collect a bulk sample between 2025 and 2027, and
- Expand the airstrip to 1380m, primarily using the existing Quarry 1 (KIA has recently approved the renewal of Quarry 1), or
- If needed use of Esker 1 and SW Esker 1 for trail construction.

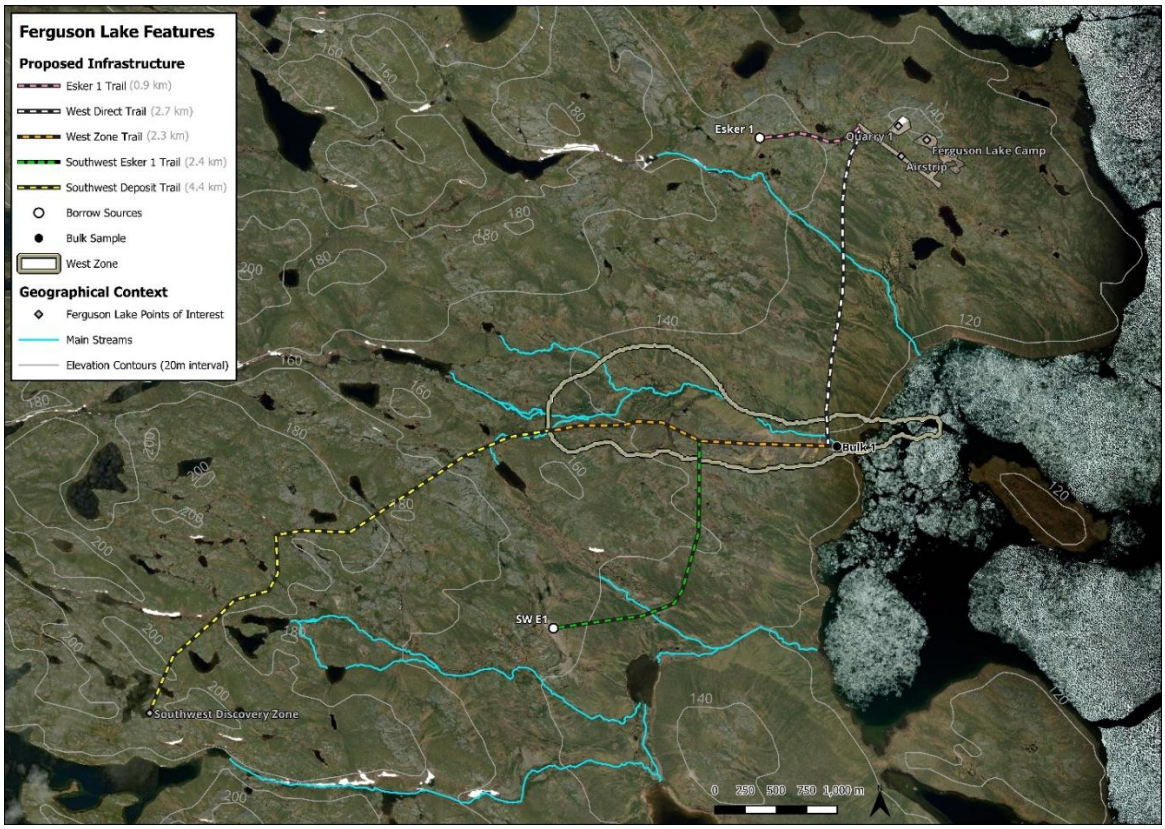


Figure 1.1: Location and routing of the Exploration Trail and Bulk Sample at Ferguson Lake Project

1.5 Project Schedule

The consultation, archaeological surveys, baseline studies, clearing and operation schedule is as follows:

- June, September, December 2024 – Consultation and Engagement (refer to **2024 - Consultation Report**, provided under separate cover).
- September 2024 – Reconnaissance and validation environmental baseline studies completed to support the trail construction.
- March 2025 – Ship construction materials, including culverts, rail-cart bridge on Winter trail and move equipment as needed.
- April 2025 – Type B Amendment application to NWB for operation of quarry, eskers and collect a bulk sample.
- June to July 2025 – Complete archaeological survey, mitigation and environmental field studies prior to construction of trails

- June 2025 – Site visit planned with community members
- Mid July to August, 2025 – clear 5m wide trail using skid steerer, ATVs and pickup truck for exploration trail and to bulk sample.
- August, 2025 – construct and clear-span crossing W3 with rail cart bridge.
- September 2025 – Blast as needed, excavate, collect and ship bulk sample.
- 2026 -2027 – Pending positive metallurgical results, collect additional bulk sample

1.6 Location and Exploration Trail Siting Criteria

To minimize the impacts on the environment, reduce the footprint of the project and ensure the protection of cultural, heritage and archaeological sites, specific design criteria were selected, as presented in **Table 2.1**.

Table 2.1: Exploration Trail and Project Siting Selection Criteria

Design Element	Criteria
Location, routing and size	Designing a 5m and 1.5m wide trail that is direct and through low value terrestrial habitat. Use an existing quarry and approved esker areas to reduce environmental footprint. Maintain a low-profile design with fewest stream crossings. Construct a 5m wide section of trail direct to the bulk sample area, which is the shortest route.
Socio-economic	Training in exploration, construction and environmental monitoring; potential application of low-profile trail networks in other projects within the Kivalliq.
Archaeological site and cultural site avoidance	Based on available historical information, the proposed trails are located and designed in an area where there is no known archaeological site. If archaeological sites are identified, a minimum buffer of 30 m will be established as per GN's requirements. An Archaeological Protection Plan has been developed and will be adhered to.
Terrestrial environment protection (including raptor)	Minimize the footprint of the proposed site; use quarry 1 as the priority source in an area where there are no known raptor nest sites; ensure quarry is operated and designed for closure.
Fisheries and water quality protection	Avoid water bodies and stream crossings as much as possible. Where possible, ensure a standard 31 m buffer is respected or clear span the stream; quarry and esker is designed to ensure control of run-off for the protection of nearby waterbodies during operation and closure.

1.7 Exploration Trail Construction Plan

CNRI are proposing to construct a low-profile exploration trail (12.7 km x 1.5m wide or 1.91 ha), collect a bulk sample from 2025 to 2027.

More specifically, in 2025 CNRI will:

- Construct exploration trails
    - West Direct Trail (7.5 km x 5m wide),
    - Exploration Trails for Trenching (~7.5 km x 1.5m wide), to determine location for bulk sampling and define surface mineralization.
- Use Quarry 1 as a primary material source of construction material in 2025, if needed access Esker 1, and
- Collect a 1,000 tonnes bulk sample.

The project will involve workers accessing land and waters within the exploration leased area during the summer months of 2025. Workers will clear a 1.5m wide trail using ATVs, a pick-up truck and a skid steerer. CNRI will use this trail to access the bulk sample area, prepare the site and carry out exploration activities using material from approved Esker 1 and Quarry 1.

A low-profile exploration trail is proposed to be constructed for bulk sample collection and exploration along the West Deposit and to the Southwest Deposit. The trail will be constructed from non-acid rock drainage (ARD) non-metal leaching (ML) materials in Quarry 1.

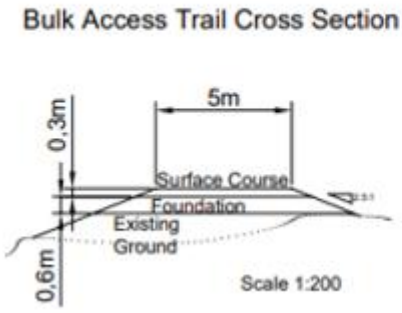
Geochemical samples were taken in 2024 to confirm that all borrow sources are non-metal leaching and non-acid rock drainage, a summary of results are provided in **Section 3**.

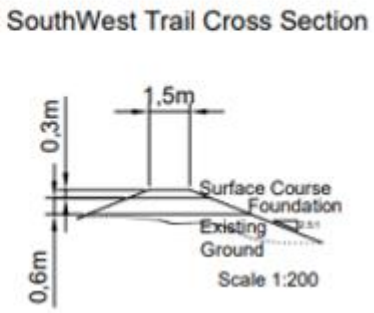
The trails will be the same low profile and be similar to many of the existing Ferguson Lake Camp trails (see **Figure 1.2 and 1.3** for examples). The primary construction work is expected to occur over approximately 75 days x 5 workers: 2 machine operators, 1 supervisor and 2 field technicians.

The construction of the West Direct Trail is expected to begin in July 2025 and be completed in October 2025; the project may extend into 2026. This timeframe will allow for flexibility in constructing the central exploration trail and accommodating any unplanned delays due to weather, cost and logistical constraints. Upon approval, green exploration camp infrastructure materials will be shipped to site in 2026, constructed and installed in 2026 or 2027.

Figure 1.2 – Example of low-profile access trails at Ferguson Lake Camp (September 2024)

Figure 1.3 – For Permitting, Example of Trail Cross Section in wetland sedge (low wetted) areas.

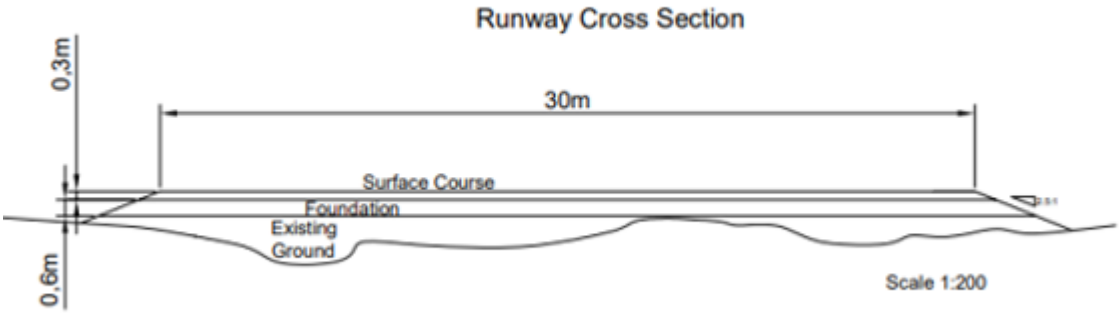




In 2026 – 2027 CNRI are planning to:

- Construct a network of 1.5m wide exploration trails, including:
  - West Zone Exploration trail (2.3 km),
  - SW Esker 1 Trail (2.4 km), also provides access to West Zone South, and
  - Southwest Deposit trail (approx. 4.4 km)
- Extend the Airstrip to 1380m to accommodate an ATR.
- Collect additional bulk samples in 2026 to 2027.

Figure 1.3 – For permitting, Example of Airstrip Extension Cross Section



1.8 Waste Generated During Construction and Commissioning of the Exploration Trail

All waste generated during construction and commissioning of the trails will be incinerated or backhauled to approved/licensed waste disposal facilities. Table 2.2 presents approximate quantity of waste, treatment and disposal methods during construction and commissioning of the Exploration Trail. Mitigation and management plans are in place to ensure proper handling and disposal of any waste generated.

Table 2.2: Type of Waste, Quantity and Disposal During Construction of the Exploration Trail

Type of Waste	Quantity Generated	Disposal Method
Combustible Wastes	1000 lbs	Food waste and other combustibles at the Ferguson Lake camp incinerator.
Hazardous Wastes	615 L	Waste oil brought back to Ferguson Lake for reuse in burners/furnaces or shipped south in an approved facility.
Non-combustible Wastes	200 L	Disposed of antifreeze, offsite at an approved facility.

1.9 Ferguson Lake Project Bulk Sample Collection

Following the construction of the 5m trail to the bulk sample, CNRI will begin by removing overburden as necessary in 5 to 10 transects x 1.5m over an area of 40m x 200 m, labelled as the “bulk sample” area on **Figure 1.1**. In 2025, the goal of the bulk sample program is to collect 1000 tonnes for metallurgical analysis. Overburden will be stockpiled away from Stream W2 and nearby waterbodies to prevent erosion and sedimentation, and later used during reclamation and closure.

For planning purposes, we assumed a density of 2500 kg/m3 for the material. Thus, a volume of 400m3 will be extracted for the bulk sample in 2025.

$$\text{Volume} = \frac{\text{Mass}}{\text{Density}} = \frac{1,000\,\text{tonnes} \times 1,000\,\text{kg/tonne}}{2,500\,\text{kg/m}^3}$$

$$\text{Volume} = 400\,\text{m}^3$$

In 2025, approximately 1m of overburden will be removed and stored adjacent to the bulk area, an area of 20m x 20m x 1m deep will be extracted, packaged into PE lined white tonne bags, stored at the bulk sample area, transported to site and shipped south for metallurgical testing and laboratory analysis.

Pending the success of the 2025 sampling and metallurgical testing, between 2026 to 2027, an area no larger than approximately 40m x 100m x 2m deep for up to a total of 10,000 tonnes will be excavated for a bulk sample.

SECTION 2. DESCRIPTION OF ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

2.1 Environmental Setting and Standard Best Practices for Protection of the Environment at the Ferguson Lake Project

The Ferguson Lake Project is situated in Nunavut's Kivalliq Region, within a remote Arctic tundra environment characterized by continuous permafrost, freshwater systems, and diverse wildlife habitats including caribou and fish species. The area is undeveloped, with low background levels of pollution and anthropogenic activity. The trail, bulk sample and airstrip extension will adhere to best practices, adhere to NIRB Screening Decisions, Licenses and Authorizations. Mitigation will including:

Terrain Soil and Permafrost Protection: Routing, material selection and construction will apply simple, exploration construction practices exploration trails to reduce impacts and ease closure planning while maintaining ground stability for airstrip extension construction. Additional information is provided in **Section 2.2**.

Aquatics and Fish Habitat Protection: Install fish-friendly culverts and conduct in-stream work according to DFO guidelines and implement erosion controls. Additional information is provided in **Section 2.3**.

Air Quality and Noise Mitigation: Use of low-sulfur fuels, noise suppression equipment, and dust suppression strategies during non-winter months.

Wildlife and Vegetation Conservation: Minimize trail footprint, use Quarry 1 as much as is feasible to reduce footprint, schedule activities to avoid sensitive periods, enforce wildlife right-of-way, and apply adaptive management during construction.

Cultural and Heritage Resource Protection: Conduct pre-construction archaeological surveys, avoid known sites, and engage Inuit stakeholders. Adhere to the Archaeological Protection Plan.

Climate Resilience: Design infrastructure to keep low profile trails while adapting to thawing permafrost and extreme weather, supported by ongoing monitoring and community-informed adaptive management.

2.2 Terrain, Soil, and Permafrost Protection

2.2.1 Environmental Setting

The Ferguson Lake Project is located in the Canadian Shield, in the Hearne craton geological province. It extends over the Ferguson Lake volcanic and intrusive belt surrounded by mostly granitic and sedimentary rocks. Interactions between soil parent materials and topography, local climate, biotic influences, and hydrology influence soil development (paedogenesis). In Nunavut, the local climate,

and more specifically permafrost, cryoturbation, and relatively short period of intense thaw within the top- soil horizons (active layer) have the most significant effects on pedogenic processes.

The Ferguson Lake Project is underlain by continuous permafrost with sporadic occurrences of massive ground ice processes. Permafrost describes soil or bedrock that remains at or below freezing (0ºC) for two or more years. Under these conditions, soil development generally occurs only close to the ground surface during the short frost-free period each year. The water/ice content of the surficial material and the thickness of organic layer govern the depth of the active layer (the soil depth to which the permafrost melts each summer). The active layer can vary from 0.2 m in thick organic layers to over 3 m in well-drained eskers or bedrock outcrops.

In September 2024, 2SG Inc. and CNRI conducted a field campaign that evaluated and identified potential esker or borrow sources along a proposed exploration trail route by analyzing surface soil and gravel samples to ensure suitable material for construction in support of a Type B Amendment. Coarse soil and gravel samples were collected at discrete locations on the Ferguson Lake property, including: Quarry 1, Eskers 1 and Southwest Esker 1, which were identified by the 2SG Inc. and CNRI field team as suitable materials for construction of the trails and airstrip extension. Surface soil and gravel sampling results indicated that Eskers and Quarry 1 borrow sources provide suitable construction materials as they are non-potentially acid rock generating, have neutral pH, high neutralizing potential and are coarse grained.

Table 2.1: Acid Base Accounting Results for Available Borrow Sources.

Client Sample ID			**CNRI-FL-SW-E1-C**	**CNRI-FL-Q1-C**	**CNRI-FL-E1-C**
			SW Esker 1	**Quarry 1**	**Esker 1**
Date Sampled			05-Sep-2024	07-Sep-2024	03-Sep-2024
Time Sampled			12:05	17:00	12:00
ALS Sample ID			EO2408936-004	EO2408936-006	EO2408936-008
Analyte	Lowest Detection Limit	Units	Sub-Matrix: Soil	Sub-Matrix: Soil	Sub-Matrix: Soil
Particle Size (Matrix: Soil/Solid)					
Sand (2.0mm - 0.05mm)	1.0	%	93.8	95.0	96.4
Sand (>0.075mm)	1.0	%	98.2	63.2	99.8
Fines (<0.075mm)	1.0	%	1.8	36.8	<1.0
Silt (0.05mm - 0.002mm)	1.0	%	4.1	3.1	1.9
Clay (<0.002mm)	1.0	%	2.1	1.9	1.7
Texture class			Coarse Sand	Coarse Sand	Coarse Sand
Acid Base Accounting (Matrix: Soil/Solid)					
Fizz rating	1		1	1	1
Maximum potential acidity [MPA]	0.3	$tCaCO_3/kt$	0.6	1.9	0.3
Net neutralization potential [NNP]	1	$tCaCO_3/kt$	6	12	8
Neutralization potential [NP]	1	$tCaCO_3/kt$	7	14	8
Neutralization potential ratio [NPR], (NP/MPA)	0.01		11.67	7.37	26.67
Sulfide (as S)	0.01	%	0.01	0.05	0.01
Weight, sample received	0.02	kg	0.40	0.44	0.50
pH (1:1 soil:water)	0.1	pH units	6.8	8.9	7.4

2.2.2 Potential Impacts and Mitigation

Quarries and Eskers

Site clearing, soil stripping, quarrying and storage of rock materials at Quarry 1 has resulted in physical loss or alteration of terrain and soil within the existing Ferguson Lake Project footprint. The use of Quarry 1 originated with Starfield and was used for airstrip construction to a length of 880m. To avoid and mitigate additional loss of new soil, which may result in changes to permafrost, Quarry 1 will continue to be used for the Exploration Trails and extend the airstrip to the approved 1380m. However, if needed, Esker 1 and SW Esker 1 may be used for trail construction and maintenance.

Where possible the quarry has been designed to promote drainage so that no water accumulation occurs, base material is stable and controlled. During closure and post-closure phases, the Exploration Trails will be removed, the quarry will be geo-technically stable, designed to ensure proper drainage, will potentially become revegetated, and use will be discontinued. Natural succession of vegetation communities and a stable terrain, soil and permafrost will be maintained (refer to the **Abandonment and Reclamation Plan_2025** for more details).

Bulk Sample

As previously described, in 2025, up-to 1,000 tonnes of material will be blasted and excavated for collection of a bulk sample. Pending results, this will be followed by additional material collection in 2026 - 2027. To mitigate the potential for acid rock drainage (ARD) and metal leaching (ML), following bulk sample collection, non-ARD ML Quarry or Esker materials will be strategically used to slope and as needed backfilled to reclaim the excavation site. Where feasible, the design will promote effective drainage away from Stream W3, prevent water accumulation, with a focus on ensuring base material stability. Long-term stability of the terrain, soil structure, and permafrost will be maintained through careful closure design and monitoring, ensuring no long-term environmental impact.

2.3 Fisheries and Aquatic Environment Protection

2.3.1 Environmental Setting

The Project's freshwater aquatic environment is locally characterized by low ionic strength, very soft hardness, poor acid buffering capacity, neutral pH, and low nutrient concentrations in streams. The screening results of water quality data historically collected and validated by 2SG Inc. in 2024, indicated that water quality is generally consistent with expected conditions for Barrenland tundra freshwater systems (i.e. at Stream ES, refer to **Figure 2.3 and 2.4**). Iron was the only metal that exceeded guidelines at one or more stations, likely due to natural weathering processes common in highly mineralized areas of the Canadian North. Physical tests for pH revealed guideline exceedances at two stations in the lower reaches of Stream W2 (refer to **Figure 2.3 and 2.5)**, which are adjacent to naturally occurring sulfide-rich ore deposits, referred to as the West Zone.

2SG Inc. environmental DNA sampling validated 2024 visual observations and 2006 fish collection data in Ferguson Lake area. In September 2024 sampling identified sequencing reads of Lake Trout, Whitefish, Burbot, Arctic Grayling, and Slimy Sculpin in samples collected in Ferguson Lake. Stream ES, where no fish were observed, eDNA validated historical and recent observations, as there were no sequencing reads of fish eDNA.

The upper reaches of the W2 stream flow through a wide area of larger cobbles, small boulders, and small sandbars where the bankful area was notably wider than the wetted width in early September. Standing water and braided channels in this section provided good cover conditions for small-bodied fish. Species observed were likely nine spine stickleback, although young of the year Arctic grayling are also likely candidates based on fish size and movement. Stream W3 water depth, flows and habitat suggest this is Arctic grayling habitat; some small bodied fish were observed. In September 2024 eDNA sampling identified sequencing reads of Arctic grayling, Lake Trout and Ninespine stickleback in Stream W2.

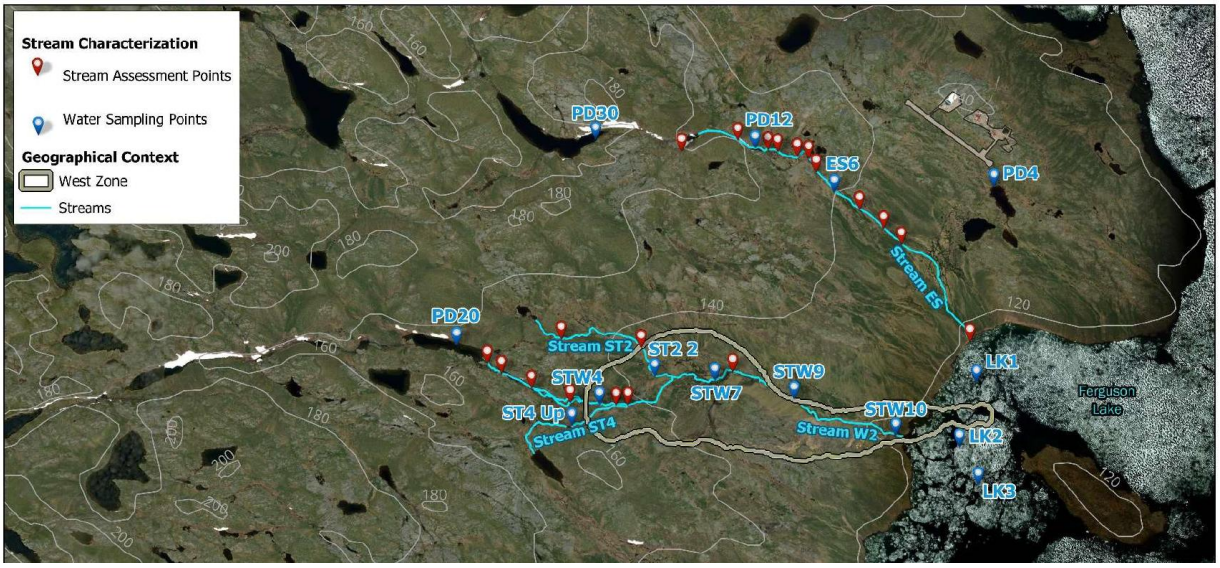
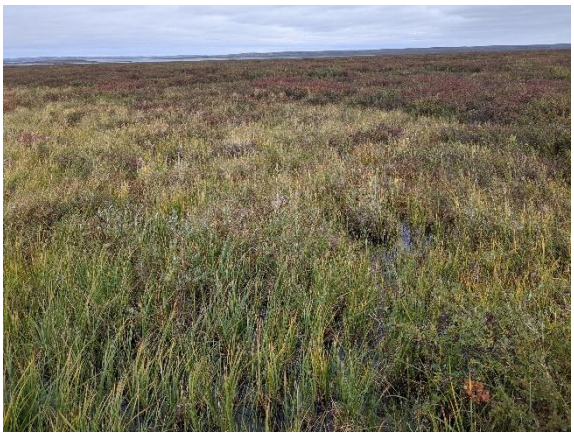


Figure 2.3 – Water Quality and Stream Assessment Locations along Stream ES and Stream W2

CNRI-FL-ES5 where the stream enters a boulder field

CNRI-FL-ES7 reformed downstream from the boulders



CNRI-FL-ES9 the stream devolves into flooded graminoid vegetation with pooling water and minimal flow

CNRI-FL-ESOut the stream flows over a small embankment and diffuses through cobble/boulders

Figure 2.4 – ES Stream photos (not fish habitat)

CNRI-FL-STW9 as the stream approaches FL the gradient levels and the stream slows

CNRI-FL-STW10 the last assessment location has good habitat features

Stream W2 upper reaches near to confluence with Stream ST4

Stream W2 upper reaches with braided small channels and graminoid vegetation

Stream W2 lower reaches

Stream W2 lower reaches showing muddy area with defined bankwidth where the clear span bridge will be installed.

Figure 2.4 – W2 Stream photos (Arctic grayling, opportunistically Lake Trout and ninespine stickleback fish habitat)

2.3.2 Potential Impacts, Mitigation, and Monitoring

As a result of the proposed project, potential impacts to surface water and sediment quality may arise from trail and airstrip construction, runoff from disturbed areas, sediment release during construction activities, and the potential introduction of blasting residues from the quarry into adjacent waterbodies; thus standard best practices for mitigation will be implemented to meet the license requirements and regulations.

Mitigation measures were incorporated early in the route planning process, with efforts made to avoid the majority of watercourse crossings. Two crossings were ultimately required: Stream ES and Stream W2. Stream ES, which does not support fish, will be crossed using a standard culvert installation. At Stream W2, where fish presence was validated, CNRI will be installing a clear-span rail-car bridge to avoid in-stream disturbance and protect Arctic grayling movements and associated fish habitat during advanced exploration activities.

To further reduce potential impacts to nearby waters, CNRI will implement best practices, including:

- Sediment and erosion control measures,
- Scheduling in-stream work during approved timing windows to protect aquatic species,
- Maintaining fish passage in W2 during exploration,
- Minimizing the footprint of in-stream activities during construction, and
- Establish standard construction monitoring programs according to the Type B license and DFO guidance.

Construction materials will be stored at least 31 metres from any waterbody. Any observed runoff will be contained within the work area, and materials with potential for contamination will be capped or covered as needed to prevent seepage. An Emergency and Spill Contingency Response Plan will be in place to address any accidental release of hazardous substances.

Water quality monitoring will be conducted during the construction phase according to the license, with photographic documentation collected before, during, and after construction. Results will be reported in accordance with the Type B Water License annual reporting requirements.

With the proposed exploration trail routing, the use of a clear-span rail-car bridge, and the implementation of comprehensive mitigation strategies during construction and bulk sampling, the overall impacts on freshwater quality, sediment quality, and fish and fish habitat are anticipated to be low to negligible and mitigable.

SECTION 3. MANAGEMENT, OPERATIONS AND MONITORING

CNRI prides itself on the fact that as a company it can rely on an experienced team of exploration geologists, directors and northern environmental consultants. As a Company, CNRI has an excellent track record in managing the environmental impacts, monitoring and mitigating at Ferguson Lake Project, while providing a safe workplace.

In support of original NIRB applications for the Ferguson Lake Project, and in meeting conditions of the NWB licenses and site authorizations, CNRI has prepared and provided to the KIA and NWB the various applicable plans including:

- Emergency Response and Spill Contingency Plan; and,
- Abandonment and Reclamation Plan_ April 2025.

These plans are provided to NWB under separate cover. During construction, photos will be taken and submitted in the annual report to meet the requirements of the Type B Amendment.

APPENDIX A • NPC CONFORMITY DETERMINATION

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Nunavunmi Parnaiyiit
Nunavut Planning Commission
Commission d'Aménagement du Nunavut

6 January 2025
NPC File No. 150588

Luis Manzo
Director, Lands
Kivalliq Inuit Association (KIA)
Rankin Inlet, NU
By email: dirlands@kivalliqinuit.ca; LandsAdmin@kivalliqinuit.ca; aburton@kivalliqinuit.ca; bosmond@kivalliqinuit.ca; mserra@kivalliqinuit.ca

Tracey McCaie
Manager, Land Administration
Crown Indigenous Relations and Northern Affairs Canada (CIRNAC)
Iqaluit, NU
By email: tracey.mccaie@canada.ca; aadnc.landsmining.aandc@canada.ca; isa.qamaniq-mason@canada.ca; spencer.dewar@canada.ca; jeff.hart@canada.ca; richard.bingley2@rcaanc-cirnac.gc.ca

Cassel Kapolak
Manager, Public Registry
Nunavut Impact Review Board (NIRB)
Cambridge Bay, NU
By email: ckapolak@nirb.ca; info@nirb.ca; kmorrison@nirb.ca

Carson Gillis
Director, Lands and Resources
Nunavut Tunngavik Inc. (NTI)
Cambridge Bay, NU
By email: cgillis@tunngavik.com

Trevor Boyd
Canadian North Resources Inc. (Proponent)
Toronto, ON
By email: boyd3@sympatico.ca; ryan.vanengen@cnresources.com

Dear Luis Manzo, Tracey McCaie, Cassel Kapolak, Carson Gillis, and Trevor Boyd:

RE: NPC File No. 150588 [Ferguson Lake Project]

The following works and activities have been proposed in the above-noted project proposal:

1. Continuation of previously approved mineral exploration activities.
    a. Water use will not change from previously approved limits.
    b. Activities other than proposed modifications below to remain the same.
2. Timing, Duration, & Personnel:
    a. 75 days over period 15 July 2025 to 10 December 2027
    b. 5 personnel for a total of 75 person-days
3. Summary of proposed modifications:
    a. construct exploration trails (12.7 km x 1.5m wide or 1.91 ha),
    b. upgrade 2.7 km of the 1.5m trail to a 5m wide trail,
    c. collect a bulk sample, and
    d. implement a green energy solution for the exploration camp.
4. Associated NPC File No.: 149256 and 148903

400-607 Queen Elizabeth Way
Iqaluit, NU X0A 3H0
867-979-3444
867-983-3443

5. Associated NIRB File Nos.: 19RA046 and 07EN001
6. Location: Kivalliq Region; [Ferguson Lake (approximately 165 km south-southwest of Baker Lake) and beyond to a location approximately 84 km west of Rankin Inlet]

A complete description of the project proposal reviewed by the Nunavut Planning Commission (NPC) can be accessed online using the link below.

The NPC has completed its review of the above-noted project proposal. The works and activities associated with this proposal were previously reviewed by the NPC, including mineral exploration activities, and a conformity determination was issued on 6 December 2019 which still applies. It conforms to the Keewatin Regional Land Use Plan (KRLUP) and the proponent has undertaken to comply with the applicable conformity requirements of Appendices C, G, and H of the KRLUP.

This project proposal is exempt from the *Nunavut Planning and Project Assessment Act* (NuPPAA) under section 235 of that *Act*. In addition, associated activities were previously screened by the Nunavut Impact Review Board, including exploration trail construction and bulk sampling (NIRB File Nos. 07EN001 and 19RA046).

The above-noted project proposal is exempt from screening by the NIRB because the NPC is of the understanding that the inclusion of exploration trails and bulk sampling does not change the general scope of the original or previously amended project activities, and the exceptions noted in Section 12.4.3 (a) and (b) of the *Nunavut Agreement* do not apply.

By way of this letter, the NPC is forwarding the project proposal to the regulatory authorities identified by the proponent. Project materials, including the applicable conformity requirements, are available at the following address: https://lupit.nunavut.ca/portal/registry/registry.aspx?appid=150588.

This conformity determination applies only to the above-noted project proposal as submitted. The regulatory authorities to which this letter is addressed are responsible under the *Nunavut Agreement* to implement any of the applicable conformity requirements by incorporating the requirements directly, or otherwise ensuring that they must be met, in the terms and conditions of any authorizations issued.

My office would be pleased to discuss how best to implement the applicable requirements and to review any draft authorizations that regulatory authorities wish to provide for that purpose.

If you have any questions, please do not hesitate to contact me at (867) 447-4563.

Sincerely,

Solomon Amuno, PhD
Senior Planner
Nunavut Planning Commission

APPENDIX B • NIRB SCREENING DECISION

SCREENING DECISION REPORT
NIRB FILE NO.: 07EN001

NIRB File No.: 07EN001
INAC File No.: N2007X0011
KivIA File No.: KVCL305H27
KivIA File No.: Right-of-Way Agreement

March 26, 2007

Honourable Jim Prentice. PC., MP.
Minister of Indian Affairs and Northern Development
Gatineau, Quebec

Via email: PrenticeJ@parl.gc.ca

and

Tongola Sandy
President, Kivalliq Inuit Association
Rankin Inlet, NU

Via email: tsandy@qiniq.com

Re: Screening Decision for Starfield Resources Ferguson Lake Camp Airstrip and Right-of-Way Project Proposal

---

Dear Honourable Mr. Prentice and President Sandy:

The primary objectives of the Nunavut Land Claims Agreement are set out in section 12.2.5 of the Land Claims Agreement. This section reads:

In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of the residents of Canada outside the Nunavut Settlement Area.

Section 12.4.4 of the Nunavut Land Claim Agreement states:

Upon receipt of a project proposal, NIRB shall screen the proposal and indicate to the Minister in writing that:

a) the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5;

b) the proposal requires review under Part 5 or 6; NIRB shall identify particular issues or concerns which should be considered in such a review;
c) the proposal is insufficiently developed to permit proper screening, and should be returned to the proponent for clarification; or
d) the potential adverse impacts of the proposal are so unacceptable that it should be modified or abandoned.

NIRB ASSESSMENT AND DECISION

After a thorough assessment of all material provided to the Board (please see Appendix A), the decision of the Board as per section 12.4.4 of the NLCA is:

> **12.4.4 (a)**: the proposal may be processed without a review under Part 5 or 6; NIRB may recommend specific terms and conditions to be attached to any approval, reflecting the primary objectives set out in Section 12.2.5

RECOMMENDATIONS AND RECOMMENDED CONDITIONS

Following review of all material provided to the Board regarding this project proposal, the Nunavut Impact Review Board is recommending the following:

1. Indian and Northern Affairs Canada (INAC) impose mitigation measures and/or conditions pursuant to the Federal Land Use Permit, in regard to:
    a. Location and Area
    b. Time
    c. Equipment
    d. Methods and Techniques
    e. Control or Prevention of Flooding, Erosion and Subsidence of Land
    f. Use, Storage, Handling and Disposal of Chemical or Toxic Material
    g. Wildlife and Fisheries Habitat
    h. Objects and Places of Recreational, Scenic and Ecological Value
    i. Petroleum Fuel Storage
    j. Matters Not Consistent with the Regulations

2. The Kivalliq Inuit Association (KIA) impose mitigation measures and/or Environment Terms and Conditions pursuant to the Inuit Owned Lands License (KVCL305H27) and the Right-of-Way Agreement upon the Proponent, in regard to:
    a. General Standards
    b. Fuel and Chemical Storage
    c. Campsites
    d. Fisheries
    e. Ground Disturbance
    f. Wildlife
    g. Any other conditions recommended by the appropriate Community Lands and Resource Committee (CLARC)

3. On or before April 31, 2007, NIRB is requesting the KIA provide NIRB with written clarification regarding KIA involvement in the Starfield Resources Wildlife Management Plan, in regard to:
    a. Commitment to provide wildlife monitors for critical caribou times and details regarding when the KIA wildlife observers will be present at the Starfield camp

b. Specifics regarding the responsibility of the KIA wildlife observers within the Proponent's updated Wildlife Management Plan
c. Specific protocols to be followed by the KIA wildlife observers when determining the Proponent's compliance with the DIAND Caribou Protection Measures
d. Agreed-upon criteria which the Proponent will use when determining whether or not to notify the KIA that wildlife observers are required

Furthermore, based on correspondence provided to NIRB from Steve Hartman of the Kivalliq Inuit Association, NIRB understands that KIA License No's: KVL399C150 & KVL103B303 (expiry dates of April 30, 2007 and March 24, 2007) will be renewed by the KIA upon request of the Proponent. NIRB recommends that the same conditions recommended in this Screening Decision be imposed upon the Proponent through KVL399C150 and KVL103B303.

In addition, the Board is recommending the following or similar project-specific terms and conditions be imposed upon the Proponent through all relevant legislation pursuant to 12.4.4(a) of the NLCA:

1. Starfield Resources Inc. (the Proponent) shall maintain a copy of this Screening Decision at the site of operation at all times.

2. The Proponent shall forward copies to NIRB of all permits obtained and required for this project prior to the commencement of the project.

3. The Proponent shall operate in accordance with commitments stated in Appendix B and all documentation provided to NIRB, INAC, the KIA and the NWB. Where information in the documentation conflicts with Appendix B, Appendix B shall prevail.

4. The Proponent shall submit an annual report with copies provided to the NIRB, INAC, the KIA, and EC by January 31 each year that the project is in operation commencing January 31, 2008. The report must contain, but not be limited to, the following information:
    a. A summary of activities undertaken for the year;
    b. A work plan for the following year;
    c. The results of environmental studies undertaken and plans for future studies;
    d. Wildlife encounters and actions/mitigation taken;
    e. An analysis of the effectiveness of mitigation measures for wildlife;
    f. A summary of local hires and initiatives;
    g. A summary of community consultations undertaken as detailed in the Communications Plan;
    h. A summary of site-visits by Land Use Inspectors with results and follow-up actions;
    i. The number of take-offs & landings from an airstrip with approved flight path with date and location;
    j. The number of helicopter touch-downs on the land with date and location (provide unless confidential);
    k. Site photos;
    l. Progressive reclamation work undertaken;
    m. A summary of the 2007 evaluation activities conducted by a qualified archaeologist;
    n. Any approvals given by Land Use Inspectors regarding Caribou Protection Measures;
    o. Efforts made to achieve compliance with the *Canadian Wide Standards for Dioxins and Furans*, and the *Canadian Wide Standards for Mercury*; and

p. A summary of how the Proponent has complied with NIRB conditions contained within this Screening Decision, and the conditions associated with all authorizations for the project proposal.

5. The Proponent shall abide by all DIAND Caribou Protection Measures (CPM), except where NIRB has recommended a condition distinctive from the CPM. In the case where the CPM and NIRB's recommended conditions conflict, the NIRB condition shall prevail. If the Proponent is given any approvals to stay within the project area by a Land Use Inspector during the presence of caribou, the Proponent shall provide NIRB with written proof of this approval within ten (10) days of receipt of approval.

6. The Proponent shall not conduct any activity, including construction of the airstrip and associated all-weather road, between May 15 and July 15 of the calendar year. Furthermore, if the Proponent's daily wildlife monitoring program or the KIA wildlife monitors indicate that caribou are in the area or are approaching the project area prior to May 15 or following July 15, the Proponent must immediately stop all activities (i.e. blasting, the use of ATV's and snowmobiles, and the movement of equipment) and must not commence operations again until wildlife monitoring indicates the caribou are at least 10km from the project area.

7. The Proponent shall be prohibited to allow aircraft take-offs and landings when groups of caribou are within 1km of the airstrip or helipad.

8. On or before April 31, 2007, the Proponent shall submit a Wildlife Mitigation and Monitoring Plan to NIRB, the GN-DOE, INAC and the KIA, which must include:
    a. The following requirements:
        i. Any NIRB conditions contained within this Screening Decision
        ii. Aircraft must maintain a flight altitude of at least 610 m at all times, particularly when there are observed groups of caribou, [and] maintain a vertical distance of 1000 m and minimum horizontal of 1500 m from any observed concentrations of birds
        iii. The Proponent must make all reasonable efforts to communicate, in advance, to aircraft pilots where there are concentrations of caribou
        iv. The continuation of the daily wildlife monitoring program, the involvement of KIA wildlife monitors, and the criteria used by which the Proponent will determine when KIA wildlife monitors will become involved in wildlife monitoring
        v. There must be a Cat Train scout traveling on snowmobile at least 5km in advance of the Cat Train while Cat Train is in operation
        vi. The Cat Train must cease operations immediately upon notification from the Cat Trail scout that migrating caribou are traveling within 5km of the Cat Train. Operations may be resumed once the caribou have moved beyond 5km of the Cat Train
    b. A clear estimation of the minimum number of flights required for the ongoing viability and safety of the project
    c. A clear definition of the geographical boundaries the Proponent is using when determining if wildlife are 'within the project area'
    d. Predicted impacts to wildlife from project activities
    e. Proposed site-specific measures to reduce anticipated adverse impacts to wildlife
    f. Proposed procedures for the daily wildlife monitoring program, including frequency, monitoring period, locations where monitoring will occur, and discussion regarding how

the data collected in the daily wildlife monitoring program will be used to determine if adaptive mitigation and management strategies for wildlife are required

g. Clear description of thresholds that will be used to determine the necessity for adaptive mitigation and management strategies
h. Procedures for monitoring the effectiveness of mitigation measures

Any subsequent direction provided by the Government of Nunavut Department of Environment (Mitch Campbell) regarding the Wildlife Mitigation and Monitoring Plan must be forwarded to NIRB.

9. The Proponent or any contractors or sub-contractors shall not feed wildlife.

10. The Proponent shall ensure that there is no hunting or fishing by employees of the company or any contractors hired unless proper Nunavut authorizations have been obtained.

11. On or before April 31, 2007, the Proponent shall submit to NIRB, Environment Canada (EC), the KIA and the NWB a comprehensive Water Quality Monitoring and Management Program for monitoring of drainage water associated with the airstrip and all-weather road construction must include:
    a. Description of the amount of aggregate to be excavated for the airstrip and all-weather road construction, and distance of the excavation site(s) from water bodies, fish-bearing waters and water crossings
    b. Details of the monitoring program, such as monitoring locations, frequency of sampling, and parameters monitored;
    c. Guidelines used in the monitoring program, such as Canadian Council of Ministers for the Environment guidelines for the protection of freshwater aquatic life (CCME-FWAL), and any site-specific criteria established by the NWB;
    d. Operational procedures intended to mitigate the potential adverse effects to water quality, including those effects from sedimentation due to run-off
    e. Anticipated adaptive management strategies to deal with adverse impacts identified from the monitoring program

12. The Proponent shall submit its updated Spill Contingency Plan and Abandonment and Restoration Plan to NIRB, INAC, KIA and the NWB immediately.

13. The Proponent shall ensure that the disposal of combustible camp wastes comply with the *Canadian Wide Standards for Dioxins and Furans*, and the *Canadian Wide Standards for Mercury*. Efforts made to achieve compliance shall be reported to the NIRB as part of the annual report.

14. The Proponent shall conduct additional sampling of all contaminated soil within the project area in 2007. Upon determination of the amounts of contaminated soil present within the project area, correspondence must be provided to NIRB and Environment Canada (EC) which includes the data collected from the 2007 sampling program, a description of the anticipated confirmatory follow-up sampling program to confirm total removal of contaminated soil, and a description of the location where disposal of the contaminated soil will take place. This correspondence must be sent to NIRB and EC no later than October 31, 2007.

15. Prior to any ground disturbance activities, the Proponent shall ensure that the areas are evaluated by a qualified archaeologist. A summary of the 2007 evaluation activities conducted by a qualified archaeologist must be submitted to the Government of Nunavut – Culture, Language, Elders and Youth (GN-CLEY) no later than October 31, 2007.

16. On or before April 31, 2007, the Proponent shall submit to NIRB and the Ferguson Lake Natives a summary of the archaeological studies conducted in 2005 and 2006. Any subsequent correspondence sent from the Ferguson Lake Natives to Starfield Resources regarding the archaeological studies must be forwarded to NIRB.

17. On or before April 31, 2007, the Proponent must submit to NIRB a comprehensive Communications Plan, which must include:
    a. Clarification regarding how Ferguson Lake Natives will be involved as assistants and observers in the ongoing archaeological work to be conducted by Starfield Resources and confirmation the Ferguson Lake Natives have approved the involvement strategy
    b. The Proponent's consultation strategy with affected communities, including the Ferguson Lake Natives
    c. The procedures the Proponent will follow to ensure that all contractors associated with the project proposal are aware of all conditions associated with any authorization required for the project. This includes the conditions contained within this Screening Decision, and the updated Wildlife Mitigation and Monitoring Plan.

18. The Proponent shall adhere to conditions stated in attached Appendix C *Archaeological and Palaeontological Resources – Terms and Conditions for Land Use Permit Holders*.

Validity of Land Claims Agreement

Section 2.12.2
Where there is any inconsistency or conflict between any federal, territorial and local government laws, and the Agreement, the Agreement shall prevail to the extent of the inconsistency or conflict.

Dated __March 26, 2007____ at Cambridge Bay, NU.

_____
Lucassie Arragutainaq, A/Chairperson

Appendix A – File History

On January 11, 2007 the Nunavut Impact Review Board (NIRB or Board) received a Starfield Resources amendment project proposal from the Kivalliq Inuit Association (KIA) which included the following project activities:

- Construction of 1380m × 30m airstrip runway
- Construction of 1.5km × 6m all-weather access road
- Movement of bulk fuel and storage
- Winter trail right-of-way from Churchill, MB and Rankin Inlet, NU to Ferguson Lake

The Ferguson Lake Project is located approximately 100km south of the community of Baker Lake.

Starfield Resources had requested an amendment to Kivalliq Inuit Association Land Use License KVCL305H27 to include the airstrip and associated activities, and also submitted a new application for a right-of-way to support the camp and construction of the airstrip.

NIRB determined that these project activities were **not** included in the camp and exploration project proposal (NIRB No. 06EN008) previously screened by NIRB in 2006 and therefore conducted a Part 4 Screening on the amendment activities.

The application was distributed to Baker Lake and to interested Federal and Territorial Agencies.

By February 2, 2007, NIRB received comments from the following interested Parties:

- Mr. Orin Durey of Baker Lake
- Ms. Joan Scottie, on behalf of the Ferguson Lake Natives
- The Government of Nunavut Department of Environment
- The Beverly and Qamanirjuaq Caribou Management Board
- The Saysis Dene North of 60 Negotiating Team
- The Athabasca Denesuline Negotiation Team North of 60
- Environment Canada

Concerns regarding the project proposal were expressed by all interested Parties except for the Saysis Dene North of 60 Negotiating Team.

The main concerns included:

- potential impacts to caribou from airstrip construction, airstrip use, and the right-of-way trail
- protection of caribou calving grounds
- lack of mitigation measures and monitoring for impacts to caribou and other wildlife
- required GN-Park Use Permit to travel through the Iaqlugaarjuup Nunanga Territorial Park
- omissions in the project description, such as numbers and locations of required quarries for construction material
- omissions in the Spill Contingency Plan, such as disposal of fuel contaminated soils
- omissions in the Abandonment and Restoration Plan, such as details pertaining to the reclamation of the airstrip
- potential for archaeological site disruption in the Ferguson Lake area
- potential for cumulative effects with other projects in the area
- consultation requirements for the Proponent

On February 13, 2007 NIRB received Starfield's Response to Comments from Parties.

On February 14, 2007 NIRB provided interested Parties with the opportunity to review Starfield's Response to Comments from Parties, and requested comments by February 21, 2007. Based on a request from the Baker Lake Hunters and Trappers Organization, NIRB extended the deadline for Parties to comment to March 2, 2007.

On March 2, 2007 NIRB was notified by Indian and Northern Affairs Canada (INAC) that Starfield Resources required a Class A Land Use Permit for the proposed Right-of-Way, due to crossings over Crown land. NIRB notified INAC that the application for the Class A Land Use Permit was to be included as part of this Part 4 Screening.

On or before Friday March 2, 2007, NIRB received further comments from the following Parties:

- Beverly and Qamanirjuaq Caribou Management Board
- Government of Nunavut Department of Environment
- Environment Canada
- Government of Nunavut Culture, Language, Elders and Youth
- Ferguson Lake Natives

The following environmental issues were still outstanding:

- Proponent recognition of the vulnerability of caribou during spring migration, calving and post-calving periods and the effect project activities may have on the caribou
- Adequacy of the Wildlife Management Plan regarding caribou-related concerns and migratory birds
- Clarification regarding Traditional Knowledge studies and archaeological studies
- Water quality monitoring around the airstrip and all-weather road
- Waste management procedures
- Spill response units
- Information related to the aggregate removal for construction of the all-weather road
- Decommissioning of the all-weather road, airstrip and helicopter pad

NIRB provided the Proponent with a final opportunity to respond to these concerns, and Starfield Resources submitted additional information on March 14, 2007 responding to each Party's concerns.

Appendix B – Proponent Commitments

- Any proposed areas of ground disturbance, including exploration drilling locations and the proposed routes to the facilities location will be evaluated by a qualified archaeologist.
- A summary of the work [archaeological studies] conducted in 2005 and 2006 will be forwarded to the Ferguson Lake Natives by Monday, March 19, 2007.
- Starfield initiated archaeological studies in the Ferguson Lake Project area in 2005. Studies were conducted in 2006 and will continue in 2007.
- In 2007, Ferguson Lake Natives will be involved as assistants and observers in the ongoing archaeological work to be conducted by Starfield Resources.
- Starfield commits to meet with the Ferguson Lake Natives as they have significant cultural heritage which the company plans to preserve.
- Starfield will initiate this year [2007] a socio-economic baseline study for its project.
- Starfield Resources will be monitoring water quality for total suspended solids at the outlets of the drainage ditches and in any immediate receiving waterbody.
- Starfield Resources will initiate a Waste Management program whereby waste will be sorted and disposed of in an effort to reduce furans and dioxins [as a result of waste incineration] in accordance to Canada-wide Standards. A double-chambered incinerator (Model Portable Electric Cyclonator Incinerator Cy 1050 FA "D") will be installed onsite to increase emissions quality.
- Starfield Resources has received a Hazardous Waste Generator application for registration with DOE and will obtain Waste Manifest documents, for the transportation of hazardous waste, when a Generator number is assigned by the DOE.
- In the event that Starfield has to transport hazardous waste off site, the waste will be transported through either Rankin Inlet, Nunavut or Thompson, Manitoba to an approved facility.
- The Kivalliq Inuit Association, in consultation with Starfield Resources, will provide wildlife observers during the critical caribou periods to monitor and advise on activity in the project area. The observers will ensure that the Wildlife Management Plan is implemented.
- Starfield Resources will adhere to the minimum number of flights required for the ongoing viability and the safety of the project. These mitigation strategies will be incorporated in the revised Wildlife Management Plan, including the requirement for aircraft to maintain a flight altitude of at least 610 m during horizontal flight [and] maintain a vertical distance of 1000 m and minimum horizontal of 1500 m from any observed concentrations of birds.
- Starfield will continue daily wildlife monitoring program and if any significant number of caribou arrive earlier than historic observations, then Starfield will initiate the monitoring program established with the Kivalliq Inuit Association observers.
- The Wildlife Management Plan proposed by Starfield will be revised and modified to provide a more detailed plan that will include components such as monitoring frequency, monitoring period, area and distance to monitor, mitigative measures, etc. This revised plan will be prepared in collaboration with the Kivalliq Inuit Association and the [GN] regional biologist in Arviat (Mitch Campbell).
- As part of the revised Wildlife Management Plan, Starfield Resources will monitor the effectiveness of the mitigation measures, to the best of Starfield's abilities.
- Starfield Resources will inform, in writing, its contractors and sub-contractors of the regulations (regarding aircraft heights).
- Aircraft pilots will follow height regulations, as described by the DIAND Caribou Protection Measures, and ensure that limited low level flights are undertaken during critical periods as identified by the wildlife observers previously mentioned.
- A Cat Train scout (on snowmobile) will ensure that the Cat Train avoids caribou.
- The Cat Train will stop before it encounters migrating caribou, and will not proceed across a migration route until the caribou have passed.

- Starfield Resources will meet the requirements of the CCME guidance document *Environmental Code of Practice of Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*.
- Starfield Resources will submit information on the amount of aggregate to be excavated, distance to water bodies, location of any water crossing and mitigation measures to prevent sedimentation of nearby water bodies for review as soon as it becomes available from their engineering consultants; Starfield anticipates that this information will be available by March 21st.
- Starfield is committed to ensure that no Acid Rock Degeneration results due to construction of the road.
- Starfield Resources will submit a revised Abandonment and Restoration Plan by March 21st.
- Additional sampling will be conducted of the contaminated soil within the project area in 2007. Once a better determination of the amount of contaminated soil is obtained, Starfield will provide these numbers to EC. Confirmatory sampling at the excavated areas will be conducted to ensure that all contamination has been removed.

Appendix C

BACKGROUND

Archaeology

As stated in Article 33 of the Nunavut Land Claims Agreement:

The archaeological record of the Inuit of Nunavut is a record of Inuit use and occupancy of lands and resources through time. The evidence associated with their use and occupancy represents a cultural, historical and ethnographic heritage of Inuit society and, as such, Government recognizes that Inuit have a special relationship with such evidence, which shall be expressed in terms of special rights and responsibilities. [33.2.1]

The archaeological record of Nunavut is of spiritual, cultural, religious and educational importance to Inuit. Accordingly, the identification, protection and conservation of archaeological sites and specimens and the interpretation of the archaeological record is of primary importance to Inuit and their involvement is both desirable and necessary. [33.2.2]

In recognition of the cultural, spiritual and religious importance of certain areas in Nunavut to Inuit, Inuit have special rights and interests in these areas as defined by Article 33 of the Nunavut Land Claims Agreement. [33.2.5]

Palaeontology

Under the Nunavut Act[1], the federal government can make regulations for the protection, care and preservation of palaeontological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*[2], it is illegal to alter or disturb any palaeontological site in Nunavut unless permission is first granted through the permitting process.

Definitions

As defined in the *Nunavut Archaeological and Palaeontological Sites Regulations*, the following definitions apply:

"archaeological site" means a place where an archaeological artifact is found.
[1]
[1] s. 51(1)
[2] P.C. 2001-1111 14 June, 2001

"archaeological artifact" means any tangible evidence of human activity that is more than 50 years old and in respect of which an unbroken chain of possession or regular pattern of usage cannot be demonstrated, and includes a Denesuline archaeological specimen referred to in section 40.4.9 of the Nunavut Land Claims Agreement.

"palaeontological site" means a site where a fossil is found.

"fossil" includes:

(a) natural casts
(b) preserved tracks, coprolites and plant remains; and
(c) the preserved shells and exoskeletons of invertebrates and the eggs, teeth and bones of vertebrates.

Terms and Conditions

1) The permittee shall not operate any vehicle over a known or suspected archaeological or palaeontological site.

2) The permittee shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.

3) The permittee shall immediately contact the Department of Culture, Language, Elders and Youth (867) 934-2046 or (867) 975-5500 or 1 (866) 934-2035 should an archaeological site or specimen, or a palaeontological site or fossil be encountered or disturbed by any land use activity.

4) The permittee shall immediately cease any activity that disturbs an archaeological or palaeontological site encountered during the course of a land use operation, until permitted to proceed with the authorization of the Department of Culture, Language, Elders and Youth, Government of Nunavut.

5) The permittee shall follow the direction of the Department of Culture, Language, Elders and Youth and DIAND in restoring disturbed archaeological or palaeontological sites to an acceptable condition.

6) The permittee shall provide all information requested by the Department of Culture, Language, Elders and Youth concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.

7) The permittee shall make best efforts to ensure that all persons working under authority of the permit are aware of these conditions concerning archaeological sites and artifacts, and palaeontological sites and fossils.

8) The permittee shall avoid the known archaeological and/or palaeontological sites listed in Attachment 1.

9) The permittee shall have an archaeologist or palaeontologist perform the following functions, as required by the Department of Culture, Language, Elders and Youth:

a) survey
b) inventory and documentation of the archaeological or palaeontological resources of the land use area
c) assessment of potential for damage to archaeological or palaeontological sites
d) mitigation
e) marking boundaries of archaeological or palaeontological sites
f) site restoration

The Department of Culture, Language, Elders and Youth shall authorize by way of a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit, all procedures subsumed under the above operations.