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Building *Nunavut* Together
Nunavut liuqatigiingniq
Bâtir le *Nunavut* ensemble

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Government of Nunavut
Nunavut Kavamat
Gouvernement du Nunavut

February 7, 2019

Jaida Ohokannoak
Technical Advisor II
Nunavut Impact Review Board
P.O Box 1360
Cambridge Bay, NU X0B 0C0

Sent VIA Email: info@nirb.ca

RE: Notice of Screening for Nahanni Construction Ltd.'s "Lupin Mine Winter Access" Project Proposal (19RN005)

Dear Jaida Ohokannoak,

On behalf of the Government of Nunavut (GN), I would like to thank the Nunavut Impact Review Board (NIRB) for the opportunity to provide comments on Nahanni Construction Ltd.'s "Lupin Mine Winter Access" proposal. The GN reviewed the proposed project and has prepared several comments for your consideration (see Appendix).

Should you have any concerns with our comments, please contact me by phone at 867-975-7808 or by email at cspencer@gov.nu.ca.

Qujannamiik,

[Original Signed By]

Chris Spencer
Avatiliriniq Coordinator
Government of Nunavut

Appendix

GN 01: Archaeological Considerations	
Department	Culture and Heritage
Organization	Government of Nunavut
Subject/Topic	Archaeological Considerations
References	NIRB Notice of Screening
CONCERNS	
<p>The proponent plans to build and operate a portion of the existing Tibbitt to Contwoyto Winter Road route from Tibbitt Lake in the Northwest Territories to the Lupin site, located at the northern end of Contwoyto Lake, Nunavut. In the context of ongoing reclamation of the Lupin site, the road will be used to transport equipment and supplies.</p> <p>A search of the Nunavut Archaeological Site Database indicates that ten (10) sites are located in the vicinity of the Winter Access route, three of which are intersecting the Winter route. A cluster of sites is at the southern end of Contwoyto Lake and two sites are located on unnamed islands near the middle of the lake.</p> <p>CH also notes that the applicant will be mobilizing and demobilizing equipment and supplies along the road. This constitutes a concern as not only snow cover might mask unrecorded archaeological sites but the likelihood of vehicles impacting unidentified (unrecognized) protruding cultural features is high (i.e. inuksuit, caches, look-out, dwelling, etc.).</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The Department of Culture and Heritage recommends that:</p> <ol style="list-style-type: none">1) The proponent adheres strictly to the proposed transportation route/track, paying strict attention to the cluster of archaeological sites at the southern end of Contwoyto Lake and avoids traveling on islands where sites are reported.2) The proponent works closely with the Territorial Archaeology Office to clearly identify and mark the locations of archaeological sites that might potentially be affected by development activities.3) No activities be conducted in the vicinity (50 m buffer zone) of any archaeological sites. If archaeological sites or features are encountered during the project, activities should immediately be interrupted and moved away from this location. Each site encountered needs to be recorded and reported to the	

Department of Culture and Heritage.

All archaeological and palaeontological sites in Nunavut are protected by law. The applicant must understand that it is their responsibility to ensure that no heritage resource sites are disturbed in the course of their activities. No person shall alter, or otherwise disturb an archaeological site, or remove any artifact from an archaeological site. Moreover, the building of inuksuit is not recommended.

GN-02: SPILL CONTINGENCY PLAN	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Spill Contingency Plan
References	<ul style="list-style-type: none"> • NIRB Public Notice of Screening and Comment Request – NIRB File No.: 19RN005 • Lupin Winter Access - Spill Contingency Plan (2018), Section 4.0 – Spill Response
CONCERNS	
<p>Section 4.0 of the Spill Contingency Plan should be adapted to account for the high volume of petroleum and chemical products that will be carried on the road by bulk haul trucks (e.g. volume greater than 220 litres). Currently, the spill response is not adequate for the list of materials and volumes expected to be transported along the winter road.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>To prevent spills, each bulk haul trucks must have a double wall containment tank and this should be indicated in the Spill Contingency Plan.</p> <p>The spill response should be modified to deal with larger spills, such as those greater than 220 litres. Excavators and haul trucks should be present on site and ready to remove contaminated soil or snow. The contaminated material should be sent to the appropriate facilities for proper remediation. The closest remediation site should be identified beforehand and listed in the Spill Response Plan.</p> <p>When transporting large amounts of flammable products, a Fire Suppression Plan is needed and the Spill Contingency Plan should be updated to include this plan.</p> <p>Vehicles carrying fuel tanks of more than 450 litres should be equipped with the appropriate spill kit. The Spill Contingency Plan should be kept in every vehicle and should contain the proper contact information for the responsible spill officer.</p> <p>The Spill Contingency Plan should also include information on the environment surrounding the potential development area and the plan should be adapted to account for a delay in response of professionals accessing the site in the event of a spill.</p>	

GN-03: ROAD CONSTRUCTION AND SNOW MAINTENANCE	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Road Construction and Snow Maintenance Details
References	<ul style="list-style-type: none"> • NIRB Public Notice of Screening and Comment Request – NIRB File No.: 19RN005 • Lupin Winter Access – Abandonment and Restoration Plan (2018)
CONCERNS	
<p>The Abandonment and Restoration Plan does not provide a description of how the road will be constructed nor how it will be maintained during the winter. Dykes or berms resulting from excess snow from snow-clearing could act as a barrier for wildlife migration/movement. The information provided is insufficient to determine if the road will be built and maintained adequately to mitigate adverse impacts on the environment.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The Abandonment and Restoration Plan should be revised to include the following information:</p> <ul style="list-style-type: none"> • Width of the road and potential development area. • The depth of snow that will be maintained within the Project. A minimum depth of 10-12 inches of snow should be maintained and graded in order to avoid damaging the underlying tundra. • A Snow Removal Plan that specifies the anticipated height of the snow banks. This Plan should include: <ul style="list-style-type: none"> ○ A description of the intended method of snow removal/placement. The snow banks should be less than one meter high to allow unobstructed wildlife crossings. Type of equipment used for snow removal. A Challenger snow plow with a rubber track should be used to avoid damaging the tundra. Please also provide the expected number of snow plow trucks that will be available on site. <p>The road should be built to be permeable, enabling caribou crossings at all times. Breaks in the snow bank every 500 meters should not be necessary as the height of the snow banks should be kept below one meter along the entire length of the road.</p>	

GN-04: VEHICLE ACTIVITY AND ROAD PUBLIC ACCESS	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Vehicle Activity Information and Road Public Access
References	<ul style="list-style-type: none"> • NIRB Public Notice of Screening and Comment Request – NIRB File No.: 19RN005 • Lupin Winter Access – Wildlife Protection Plan (2018) • Ziemann, J. (2007). Tibbitt Lake to Contwoyto Winter Road – Monitoring Station Report.
CONCERNS	
<p>The Wildlife Protection Plan failed to disclose the level of vehicle activity anticipated on the road, and how the Proponent will maintain this activity to an acceptable level. The information provided is insufficient to determine if the mitigation measures are adequate to mitigate the impact of the road on wildlife.</p> <p>There is currently a moratorium on hunting the Bathurst caribou herd in the Northwest Territories and a limited harvest of 30 animals under a Total Allowable Harvest in Nunavut. The development of a winter road in this area can increase hunter access to this herd and consequently increase harvest rate (Ziemann, 2007).</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The Wildlife Protection Plan should be revised to include the following information:</p> <ul style="list-style-type: none"> • Anticipated vehicle types and quantities along the road during the Construction Phase. • Specify what maintenance equipment will be used (grader, snow plow truck, rubber track challengers, snow cat or snow blower). • Operation: <ul style="list-style-type: none"> ○ Number of hauling and work trucks anticipated (e.g. numbers of vehicles per hour, speed limit). Methods for monitoring. ○ Number of visitors anticipated on the road and methods to regulate public traffic. ○ Intended methods for monitoring road traffic. Include a proposed system to record and keep track of the road usage on an hourly and daily basis. <p>The Wildlife Protection Plan should indicate how the level of vehicle activity will be</p>	

maintained to an acceptable level (private and public) to mitigate the roads effect on the landscape.

GN-05: ROAD EFFECTS ON CARIBOU	
Department	Environment
Organization	Government of Nunavut
Subject/Topic	Road Effects on Caribou
References	<ul style="list-style-type: none"> • NIRB Public Notice of Screening and Comment Request – NIRB File No.: 19RN005 • Lupin Winter Access – Wildlife Protection Plan (2018) • Lupin Winter Access – Project Description (2018)
CONCERNS	
<p>The Wildlife Protection Plan failed to explore the different caribou herds potentially interacting with the proposed Project’s potential development area, especially during the winter, or early spring migration period.</p> <p>It is very important to illustrate how the road may intersect with caribou trails and water crossings, using both traditional knowledge and recent collar data (2013-2018). The Government of Northwest Territories manages data requests for the Bathurst, Bluenose East, and Beverley caribou herd.</p>	
SUGGESTIONS AND RECOMMENDATIONS	
<p>The Wildlife Protection Plan should be revised to include the following information:</p> <ul style="list-style-type: none"> • Highlight road intersections with Bathurst, Bluenose-East, and Beverley Caribou migration paths, using both traditional knowledge and collar data. • From recent collar data (2013-2018), map the winter distribution of Bluenose-East, Bathurst, and Beverly over the potential development area. This map should include a data range gathered between February, and May (2013-2018) to align with and buffer the Project’s planned start and end dates (see Lupin Winter Access – Project Description (2018)). This analysis will also provide information on the number of collared caribou that are anticipated to be within the potential development area. • Caribou group sizes likely to be interacting with the Project should be derived from previous surveys in order to develop mitigation response strategies (i.e. stoppages or other measures when a specified number of caribou are within a certain distance of the Project). • A statement of intent to acquire active collar data in order to potentially inform caribou mobile protection measures. 	

The proposed mitigation and management measures for caribou should be developed and adapted based on the population size of the Bathurst caribou herd.