SCREENING DECISION REPORT
NIRB FILE NO.: 06EN009

INAC File No.: N2011C0007
Previous INAC File No.: N2006C0001

March 29, 2011

Honourable John Duncan
Minister of Indian and Northern Affairs Canada
Indian and Northern Affairs Canada
Gatineau, QC

Via email: Duncan.J@parl.gc.ca and minister@inac-ainc.gc.ca

Re: Screening Decision for Hornby Bay Exploration Ltd.'s Amendment request and *New Land Use Permit Application* with INAC for its "Mouse Lake Exploration" project, Additional Terms and Conditions, 06EN009

Dear Honourable John Duncan:

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 12.4.3 of the NLCA states that:

> *Any application for a component or activity of a project proposal that has been permitted to proceed in accordance with these provisions shall be exempt from the requirement for screening by NIRB unless:*
>
> *(a) such component or activity was not part of the original project proposal; or*
>
> *(b) its inclusion would significantly modify the project.*

NIRB ASSESSMENT AND DECISION

The NIRB has completed a review of Hornby Bay Exploration Ltd.'s request to Indian and Northern Affairs Canada (INAC) for an amendment to its existing Land Use Permit (N2006C0001) and an application for a new Land Use Permit (N2011C0007) for its "Mouse Lake Exploration" project.

After a thorough assessment of the project proposal, the amendment and new Land Use Permit application information and the comments received (please see *Procedural History* and *Project Activities* in **Appendix A)**, in accordance with Section 12.4.3 of the NLCA, the Board has determined that this request will result in a change to the original scope of the project. Therefore, the NIRB is re-issuing the recommended project-specific terms and conditions contained in the March 27, 2006 Screening Decision, NIRB file No.: 06EN009, in addition to new terms and conditions which are designed to mitigate any potential impacts to the environment as per Section 12.4.4(a) of the NLCA.

PREVIOUSLY APPROVED PROJECT-SPECIFIC TERMS AND CONDITIONS

The following terms and conditions were previously approved by the NIRB for file **06EN009** in a Screening Decision Report dated March 27, 2006 which is available from the NIRB's ftp site at the following link: http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/:

General

1. The Permittee shall maintain a copy of the Project Terms and Conditions at the sites of operation at all times.

2. The NIRB shall be notified of any changes in operating plans or conditions associated with this project prior to any such change.

3. The Permittee shall submit to the Board, at the end of the field season, a map showing the approximate location of drill sites.

4. The Permittee shall file a report with the Board no later than March 31 of the year following the year the work was completed, which shall contain but not be limited to the following information:

    a. A summary of activities undertaken for the year, including but not limited to the amount of drilling;
    b. A work plan for the following year;
    c. The results of environmental studies undertaken (if undertaken) and plans for future studies;
    d. Wildlife encounters and actions/mitigation taken;
    e. A summary of local hires and initiatives;

f. A summary of community consultations undertaken and the results;
g. A summary of site-visits by inspectors with results and follow-up actions;
h. A summary of site-visits with community members (if conducted);
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, location and reason (provide reason unless confidential);
k. Site photos;
l. Revisions to the Abandonment and Restoration Plan;
m. Progressive reclamation work undertaken;
n. A summary of how it has complied with all project terms and conditions and how the terms and conditions are achieving their purpose; and

5. The Permittee shall submit to the Board a report, as mentioned in #4 above, each year until there is complete abandonment and reclamation of the site.

Drill Sites

6. The Permittee shall not conduct any land based drilling within thirty (30) metres of the normal high water mark of a water body.

8. The Permittee shall conduct lake-based winter drilling, in accordance with the Interim Guidelines for On-Ice drilling.

9. The Permittee shall ensure that drill muds and additives are not used in connection with holes drilled through lake ice unless they are re-circulated or contained such that they do not enter the water, or demonstrated to be non-toxic.

10. The Permittee shall ensure that all drill cuttings are removed from ice surfaces.

11. The Permittee shall not use drilling muds or additives in connection with drill holes unless they are recirculated or contained such that they do not enter the water, or are certified to be non-toxic. Further, the Permittee is hereby informed that the Canadian Environmental Protection Act has recently listed CaCl as a toxic substance. If CaCl is to be used as a drill additive, the proponent shall ensure that all sumps containing CaCl are properly constructed and located in such a manner as to ensure that the contents will not enter any waterbody.

12. The Permittee shall ensure that when “on-ice drilling”, the return water released must be non-toxic, and not result in an increase in total suspended solids in the immediate receiving waters above the Canadian Council of Ministers for the Environment (CCME) Guidelines for the Protection of Freshwater Aquatic Life (i.e. 10 mg/L for lakes with background levels under 100 mg/L, or 10% for those above 100 mg/L).

13. The Permittee shall ensure that any drill cuttings and waste water that cannot be re-circulated be disposed of in a properly constructed sump or an appropriate natural depression that does not drain into a waterbody. The use of biodegradable, salt free drill additives is encouraged over non-biodegradable types. The sump shall be backfilled upon completion of the hole.

14. The Permittee shall ensure that the sump/depression capacity is sufficient to accommodate the volume of waste water and any fines that are produced so that there will be no additional impacts.

15. The Permittee shall not locate any sump within thirty (30) metres of the normal high water mark of any water body.

16. The Permittee shall ensure that disturbance of vegetation from deposit of drill fluids/cuttings is restricted to the area of the sump and the ground prepared for revegetation upon abandonment.

17. The Permittee shall not use mechanized clearing within 30 meters of the normal high water mark of a watercourse in order to maintain a vegetative mat for bank stabilization.

18. The Permittee shall, where flowing water from bore holes is encountered, plug the bore hole in such a manner as to permanently prevent any further outflow of water. The occurrence shall be reported to the Nunavut Water Board and Land Use Inspector within 48 hours.

19. The Permittee shall inspect each drill sites for contamination before moving to the next drill site and immediately clean up any contamination.

20. As much as possible, the Permittee will restore drill sites immediately after the drill has been moved to the next site.

Uranium Specific

21. Drill mud solids or cuttings with uranium concentration greater than 0.05 % (or equivalent millisievert reading) are to be collected and then disposed of down the drill hole and sealed.

22. Any drill hole that encounters mineralization with a uranium content greater than 1.0% (or equivalent millisievert reading) over a length > 1 meter, and with a meter-percent

concentration >5.0, will be sealed by grouting over the entire length of the mineralization zone and 10 meters above and 10 meters below each mineralization zone as best as possible.

23. Drill holes are to be sealed by cementing (grouting) to an appropriate depth from the surface such that surface waters are prevented from interacting with ground waters.

24. Following backfilling, a radiometric survey must be conducted. When material is found to exceed background radiation levels, then the appropriate regulator must be contacted for review and approval of the handling procedures.

25. Gamma radiation levels of a core storage area must meet the decommissioning requirements of being less than 1.0 µSv one meter from the surface of the storage area and in no instance will the level be allowed to exceed 2.5 µSv. When core is found to exceed the levels identified, then the appropriate regulator must be contacted for review and approval of the handling procedures.

26. Instruments that measure radiation counts per second must be converted to µs according to the specifications of that instrument.

Water

27. The Permittee shall ensure that all water intake hoses are equipped with a screen with an appropriate mesh size to ensure that there is no entrapment of fish; that the rate of water withdrawl is such that no fish become impinged on the screen; the fish guard or screen is properly maintained; and that during fish guard or screen repair, the entrance of the water intake is closed.

28. The Permittee shall only use the specified volume of water from sources approved by the Nunavut Water Board.

Fuel and Chemical Storage

24. The Permittee shall have an Emergency Response & Spill Contingency Plan approved by the Nunavut Water Board prior to commencing on-site activities. The Plan should include a map outlining the location of fuel caches on site, and related spill kits.

25. The Permittee shall locate fuel caches and other hazardous materials away from the high water mark of any waterbody and in such a manner as to prevent their release into the environment.

26. The Permittee shall ensure that fuel storage containers are not located below, or within thirty (30) metres of the ordinary high water mark of any body of water. Further, secondary containment such as self supporting insta-berms shall be used when storing barrel fuel on location, rather than relying on natural depressions.

27. Fuel storage containers in excess of 4,000 litres capacity shall either be double-walled, self bermed construction, or diked with adequate emergency storage capacity. An impermeable liner shall be used to ensure that no fuel escapes. The Permittee shall take all reasonable precautions to prevent the possibility of migration of spilled petroleum fuel or chemicals over the ground surface.

28. The Permittee shall examine all fuel and chemical storage containers immediately upon delivery and daily for leaks. All leaks should be repaired immediately.

29. The Permittee shall seal all container outlets except the outlet currently in use.

30. The Permittee shall mark all fuel containers with the Permittee's name.

31. The Permittee shall dispose of all combustible waste petroleum products by incineration and/or removal from the site.

32. The Permittee shall ensure that all activities, including maintenance procedures and refueling, are controlled to prevent the entry of petroleum products or other deleterious substances into the water or onto the land.

33. The Permittee shall ensure that all on site personnel are properly trained in fuel and hazardous waste handling procedures as well as spill response procedures.

34. The Permittee shall maintain a supply of spill kits, shovels, barrels, sorbents, and pumps on-site at the camp, the main fuel cache, the drill site, and at the camp.

35. The Permittee shall use drip pans when refueling equipment.

36. Chemicals containing salts, which may attract wildlife to the site, should be stored so that they are inaccessible to wildlife.

37. If municipal lands are to be used to transport fuel to the camp, the Permittee shall contact the Government of Nunavut Department of Community Government and Services to determine the appropriate land use or other regulatory permitting required.

38. The Permittee shall ensure that **all** spills are documented and reported to the 24 hour Spill Report Line at 867-920-8130.

Wildlife

39. The Permittee shall ensure that there is no damage to wildlife habitat in conducting this operation.

40. The Permittee shall ensure that there is minimal disturbance to any nesting birds and wildlife in the area. Harassment of wildlife is prohibited. This includes persistently worrying or chasing animals, or disturbing large groups of animals.

41. The Permittee shall ensure that aircraft pilots adhere to flight altitudes of greater than 300 m above ground level, unless there is a specific need for low-level-flying which does not to disturb wildlife.

42. The Permittee shall not feed wildlife.

43. The Permittee shall ensure that the drill sites avoid known environmentally sensitive areas (denning, nesting etc.) by a minimum of 250 metres.

44. The Permittee shall not conduct any activity associated with the land use operation if critical periods of wildlife cycles are observed (e.g. caribou migration, calving, fish spawning or raptor nesting).

45. That the Permittee shall ensure that there is no hunting by employees of the company or any contractors hired unless proper Nunavut authorizations have been obtained.

46. The Permittee shall contact in advance, the Regional Biologist to identify areas which should be avoided.

47. The Permittee shall ensure that all field personnel are made aware of the measures to protect wildlife including migratory birds, and are provided with training and/or advice on how to implement these measures.

Birds

48. Pursuant to the Migratory Bird Convention Act Regulations the Permittee shall not disturb or destroy the nests or eggs of migratory birds. The period from May 15 to July 31 is the general migratory bird breeding season, it is recommended that activities be conducted outside of these dates, particularly in the vicinity of known migratory bird colonies.

49. The Permittee shall confirm there are no active nests (i.e. nests containing eggs or young) in the vicinity before activities commence. If active nests of migratory birds are encountered, the Permittee/ Licensee shall avoid these areas until nesting is complete and the young have left the nest.

50. The period from mid June to mid August is the general moulting period when geese are temporarily flightless while they lose their flight feathers and grow new ones. During this time they are particularly sensitive to disturbance. All moulting flocks shall be avoided.

51. The Permittee ensure that aircraft maintain a vertical distance of 1000 meters and a horizontal distance of 1500 meters from any observed groups (colonies) of migratory birds.

52. The Permittee shall ensure compliance with Section 35 the *Migratory Birds Convention Act* and *Migratory Birds Regulations* which states that no person shall deposit or permit to be deposited, oil, oil wastes, or any other substance harmful to migratory birds in any waters or any areas frequented by migratory birds.

53. The Permittee shall ensure compliance the *Migratory Birds Convention Act* and *Migratory Birds Regulations* during all phases and in all undertakings related to the project.

Bears

54. The Permittee shall follow procedures outlined in the "Safety in Bear Country Manual", and should contact the Regional Biologist or the Wildlife manager for information and advice on measures which should be taken to minimize the possibility of conflicts/interactions with bears. Consideration should be given to setting up an electric fence around the camp.

Caribou

55. The Permittee shall not locate any operation so as to block or cause substantial diversion to migration of caribou.
56. The Permittee shall not construct any camp, cache any fuel or conduct blasting within 10 km, or conduct any drilling operation within 5 km, of any "designated caribou crossing". The Regional/Area Biologist should be contacted for known crossings.

57. From **May 15 to July 15**, the Permittee shall cease activities that interfere with caribou migration or calving, such as the movement of equipment, drilling activities and ATV or snowmobile use until the caribou and their calves have vacated the area.

58. From **May 15 to July 15**, the Permittee shall not conduct flights below 300m and airborne geophysics surveys if caribou are present in the area. These activities may interfere with migration and/or calving.

59. The Permittee shall ensure that during the presence of caribou and muskox within sight and sound of a camp that all personnel will remain quietly in camp.

Fish

60. The Permittee shall ensure compliance with Section 36 of the *Fisheries Act* which requires that no person shall deposit or permit the deposit of a deleterious substance on any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter such a water body.

61. The Permittee shall ensure that there is no fishing by employees of the company or any contractors hired unless proper permits are obtained.

Species of Special Concern (SARA)

62. The Permittee shall develop monitoring plans for each species of special concern in accordance with any applicable status reports, recovery strategies, action plans, and management plans posted on the Species at Risk Public Registry (http://www.sararegistry.gc.ca/) and in consultation with the Government of Nunavut and Environment Canada. Monitoring plans should record the locations and frequency of observing species of special concern and note any actions taken to avoid contact or cause disturbance to the species, its residence, or its critical habitat.

Waste Disposal

63. The Permittee shall not discharge or deposit any refuse substances or other waste materials in any body of water, or on the banks thereof, which will impair the quality of the waters of the natural environment.

64. The Permittee shall not locate any sumps or areas designated for waste disposal within thirty (30) metres of the ordinary high water mark of any body of water. Sumps and areas designated for waste disposal shall be sufficiently bermed or otherwise contained to ensure that substances to do not enter a waterway unless otherwise authorized.

65. The Permittee shall backfill and recontour all sumps to match the natural environment prior to the expiry date of the license.

66. The Permittee shall use an approved incinerator for the disposal of combustible camp wastes. Non-combustible wastes shall be disposed of properly at an approved facility off site.

67. The Permittee shall incinerate all combustible and food wastes daily.

68. The Permittee shall keep all ash in a covered metal container until it is disposed of at an approved facility off site.

69. The Permittee shall keep all non-combustible garbage and debris in a covered metal container until disposed of at an approved facility off site.

70. The Permittee shall deposit all scrap metal, discarded machinery and parts, barrels and kegs, at an approved disposal facility off site.

71. The Permittee shall ensure that any hazardous materials, including waste fuel and oil, receive proper treatment and are backhauled for disposal at an approved facility off site.

72. The Permittee shall ensure compliance with Section 36 of the Fisheries Act which requires that no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance may enter such a water body.

Physical Environmental

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

74. The Permittee shall maintain the site in such a manner as to prevent rutting of the ground surface.

75. The Permittee shall not do anything that will cause erosion of the banks of any body of water on or adjacent to the land and shall provide necessary controls to prevent such erosion.

76. The Permittee shall be required to undertake corrective measures in the event of any damage to the land or water as a result of the Permittee's operation.

77. The Permittee shall not remove any material from below the ordinary high water mark of any waterbody.

78. The Permittee shall adopt such measures as required to control erosion by surface disturbance. Sediment and erosion control measures should be implemented prior to, and maintained during the work to prevent sediment entry into the water during a spring thaw.

79. The Permittee 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.

80. The Permittee shall suspend overland travel of equipment or vehicles if rutting occurs.

Structure & Storage Facilities

81. The Permittee shall not erect structures or store material on the surface ice of lakes or streams, except that for which is of immediate use.

82. The Permittee shall locate all structures and storage facilities on gravel, sand or other durable land.

Camps

83. The Permittee shall locate all camps on gravel, sand, or other durable land.

Archaeological Sites

84. The Permittee shall not disturb any archaeological or palaeontological site.

85. The Permittee shall immediately contact the Government of Nunavut Department of Culture, Language, Elders and Youths (CLEY) if any archaeological or palaeontological site is encountered or disturbed. The Permittee shall follow all terms and conditions for the

protection and restoration of archaeological and palaeontological resources as outlined by CLEY in the attached letter.

Reclamation

86. The Permittee shall advise NIRB and the Land Use Inspector in writing at least 15 days prior to the completion of activities.

87. The Permittee shall remove all scrap metal, discarded machinery and parts, barrels and kegs, buildings and building material upon abandonment.

88. The Permittee shall remove all empty barrels from its exploration sites as soon as possible in a progressive manner and shall ensure that all barrels are removed from the land by the end of each field season. Empty barrels shall be disposed of at an approved facility.

89. The Permittee shall complete all clean-up and restoration of the lands used prior to the expiry date of the permit.

90. The Permittee shall undertake ongoing restoration for any land which is no longer required for the Permittee's operation on the land.

91. The Permittee shall plug or cap all bore holes and cut off any drill casings that remain above ground to ground level upon abandonment of the operation.

92. The Permitee shall restore the land to as near as natural conditions as possible

Other Recommendations

93. NIRB would like to encourage the proponent to hire local people and services, to the greatest extent possible.

94. NIRB strongly advises proponents to consult with local residents including the Elders, Youth, and Hunters and Trappers, regarding their activities in the region, and to keep the communities informed.

95. Any activity outside the original scope of the project application as described will be considered a new project and will need to be submitted to NIRB for screening.

96. NIRB encourages the proponent to collect baseline data on valued ecosystem components (VECs) as identified through community consultation.

NEW 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 ***additional*** project-specific terms and conditions be imposed upon the Proponent through all relevant legislation:

1. The Proponent shall operate in accordance with all commitments stated in correspondence provided to NIRB (Correspondence to the NIRB *Re: Additional Information required for screening of the Request for Amendment of Land Use Permit #N2006C0001 to include seismic prospecting among the exploration activities*, dated February 17, 2011) and to INAC (Correspondence to INAC *Request for Amendment of Land Use Permit #2006C000*, dated February 1, 2011; and *Application for Land Use Permit*, dated February 10, 2011)
2. The Proponent shall operate the site in accordance with all applicable Acts, Regulations and Guidelines.
3. The Proponent shall ensure that re-fuelling of all equipment occurs a minimum of thirty-one (31) metres away from the high water mark of any water body.
4. The Proponent shall store all fuel and chemicals in such a manner that they are inaccessible to wildlife.
5. The Proponent shall use adequate secondary containment or a surface liner (e.g. self-supporting insta-berms and fold-a-tanks), when storing barreled fuel and chemicals at all locations.
6. The Proponent shall use adequate secondary containment or a surface liner (e.g. self-supporting insta-berms and fold-a-tanks) at all refueling stations. 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 vehicle-maintenance areas and at drill sites.
7. When transporting seismic or other project equipment over land, the Proponent shall select a route that maximizes the use of frozen water bodies.
8. The Proponent shall ensure that no disturbance of the stream bed or banks of any definable watercourse be permitted.
9. The Proponent shall not move any equipment or vehicles without prior testing the thickness of the ice to ensure the water body is in a state capable of fully supporting the equipment or vehicles.
10. The Proponent shall suspend overland travel of equipment or vehicles if rutting occurs. Likewise, upon spring break up, or at such a time as the shorelines of frozen water bodies begin to thaw, the Proponent shall suspend all travel over water bodies if disturbance to the banks or shorelines of any definable water body occurs.

11. The Proponent shall ensure that winter lake/stream crossings are located to minimize approach grades and constructed entirely of ice and snow materials. Ice or snow free of sediment should be the only materials used to construct temporary crossings over any ice-covered watercourse.
12. The Proponent shall ensure that bank disturbances are avoided, and no mechanized clearing carried out immediately adjacent to any watercourse.
13. The Proponent shall ensure that stream crossings and/or temporary crossings constructed from ice and snow, which may cause jams, flooding or impede fish passage and or water flow, are removed or notched prior to spring break-up.
14. The Proponent shall avoid disturbance on slopes prone to natural erosion, and alternative locations shall be utilized.
15. The Proponent shall implement sediment and erosion control measures prior to, and during operations to prevent sediment entry into the water during the spring thaw. This includes ensuring that a sufficient thickness of snow and ice is present on the winter road/trail to prevent unnecessary erosion of the underlying ground surface and impact on underneath vegetation.
16. The Proponent shall implement a clean-up and reclamation stabilization plan which should include, but is not limited to, re-vegetation and/or stabilization of exposed soil in road/trail bed.

MONITORING AND REPORTING REQUIREMENTS

The Board also recommends the following as it relates to project monitoring and reporting:

1. The Proponent shall include, in its annual report to the NIRB, measurements of the actual line widths along each survey line, as well as mapping and precise GIS information regarding the overland routes of transportation for seismic and any other project equipment.
2. The Proponent shall provide to the NIRB the design specifications of the incinerator used to incinerate waste materials associated with the project, and will provide a letter from the manufacturer which confirms that the type of incinerator being used is suitable for the incineration of sewage waste. The Proponent is to provide this letter to the NIRB prior to the commencement of project activities.

OTHER NIRB CONCERNS AND RECOMMENDATIONS

The Board is currently also recommending the following:

1. The Proponent shall have an archaeological reconnaissance or inventory as specified in the GN-CLEY's "Guidelines for Developers" undertaken of their Mouse Lake/Coppermine project area.
2. Each year the project is in operation, the Proponent hold at least one public consultation meeting prior to the commencement of project activities to discuss seasonal plans with the residents of Kugluktuk, and one public consultation meeting at the end of field season activities to discuss the project activities with the residents after the fact.

3. The Proponent should refer to the *Oil & Gas Best Management Practices: Seismic Exploration* document during project activities (ftp://ftp.nirb.ca/01-SCREENINGS/COMPLETED%20SCREENINGS/2006/06EN009-Hornby%20Bay%20Exploration%20Ltd%20-%20Unor%20Inc/02-DISTRIBUTION/COMMENTS/110311-06EN009-EC%20Comments%20Attachment%20for%20Info-IA1E.pdf).

It is also recommended that:

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.nwtwildlife.com/Publications/safetyinbearcountry/safety.htm. 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/pn-np/nu/auyuittuq/pdf/PolarBearEnglish2007final.pdf.

2. The Proponent shall ensure that any problem wildlife or any interactions with carnivores are reported immediately to the local Government of Nunavut, Department of Environment Conservation Office (Conservation Officer, Kitikmeot Region: Alan Niptanatiak, email: aniptanatiak@gov.nu.ca).

Species at Risk

3. The Proponent review Environment Canada's "Environmental Assessment Best Practice Guide for *Wildlife at Risk in Canada*", available at the following link: http://www.cws-scf.ec.gc.ca/publications/eval/index_e.cfm. 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.

Change in Project Scope

4. All Authorizing Agencies shall notify the NIRB of any changes in operating plans or conditions associated with this project prior to any such change.

REGULATORY REQUIREMENTS

In addition, 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 *Navigable Waters Protection Act (NWPA)* (http://laws.justice.gc.ca/en/N-22/index.html).

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 21, 2011 at Sanikiluaq, NU.

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Lucassie Arragutainaq, 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 February 2, 2011 the Nunavut Impact Review Board (NIRB or Board) received an application from Indian and Northern Affairs Canada (INAC) for an amendment to Hornby Bay Mineral Exploration Ltd.'s (Hornby Bay) Land Use Permit (N2006C001) for its "Mouse Lake Exploration" project. As this proposed project is located in the Kitikmeot Region which currently does not have an approved land use plan in place, a conformity determination from the Nunavut Planning Commission was not required for this file.

Following a preliminary completeness check, the NIRB found that this project proposal did not contain sufficient information for the NIRB to permit proper screening. Consequently, the NIRB requested the Proponent supply additional information to the Board on or before February 18, 2011. The NIRB received the required information on February 17, 2011.

On February 21, 2011 the NIRB received an application from INAC for a new Land Use Permit (LUP) N2011C0007 which would replace the previously issued LUP N2006C0001 associated with this project proposal, which is due to expire April 12, 2011. This proposed LUP has been incorporated into the current screening for consideration.

Past File History

The NIRB received the original project proposal (NIRB File No. 06EN009) from INAC on January 24, 2006 and screened the proposal in accordance with Part 4, Article 12 of the NLCA. On March 27, 2006 the NIRB issued a 12.4.4(a) screening decision to the Minister of INAC which indicated that the proposed project could proceed subject to the NIRB's recommended project-specific terms and conditions (see previously-recommended terms and conditions in this memo).

On March 4, 2008 the NIRB received an application from INAC to extend Hornby Bay Exploration Ltd.'s Land Use Permit (N2006C0001) for the Mouse Lake project (NIRB File No. 06EN009). On March 5, 2008, the NIRB determined that the extension request did not represent a significant change in project scope, and re-issued the original terms and conditions from the March 27, 2006 Screening Decision. On February 7, 2009 the NIRB received a second application from INAC to extend this Land Use Permit (N2006C0001) for an additional year. On February 13, 2009 the NIRB determined that the extension request did not represent a significant change in project scope, and re-issued the original terms and conditions from the March 27, 2006 Screening Decision.

Current File History

The current application from Hornby Bay Exploration Ltd. is for an amendment to its existing Land Use Permit N2006C0001 (which will expire on April 12, 2011) for the Mouse Lake project, to include on-land seismic exploration activities. As the current Land Use Permit is

about to expire, the Proponent has applied for a new Land Use Permit to replace the current Land Use Permit N2006C0001 and the pending amendment application.

The NIRB determined that this request *may* result in a change to the original scope of the project and distributed the project proposal was distributed to community organizations in Kugluktuk, as well as to relevant federal and territorial government agencies, and Inuit organizations. The NIRB requested that interested parties review the proposal and the NIRB's previously recommended terms and conditions and provide the Board with any comments or concerns by March 4, 2011 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 additional recommended mitigation measures); and
- Any matter of importance to the Party related to the project proposal.

On March 2, 2011 the NIRB received a request to extend the commenting period and on March 3, 2011 extended the public commenting period by one week, requesting that comments be received on or before March 11, 2011. As of the extended commenting deadline, the NIRB received comments from the following interested parties:

- **Environment Canada (EC)**
- **Indian and Northern Affairs Canada (INAC)**
- **Kitikmeot Inuit Association (KIA)**
- **Government of Nunavut – Culture Language Elders and Youth (GN-CLEY)**

All comments provided to NIRB regarding this project proposal can be accessed from the NIRB's ftp-site, at the following location:
http://ftp.nirb.ca/SCREENINGS/COMPLETED%20SCREENINGS/

Previously Screened Project Activities

The original application, which was screened in accordance with Part 4, Article 12 of the NLCA, included the following project components/activities:

- Geological and geophysical surveying (both ground and airborne surveys);
- Diamond drilling program;
- Establishment of a temporary camp at Mouse Lake, located approximately 75 kilometres south of Kugluktuk; and
- Transportation and storage of fuels including diesel, gasoline, aviation fuel, and propane.

Proposed Project Activities

The Proponent is currently applying for a new Land Use Permit to encompass the original activities and the following additional components or activities:

- On land 2D seismic surveying for purposes of uranium exploration;
  - Use of two vibrator trucks, seismic line, detectors and recording computers
  - Approximate total of 80 line kilometres to be surveyed
- Utilization of ice strip at McGregor Lake for the transportation of equipment and supplies; and
- Overland transportation of seismic equipment and personnel supported by Cat Train, helicopter, and skidoo.
  - Cat Train to utilize winter trail previously screened by the NIRB (NIRB File No. 07RN072) and clearing of new paths to seismic exploration area.

The proposed (amended) activities are to occur for a period of one field season from March to April 2011.

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 (www.sararegistry.gc.ca) to get the current status of a species.

Updated: August 4, 2009

Species at Risk	**COSEWIC Designation**	**Schedule of SARA**	**Government Organization with Lead Management Responsibility** [1]
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	Government of Nunavut
Felt-leaf Willow	Special Concern	Schedule 1	Government of Nunavut
Peregrine Falcon (*anatum-tundrius* complex)	Special Concern	Schedule 1 (*anatum*) Schedule 3 (*tundrius)*	Government of Nunavut
Short-eared Owl	Special Concern	Schedule 3	Government of Nunavut
Peary Caribou	Endangered	Pending	Government of Nunavut
Beluga Whale (Eastern Hudson Bay population)	Endangered	Pending	DFO
Red Knot (*rufa* subspecies)	Endangered	Pending	EC

Beluga Whale (Cumberland Sound population)	Threatened	Pending	DFO
Atlantic Cod (Arctic population)	Special Concern	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
Porsild's Bryum	Threatened	Pending	Government of Nunavut
Atlantic Walrus	Special Concern	Pending	DFO
Narwhal	Special Concern	Pending	DFO
Red Knot (*islandica* subspecies)	Special Concern	Pending	EC
Horned Grebe (Western population)	Special Concern	Pending	EC
Barren-ground Caribou (Dolphin and Union population)	Special Concern	Pending	Government of Nunavut
Grizzly Bear	Special Concern	Pending	Government of Nunavut
Polar Bear	Special Concern	Pending	Government of Nunavut
Wolverine (Western Population)	Special Concern	Pending	Government of Nunavut

[1] 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. The Department of Fisheries and Oceans (DFO) has responsibility for management of aquatic species.

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

INTRODUCTION

The Department of Culture, Language, Elders and Youth (CLEY) 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:

	Types of Development (See Guidelines below)	**Function** (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. CLEY is authorized by way of the *Nunavut and Archaeological and Palaeontological Site Regulations*[1] to issue such permits.

[1] 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 CLEY 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 CLEY.

6) The permittee/proponent shall follow the direction of CLEY 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 CLEY 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 CLEY 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*[2], 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*[3], 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

[2] s. 51(1)
[3] 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 (CLEY), and the contract archaeologist(s) will ensure proper preservation of heritage resources in the Nunavut Territory. The roles of each are briefly described.

CLEY 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 CLEY 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 Palaeontological Sites Regulations.*

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.