



Water Resources Division
Resource Management Directorate
Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

Your file - Votre référence
2BE-FER
Our file - Notre référence
GCDOCS#100134301

January 10, 2022

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
E-mail: licensing@nwb-oen.ca

**Re: Crown-Indigenous Relations and Northern Affairs Canada's Review of the
Licence Amendment Application for Ferguson Lake, Type B Water Licence No.
2BE-FER1823**

Mr. Dwyer,

Thank you for the November 30, 2021 invitation to review the referenced licence amendment application, submitted by Canadian North Resources Inc, for Type B Water Licence No. 2BE-FER1823.

Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) examined the application pursuant to its mandated responsibilities under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Department of Crown-Indigenous Relations and Northern Affairs Act*. Please find CIRNAC comments and recommendations in the attached Technical Memorandum.

If there are any questions or concerns, please contact Andrew Keim at (867) 975-4550 or andrew.keim@rcaanc-cirnac.gc.ca.

Sincerely,

Andrew Keim

Andrew Keim

A/Manager
Water Resources, Nunavut Regional Office
Crown-Indigenous Relations and Northern Affairs Canada
Tel : (867)-975-4550 /Cell: (306) 501-4047



Technical Review Memorandum

Date: January 10, 2022

To: Richard Dwyer Manager of Licensing, Nunavut Water Board

From: Andrew Keim, A/Manager, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada's Review of the Licence Amendment Application for Ferguson Lake, Type B Water Licence No. 2BE-FER1823

Region: ☐ Kitikmeot ☒ Kivalliq ☐ Qikiqtani

A. BACKGROUND

The Ferguson Lake Project, an exploration property held by Canadian North Resources and Development Corp. (CNRD) was acquired from Starfield Resources Inc. under bankruptcy protection in June, 2013.

The Ferguson Lake property consists of 29 active mineral claims and 10 mining leases comprising an area of 28,128 hectares (69,476 acres). The property is located in the Kivalliq region of southern Nunavut, some 240 kilometres west of Rankin Inlet and 160 kilometres south-southwest of Baker Lake. Ferguson Lake, central to the large property area, is midway between Yathkyed and Qamanirjuaq Lakes. The mining leases are located predominately on Kivalliq Inuit Association (KIA) surface rights owned land (RI-24, RI-25, RI-26 and RI-27).

The following Commercial, Land Use and Right of Way permits, enabling work, water use, and travel to be conducted over the mining leases, claims, and Prospecting Permit areas, are issued by the Kivalliq Inuit Association (KIA), and Nunavut Water Board (NWB):

- | | |
|------------------------|---------------------------|
| • KVCL305H27 | Expires July 22, 2022 |
| • KVCA08Q17 | Expired September 8, 2021 |
| • KVRW06F09 | Expired October 17, 2021 |
| • 2BE-FER1318 TYPE "B" | Expires December 11, 2023 |
| • N2013X0023 | Expires March 17, 2022 |

CIRNAC provides the following comments and recommendations pertaining to the application package. A summary of the subjects of recommendations can be found in Table



1. Documents reviewed as part of this submission can be found in Table 2 of Section B. Detailed technical review comments can be found in Section C.

Table 1: Summary of Recommendations

| Recommendation Number | Subject |
|--|---------|
| 1. Spill Contingency Plan | |
| 2. Crushed Drums | |
| 3. Transportation and Storage of Waste | |
| 4. Old Camp Site | |
| 5. Fuel Storage | |

B. DOCUMENTS REVIEWED AND REFERENCED

The following table (Table 2) provides a list of the documents reviewed under the submission and reference during the review.

Table 2: Documents Reviewed and Referenced

| Document Title | Author, File No., Rev., Date |
|--|---|
| 211118 2BE-FER1823 100401-Application for Water License Amendment-ILAE | Trevor Boyd. November 12, 2021 |
| 211118 2BE-FER1823 email cover letter - submission of amendment application-ILAE | Trevor Boyd, November 18, 2021 |
| 2BE-FER1823 Water License Inspection Report | RMO C. Wilson, July 9, 2021 |
| Ferguson Lake Project Abandonment and Restoration Plan_2021 V.1 | ERM Consultants Canada Ltd, November 2021 |
| Ferguson Lake Project Spill Contingency Plan_2021 | ERM Consultants Canada Ltd, November 2021 |
| 2021 Spill Plan Updated Contact List | Trevor Boyd, Undated |
| Ferguson Lake 2021 FCA Water and Soil Sampling Memo (conducted by ERM) | ERM Consultants Canada Ltd, November 2021 |
| 211126 2BE-FER1823 Ferguson Lake Camp map figure-ILAE | ERM Consultants Canada Ltd, Undated |



| Document Title | Author, File No., Rev., Date |
|---|--|
| 211126 2BE-FER1823 Ferguson Lake Project area map-ILAE | ERM Consultants Canada Ltd, Undated |
| 211126 2BE-FER1823 CNRD NWB 2019 Annual Report to NWB-ILAE | Trevor Boyd, November 26, 2021 |
| 211126 2BE-FER1823 CNRD NWB 2020 Annual Report to NWB-ILAE | Trevor Boyd, November 26, 2021 |
| 211126 2BE-FER1823 CNRI NWB 2021 Annual Report to NWB-ILAE | Trevor Boyd, November 26, 2021 |
| 211126 2BE-FER1823 2020-256 Spill Form Ferguson Lake-ILAE | Unknown, August 5, 2021 spill 20-256 |
| 211116 2BE-FER1823 NPC File 149618 Ferguson Lake Project-1-ILAE | Solomon Amuno, Senior Planner Nunavut Planning Commission, November 17, 2021 |
| Various Inspection reports – 2008-2016 | WRO- A. Keim Various |

C. RESULTS OF REVIEW

1. August 2021 Spill Contingency Plan

Comment:

With respect to the Spill Contingency Plan and the highlighted passage below. Contaminated contact has been previously identified and documented during inspections at the site over the last ten years. While the use of oil absorbent pads to collect free product and emulsified oils floating on the surface of water works it does not constitute treatment of contact waters.

4.3 Fuel Storage and Quantities

A fuel cache is located in a lined embankment along the same ridge as the camp. The fuel containment area consists of a bermed working area lined with an impermeable membrane and covered with a layer of sand and gravel to provide secondary containment as required by Land Use Regulations, the Nunavut Waters Act, and the Terms and Conditions provided in Land Use Licences and Water Licences. The fuel cache storage is situated 500 m southeast of the camp living quarters and is greater than 100 m from the



high water mark of any waterbodies. Contact water in the fuel containment area that does not meet discharge criteria for hydrocarbons oil-water pads are on-site to extract hydrocarbons from the water and/or can be treated with a charcoal oil water separator prior to being pumped out of the area.

Fuel storage meets the requirements of the Canadian Council of Ministers of the Environment guidance document Environment Code of Practice of Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products.

Further as outlined in the report provided by ERM (REF # 0598256) for Canadian North Resources INC on November 12th, 2021 and included as part of the application for renewal package. There were a number of exceedances noted in both water and soil quality in the Fuel Containment Area. However it is unclear what if any treatment the contaminated contact water was subject to, nor if confirmatory sampling to provide evidence that discharge criteria had been met prior to any release to the environment.

Recommendation:

(R-01) CIRNAC recommends that provide a complete description of the work completed to classify and characterize the contact water contained within the fuel storage areas prior to treatment. Further CIRNAC requires confirmation that treatment of contact waters did occur and that verification through sampling results were received prior to discharge of waters from any fuel containment area. CIRNAC would like to know the details of what testing was completed, what guidelines or regulatory limits were used to compare the results and the volume and location of any discharge of water from the containment area. This information should be provided prior to any renewal license being issued by the Nunavut Water Board.

2. Spill Contingency Plan: Crushed Drums

Comment:

With respect to the Spill Contingency Plan and the highlighted passage outlined in section 4.3. Contaminated contact has been previously identified and documented during inspections at the site over the past ten years. CIRNAC would like the applicant to provide the details on how these drums will be/were cleaned prior to crushing and transportation.

4.3 Fuel Storage and Quantities

All fuel drums are factory sealed, and any drums that have broken seals are used for purposes other than for re-fuelling of aircraft. All drums will be inspected daily by CNRI personnel for container and bung soundness. All rubber seals prior to re-filling are replaced. Any drum(s) noted to be leaking will immediately have all product transferred to a new drum(s). The drums will be crushed and hauled out at a later date. ...



Recommendation:

(R-02) CIRNAC recommends that the details on the cleaning and crushing of barrels in the field be provided to CIRNAC and ECCC prior to the commencement of such activity.

3. Transportation and Storage of Waste

Comment:

With respect to the Spill Contingency Plan and the highlighted passage. CIRNAC has concerns with the transportation of any hazardous materials across the land or via aircraft within the territory. Additionally, the ultimate disposal of hazardous wastes must be documented to ensure these materials do not end up in a local landfill that is ill prepared or unable to deal with them appropriately.

4.4 Transport and Storage of Waste

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In the event that removal is deemed necessary, contaminated waste will be transported overland or by chartered fixed-wing aircraft from Ferguson Lake to Rankin Inlet or Baker Lake. Wastes that are transported to Rankin Inlet or Baker Lake are in the form of ash, collected and enclosed in sealed barrels, and are disposed of at the Rankin Inlet or Baker Lake Landfill. In the event that CNRI has to transport hazardous waste off-site, the waste will be transported through either Rankin Inlet or Baker Lake, Nunavut or Thompson, Manitoba, **to an approved facility in southern Canada to receive appropriate treatment.**

Recommendation:

(R-03) CIRNAC recommends that receipts issued by a facility licensed to dispose of Hazardous waste be included in the required annual reports due on March 31st of every year by the proponent. Additionally, copies of these receipts should be held on site and available at upon request by a CIRNAC inspector during the course of an inspection.

4. Old Camp Site

Comment:

Further to the Ferguson Lake Project Abandonment and Restoration Plan, 2021, November 2021, Project No.: 0598256 and the following paragraph, specifically the highlighted section;

1.3 Project Description



“The Project includes an “old” exploration camp and the current exploration camp area (Figure 1).

The “old” camp is at Ferguson Lake Lodge on Ferguson Island, historically a fishing lodge. The “old” camp was abandoned in 2007 and all equipment and buildings were moved to the new camp in 2008. The old landing strip was abandoned in 2008 after the new landing strip was completed.”

CIRNAC is looking for confirmation that the old site has been cleaned up and that all contaminated soils and other materials that were on site have since been removed.

Recommendation:

(R-04) CIRNAC recommends that photographic evidence and a follow up inspection are necessary to confirm this and further statements to this effect contained within this report.

5. Fuel Storage

Comment:

Further to the Ferguson Lake Project Abandonment and Restoration Plan, 2021, November 2021, Project No.: 0598256 and the following paragraph, specifically the highlighted section;

2.2 Fuel Storage

Empty drums used at camp or during exploration programs are regularly rotated out of camp by fixed wing aircraft to be re-filled and then returned to camp during bi-annual re-supply programs. Empty fuel drums will be crushed and bundled for removal from site during the winter 2021-2022 to Baker Lake and forwarded on for disposal at an approved facility in southern Canada. This includes a stockpile of approximately 3,000 drums from the site clean-up from 2011-2021.

Recommendation:

(R-05) CIRNAC recommends that as outlined in Recommendation 3 above with respect to the Spill contingency plan, receipts issued by a facility licensed to dispose of Hazardous Waste (crushed drums) be included in the required annual reports due on March 31st of every year by the proponent. Additionally, copies of these receipts should be held on site and available at upon request by a CIRNAC inspector during the course of an inspection. Further, CIRNAC recommends that the process for cleaning and care of drums scheduled to be crushed be provided along with details concerning waste fuel and contaminated adsorbents pads used in the process.