



NIRB File No.: 24YN010
NPC File No.: 150196

March 4, 2024

Ysaline Bacon
Institut National de la Recherche Scientifique
490 rue de la Couronne
Quebec City, Quebec G1K 9A9

Sent via email: ysaline.bacon@inrs.ca

Re: Notice of Screening for Institut National’s “Evaluation of the Deep Geothermal Potential of Baker Lake” project proposal

Dear Ysaline Bacon:

On February 9, 2024, the Nunavut Impact Review Board (NIRB) received a referral to screen Institut National’s “Evaluation of the Deep Geothermal Potential of Baker Lake” project proposal from the Nunavut Planning Commission (Commission), with an accompanying positive conformity determination with the Keewatin Regional Land Use Plan. February 23, 2024, the NIRB received the complete application from the Proponent.

Pursuant to Article 12, Sections 12.4.1 and 12.4.4 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and s. 87 of the *Nunavut Planning and Project Assessment Act*, S.C. 2013, c. 14, s. 2 (*NuPPAA*), the NIRB has commenced screening this project proposal and has assigned it file number **24YN010** - please reference this file number in all future related correspondence.

PROJECT OVERVIEW

Project Scope:

All documents received and pertaining to this project proposal can be accessed from the NIRB’s online public registry at www.nirb.ca/project/125885.

Project:	Evaluation of the Deep Geothermal Potential of Baker Lake
Region:	Kivalliq
Location:	Within the Municipal boundaries of Baker Lake

Summary of Project Description:	The Proponent intends to conduct research and undertake the study of local geology, including characterizing thermophysical properties of rock samples, assessing theoretical geothermal potential, developing numerical models, and analyzing the life-cycle cost of the geothermal system within a limited area surrounding Baker Lake.
Project Proposed Timeline:	June 2024 to September 2024

According to the project proposal, the scope of the project includes the following undertakings, works or activities:

- Use of a vehicle to transport personnel and equipment to conduct research activities; and
- Methods of fieldwork include fracture studies, geological mapping, surface rock sample collecting using geological hammers to collect hand-sized samples.

Inclusion or Exclusion of Scoping List

At this time, the NIRB has identified no additional works or activities in relation to the project proposal. As a result, the NIRB will proceed with screening the project based on the scope as described above.

REQUEST FOR COMMENTS

All documents received can be accessed from the NIRB’s online public registry at www.nirb.ca/project/125885 and include:

- *Commission Application and Conformity Determination*
- *NIRB Application*

The NIRB will copy you on screening process related correspondence and upload related documents to the NIRB’s online registry for public access. The NIRB may request additional information at any time during the process.

The NIRB is copying parties and municipalities potentially affected by Institut National’s project proposal with this letter, and we invite interested parties to comment directly to the NIRB by **March 14, 2024**.

The NIRB would like parties to provide comments regarding:

- Whether the project proposal is likely to arouse significant public concern; and if so, why;
- Whether the project proposal is likely to cause significant adverse eco-systemic or socio-economic effects; and if so, why;
- Whether the project proposal is likely to cause significant adverse impacts on wildlife habitat or Inuit harvest activities; and if so, why;
- Whether the project proposal is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (and providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

Please note that *proposed* project-specific terms and conditions, should the project proceed, have been attached for consideration and comment ([Appendix A](#)).

CONTACT INFORMATION

Please send your comments to the NIRB via email at info@nirb.ca, via fax at (867) 983-2594 or via the individual project dashboard for this assessment on the NIRB's online public registry at www.nirb.ca/project/125885.

If you have any questions or require clarification, feel free to contact the undersigned at (867) 983-4616 or femingak@nirb.ca.

Sincerely,



Francis Emingak
Technical Advisor I
Nunavut Impact Review Board

Attachments: Appendix A: *Proposed* Project Specific Terms and Conditions

Enclosures (4): Public Notice of Screening (English, and Inuktitut)
Comment Forms (English, and Inuktitut)

cc: Distribution List
Carson Gillis, Nunavut Tunngavik Inc.
Luis Manzo, Kivalliq Inuit Association
Ashley Aupaluktuq-Burton, Kivalliq Inuit Association
Justin Buller, Government of Nunavut
Dianne Lapierre, Government of Nunavut
Caroline Whittle, Government of Nunavut (GN-CH)
Sylvie LeBlanc, Government of Nunavut (GN-CH)
Michele LeBlanc-Havard, Government of Nunavut (GN-DOE)
Mosha Cote, Nunavut Research Institute
Tracey McCaie, Crown-Indigenous Relations and Northern Affairs Canada
Environment Climate Change Canada

Appendix A: Proposed Project Specific Terms and Conditions

The following is a list of project-specific terms and conditions which, should the project proceed, may be recommended to be attached to any approval.

General

1. Institut National (the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times and make it accessible to enforcement officers upon request.
1. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the Nunavut Planning Commission (NPC File No.: 150196), and the NIRB (Online Application Form, February 21, 2024). This information should be accessible to enforcement officers upon request.
2. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.
3. The Proponent shall ensure that it meets the standards and/or limits as set out in the authorizing agencies' permits or licences as required for this project.
4. The Proponent shall ensure that all personnel, staff and contractors are adequately trained prior to commencement of all project activities, and shall be made aware of all operational plans, management plans, guidelines and Proponent commitments relating to the project.

Water courses/Water bodies (including fresh and marine waters)

5. The Proponent shall ensure that no disturbance of the stream bed, lakebed or the banks of any definable watercourse be permitted, except where deemed necessary for maintaining project-specific operational commitments or approved by a responsible authority in cases of spill management.
6. The Proponent shall not deposit, nor permit the deposit of any fuel, chemicals, wastes (including wastewater) or sediment into any water body. The Proponent should have in place an Emergency Spill Response Plan that is approved by the appropriate authorizing agency(ies).

Waste Management

7. The Proponent shall manage all hazardous and non-hazardous waste including food, domestic wastes, debris and petroleum-based chemicals (e.g., greases, gasoline, glycol-based antifreeze) in such a manner to avoid release into the environment and access to wildlife at all times until disposed of appropriately or at an approved facility.

Fuel and Chemical Storage

8. The Proponent shall locate all fuel and other hazardous materials a minimum distance away from the high-water mark of any water body and environmentally sensitive areas as required by the appropriate authorizing agencies. The materials shall be stored in such a manner as to prevent their release into the environment.

9. The Proponent shall ensure that re-fuelling of all equipment occurs a minimum distance away from the high-water mark of any water body as required by the appropriate authorizing agencies.
10. The Proponent shall follow the authorizing agencies' direction for management and removal of hazardous materials and wastes (e.g., contaminated soils, sediment and waste oil).
11. The Proponent shall ensure that all spills of fuel or other deleterious materials of 100 litres or more must be reported immediately to the 24-hour Spill Line at (867) 920-8130.

Wildlife – General

12. The Proponent shall not substantially alter or damage or destroy any wildlife habitat in conducting this operation unless otherwise authorized by the appropriate authorizing agencies.
13. The Proponent shall not chase, weary, harass or molest wildlife. This includes persistently circling, chasing, hovering over, pursuing or in any other way harass wildlife, or disturbing large groups of animals.
14. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
15. The Proponent shall ensure that all wildlife have the right-of-way on any roads or trails. Vehicles are required to slow down or stop and wait to permit the free and unrestricted movement of wildlife across roads or trails at any location.

Migratory Birds and Raptors Disturbance

16. The Proponent shall carry out all phases of the project in a manner that protects migratory birds and avoids harming, killing or disturbing migratory birds or destroying, disturbing or taking their nests or eggs. In this regard, the Proponent shall take into account Environment and Climate Change Canada's *Avoidance Guidelines*. The Proponent's actions in applying the *Avoidance Guidelines* shall be in compliance with the *Migratory Birds Convention Act, 1994* and with the *Species at Risk Act*.
17. The Proponent shall not disturb or destroy the nests or eggs of any birds. If active nests of any birds are discovered or located (i.e., with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have naturally left the vicinity of the nest by establishing a protection buffer zone¹ appropriate for the species and the surrounding habitat.

Caribou and Muskoxen Disturbance

18. The Proponent shall avoid interfering with any paths or crossings known to be frequented by caribou during periods of migration as identified by current land use plans in place and/or by Inuit Qaujimaningit.
19. The Proponent shall not locate any operation or undertake activities that could block or cause any diversion to migration of caribou or muskoxen.

¹ Recommended setback distances to define buffer zones have been established by Environment and Climate Change Canada for different bird groups nesting in tundra habitat and can be found at www.ec.gc.ca/paom-itmb.

20. The Proponent shall immediately cease activities likely to interfere with the migration or calving of caribou or muskoxen until such time as the caribou or muskox have passed.

Road and Ground Disturbance

21. The Proponent shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging. Overland travel of equipment or vehicles must be suspended if rutting occurs.

Land Use and Restoration of Disturbed Areas

22. The Proponent shall use existing trails where possible during project activities on the land.

23. The Proponent shall ensure that the land use area is kept clean and tidy at all times.

24. The Proponent shall remove all garbage, fuel and equipment at the end of each field season and/or upon completion of work and/or upon abandonment.

25. The Proponent shall ensure that all disturbed areas are restored to a stable or pre-disturbed state using Best Available Technology Economically Achievable (BATEA) upon completion of work and/or abandonment.

Heritage Sites

26. The Proponent shall ensure that archaeological and paleontological sites are not purposely or inadvertently disturbed by clients or staff as a result of project activities.

27. The Proponent shall ensure that all clients and staff are aware of the Proponent's responsibilities and requirements regarding archaeological or palaeontological sites that are encountered during land-based activities. This should include briefings explaining the prohibitions regarding removal of artifacts, and defacing or writing on rocks and infrastructure.

28. No activities shall be conducted in the vicinity (50 metres buffer zone) of any archaeological/historical sites. If archaeological sites or features are encountered, activities shall immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to the Government of Nunavut-Department of Culture and Heritage.

Other

29. The Proponent should engage with local residents regarding planned activities in the area and should solicit available Inuit Qaujimaningit and information regarding current recreational and traditional usage of the project area which may inform project activities. Posting of translated public notices and direct engagement with potentially interested groups and individuals prior to undertaking project activities is strongly encouraged.

30. The Proponent shall ensure that project activities do not interfere with Inuit wildlife harvesting or traditional land use activities.

31. The Proponent should, to the extent possible, hire local people and access local services where possible.