



# Report of Environmental Assessment

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## Reasons for Decision

EA1011-002: TNR Gold Corp. Ltd.

Mineral Exploration at Moose Property

January 20, 2011



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## List of acronyms

GNWT	Government of the Northwest Territories
MVRMA	Mackenzie Valley Resource Management Act
INAC- CARD	Indian and Northern Affairs - Contaminants & Remediation Directorate
PWNHC	Prince of Wales Northern Heritage Centre
DKFN	Deninu Kue First Nation
FRMC	Fort Resolution Métis Council
LKDFN	Lutsel K'e Dene First Nation
YKDFN	Yellowknives Dene First Nation
IMA	Akaiicho IMA Implementation Office
NSMA	North Slave Métis Alliance
EA	Environmental Assessment
MVLWB	Mackenzie Valley Land and Water Board

## Review Board environmental assessment decision

To make its decision in this environmental assessment, the Mackenzie Valley Environmental Impact Review Board (Review Board) has relied upon all the information on the public record. Having considered the evidence, the Review Board has made its decision in accordance with subsection 128(1)(a) of the *Mackenzie Valley Resource Management Act*.

It is the Review Board's opinion that the proposed TNR Gold Corp. Ltd. Mineral Exploration Project at Moose Property is not likely to cause significant adverse impacts or to be a cause of significant public concern if the developer implements the mitigation commitments set out in this report.



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Richard Edjericon

Chairperson of the Mackenzie Valley  
Environmental Impact Review Board

01-20-11  
Date

## Report summary

The Mackenzie Valley Environmental Impact Review Board conducted an environmental assessment of TNR Gold Corp. Ltd (TNR) mineral exploration project at the Moose Property Site in the Akaitcho region of the Northwest Territories. The Mackenzie Valley Land and Water Board (MVLWB) referred the proposed development to environmental assessment based on the authority set out in ss.126(2)(b) of the *Mackenzie Valley Resource Management Act*.

TNR proposes a mineral exploration-drilling project of up to 15 holes on the Moose Property lease area. Lithium and tantalum will be the focus minerals. The Moose property is accessible seasonally by boat, winter road and/or by float or ski-equipped aircraft from either Yellowknife or Hay River. During the summer period, equipment can be barged to a landing site on the Hearne Channel on Great Slave Lake and then transported by existing access roads. During the winter months, winter roads on the ice can be used to haul the bulk of materials across Great Slave Lake to the property.

The main issues that parties identified throughout the environmental assessment process by way of community information sessions, submissions and public hearing, were potential impacts on heritage and archaeological resources, bio-physical impacts and the need for appropriate community engagement and consultation by the developer. The Review Board carefully reviewed the record in this proceeding to determine whether there would likely be any significant adverse impacts in these areas of interest.

In making its decision, the Review Board has noted that:

- the scale of the proposed project is relatively small, the activities proposed involve common exploration techniques and the developer has committed to mitigation measures which address the specific issues of concern identified in this EA;
- archaeological site visits and assessment involving the communities and the PWNHC will be conducted based on commitments made by the proponent;
- there is little evidence to suggest that any negative impacts on traditional harvesting in the Moose Property area will be significant;
- this exploration project is not likely to cause significant socio-economic impacts, and

- the standard terms and conditions in the Mackenzie Valley Land Use Regulations are effective for the mitigation of negative impacts from development activities such as campsite operations and clean-up, restoration and equipment removal.

Having considered the potential impacts and the developer's commitments, the Review Board concludes in accordance with subsection 128(1)(a) of the MVRMA that the proposed TNR project is not likely to be a cause of significant adverse environmental impacts or significant public concern . Therefore, this development may proceed to permitting, subject to the ten-day waiting period set out in s.129(a) of the Act.

# 1 Introductory information

This is the Mackenzie Valley Environmental Impact Review Board (Review Board)'s *Report of Environmental Assessment and Reasons for Decision* for TNR Gold Corp Ltd.-Moose Property Mineral Exploration Project in the Northwest Territories. The purpose of this report is:

- a) to satisfy the reporting requirements of the *Mackenzie Valley Resources Management Act* (the Act) sections 121 and 128;
- b) to explain the Review Board's decision on whether the proposed development is likely to cause significant adverse impact on the environment or be a cause for significant public concern; and
- c) to document relevant parts of the environmental assessment.

## 1.1 Overview

This section provides background information on the regulatory history of this development, sets out the requirements of the Act and provides a brief description of the development proposal.

Section 2 describes the Review Board's describes the scope and the process for the environmental assessment of this project. It provides information about the parties to this assessment and the steps the Review Board took to identify any significant adverse impacts or public concerns as required by section 128 of the *Mackenzie Valley Resource Management Act*.

Section 3 outlines the environmental components that the Review Board required the developer to examine during the impact assessment. This section describes the proposed development's impacts on both the human environment and the biophysical environment; an analysis of those impacts and includes the Review Board's conclusions on the likelihood of those impacts.

Section 4 considers the extent of, the reasons for, and the significance and likelihood of any public concern resulting from the proposed development.



Section 5, entitled “Environmental assessment decision”, includes a summary of all conclusions as well as the Review Board’s overall decision. This section also provides suggestions to reduce any residual impacts from the proposed development.

This report does not discuss issues that the Review Board decided were fully resolved by the material on the public record. The only issues discussed in detail in this *Report of Environmental Assessment* are those that the Review Board decided warranted further consideration.

## 1.2 Regulatory history

The Mackenzie Valley Land and Water Board (MVLWB) referred the Land Use Permit application for TNR’s Moose Property Exploration Project activities on the northeast shore of Great Slave Lake, Northwest Territories on July 23, 2010 according to ss. 126(2)(b) of the *Mackenzie Valley Resource Management Act*. The basis of the referral was “significant public concern that the project might impact traditional land use activities, archaeological and heritage resources, as well as environmental resources in the context of harvesting and cumulative impacts”.

The developer acquired the Moose 2 and Moose 1 pegmatite veins in April of 2009. The Moose 2 pegmatite is a historic lithium and tantalum showing which was worked from the early 1940’s to the mid-1950’s. Since first staked in 1942, the Moose 2 Dyke has been mined on two occasions: the first time intermittently in the 1946–52 period by the DeStaffany Tantalum Beryllium Mines Limited for a heavy-mineral concentrate, and the second time in the winter of 1953–54 by Boreal Rare Metals Ltd., for both heavy minerals and amblygonite.

Table 1. Claims Information –Moose Property.

<u>CLAIM NUMBER</u>	<u>CLAIM NAME</u>	<u>AREA (acres)</u>	<u>EXPIRY DATE</u>
K00200	CB1	292.82	2011-04-01
K00201	CB2	206.60	2011-04-01
K200202	CB3	51.65	2011-04-01
F71121	Maximoose 1	1762.00	2011-02-12
F71122	Maximoose 2	2324.20	2011-02-12

### 1.3 Requirements of the *Mackenzie Valley Resource Management Act*

The Review Board administers Part 5 of the *Mackenzie Valley Resource Management Act* (the Act) and therefore has decision-making responsibilities in relation to the proposed development. The Review Board is responsible for conducting an environmental assessment, which considers the proposed development's biophysical, social, economic and cultural impacts on the environment in accordance with s.114 and s.115 of the Act. The Review Board conducted this environmental assessment based on its *Rules of Procedure* and *Environmental Impact Assessment Guidelines*.

Under s.s.117 (1) of the Act, the Review Board must decide the scope of the development. The Review Board also considers the factors set out in s.s.117 (2), as further described in section 2 of this document. The Review Board is required to determine whether the proposed development is likely to cause significant adverse impact on the environment or to be a cause of significant public concern, as described under s.s.128(1). The Review Board must then prepare a *Report of Environmental Assessment*, as described under s.s.128 (2).

If the Review Board determines the development is not likely to have any significant adverse impact on the environment or be a cause of significant public concern (a s.s.128(1)(a) decision), the Act stipulates the following:

- under s. 129(a), no regulatory authority can issue a license, permit or other authorization before the expiration of ten days after receiving the report of the Review Board; and
- under s.s. 130(1) (a), the federal Minister and responsible ministers may order an environmental impact review of the proposal, notwithstanding the Review Board's determination.

## **1.4 Environmental setting**

The Moose Property is located on the northeast shore of Great Slave Lake, in the Great Slave Upland High Boreal (HB) Eco-region. Subdued topography and fractured bedrock plains dominate the landscape. Black spruce, jack pine, paper birch and trembling aspen form discontinuous forested patches that are interspersed with exposed rock. Wetlands and peat plateaus commonly form around the margins of shallow lakes, as well as in wetter depressions and lowlands.

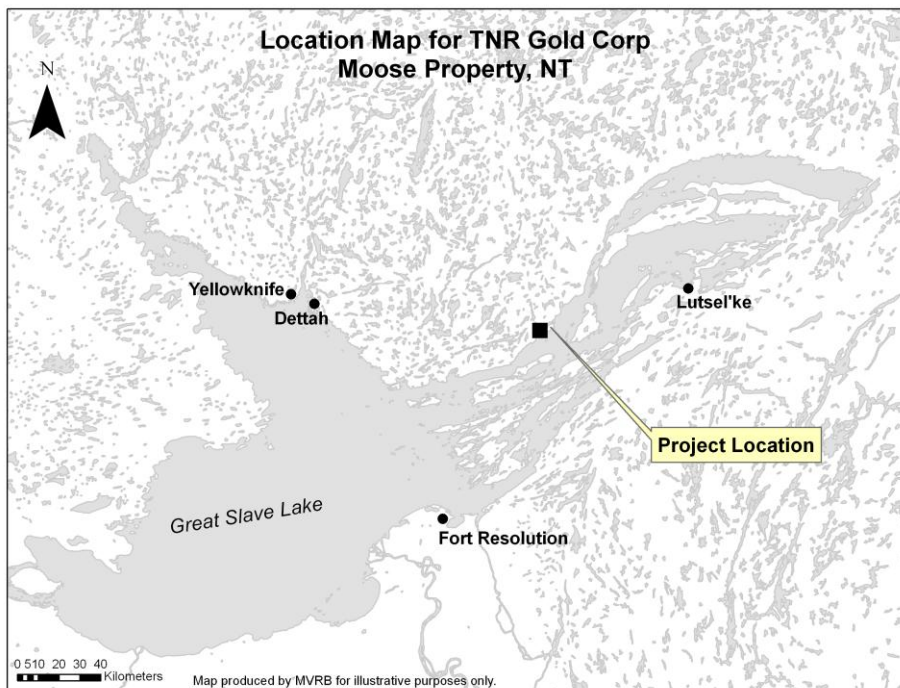
The landscape in the proposed project area is dominated by bedrock outcrops, interspersed with veneers of unconsolidated till overlying bedrock and topographic depressions consisting of organic accumulations of variable depth. There is a predominance of bogs and fens in these areas.

Both boreal and tundra animal species are found in the area. Approximately 26 species of mammals may frequent this region. Species such as barren-ground caribou are found within this eco-region during the winter months only, although there have been few sightings reported in the Moose Property area since 2003. Other species, such as moose, grey wolf, grizzly bear and wolverine are residents of both tundra and boreal forest, and frequent the transitional eco-region to the north throughout the year. Boreal species such as mink and beaver are reaching their northern limit at this latitude and are seldom found beyond the tree line.

The taiga shield eco-region is also home to approximately 150 species of birds, the majority of which are seasonal migrants. However, considerably fewer species are expected to occur in the proposed development area. The lakes and wetlands of the area provide habitat for a wide variety of water birds and shorebirds. A number of birds of prey, or raptors, utilize this region, either as residents or as migrants.

The area known as Moose Property has been subject to mineral exploration and small scale mining periodically for more than 60 years.

**Figure 1**      **Location map of the Moose Property Exploration Project**



## 1.5 Description of development

The Moose property is located on the north shore of Great Slave Lake in the NWT approximately 115 km east-southeast of the capital Yellowknife. The property occurs within the Mackenzie Mining District and is shown on National Topographic System (NTS) map sheet 85I/01. It can be located by the following minimum and maximum latitudes/longitudes:

MIN Latitude 62° 10' 02" N MAX Latitude 62° 12' 39" N

MIN Longitude 112° 10' 10" W MAX Longitude 112° 11' 59" W

The Moose property is accessible seasonally by boat, winter road and/or by float or ski-equipped aircraft from either Yellowknife or Hay River. During the ice-free summer period, equipment can be barged to a

landing site on the Hearne Channel on Great Slave Lake and then transported by existing access roads. During the winter months, winter roads on the ice can be used to haul the bulk of materials across Great Slave Lake to the property.

The camp proposed for this project will be suitable for 10 people. This will include two sleep tents, a combination cook/First Aid station, kitchen, dry, core shack, outhouse, generator shack and a fuel cache.

The materials and equipment required for the exploration program will be transported into the camp by barge from Yellowknife. Supplies would be barged in summer, trucked by ice road in winter or flown in.

This exploration is a land based drilling program and will not require water-(ice) based drilling efforts. However, diamond drill rock coring rigs use water during the drilling process. A maximum of 15 drill holes over the entire claims area is expected. Water will be mixed with additives at the drill site and then pumped down the hole to cool and lubricate the drill bit and to flush cuttings which comes from the drilling of the rock. Water will be drawn from an available water source using diesel powered portable water pumps and carried through a 1.5- inch flexible hose.

TNR plans to deal with the cuttings at the surface using the simple technique of employing a 6" diameter corrugated water line (much like the intake from a water pump) to carry cuttings, additives and water approximately 50 to 100 feet. The fluids coming out of the end of the corrugated water line have minimal cuttings and additives left in the water and the return is re-used. The cuttings will be removed from the site after collection and hauled to Yellowknife to be disposed of. The water will be recycled and reused by the TNR workers.

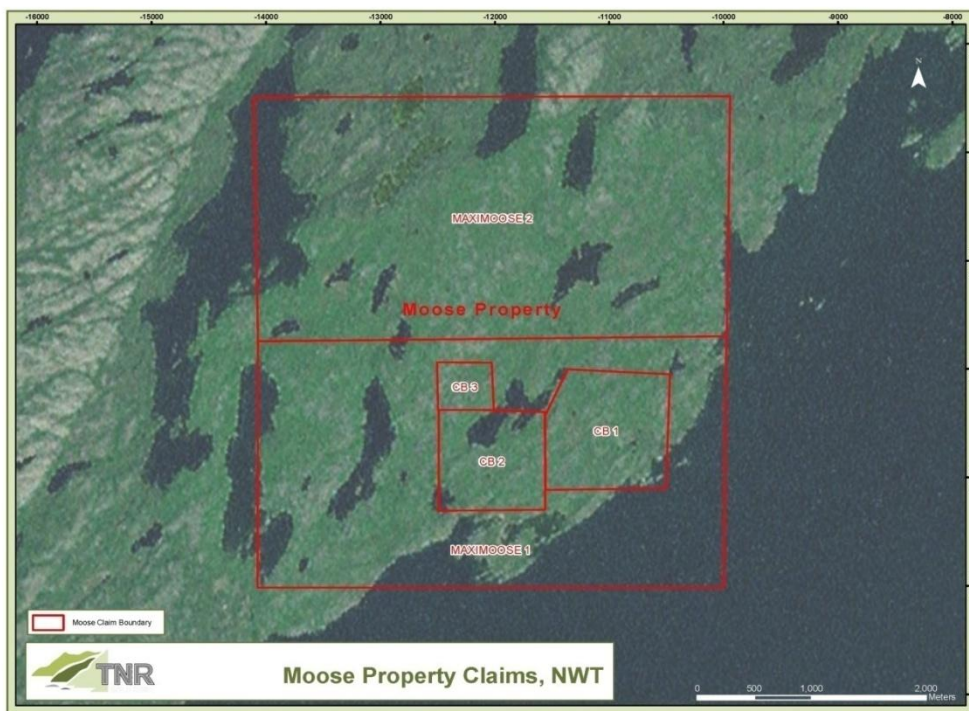
For periods of drilling, staffing would include one geologist, one geologist assistant, one cook and first aid attendant, one drill supervisor, two drillers and two drill helpers. If drilling is carried out in conjunction with a prospecting program then two more geologists and assistants will be required.

Fuel used during the project will consist of drums of diesel, Jet-A, gasoline and cylinders of propane, all of which will be barged or flown to the camp and stored the regulation-required distance from the lake shore. Other petroleum products will be stored at the generator shed or dry. Spill kits and absorbent pads are present where fuel is transferred. Empty fuel drums are to be brought to Yellowknife regularly.

A 1000-litre holding tank will store potable water taken from a nearby lake. This water will be for cooking, laundry and washing, and any resulting grey water will be deposited in natural sumps. Sanitary waste and any combustible material will be incinerated on-site and all non-combustible waste will be flown or barged out.

The developer plans to use the roads originally constructed during past mining and exploration activities. This existing network will require minimal brushing and minimal new roads are expected by the developer.

**Figure 2.** Location map of the TNR claims and lease areas.



Source: TNR Gold presentation at information sessions and hearing.

## 2 Environmental assessment process

### 2.1 Parties to the environmental assessment

There were nine parties registered for this environmental assessment. According to the Review Board's *Rules of Procedure*, the developer is considered a directly affected party. The remaining eight registered parties were:

- Lutsel K'e Dene First Nation (LKDFN)
- Fort Resolution Métis Council (FRMC)
- Akaitcho IMA Implementation Office
- Government of Northwest Territories (GNWT)
- Indian and Northern Affairs (INAC)
- Yellowknives Dene First Nation (YKDFN)
- Deninu Kue First Nation (DKFN)
- North Slave Métis Alliance (NSMA)

During the environmental assessment process, representatives from government departments had the opportunity to identify their interests and to notify the Review Board of their intent to participate in the proceeding as an interested party. Parties to the environmental assessment had the opportunity to attend and actively participate in the process. Table 1 below illustrates the involvement of the parties throughout this environmental assessment process, including information request responses and the public hearing.

**Table 1      Role of the parties**

<b>Party</b>	<b>Participated throughout assessment</b>	<b>Public hearing</b>
LKDFN	✓	✓
FRMC	✓	✓
Akaiitcho IMA	✓	✓
GNWT	✓	✓
INAC	✓	✓
YKDFN	✓	✓
DKFN	✓	✓
NSMA		✓

✓ = actively participated in this phase of the environmental assessment

The most involved parties to this assessment process were the FRMC, DKFN, YKDFN and LKDFN. The communities of Fort Resolution, Lutsel K'e, N'dilo and Dettah make up the Akaiitcho communities referenced in this report.

## **2.2 Environmental assessment phases**

After the project was referred to the Review Board on July 23, 2010 the Review Board decided that the environmental assessment process would be proportionate to the size and scope of the development. The following is an outline of the steps taken for this environmental assessment:



Figure 3. TNR Mineral exploration environmental assessment process



The Review Board decided the scope of assessment using the preliminary screening submissions made to the MVLWB. These submissions included documents from the following Akaitcho groups: YKDFN, DKFN and LKDFN. The Review Board then issued a draft and then a subsequent final workplan.

The Review Board received Requests for Ruling regarding the changes it made to usual process to develop the work plan.. Although the Review Board has full discretion over the environmental assessment process, in an updated workplan issued on October 4, it added information sessions to accommodate the communities that had requested them. These sessions took place in N'dilo, Fort Resolution and Lutsel K'e between September 30 and October 28, 2010.

On November 19, 2010, the Review Board held a public hearing in Yellowknife, Northwest Territories to allow the public an opportunity to hear and participate in a discussion of the unresolved issues arising from the proposed development during the environmental assessment. The hearing was an opportunity for the community members to identify important concerns directly to the Review Board. Advertisements for the hearing were made using local radio, including the aboriginal language broadcaster CKLB, posters and local and regional newspapers.

The developer and several parties gave presentations at the public hearing, highlighting direct and indirect impacts of the proposed development and answering questions after completing their presentations. There were three undertakings arising from the hearing, all submitted before the December 3, 2010 deadline. The Review Board also invited parties to the EA to file any additional evidence relevant to s.114(c) of the MVRMA before the public record closed. This evidence was intended to assist the Review Board in deciding whether the concerns of aboriginal people were adequately taken into account during the EA process. Consequently, the Review Board required that any new evidence submitted had to relate to the development proposed by TNR Gold, to the effects of that development, and to any interaction between parties to the EA intended to address and mitigate these effects.

The public record closed on December 13, 2010, and the Review Board considered all submissions in making its decision. The Review Board has prepared this *Report of Environmental Assessment & Reasons for Decision* for submission to the Minister of Indian Affairs and Northern Development as required by s.s. 128(2) of the Act.

## 2.3 Decisions on significance

Section 128 of the *Mackenzie Valley Resource Management Act* requires the Review Board to decide, based on all the evidence on the public record, whether or not, in its opinion, the proposed development will likely have a significant adverse impact on the environment or be a cause for significant public concern.

The Review Board asked the registered parties to assist by providing their own views of the likelihood and significance of potential impacts. The Review Board considered the following characteristics of all environmental impacts identified:

- magnitude
- nature of the impact
- geographic extent
- reversibility of the impact
- timing
- probability of occurrence
- duration
- predictive confidence level
- frequency

## 2.4 Scope of development

The scope of development that the Review Board considered describes the physical activities necessary for the development to proceed. The scope takes into account both principal and accessory development activities. It also outlines any future activities under the land use permit or other regulatory instruments.

Having considered the developer's evidence, the Review Board identified the principal development components to include:

- ground geophysical surveys
- mapping and prospecting
- channel sampling

- line cutting
- trenching
- diamond drilling
- camp construction, operations and reclamation

## 2.5 Scope of environmental assessment

The scope of the environmental assessment identifies which issues and items the Review Board will examine during the process. The MVLWB preliminary screening report identified public concern as the reason for referring the proposed development to environmental assessment. The Review Board therefore developed the scope of assessment with public concern in mind as well as factors listed under subsection 117(2) of the *Mackenzie Valley Resource Management Act*.

After considering the relevant information available on the Review Board's public record and the submissions made to the Mackenzie Valley Land and Water Board (MVLWB) during the preliminary screening, the Review Board focussed the scope of the assessment on:

- Potential impacts on traditional land use activities such as harvesting; and
- Potential impacts on archaeological and heritage sites.

When assessing social and cultural impacts the geographical scope of this assessment included the Akaitcho region communities of Lutsel K'e, Fort Resolution, N'dilo and Dettah, all of which have traditionally used the Moose Property area. The Review Board established the temporal scope to include this preliminary mineral exploration program in its entirety and back to such time when no potential significant adverse impacts could be attributable to this development.

### *Other issues*

The Review Board identified the following issues based on information received during community session and after examining the public record:

- socio-economic wellbeing
- water effects
- reclamation

#### *Traditional knowledge*

The Review Board recognizes the important role that Aboriginal cultures, values and knowledge play in its decision-making. In accordance with the requirements of s.s.115(1) of the *Mackenzie Valley Resource Management Act*, the Review Board considered all traditional knowledge made available during the environmental assessment.

## 3 Impact on the environment

### 3.1 Human environment

The Review Board considered the assessment of the human environment and the identification of impacts that influence social, economic and cultural well-being to be important for this environmental assessment. Section 115(b) of the *Mackenzie Valley Resource Management Act* requires the Review Board to consider the cultural and social well-being of the residents and communities of the Mackenzie Valley.

#### 3.1.1 Cultural impacts – heritage and archaeological resources

During the information sessions held in the Akaitcho communities concerns were raised about heritage sites including burial grounds, spiritual locations and traditional harvesting areas. There was little evidence on the public record however, for the Review Board to consider related to traditional harvesting. The primary concern was the possibility of heritage resources or archaeological sites located on or near the project.

#### Issue

The following cultural issue was identified during the preliminary screening, information sessions and public hearing:

- Are there any known archaeological sites in the project area?
- Will there be an archaeological assessment done?
- What will be the buffer zone of any discovered archaeological site?

## Analysis

### *Background*

There are no recorded heritage sites on the Moose Property. However, information submitted by the YKDFN to the Review Board indicates that there is a possibility that such sites exist. YKDFN submitted a map, which illustrates historical travel routes in the Akaitcho region, including those along the northeast shore of the Great Slave Lake area. The PWNHC has no published records of archaeological sites of the Moose Property except for those related to the old mine site. However, PWNHC recognizes that there has not been an assessment completed in that area and that “sensitive unrecorded archaeological sites may exist” (PR# 6).

### *Developer’s submission*

In its land use application, TNR stated it had contacted the YKDFN and the PWNHC to verify if there were any archaeological records for the Moose Property area. Upon learning from the parties that this issue was extremely important to all local communities, TNR offered to go on a site visit with elders and representatives from each community to assess whether there were any archaeological sites on or near the project property. The following is Commitment # 1 (PR#72) from the developer.

When ground conditions are suitable (i.e. no snow), and prior to the commencement of the drilling program, TNR will offer to bring representatives from each of the Aboriginal groups (Yellowknives Dene First Nation, Fort Resolution Métis Council, Deninu Kue First nation and Lutsel K’e Dene Band) for a site visit with an archaeologist, to identify unrecorded heritage sites and to assist in determining appropriate avoidance and mitigation procedures.

There is an historical and heritage site on Narrow Island (PR3). The proximity of this island to the Moose Property was a concern raised by many people (PR#3). However, as the developer points out in a letter to the Aboriginal communities, Narrow Island is approximately 10 km northeast of the project area. The developer states the Moose Property exploration will not take place on or near the island, and has no plans to be conducting any work that could affect this site (PR#3).

### *Parties' submissions*

There were several statements made during the three community information sessions that this area was historically used as a travel corridor by all Akaitcho people. It was general knowledge that a village existed at one time in the vicinity, so burial grounds could be expected to be found in the same area. However, when asked if anyone knew personally if there were any heritage sites on the Moose Property, no one could say for sure. At the N'dilo session on September 30, 2010, Leonard Beaulieu from DKFN claimed that a relative was buried somewhere in the region but he could not say where exactly.

During the public hearing in Yellowknife, Glen MacKay of GNWT-PWNHC indicated that according to section 6 of the Mackenzie Valley Land Use Regulations:

“Unless expressly authorized by a permit or in writing by an inspector, no permittee shall conduct a land use operation within 30 metres of a known monument, or a known or suspected historical archaeological site or burial ground.” (PR#92, page 111)

Mr. Mackay states that the GNWT often asks for, and the land and water boards often use, a standard 100-meter or 150-meter buffer between any activity and recorded archaeological sites as a setback to minimize the potential for disturbance due to inaccuracies in the NTS mapping. He notes that GPS-based mapping technology is so accurate today existing regulations are sufficient to protect sites that have been located with this system (PR#90, page 113).

### **Conclusion**

The Review Board notes that there are no known heritage resources on the or near the project site according to expert evidence of the PWNHC. However, the Board also recognizes and understands that there has been little investigation done in the area and therefore it may be a sensitive area. The developer and the communities have agreed to visit the area together before exploration activities begin to locate any archaeological sites.

The Review Board has confidence that the agreement between the developer, the PWNHC and the Akaitcho First Nation people will ensure that an appropriate research and heritage resource assessment



will take place and appropriately documented. The Review Board believes the areas of investigation should focus on the areas planned for activity and not the entire claims block. The Review Board concludes that existing regulations will sufficiently protect any archaeological sites on Moose Property if their exact location is known. The Review Board commends TNR Gold for committing to a site investigation before activities begin on the exploration project.

### ***3.1.2 Socio-economic impacts and traditional knowledge***

Community engagement is an essential part of early development planning. An important aspect of socio-economic assessment is the consideration of positive opportunities the development can offer the local people. It is also important for the developer to utilize the relevant traditional knowledge in the design and implementation of the proposed project.

#### **Issue**

The submissions by parties and those made during the public hearing highlighted the following socio-economic concern:

- Has there been adequate community engagement with Akaitcho communities for this development?

#### **Analysis**

Many community members participating in the environmental assessment indicated that there was limited consultation or community engagement by the developer (PR# 92, page 135-144, PR# 68, 36 & 39). Many emails and letters submitted from parties stated that consultation had not been adequate. The three community sessions helped foster better understanding and the Review Board noted that concerns over the project raised during the public hearing on November 19, 2010 were limited.

At the public hearing, the developer apologized for a lack of communication in the initial stages of the assessment and committed to engaging the communities for the duration of the assessment and beyond (PR#92, page 34 and 35).

There were several questions raised during the community information sessions about any economic benefits such as jobs arising from the project. The developer has committed to local hiring whenever possible, as per the submission below.

#### *Developer's submission*

In a submission dated November 10, 2010, (PR#72) TNR confirmed the following details of its proposed project with regard to socio-economic benefits in the Akaitcho region that were brought up at the community information sessions.

TNR will endeavor to employ as many workers from the North and local communities as reasonable, depending on skills and the scope of the work.

TNR will present a list of the types of workers needed for the project to the local communities, as well as types of support services it may require. This is to give the local communities the opportunity to benefit from this proposed exploration program.

At the end of the community information session in LutselK'e, members of the community requested more time to discuss the company's exploration proposal as well as mineral exploration in general and its related terminology. In response the developer made the following commitment (#3) .

TNR commits to organize with the LutselK'e another information workshop in the community before the exploration program commences at the mutually beneficial time (PR# 72).

#### **Conclusion**

The Review Board recognizes and understands the importance for community engagement and traditional knowledge throughout the entire environmental assessment process. There were three separate community information sessions during this assessment, all attended by Review Board staff and the developer. Further, the developer has committed to involve northern aboriginal workers in the project where possible and to continue community engagement with Akaitcho communities for the duration of

the project. Therefore, the Review Board finds that this development is not likely to cause significant socio-economic impacts.

### **3.2 Crown consultation**

Up to and including the public hearing the main issue raised by the Akaitcho communities was a lack of Crown consultation. Much of the hearing was taken over with this discussion from parties. INAC was at the hearing to answer questions regarding this issue. The communities requested that the Review Board adjourn the EA process until there was adequate consultation. To address this request, the Review Board decided to invite parties to the EA to file any additional evidence they had which was relevant to s.114(c) of the MVRMA before the public record closed (PR#91). This evidence had to be relevant to concerns regarding adequate Crown consultation and whether the concerns of aboriginal people had been adequately taken into account in the EA process. The November 25<sup>th</sup>, 2010 letter from the Review Board was acknowledged and responded to in submission letters from YKDFN (PR#100), INAC (PR#98), GNWT (PR#96) and AIMA (PR#99). No new information was submitted by any of the parties.

The Review Board concurs with Mr. Lawrence who appeared on behalf of INAC at the public hearing. The process of reviewing this proposed development is not over (PR#92, page 222). The Review Board makes a recommendation to the Minister of INAC that, if accepted, will result in further review of the proposed development by the MVLWB. While the case law related to Crown consultation clearly indicates that the Review Board's proceedings can help with the Crown's consultation efforts, the Review Board is neither a final decision maker nor responsible for determining proper Crown consultation. References made in hearing submissions by the YKDFN to section 123.1 of the MVRMA do not apply to the EA process. Therefore, the Review Board did not agree to adjournment of the EA process.

### **3.3 Biophysical environment**

During the environmental assessment process parties raised concerns over certain biophysical issues, including water and reclamation. Both of these concerns were resolved either at the information sessions

where they came up in discussions or through the developer's commitments. These matters are discussed here for completeness.

## ***Water***

During information sessions parties presented concerns over the possible contamination of the streams in the area and in Great Slave Lake, from drilling and transporting materials on barges.

During the information sessions in all three communities, the developer assured the Review Board that there would be no drilling in or near any water body. TNR stated (PR#72) that "no drilling is proposed to take place in any water body inland or on the lake". In addition, TNR stated, "no processing of lithium or other minerals on the Moose Property is being proposed". This addressed the concerns about the potential for contamination from processed ore spilled during barging activities across Great Slave Lake.

As Commitment #2 states (PR#72) "TNR commits to communicate with INAC with regards to INAC'S ongoing efforts to classify and determine if warranted the removal of existing debris from the old DeStaffany mine site. ....INAC has the opportunity to utilize available space on the TNR barge or aircraft backhauls from the site." In the project description, TNR states it will move equipment and material to the project site by barge, plane or truck and will move all out it the same way when the project is complete. TNR will take core rock samples to Yellowknife for examination.

As the developer stated at the public hearing:

"Just to remind everyone that the proposal here is an exploration proposal, it's not a mining proposal. There's nothing in the proposal about taking material from the mine to exploit it and barge across the lake" (PR#92, page 251).

To protect any water bodies or streams in the area, the developer has committed to using best practices for diamond drilling, including using a filtered rock-chip removal system from the drill holes (PR#72). Further, using a controlled recycled water system prevents any potential contamination in the area.

## **Conclusions**

The Review Board recognizes the importance of clean water for all inhabitants of the NWT and notes the initial concerns of the parties. It accepts the developer's statement that no ore processing will take place on site, and that any materials transported by barge are not a threat to the water system in the area. The Review Board also notes that there is no proposed drilling in or near the lake or streams on the Moose Property.

## ***Reclamation***

At the community information sessions, concerns were regarding clean up of the former DeStaffany mine site and after the proposed exploration project by TNR. There are materials left on the current Moose Property mineral claims from the former DeStaffany (mine. INAC has completed the first phase of an on-going environmental site assessment on the old mine site. (PR#56). The next phase is anticipated in early 2011. There was concern from parties that this historical material would not be cleaned up and concerns about who in fact was responsible for the material.

TNR commits to communicate closely with INAC about their ongoing efforts to remove debris from the old DeStaffany mine site. Specifically, TNR commits to helping INAC logistically if there is space available on the barge or aircraft backhauls from the site. (PR# 72).

At the N'dilo community information session on September 30<sup>th</sup>, 2010, the FRMC suggested that the tents from the project be left on site for local community use. However, at the community information session on October 25<sup>th</sup> in Fort Resolution, a representative from the DKFN was clear that nothing be left behind. INAC stated that according to permit regulations nothing could be left behind by the developer.

At the N'dilo information session as well, both FRMC and the Review Board requested information from INAC on the current condition of the site (PR# 56). Correspondence from INAC provided detailed information about the environmental site assessment (ESA). "The purpose of the assessments is to determine the current environmental and physical condition of the site and evaluate the actual and

potential environmental liabilities that may have resulted from previous land uses or activity on the site” (PR#56). Phase I of this assessment is complete and the report has been submitted to the Review Board’s public registry while reports on the two remaining phases should be available in 2011 when the ESA is complete. INAC has committed (Undertaking #3- PR # 94) to distributing this information to the developer and interested communities when it is available. INAC also committed to advising the Review Board of any key developments.

## **Conclusion**

The Review Board recognizes the importance of site clean up following exploration activities. However, having considered the evidence on the public record the Review Board does not consider that significant adverse impacts related to a failure to reclaim are likely from this mineral exploration project. The developer has committed to sound reclamation of the claims areas and the Review Board commends the developer for working with INAC in the reclamation efforts.

The Review Board concludes, through its investigation of information on the public record, that the biophysical concerns related to water and reclamation activities raised at the community information sessions are not likely to cause adverse impacts to the Moose property exploration site.

## 4 Public concern

The Mackenzie Valley Land and Water Board referred this proposed development to environmental assessment “because of significant public concern that the project might impact traditional land use activities, archaeological and heritage resources, as well as environmental resources in the context of harvesting and cumulative impacts”.

Subsection 128(1)(c) requires the Review Board to determine whether the proposed development is likely to be cause of significant public concern. In past environmental assessments, the Review Board has used various criteria to gauge the level of public concern, including how many people have expressed concern, how geographically widespread the concern is, and how directly the concern relates to the development activities proposed.

In the Reference Bulletin- *Operational Interpretation of Key Terminology*, the Review Board defines for “public concern” as “widespread worry or anxiety”<sup>1</sup>. Throughout this assessment, and especially during the public hearing, the Review Board saw little evidence of widespread worry or anxiety about the proposed development itself. Many of the concerns expressed related to the regulatory and impact assessment process, and in particular the issue of Crown consultation. Section 3.2 discusses crown consultation more thoroughly.

### Conclusion

In the Review Board’s opinion, the evidence on the public record for this project does not indicate widespread concern as proposed with the developer’s commitments. Of the concerns that were raised, the Review Board accepts the position of TNR that this exploration project, taken on its own, does little to threaten the heritage sites of the region if the developer’s commitments are kept. In the Review Board’s view, the proposed development is not likely to be a cause of significant public concern.

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<sup>1</sup>[http://www.reviewboard.ca/upload/ref\\_library/1198104025\\_Ref\\_Bulletin\\_Interpretation\\_Key\\_Terminology\\_Part5\\_MVRMA.pdf](http://www.reviewboard.ca/upload/ref_library/1198104025_Ref_Bulletin_Interpretation_Key_Terminology_Part5_MVRMA.pdf)

The Review Board also notes that Mr. Tom Hoefer of the Chamber of Mines spoke at the hearing indicating that the organization is willing to play a role in the facilitation between the developer and the communities with regard to future projects in the NWT. This role would help with the “difficult transition phase” the industry and communities are going through right now (PR#92, page 246).



## 5 Assessment decision

In the Review Board's opinion, the standard terms and conditions in the Mackenzie Valley Land Use Regulations are sufficient to mitigate any negative impacts from the proposed development, such as campsite operations and clean up, restoration and equipment removal. The Review Board considered the relatively small scale and type of project, the developer's commitments for reclamation and the archaeological site visit agreements with PWNHC and Akaitcho community residents.

The Review Board concludes there will be no significant adverse impacts on traditional harvesting in the region, based on the absence of evidence otherwise. With these considerations and the developer's commitments, the Review Board concludes that the proposed TNR Gold Corp.-Moose Property mineral exploration project is not likely to be a cause of significant adverse environmental impacts or significant public concern (under subsection 128(1)(a) of the Act).

## Appendix A: Public Record Index - EA0708-001

Public Registry No.	Document Description	Originator
1	Notice of Referral & Preliminary Screening Report	MVLWB
2	Review Board Notification Letter to the Developer	RB
3	Application and Project Description	TNR
4	Archaeological Sites Request by Aurora Geosciences-TNR	TNR
5	Initial contacts for proposed development	TNR
6	PWNHC Response to Request for data	TNR
7	Email from Stephen Ellis to Corey Segboer ( Aurora Geosciences)	TNR
8	Initial Contact Letters to Communities	TNR
9	Request for consultation meeting AGL to Akaitcho	TNR
10	Meeting Notes - Steve Ellis and Corey Segboer	TNR
11	Email from Stephen Ellis to Corey Segboer	TNR
12	Email from Todd Slack to Corey Segboer	TNR
13	Phone call notes - Todd Slack and Corey Segboer	TNR
14	Akaitcho Dene First Nations Letter from Corey Segboer	AIMA
15	Communication Log June 15, 2010	TNR
16	Notice of EA1011-002 to Distribution List	RB
17	Outline and Instructions for Scoping Phase	RB
18	Postponement of Scoping Session	RB
19	Distribution forms from interested parties	RB

20	Note to file Interim Land Withdraw & claims area clarification	RB
21	Scoping recommendations from GNWT	GNWT
22	Scoping Recommendations from INAC	INAC
23	Draft Work Plan for Moose Property Exploration Project	RB
24	Distribution list response - Northwest Territory Métis Nation	NTMN
25	Distribution list response - Deninu Kue First Nation	DKFN
26	Distribution list response - Yellowknives Dene First Nation	YKDFN
27	Draft Work Plan comments from INAC	INAC
28	Draft workplan comments from Akaitcho IMA Office	AIMA
29	Schedule for Community Information Sessions	RB
30	Final workplan for TNR	RB
31	Email from LKDFN Re: Participation in EA process	YKDFN
32	Letter regarding travel support for communities	RB
33	Request for Ruling email from Akaitcho IMA Office	AIMA
34	Request for Ruling email from LKDFN	LKDFN
35	RFR #1 from YKDFN	YKDFN
36	RFR #2 from YKDFN	YKDFN
37	RFR from AIMA	AIMA
38	Request for Ruling sent by DKFN	DKFN
39	Requests for Ruling Notification from Review Board	RB
40	Email from LKDFN re: Information Session	LKDFN

	in N'dilo	
41	Agenda for Information Session September 30th, 2010	RB
42	Request for Rulings comment from INAC	INAC
43	Presentation from TNR- Information Session Sept 30 <sup>th</sup>	TNR
44	Note to File re: Information Session &Upcoming Hearing	RB
45	Sign- in sheets for N'dilo Information session	RB
46	Document sent to Aurora Geosciences from FRMC	FRMC
47	Change to workplan	RB
48	Revised Work plan for TNR Gold -Moose Property EA	RB
49	Site Visit Offers from TNR Gold Ltd Oct 12	TNR
50	NSMA submission for TNR Project	NSMA
51	Lutsel K'e Dene Offer for site visit-correction	TNR
52	Note to file : Change of date for Lutsel K'e Information Session	RB
53	North Slave Métis Offer for site visit	TNR
54	Official Reasons for Decision- Request for Rulings	RB
55	Y22101122.002 - Phase I ESA Report - DeStaffany	INAC
56	Follow-up from INAC- DeStaffany Mine ESA	INAC
57	Information Session- Fort Resolution Sign-in Sheet	RB
58	Information Session-LutselK'e Sign-in Sheets	RB
59	Request for party status	RB
60	Party status submission-GNWT,YKDFN,	RB

	NSMA	
61	GNWT Presentation for November 19th Hearing	GNWT
62	FRMC presentation for November 19th Hearing	FRMC
63	Party Status submissions-IMA and FRMC	AIMA &FRMC
64	TNR Gold Corp-Hearing Draft Agenda	RB
65	Party Status submission from Lutsel K'e	LKDFN
66	April 23 2010- First TNR Application	YKDFN
67	Letter to INAC from YKDFN- September 17, 2010	YKDFN
68	YKDFN comments re: complete application of TNR	YKDFN
69	IMA Comments re: complete application of TNR	YKDFN
70	Party Status submission- DKFN	DKFN
71	Traditional Knowledge Confidentiality Document Notification	RB
72	TNR commitments from information sessions	TNR
73	Note to file INAC document distribution	RB
74	TNR Presentation for Hearing	TNR
75	INAC hearing submission	INAC
76	DKFN Presentation outline for Hearing	DKFN
77	INAC submission for Party Status	INAC
78	Supreme Court Case - Sekani Tribal Council / Rio Tinto	YKDFN
79	Reasons for Judgment - YKDFN and North Arrow November 2010	YKDFN
80	Community Support for hearing	YKDFN
81	Meeting Report from LKDFN	LKDFN
82	Public hearing final agenda	RB

83	Correspondence : INAC and YKDFN re: Consultation	INAC
84	YKDFN final presentation	YKDFN
85	Note to File-Party Status approval	RB
86	LKDFN formal request	LKDFN
87	Undertakings from November 19 <sup>th</sup> public hearing	RB
88	TNR comments and clarification submission	TNR
89	Sign-in sheet for November 19, 2010 public hearing	RB
90	NSMA presentation for TNR public hearing	NSMA
91	Letter re: s.114(c) requirements and the Public Record	RB
92	Note to File transcription of hearing November 19 2010	RB
93	Undertaking #1 TNR Gold Corp Ltd. Safety Manual	TNR
94	Undertaking #3 from INAC	INAC
95	Undertaking #2 Submission from TNR	TNR
96	GNWT Final submission	GNWT
97	NSMA Final submission	NSMA
98	INAC Final submission	INAC
99	Akaitcho IMA Final submission	AIMA
100	YKDFN Final submission	YKDFN
101	Note to file-closure of record and status	RB

## Appendix B: Commitment table - EA0708-001

Commitment number	Public registry number	Related issue	Description of commitment made by developer
1	72	Site visit to investigate potential archaeological resources in the Moose Property activity area.	When ground conditions are suitable (ie: no snow), and prior to the commencement of the drilling program, TNR offered to bring representatives from each of the Aboriginal groups for a site visit with an archaeologist, to identify unrecorded heritage sites and to assist in determining appropriate avoidance and mitigation procedures.
2	72	Site clean-up	TNR commits to communicate closely with INAC with regards to INAC's ongoing efforts to classify and determine if warranted the removal of existing debris from the old DeStaffany mine site. Specifically, TNR commits to communicate with INAC what the company's logistics are so that INAC has the opportunity to utilize any available space on TNR barge or aircraft backhauls from the site.
3	72	Follow-up from community information session with regarding an information workshop	TNR commits to organizing another information workshop Lutsel K'e before the exploration program commences at a mutually beneficial time.

4	72	Water contamination and site clean-up	TNR commits to use best industry practices during the diamond drilling exploration program on the Moose Property Site, in particular filtering out the rock chips for capture and removal by way of controlled, recycled water. The overall intent is to prevent any potential contamination of watercourses in the area and to abide by all conditions and regulations defined in the permit.
5	72	Maintenance and operation clean-up	TNR commits to use best industry practices in the maintenance and operation of clean camp facilities and to abide by all conditions and regulations defined in the permit.