



**SCREENING DECISION REPORT**  
**NIRB FILE NO.: 13EN013**

AANDC File No.: N2013C0009  
KIA File Nos.: KTL112B009, KTL112B010

August 23, 2013

The Honourable Bernard Valcourt  
Minister of Aboriginal Affairs and Northern Development  
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Sent via email: [minister@aandc.gc.ca](mailto:minister@aandc.gc.ca) and [bernard.valcourt@parl.gc.ca](mailto:bernard.valcourt@parl.gc.ca)

and

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**Re: Screening Decision for HTX Mineral Corporation's "Itchen Lake Property and Contwoyto Lake Property" Project Proposal, Kitikmeot Region, NIRB File No.: 13EN013**

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Dear Sirs:

The primary objectives of the Nunavut Impact Review Board (NIRB) are set out in Section 12.2.5 of the Nunavut Land Claims Agreement (NLCA) as follows:

*"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 NLCA 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 *Procedural History* and *Project Activities* in **Appendix A**), in accordance with the principles identified within Section 12.4.2 of the NLCA, 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.

#### RECOMMENDED PROJECT-SPECIFIC TERMS AND CONDITIONS (pursuant to Section 12.4.4(a) of the NLCA)

The Board is recommending that the following or similar project-specific terms and conditions be imposed upon the Proponent through all relevant legislation:

##### **General**

1. HTX Mineral Corporation (HTX or the Proponent) shall maintain a copy of the Project Terms and Conditions at the site of operation at all times.
2. The Proponent shall forward copies of all permits obtained and required for this project to the Nunavut Impact Review Board (NIRB) prior to the commencement of the project.
3. The Proponent shall operate in accordance with all commitments stated in correspondence provided to the NIRB (NIRB Part 1 and 2 forms, May 31, 2013) and Aboriginal Affairs and Northern Development Canada Land Use Permit Application, May 31, 2013; Application to the Kitikmeot Inuit Association to Access Inuit Owned Lands Applications, May 16, 2013; Nunavut Water Board Water Licence Application, April 16, 2013.
4. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.

## **Water Use**

5. The Proponent shall not extract water from any fish-bearing waterbody unless the water intake hose is equipped with a screen of appropriate mesh size to ensure that there is no entrapment of fish. Small lakes or streams should not be used for water withdrawal unless approved by the Nunavut Water Board.
6. The Proponent shall not use water, including constructing or disturbing any stream, lakebed or the banks of any definable water course unless approved by the Nunavut Water Board.

## **Waste Disposal/Incineration**

7. The Proponent shall either seal and dispose of combustible waste or incinerate all combustible wastes daily, and remove the ash from incineration activities and non-combustible wastes from the project site to an approved facility for disposal.
8. The Proponent shall keep all garbage and debris in bags placed in a covered metal container or equivalent until disposed of at an approved facility. All such wastes shall be kept inaccessible to wildlife at all times.
9. The Proponent shall ensure that the incineration of combustible camp wastes comply with the *Canadian Wide Standards for Dioxins and Furans*, and the *Canadian Wide Standards for Mercury*.
10. The Proponent shall ensure that no waste oil/grease is incinerated on site and that all toxic substances be disposed of at an approved facility.

## **Fuel and Chemical Storage**

11. The Proponent shall ensure that storage of fuel and hazardous materials and re-fuelling of project equipment is conducted at a minimum of thirty-one (31) metres away from the high water mark of any water body and in such a manner as to prevent their release into the environment.
12. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
13. The Proponent shall use adequate secondary containment or a surface liner (e.g., self-supporting insta-berms and fold-a-tanks) when storing barrelled fuel and chemicals at all locations. Appropriate spill response equipment and clean-up materials (e.g., shovels, pumps, barrels, drip pans, and absorbents) must be readily available during any transfer of fuel or hazardous substances, as well as at fuel caches, vehicle-maintenance areas and drill sites. Spill kits and secondary containment structures should accommodate 110% of the capacity of the largest fuel storage container within the cache, or entire cache if containing barreled fuel.
14. The Proponent shall flag all fuel caches on site so they remain visible in the winter months.
15. The Proponent shall inspect and document the condition of all large fuel caches on a weekly basis and shall repair all leaks immediately. All fuel and chemical storage containers must be clearly marked with the Proponent's name and examined for leaks immediately upon delivery.

16. The Proponent shall remove and treat hydrocarbon contaminated soils on site or transport them to an approved disposal site for treatment.
17. The Proponent shall ensure that all personnel are properly trained in fuel and hazardous waste handling procedures, as well as spill response procedures. All spills of fuel or other deleterious materials of any amount must be reported immediately to the 24 hour Spill Line at (867) 920-8130.

### **Wildlife - General**

18. The Proponent shall ensure that there is no damage to wildlife habitat in conducting this operation.
19. The Proponent shall not harass wildlife. This includes persistently worrying or chasing animals, or disturbing large groups of animals. The Proponent shall not hunt or fish, unless proper Nunavut authorizations have been acquired.
20. The Proponent shall ensure that all project personnel are made aware of the measures to protect wildlife and are provided with training and/or advice on how to implement these measures.

### **Migratory Birds and Raptors Disturbance**

21. The Proponent shall not disturb or destroy the nests or eggs of any birds. If nests are encountered and/or identified, the Proponent shall take precaution to avoid further interaction and or disturbance (e.g., a 100 metre buffer around the nests). If active nests of any birds are discovered (i.e. with eggs or young), the Proponent shall avoid these areas until nesting is complete and the young have left the nest.

### **Aircraft Flight Restrictions**

22. The Proponent shall restrict aircraft/helicopter activity related to the project to a minimum altitude of 610 metres above ground level to avoid causing disturbance to wildlife and migratory birds. Where low altitude aerial surveys are necessary to support project activities, minimization of flight times and localized disturbances must be emphasized.
23. The Proponent shall ensure that aircraft maintain a vertical distance of 1000 metres and a horizontal distance of 1500 metres from any observed groups (colonies) of migratory birds. Aircraft should avoid critical and sensitive wildlife areas at all times by choosing alternate flight corridors.
24. The Proponent shall ensure that aircraft/helicopter do not, unless for emergency, touch-down in areas where wildlife are present.
25. The Proponent shall advise all pilots of relevant flight restrictions and enforce their application over the project area, including flight paths to/from the project area.

### **Caribou and Muskoxen Disturbance**

26. The Proponent shall cease activities that may interfere with the migration or calving of caribou or muskox, until the caribou or muskox have passed or left the area.
27. The Proponent shall not block or cause any diversion to caribou migration, and shall cease activities likely to interfere with migration such as airborne surveys, drilling or movement of equipment or personnel until such time as the caribou have passed.

28. The Proponent shall not construct or operate any camp or cache any fuel within 10 km, or conduct any drilling operation within 5 km of any paths or crossings known to be frequented by (e.g., designated caribou crossings).
29. During the period of May 15 to July 15, when caribou are observed within 1 km of project operations, the Proponent shall suspend all operations, including low-level over flights and use of snow mobiles and all-terrain vehicles outside the immediate vicinity of the camps. Following July 15, if caribou cows or calves are observed within 1 km of project operations, the Proponent shall also suspend all operations in the vicinity, including low-level over flights and use of snow mobiles and all-terrain vehicles, until caribou are no longer in the immediate area.

### **Ground Disturbance**

30. 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.
31. The Proponent shall implement suitable erosion and sediment suppression measures on disturbed areas before, during and after construction in order to prevent sediment from entering any waterbody.
32. The Proponent shall not clear areas larger than the project footprint as identified in the project scope.

### **Drilling on Land**

33. Prior to the commencement of drilling, the Proponent shall submit the drill target locations on a map with coordinates and shape files submitted to the Board.
34. The Proponent shall not conduct any land based drilling or mechanized clearing within thirty-one (31) metres of the normal high water mark of a water body.
35. The Proponent shall not allow any drilling wastes to spread to the surrounding lands or water bodies.
36. If an artesian flow is encountered, the Proponent shall ensure the drill hole is immediately plugged and permanently sealed.
37. The Proponent shall ensure that all drill areas are constructed to facilitate minimizing the environmental footprint of the project area. Drill areas should be kept orderly with garbage removed daily to an approved disposal site.
38. The Proponent shall ensure that all sump/depression capacities are sufficient to accommodate the volume of waste water and any fines that are produced. The sumps shall only be used for inert drilling fluids, and not any other materials or substances.
39. The Proponent shall not locate any sump within thirty-one (31) metres of the normal high water mark of any water body unless otherwise authorized by the Nunavut Water Board. Sumps and areas designated for non-toxic waste disposal shall be sufficiently bermed or otherwise contained to ensure that substances do not enter a waterway unless otherwise authorized.

40. The Proponent shall remove all drilling waste containing toxic substances to an approved disposal facility.
41. The Proponent shall ensure all drill holes are backfilled or capped prior to the end of each field season. All sumps must be backfilled and restored to original or stable profile prior to the end of each field season.

### **Camp**

42. The Proponent shall ensure that all camps are located on gravel, sand or other durable land.
43. The Proponent shall protect the ground surface beneath all structures to prevent: a) any vegetation present from being removed; b) melting of permafrost; and c) ground settling and/or eroding.
44. The Proponent shall not erect camps or store material on the surface ice of lakes or streams.

### **Restoration of Disturbed Areas**

45. The Proponent shall ensure that all disturbed areas are restored to a stable or pre-disturbed state as practical as possible upon completion of field work.
46. The Proponent shall remove all garbage, fuel and equipment upon abandonment.
47. The Proponent shall complete all clean-up and restoration of the lands used prior to the end of each field season and/or upon abandonment of site.
48. The Proponent should to the extent possible store overburden and use it to recontour the site after operations are complete, unless otherwise authorized in writing by an authorizing agency.
49. The Proponent shall prepare the site in such a manner as to facilitate natural revegetation of disturbed areas.

### **Other**

50. The Proponent should, to the extent possible, hire local people and consult with local residents regarding their activities in the region.
51. Any activity related to this application, and outside the original scope of the project as described in the application, will be considered a new project and should be submitted to the NIRB for Screening.

## **MONITORING AND REPORTING REQUIREMENTS**

In addition, the Board is recommending the following:

### **Consultation Plan**

1. Thirty (30) days prior to construction activities, a comprehensive consultation plan will be submitted to the NIRB, including but not limited to the following:
  - a. List of parties to be engaged (potentially affected communities including the local hamlet offices, Hunters and Trappers Organizations, Inuit Associations, etc.);
  - b. Proposed meeting schedules; and
  - c. Proposed strategy for the dissemination of the results of the public consultation sessions and how this information has influenced the project design.

## **Annual Report**

2. The Proponent shall submit a comprehensive annual report with copies provided to the NIRB by March 31<sup>st</sup> of each year of permitted activities up until final closure and reclamation. The annual report must contain, but is not limited to, the following information:
  - a. A map indicating the current season's location of drill sites, camp facilities and fuel caches (location and quantity) in relation to previous years' work (once applicable);
  - b. A summary of all work completed and equipment left on-site during each winter season;
  - c. Shape files of the proposed and existing footprint(s) for each year of permitted activities;
  - d. A work plan for the following year;
  - e. A summary of consultations undertaken, including issues and concerns raised, points of discussion and advice provided to the Proponent by communities and agencies, as well as a description of how concerns and issues were addressed;
  - f. A summary of the number of local employees hired from each Nunavut community and a description of the work schedules held;
  - g. A description of wildlife observations and those measures taken to mitigate, monitor and/or analyze impacts, to include at a minimum:
    - i. A record of wildlife observations made within the project area including locations (i.e., latitude and longitude), species, number of animals, a description of the animal activity, and a description of the gender and age of animals if possible;
    - ii. A specific record of caribou sightings which includes the number of caribou sighted, the distance of the animal(s) from camp and/or work sites and the direction of movement and general behaviour;
    - iii. A map which shows the location of sensitive wildlife sites including denning, calving areas, caribou crossing sites, and raptor nests in the project area;
    - iv. A list of any defense of life or property kills or incidents involving problem wildlife;
    - v. A description of mitigation measures implemented to reduce impacts to transboundary wildlife species and sensitive areas;
    - vi. An analysis of the effectiveness of mitigation measures for these species; and
    - vii. Any adaptive management or other modifications made to the wildlife management plan;
  - h. A report on discussions had with other agencies or companies regarding cumulative effects and/or any activities undertaken in conjunction with others or singly, to address or mitigate potential cumulative impacts of development within the Kitikmeot region and Itchen Lake area; and
  - i. Updated management plans to reflect changes in operations, technology, chemicals or fuels including the environmental management plan, fuel management plan, spill prevention and response plan, abandonment and restoration plan and any other project-specific management documents.

### **Fuel and Chemical Storage**

3. The Proponent shall update its Spill Contingency Plan to include the up to date emergency contact numbers for the Government of Nunavut-Department of Environment (867-975-4644) and the Manager of Pollution Control and Air Quality (867-975-7748).
4. The Proponent shall implement the recommendations found in the 2003 CCME Guidance Document PN 1326 entitled “Environmental Code of Practice for Above Ground and Underground Storage Tank Systems containing Petroleum Product and Allied Petroleum Products”.

### **Transport of Waste/Dangerous Goods**

5. The Proponent shall ensure that a waste manifest accompanies the shipment of all waste oil/grease and is registered with the Government of Nunavut Department of Environment (GN-DoE). Contact the Manager of Pollution Control and Air Quality at (867) 975-7748 to obtain a manifest if hazardous waste will be generated during project activities.
6. The Proponent shall ensure that an export manifest or the appropriate transportation of dangerous goods (TDG) documentation accompany all potential hazardous samples and/or materials that are transported off site.
7. The Proponent shall ensure proper approvals and permits are in place to dispose of waste in an approved disposal facilities prior to removing any waste from the project site.

### **OTHER NIRB CONCERNS AND RECOMMENDATIONS**

In addition to project-specific terms and conditions, the Board is recommending the following:

### **Bear and Carnivore Safety**

1. The Proponent review the bear/carnivore detection and deterrent techniques outlined in “Safety in Grizzly and Black Bear Country” which can be down-loaded from this link: [http://www.enr.gov.nt.ca/live/documents/content/Bear\\_Safety.pdf](http://www.enr.gov.nt.ca/live/documents/content/Bear_Safety.pdf). Note that some recommendations in this manual are also relevant to polar bears. There is a DVD about polar bears and safety available from Nunavut Parks at the following link <http://www.nunavutparks.com/english/visitor-information/suggested-resources.html> and a “Safety in Polar Bear Country” pamphlet from Parks Canada at the following link <http://www.pc.gc.ca/eng/pn-np/nu/auyuittuq/visit/visit6/d/i.aspx>.
2. Any problem wildlife or any interaction with carnivores should be reported immediately to the local Government of Nunavut, Department of Environment Conservation Office (Conservation Officer, Allen Niptanatiak, phone: 867-982-7451, email: [aniptanatiak1@gov.nu.ca](mailto:aniptanatiak1@gov.nu.ca)).

### **Incineration of Wastes**

3. The Proponent review Environment Canada’s “Technical Document for Batch Waste Incineration”, available at the following link: <http://www.ec.gc.ca/gdd-mw/default.asp?lang=En&n=F53EDE13-1>. The technical document provides information on appropriate incineration technologies, best management and operational practices, monitoring and reporting.



### **Species at Risk**

4. The Proponent review Environment Canada's "Environment Assessment Best Practice Guide for Wildlife at Risk in Canada", available at the following link: <http://www.ec.gc.ca/Publications/default.asp?lang=En&xml=5407909E-10F6-4AFE-ACDF-75B9E820B4A1>. The guide provides information to the Proponent on what is required when Wildlife at Risk, including *Species at Risk*, are encountered or affected by the project.

### **Aboriginal Affairs and Northern Development Canada**

5. Aboriginal Affairs and Northern Affairs Canada (AANDC) impose mitigation measures, conditions and monitoring requirements pursuant to the Federal Land Use Permit, which require the Proponent to respect the sensitivities and importance of the area. These mitigation measures, conditions and monitoring requirements should be in regard to the location and area; type, location, capacity and operation of facilities; use, storage, handling and disposal of chemical or toxic material; wildlife and fisheries habitat; and petroleum fuel storage.
6. AANDC consider the importance of conducting regular Land Use Inspections, pursuant to the authority of the Federal Land Use Permit, while the project is in operation. The Land Use Inspections should be focused on ensuring the Proponent is in compliance with the conditions imposed through the Federal Land Use Permit.
7. It is recommended to AANDC that no extension be issued to the Land Use Permit until all annual reporting requirements have been satisfied.

### **Kitikmeot Inuit Association**

8. The Kitikmeot Inuit Association (KIA) impose strict mitigation measures and/or conditions upon the Proponent pursuant to the Inuit Owned Lands License in regard to fuel and chemical storage, drilling, water conditions, ground disturbance and wildlife on Inuit owned land.
9. It is recommended to the KIA that no extension be issued to the Land Use License until all annual reporting requirements have been satisfied.

### **Nunavut Water Board**

10. The Nunavut Water Board (NWB) impose mitigation measures, conditions and monitoring requirements pursuant to the Water Licence, which require the Proponent to respect the sensitivities and importance of water in the area. These mitigation measures, conditions and monitoring requirements should be in regard to use of water, snow and ice; waste disposal; access infrastructure and operation for camps; drilling operations; spill contingency planning; abandonment and restoration planning; and monitoring programs.
11. It is recommended to the NWB that no extension be issued to the Water Licence until all annual reporting requirements have been satisfied.

### **AANDC – Water Resources Division**

12. AANDC – Water Resources Division should consider the importance of conducting regular inspections, pursuant to the authority of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, while the project is in operation. Inspectors should focus on ensuring the Proponent is in compliance with the conditions imposed through the Water Licence.

## Nunavut Planning Commission

13. As a result of concerns expressed regarding mineral exploration and the associated potential for cumulative effects on caribou and caribou habitat within the Itchen Lake area, the Nunavut Planning Commission, territorial and federal government agencies should work together with the Regional Inuit Associations, co-management boards, agencies within the Northwest Territories, the public, and industry to develop a plan that identifies appropriate land uses in the Itchen Lake area. The plan should identify the potential cumulative effects of human land use activities on barren-ground caribou from both a localized and regional scale and, where possible, outline appropriate mitigation measures.

## REGULATORY REQUIREMENTS

The Proponent is also advised that the following legislation may apply to the project:

1. The *Fisheries Act* (<http://laws.justice.gc.ca/en/showtdm/cs/F-14///en>).
2. The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (<http://www.canlii.org/ca/sta/n-28.8/whole.html>).
3. The *Migratory Birds Convention Act* and *Migratory Birds Regulations* (<http://laws.justice.gc.ca/en/showtdm/cs/M-7.01>).
4. The *Species at Risk Act* (<http://laws.justice.gc.ca/en/showtdm/cs/S-15.3>). Attached in **Appendix B** is a list of Species at Risk in Nunavut.
5. The *Nunavut Wildlife Act* which contains provisions to protect and conserve wildlife and wildlife habitat, including specific protection measures for wildlife habitat and species at risk.
6. The *Nunavut Act* (<http://laws.justice.gc.ca/en/showtdm/cs/N-28.6>). The Proponent must comply with the proposed terms and conditions listed in the attached **Appendix C**.
7. The *Transportation of Dangerous Goods Regulations*, *Transportation of Dangerous Goods Act* (<http://www.tc.gc.ca/eng/tdg/safety-menu.htm>), and the *Environmental Protection Act* (<http://laws.justice.gc.ca/en/C-15.31/text.html>) The Proponent must ensure that proper shipping documents accompany all movements of dangerous goods. The Proponent must register with the GN-DOE Manager of Pollution Control and Air Quality at 867-975-7748.
8. The *Aeronautics Act* (<http://laws.justice.gc.ca/en/A-2/>).

## **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 August 23, 2013 at Arviat, NU.



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Elizabeth Copland, Chairperson

Attachments: Appendix A: Procedural History and Project Activities  
Appendix B: Species at Risk in Nunavut  
Appendix C: Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders

## Appendix A

### Procedural History and Project Activities

#### ***Procedural History***

On April 22, 2013 the Nunavut Impact Review Board (NIRB or Board) received HTX Mineral Corporation's (HTX or the Proponent) "Itchen Lake Property and Contwoyto Lake Property" project proposal (the Project) from Aboriginal Affairs and Northern Development Canada (AANDC). The NIRB also received an application for Access to Inuit Owned Land from the Kitikmeot Inuit Association (KIA) associated with the Project on May 16, 2013. No conformity determination was required for this project as it is proposed in an area with no approved land use plan in place (Kitikmeot Region). The NIRB assigned this project proposal file number 13EN013.

Following receipt of the initial application materials, the NIRB undertook a preliminary completeness check and found that the proposal as submitted did not contain sufficient information for the NIRB to permit proper screening. On May 2, 2013 and May 21, 2013 the NIRB requested that the Proponent provide additional information to the Board. The requested information was received by the NIRB on May 31, 2013.

This project proposal was distributed to community organizations in Kingaok (*Bathurst Inlet*), Umingmaktok (*Bay Chimo*) and Kugluktuk, as well as to relevant federal and territorial government agencies in both Nunavut and the Northwest Territories, as well as Inuit organizations. The NIRB requested that interested parties review the proposal and provide the Board with any comments or concerns by July 10, 2013 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 and socio-economic effects; and if so, why;
- Whether the project is of a type where the potential adverse effects are highly predictable and mitigable with known technology, (providing any recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On July 10, 2013 the NIRB received a request from the Kugluktuk Hunters' and Trappers' Organization (HTO) to extend the public commenting period to allow it an opportunity to provide comments on the project proposal. The Board found this request to be reasonable and extended the public commenting period to July 19, 2013.

On or before July 19, 2013 the NIRB received comments from the following interested parties:

- **Aboriginal Affairs and Northern Development Canada (AANDC)**
- **Environment Canada (EC)**
- **Government of Nunavut (GN)**
- **Kitikmeot Inuit Association (KIA)**

- **Government of the Northwest Territories (GNWT)**
- **Tlicho Government**
- **Wek'èezhìi Renewable Resources Board (WRRB)**
- **Canadian Arctic Resources Committee (CARC)**

On July 23, 2013 the NIRB provided an opportunity for the Proponent to respond to the concerns raised during the public commenting period. The Proponent requested an additional four days to submit its response, and provided its submission in response to concerns on August 6, 2013.

All comments provided to NIRB regarding this project proposal can be viewed on NIRB's ftp-site, at the following location:

<http://ftp.nirb.ca/01-SCREENINGS/COMPLETED%20SCREENINGS/>

### ***Project Activities***

The proposed project is located along the Nunavut (NU) and Northwest Territories (NT) border, with the Itchen Lake Property adjacent to Itchen Lake in the Kitikmeot region of Nunavut, approximately 160 kilometres (km) northeast of the community of Wekweètì (NT) and 230 km southwest of Kingaok (*Bathurst Inlet, Nunavut*) and 270 km south of Kugluktuk (NU). The activities proposed within Nunavut (Itchen Lake Property) lie within approximately 3 km of the NU-NT border. The Proponent has also applied to regulators in the NT for proposed activities associated with the Contwoyto Lake Property, located 90 km southeast of the Itchen Lake Property, and situated on Article 41 Lands within the NT adjacent to Contwoyto Lake, approximately 200 km northeast of the community of Wekweètì (NT) and 200 km southwest of Kingaok (*Bathurst Inlet, NU*).

The Proponent has applied to conduct exploration activities for base metals and diamonds, occurring annually between 2013 and 2018 (March to October), while the proposed 2013 exploration activities are scheduled to take place between July and October.

The project activities proposed within the Nunavut Settlement Area which are subject to screening by the NIRB pursuant to Article 12 of the Nunavut Land Claims Agreement (NLCA) include:

- Multi-year program, from July 1, 2013 to September 31, 2018;
- Exploration activities on the Itchen Lake Property to include:
  - Airborne and ground geophysical surveys (including magnetic and electromagnetic surveys);
  - prospecting, geochemical sampling, geological mapping, and on-land drilling using diamond drill rigs to an approximate depth of 300 metres (m);
- Proposed fly in/fly out seasonal camp for up to 20 people located on the Itchen Lake Property including the following infrastructure:
  - wooden tents, medical tent, common area/office, kitchen, camp dry, core processing shack, generator shack, two waste units (outhouses) and a 20 kilowatt generator as a power source;

- Fixed wing aircraft to transport personnel and equipment to the seasonal camp location (aircraft to use esker near seasonal camp for landing) and use of helicopter to move personnel and equipment on site and between the Itchen Lake Property and Contwoyto Lake Property;
- Use of helicopter to conduct airborne magnetic/electromagnetic surveys at a low level flying altitude of 70 m above ground level;
- Potential use of snowmobiles and all-terrain vehicles at the Itchen Lake Property project site;
- Transportation, storage and use of various fuel store in caches (in drums) at the seasonal camp site and drill sites on the Itchen Lake Property.<sup>1</sup>
- Use of water for domestic and drilling activities (approximately 60 cubic metres per day) at the Itchen Lake Property;
- Transportation, storage and use of chemicals and hazardous materials;
- Production of human, combustible, non-combustible and greywater wastes;
- Waste water to be treated in camp sumps and/or outhouse/pacto waste containers and removed from site for disposal at an approved facility;
- Incineration of combustible waste;
- Removal of non-combustible wastes and hazardous/waste oil to an approved disposal facility;
- Disposal of drill fluids in a sump, or a naturally occurring, contained depression, located a minimum of 30 m from any waterbody; and
- Potential for local hiring from the communities of Kugluktuk and Kingaok (*Bathurst Inlet*) including field assistants, prospectors, drill core sampling assistants and camp personnel.

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<sup>1</sup> Note the Proponent's May 31, 2013 application indicates that fuel transportation, storage and use are proposed at both the Itchen (NU) and Contwoyto (NT) properties.

## Appendix B

### Species at Risk in Nunavut

This list includes species listed on one of the Schedules of SARA (*Species at Risk Act*) and under consideration for listing on Schedule 1 of SARA. These species have been designated as at risk by COSEWIC (Committee on the Status of Endangered Wildlife in Canada). This list may not include all species identified as at risk by the Territorial Government.

- Schedule 1 is the official legal list of Species at Risk for SARA. SARA applies to all species on Schedule 1. The term “listed” species refers to species on Schedule 1.
- Schedule 2 and 3 of SARA identify species that were designated at risk by the COSEWIC prior to October 1999 and must be reassessed using revised criteria before they can be considered for addition to Schedule 1.
- Some species identified at risk by COSEWIC are “pending” addition to Schedule 1 of SARA. These species are under consideration for addition to Schedule 1, subject to further consultation or assessment.

Schedules of SARA are amended on a regular basis so it is important to periodically check the SARA registry ([http://www.sararegistry.gc.ca/default\\_e.cfm](http://www.sararegistry.gc.ca/default_e.cfm)) to get the current status of a species.

Updated: January 2012

<b>Terrestrial Species at Risk <sup>1</sup></b>	<b>COSEWIC Designation</b>	<b>Schedule of SARA</b>	<b>Government Organization with Primary Management Responsibility <sup>2</sup></b>
Eskimo Curlew	Endangered	Schedule 1	EC
Ivory Gull	Endangered	Schedule 1	EC
Ross's Gull	Threatened	Schedule 1	EC
Harlequin Duck (Eastern population)	Special Concern	Schedule 1	EC
Rusty Blackbird	Special Concern	Schedule 1	GN
Felt-leaf Willow	Special Concern	Schedule 1	GN
Peregrine Falcon	Special Concern ( <i>anatum-tundrius</i> complex <sup>3</sup> )	Schedule 1 - Threatened ( <i>anatum</i> ) Schedule 3 – Special Concern ( <i>tundrius</i> )	GN
Short-eared Owl	Special Concern	Schedule 3	GN
Peary Caribou	Endangered	Schedule 1	GN
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Schedule 1	GN

<b>Terrestrial Species at Risk <sup>1</sup></b>	<b>COSEWIC Designation</b>	<b>Schedule of SARA</b>	<b>Government Organization with Primary Management Responsibility <sup>2</sup></b>
Polar Bear	Special Concern	Schedule 1	GN
Red Knot ( <i>rufa</i> subspecies)	Endangered	Pending	EC
Red Knot ( <i>islandica</i> subspecies)	Special Concern	Pending	EC
Porsild's Bryum	Threatened	Pending	GN
Horned Grebe (Western population)	Special Concern	Pending	EC
Grizzly Bear	Special Concern	Pending	GN
Wolverine (Western population)	Special Concern	Pending	GN
Atlantic Cod, Arctic Lakes	Special Concern	No schedule	DFO
Atlantic Walrus	Special Concern	Pending	DFO
Beluga Whale (Cumberland Sound population)	Threatened	Pending	DFO
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Beluga Whale (Western Hudson Bay population)	Special Concern	Pending	DFO
Beluga Whale (Eastern High Arctic – Baffin Bay population)	Special Concern	Pending	DFO
Bowhead Whale (Eastern Canada – West Greenland population)	Special Concern	Pending	DFO
Killer Whale (Northwest Atlantic / Eastern Arctic populations)	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO

<sup>1</sup> The Department of Fisheries and Oceans has responsibility for aquatic species.

<sup>2</sup> Environment Canada (EC) has a national role to play in the conservation and recovery of Species at Risk in Canada, as well as responsibility for management of birds described in the Migratory Birds Convention Act (MBCA). Day-to-day management of terrestrial species not covered in the MBCA is the responsibility of the Territorial Government. Populations that exist in National Parks are also managed under the authority of the Parks Canada Agency.

<sup>3</sup> The *anatum* subspecies of Peregrine Falcon is listed on Schedule 1 of SARA as threatened. The *anatum* and *tundrius* subspecies of Peregrine Falcon were reassessed by COSEWIC in 2007 and combined into one subpopulation complex. This subpopulation complex was assessed by COSEWIC as Special Concern.



**Appendix C**  
Archaeological and Palaeontological Resources Terms and Conditions for Land Use Permit Holders



INTRODUCTION

The Department of Culture and Heritage (CH) routinely reviews land use applications sent to the Nunavut Water Board, Nunavut Impact Review Board and the Department of Indian and Northern Affairs Canada. These terms and conditions provide general direction to the permittee/proponent regarding the appropriate actions to be taken to ensure the permittee/proponent carries out its role in the protection of Nunavut's archaeological and palaeontological resources.

TERMS AND CONDITIONS

- 1) The permittee/proponent shall have a professional archaeologist and/or palaeontologist perform the following **Functions** associated with the **Types of Development** listed below or similar development activities:

	<b>Types of Development</b> (See Guidelines below)	<b>Function</b> (See Guidelines below)
a)	Large scale prospecting	Archaeological/Palaeontological Overview Assessment
b)	Diamond drilling for exploration or geotechnical purpose or planning of linear disturbances	Archaeological/ Palaeontological Inventory
c)	Construction of linear disturbances, Extractive disturbances, Impounding disturbances and other land disturbance activities	Archaeological/ Palaeontological Inventory or Assessment or Mitigation

Note that the above-mentioned functions require either a Nunavut Archaeologist Permit or a Nunavut Palaeontologist Permit. CH is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*<sup>2</sup> to issue such permits.

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<sup>2</sup> P.C. 2001-1111 14 June, 2001

- 2) The permittee/proponent shall not operate any vehicle over a known or suspected archaeological or palaeontological site.
- 3) The permittee/proponent shall not remove, disturb, or displace any archaeological artifact or site, or any fossil or palaeontological site.
- 4) The permittee/proponent shall immediately contact CH at (867) 934-2046 or (867) 975-5500 should an archaeological site or specimen, or a palaeontological site or fossil, be encountered or disturbed by any land use activity.
- 5) The permittee/proponent 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 CH.
- 6) The permittee/proponent shall follow the direction of CH in restoring disturbed archaeological or palaeontological sites to an acceptable condition. If these conditions are attached to either a Class A or B Permit under the Territorial Lands Act INAC's directions will also be followed.
- 7) The permittee/proponent shall provide all information requested by CH concerning all archaeological sites or artifacts and all palaeontological sites and fossils encountered in the course of any land use activity.
- 8) The permittee/proponent shall make best efforts to ensure that all persons working under its authority are aware of these conditions concerning archaeological sites and artifacts and palaeontological sites and fossils.
- 9) If a list of recorded archaeological and/or palaeontological sites is provided to the permittee/proponent by CH as part of the review of the land use application the permittee/proponent shall avoid the archaeological and/or palaeontological sites listed.
- 10) Should a list of recorded sites be provided to the permittee/proponent, the information is provided solely for the purpose of the proponent's land use activities as described in the land use application, and must otherwise be treated confidentially by the proponent.

#### LEGAL FRAMEWORK

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

*Where an application is made for a land use permit in the Nunavut Settlement Area, and there are reasonable grounds to believe that there could be sites of archaeological importance on the lands affected, no land use permit shall be issued without written consent of the Designated Agency. Such consent shall not be unreasonably withheld. [33.5.12]*

*Each land use permit referred to in Section 33.5.12 shall specify the plans and methods of archeological site protection and restoration to be followed by the permit holder, and any other conditions the Designated Agency may deem fit. [ 33.5.13]*

## Palaeontology and Archaeology

Under the *Nunavut Act*<sup>3</sup>, the federal government can make regulations for the protection, care and preservation of palaeontological and archaeological sites and specimens in Nunavut. Under the *Nunavut Archaeological and Palaeontological Sites Regulations*<sup>4</sup>, it is illegal to alter or disturb any palaeontological or archaeological 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.*

*“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:*

*Fossil means the hardened or preserved remains or impression of previously living organisms or vegetation and includes:*

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

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<sup>3</sup> s. 51(1)

<sup>4</sup> P.C. 2001-1111 14 June, 2001

## **GUIDELINES FOR DEVELOPERS FOR THE PROTECTION OF ARCHAEOLOGICAL RESOURCES IN THE NUNAVUT TERRITORY**

(NOTE: Partial document only, complete document at: <http://gov.nu.ca/cley/english/arch.html>)

### **Introduction**

The following guidelines have been formulated to ensure that the impacts of proposed developments upon heritage resources are assessed and mitigated before ground surface altering activities occur. Heritage resources are defined as, but not limited to, archaeological and historical sites, burial grounds, palaeontological sites, historic buildings and cairns. Effective collaboration between the developer, the Department of Culture, Language, Elders and Youth (CH), and the contract archaeologist(s) will ensure proper preservation of heritage resources in the Nunavut Territory. The roles of each are briefly described.

CH is the Nunavut Government agency which oversees the protection and management of heritage resources in Nunavut, in partnership with land claim authorities, regulatory agencies, and the federal government. Its role in mitigating impacts of developments on heritage resources is as follows: to identify the need for an impact assessment and make recommendations to the appropriate regulatory agency; set the terms of reference for the study depending upon the scope of the development; suggest the names of qualified individuals prepared to undertake the study to the developer; issue an archaeologist or palaeontologist permit authorizing field work; assess the completeness of the study and its recommendations; and ensure that the developer complies with the recommendations.

The primary regulatory agencies that CH provides information and assistance to are the Nunavut Impact Review Board, for development activities proposed for Inuit Owned Lands (as defined in Section 1.1.1 of the Nunavut Land Claims Agreement), and the Department of Indian and Northern Affairs, for development activities proposed for federal Crown Lands.

A developer is the initiator of a land use activity. It is the obligation of the developer to ensure that a qualified archaeologist or palaeontologist is hired to perform the required study and that provisions of the contract with the archaeologist or palaeontologist allow permit requirements to be met; i.e. fieldwork, collections management, artifact and specimen conservation, and report preparation. On the recommendation of the contract archaeologist or palaeontologist in the field and the Government of Nunavut, the developer shall implement avoidance or mitigative measures to protect heritage resources or to salvage the information they contain through excavation, analysis, and report writing. The developer assumes all costs associated with the study in its entirety.

Through his or her active participation and supervision of the study, the contract archaeologist or palaeontologist is accountable for the quality of work undertaken and the quality of the report produced. Facilities to conduct fieldwork, analysis, and report preparation should be available to this individual through institutional, agency, or company affiliations. Responsibility for the curation of objects recovered during field work while under study and for documents generated in the course of the study as well as remittance of artifacts, specimens and documents to the repository specified on the permit accrue to the contract archaeologist or palaeontologist. This individual is also bound by the legal requirements of the *Nunavut Archaeological and*

## **Types of Development**

In general, those developments that cause concern for the safety of heritage resources will include one or more of the following kinds of surface disturbances. These categories, in combination, are comprehensive of the major kinds of developments commonly proposed in Nunavut. For any single development proposal, several kinds of these disturbances may be involved

- *Linear disturbances: including the construction of highways, roads, winter roads, transmission lines, and pipelines;*
- *Extractive disturbances: including mining, gravel removal, quarrying, and land filling;*
- *Impoundment disturbances: including dams, reservoirs, and tailings ponds;*
- *Intensive land use disturbances: including industrial, residential, commercial, recreational, and land reclamation work, and use of heritage resources as tourist developments.*
- *Mineral, oil and gas exploration: establishment of camps, temporary airstrips, access routes, well sites, or quarries all have potential for impacting heritage resources.*

## **Types of Studies Undertaken to Preserve Heritage Resources**

**Overview:** An overview study of heritage resources should be conducted at the same time as the development project is being designed or its feasibility addressed. They usually lack specificity with regard to the exact location(s) and form(s) of impact and involve limited, if any, field surveys. Their main aim is to accumulate, evaluate, and synthesize the existing knowledge of the heritage of the known area of impact. The overview study provides managers with baseline data from which recommendations for future research and forecasts of potential impacts can be made. A Class I Permit is required for this type of study if field surveys are undertaken.

**Reconnaissance:** This is done to provide a judgmental appraisal of a region sufficient to provide the developer, the consultant, and government managers with recommendations for further development planning. This study may be implemented as a preliminary step to inventory and assessment investigations except in cases where a reconnaissance may indicate a very low or negligible heritage resource potential. Alternately, in the case of small-scale or linear developments, an inventory study may be recommended and obviate the need for a reconnaissance.

The main goal of a reconnaissance study is to provide baseline data for the verification of the presence of potential heritage resources, the determination of impacts to these resources, the generation of terms of reference for further studies and, if required, the advancement of preliminary mitigative and compensatory plans. The results of reconnaissance studies are primarily useful for the selection of alternatives and secondarily as a means of identifying impacts that must be mitigated after the final siting and design of the development project.

Depending on the scope of the study, a Class 1 or Class 2 Permit is required for this type of investigation.

**Inventory:** A resource inventory is generally conducted at that stage in a project's development at which the geographical area(s) likely to sustain direct, indirect, and perceived impacts can be well defined. This requires systematic and intensive fieldwork to ascertain the effects of all possible and alternate construction components on heritage resources. All heritage sites must be recorded on Government of Nunavut Site Survey forms. Sufficient information must be amassed from field, library and archival components of the study to generate a predictive model of the heritage resource base that will:

- allow the identification of research and conservation opportunities;
- enable the developer to make planning decisions and recognize their likely effects on the known or predicted resources; and
- make the developer aware of the expenditures, which may be required for subsequent studies and mitigation. A Class 1 or 2 permit is required

**Assessment:** At this stage, sufficient information concerning the numbers and locations of heritage resources will be available, as well as data to predict the forms and magnitude of impacts. Assessments provide information on the size, volume, complexity and content of a heritage resource, which is used to rank the values of different sites or site types given current archaeological knowledge. As this information will shape subsequent mitigation program(s), great care is necessary during this phase.

**Mitigation:** This refers to the amelioration of adverse impacts to heritage resources and involves the avoidance of impact through the redesign or relocation of a development or its components; the protection of the resource by constructing physical facilities; or, the scientific investigation and recovery of information from the resource by excavation or other method. The type(s) of appropriate mitigative measures are dictated by their viability in the context of the development project. Mitigation strategies must be developed in consultation with, and approved by, the Department of Culture, Language, Elders and Youth. It is important to note that mitigation activities should be initiated as far in advance of the construction of the development as possible.

**Surveillance and monitoring:** These may be required as part of the mitigation program.

*Surveillance* may be conducted during the construction phase of a project to ensure that the developer has complied with the recommendations.

*Monitoring* involves identification and inspection of residual and long-term impacts of a development (i.e. shoreline stability of a reservoir); or the use of impacts to disclose the presence of heritage resources, for example, the uncovering of buried sites during the construction of a pipeline.