



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

Your file - Votre référence
2BE-MNP----
Our file - Notre référence
GCDocs#114242801

June 09, 2023

Robert Hunter
Licensing Administrator
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 Application by APEX Geoscience LTD, on behalf of SPC Nickel Corp. for the Muskox Nickel Project for New Water Licence 2BE-MNP----

Dear Robert,

Thank you for your May 16, 2023, invitation to review the Application by APEX Geoscience LTD, on behalf of SPC Nickel Corp. for the Muskox Nickel Project for New Water Licence 2BE-MNP----

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 me at (867) 975-4555 or Aminul.Haque@rcaanc-cirnac.gc.ca or Andrew Keim at (867) 975-4550 or Andrew.Keim@rcaanc-cirnac.gc.ca.

Sincerely,

—अमिनुल रक

Aminul Haque
Regional Water Management Coordinator



Technical Review Memorandum

Date: June 09, 2023

To: Robert Hunter, Licensing Administrator, Nunavut Water Board

From: Aminul Haque, Regional Water Management Coordinator, CIRNAC

Subject: Crown-Indigenous Relations and Northern Affairs Canada's Review of the Application by APEX Geoscience LTD, on behalf of SPC Nickel Corp. for the Muskox Nickel Project for New Water Licence 2BE-MNP----.

Region: ☒ Kitikmeot ☐ Kivalliq ☐ Qikiqtani

A. BACKGROUND

On May 16, 2023, the Nunavut Water Board (NWB) invited interested parties to comment on the Application by APEX Geoscience LTD, on behalf of SPC Nickel Corp. (the "Applicant") for a new Type B water licence (2BE-MNP----) for the Muskox Nickel Project.

The Muskox Nickel Property (the "Property" or the "Project"), owned and operated by the applicant, consists of 27 mineral claims and two prospecting permits. The Property is separated into a North Block and a South Block. The North Block is located approximately 100 km south of the Hamlet of Kugluktuk and partially overlaps Inuit Owned Land, and the south block, located entirely on Crown land, is about 20 km south of the North Block and extends to the Nunavut - Northwest Territories border.

The applicant proposes annual exploration programs, including general exploration activities such as geological mapping, prospecting, geochemical sampling (rock, soil and till), geophysical surveys (airborne and ground) and diamond drilling of approximately 5,000 m. The applicant also intends to construct a 20-person temporary camp. Annual programs are anticipated to commence around April 1 and run until September 30. The physical footprint of the proposed project components is 65,309 hectares (653.09 square kilometres). The applicant identified that most of the property is highly sensitive due to its location within the Kugluktuk community drinking water supply.

CIRNAC's Water Resource Division provides the following comments and recommendations about the application. 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
R-01	Impact on Community Drinking Water Supply
R-02	Drilling Additives
R-03	Drilling Waste Management
R-04	Quantify Water Usage for Drilling

B. DOCUMENTS REVIEWED AND REFERENCED

The following table (Table 2) lists the documents reviewed under the submission and references during the review.

Table 2: Documents Reviewed and Referenced

Document Title	Author, File No., Rev., Date
Muskox Nickel Project Executive Summary	Apex Geoscience, May 12, 2023
NPC Letter re 149930 The Muskox Nickel Property	Nunavut Planning Commission, NPC File No.:149930, February 06, 2023
SPC Muskox Nickel Project - APEX Permitting Authorization	SPC Nickel Corporation, March 28, 2022
SPC Muskox Nickel Project 23EN001-Screening Decision Report	Nunavut Impact Review Board, NIRB File NO.:23EN001, April 04, 2023
SPC Muskox Nickel Project Abandonment & Restoration Plan	Apex Geoscience, January 01, 2023
SPC Muskox Nickel Project Certificate of Incorporation	Registrar of Corporation, Nunavut, File No.:ET12234, February 02, 2022
SPC Muskox Nickel Project Condensed Interim Financial Statements (three months ended November 30, 2022)	SPC Nickel Corp., January 27, 2023
SPC Muskox Nickel Project Emergency Response Plan	Apex Geoscience, December 15, 2022
SPC Muskox Nickel Project Environmental Management Plan	Apex Geoscience, January 01, 2023
SPC Muskox Nickel Project Exploration-Remote Camp Questionnaire	Apex Geoscience, May 11, 2023
SPC Muskox Nickel Project General Water Licence Application	Apex Geoscience, May 11, 2023
SPC Muskox Nickel Project Non-Technical Summary - English	Apex Geoscience, May 11, 2023
SPC Muskox Nickel Project Property Location Figure	Apex Geoscience, May 11, 2023
MNP---- SPC Muskox Nickel Project Waste Management Plan	Apex Geoscience, January 01, 2023
SPC Muskox Nickel Property Spill Contingency & Fuel Management Plan	Apex Geoscience, January 01, 2023
SPC Muskox Nickel Reclamation Cost Estimate	Apex Geoscience, February 2023
SPC Nickel Corp. 2022 Community Consultation Log	Apex Geoscience, February 2023



C. RESULTS OF REVIEW

1. Impact on Community Drinking Water Supply

Comment:

The application indicated that the Muskox Nickel Property is approximately 100 km south of the Hamlet of Kugluktuk. The majority of the Property is within the watershed that includes and feeds the source of the community drinking water supply. Therefore, the exploration area is highly sensitive and may impact the safe drinking water supply for the Kugluktuk community. However, the applicant did not discuss and specify preventive measures to avoid any possible impact on the safety of community drinking water.

Recommendation:

(R-01) CIRNAC recommends that the applicant update the current Environmental Management Plan to highlight potential impacts on community drinking water supply and mitigation measures before starting any exploration activities.

2. Drilling Additives

Comment:

The Spill Contingency and Fuel Management Plan stated (section 2.2.3), "All drill additives will be non-toxic and biodegradable, whenever possible." However, no information on the drilling additives is provided, and no evidence or discussion is given to justify or substantiate this statement or conclusion.

Recommendation:

(R-02) CIRNAC recommends that the applicant provide the details to substantiate the statement that all drilling additives used in the drilling process will be environmentally friendly and safe for the local community's drinking water supply.

3. Drilling Waste Management

Comment:

The applicant proposed to use non-hazardous drilling fluids whenever possible. The Waste management plan mentioned drill cuttings and water to store in a sump adjacent to the drill hole, allowing it to percolate into the overburden. However, it did not specify how it will treat drill grey water (i.e., the mixture of drill cuttings, water and drilling fluid) when non-hazardous drilling fluid use is not possible.

Recommendation:

(R-03) CIRNAC recommends that the applicant update the Waste Management Plan to discuss how it will manage drill grey water if hazardous drilling additives are used.



4. Quantify Water Usage for Drilling

Comment:

The applicant requested a maximum of 289 cubic meters per day of water for drilling activities. It is unclear how the actual daily water usage for drilling activities would be measured and whether the limit on the quantity of daily water usage is respected.

Recommendation:

(R-04) CIRNAC recommends that the applicant clarify how the quantity of water used for drilling will be measured or estimated and that the daily limit is respected.