

Preliminary Screening Report Form

<p>Preliminary screener: MVLWB</p> <p>Reference / File number: MV2019S0009</p> <p>TITLE: Land Use Permit Application – Geotechnical Investigations</p> <p>ORGANIZATION: North American Tungsten Corporation Ltd.</p> <p>MEETING DATE: June 6, 2019</p>	<p>EIRB Reference number: n/a</p>
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Type of Development:
(CHECK ALL THAT APPLY)

- New
- Amend, EIRB Ref. #
- Requires permit, licence, or authorization
- Does not require permit, licence, or authorization

Project Summary:

NATCL applied for a Type A Land Use Permit to allow them to conduct geotechnical investigations around the Cantung Mine site. Proposed activities will include geotechnical borehole drilling and test pitting to assess types and quantities of borrow source materials for potential future remediation activity at the mine, and assess slope stability in the Tailings Storage Facility 6 area.

Access to most of the proposed drilling locations will be through existing roads, however some locations will require pioneering of access roads a minimum of 3.7 metres in width. Activities will be supported through existing infrastructure at the Cantung mine, so no fuel storage or camp construction will be required. NATCL has engaged with the Prince of Wales Northern Heritage Centre regarding potential archaeological impacts and has committed to completion of the field component of an Archaeological Impact Assessment prior to initiating the test pitting program. Tree clearing will be required where new roads are necessary, and clearing will be minimized to the extent possible. When the program has concluded, trees which have been collected on the margins of cleared areas will be spread over the area to facilitate natural revegetation, or as directed by the Inspector. Water use for drilling will be minimal (10m3 per day) and will be obtained from the Flat River at the Cantung Administration building.

Scope:

- Geotechnical test-pitting and borehole drilling; and
- Access road construction.

Equipment List:

Number	Type and Size	Proposed Use
1	2007 Hitachi ZX200 LC-3 Excavator (50,000 lbs) or of similar type	Dig exploratory test pits (up to 5 m depth)
1	1998 Kenworth Construct -API000 Becker Hammer Drill (42 ft x 11 ft x 13 ft, 65,000 lbs) or of similar type	TSF 6 iBPT borehole drilling
3	F-550 flatdeck trucks (35 ft x 11 ft x 13 ft, 46 000 lbs) or of similar type	Hold drill pipes and supplies
1	Terrasonic CC150 Sonic Rig (22,500 lbs)) or of similar type	TSF 6 Sonic borehole drilling
1	Skid steer or of similar type	Relocate/move water totes and miscellaneous supplies during Sonic drilling (drill pipes, etc.)
5	Light duty pickup trucks or of similar type	Crew and instrumentation transport
1	2011 3500 GMC Sierra with mounted 600L Tidy Tank - steel double walled construction or of similar type	Refueling drilling and test pitting equipment in the field.
2-3	Haul trucks or of similar type	Material transport for access construction at TSF 6
1	Bulldozer or of similar type	Access construction at TSF 6

Land Use Eligibility - Section 18 Mackenzie Valley Land Use Regulations:

Type of Disposition

Disposition Number(s)

- Mineral Claims
- Prospecting Permit (s)
- Mineral Leases

NWT Lease IOSH/16-8-8 (Mine site Parcels 8, 10, 11, 13-15)
 NWT Lease IOSH/16-7-12 (Waste Parcels 7 and 9)
 NWT Lease 105H/16-16-8 (Airstrip Parcel 16)
 NWT Lease IOSH/16-17-13 (Hotsprings Parcel 17)
 NWT Lease 1051/1-1-13 (Flat Lake Parcels 1-5)

- Oil and Gas: EL/SDL/PL
- Quarry Permit
- Timber Permit
- Other:

Principal Activities (related to scoping) (CHECK ALL THAT APPLY)

- | | | |
|---------------------------------------|---|--|
| <input type="checkbox"/> Construction | <input type="checkbox"/> Exploration | <input type="checkbox"/> Decommissioning |
| <input type="checkbox"/> Installation | <input checked="" type="checkbox"/> Industrial | <input type="checkbox"/> Abandonment |
| <input type="checkbox"/> Maintenance | <input type="checkbox"/> Recreation | <input type="checkbox"/> Aerial |
| <input type="checkbox"/> Expansion | <input type="checkbox"/> Municipal | <input type="checkbox"/> Harvesting |
| <input type="checkbox"/> Operation | <input type="checkbox"/> Quarry | <input type="checkbox"/> Camp |
| <input type="checkbox"/> Repair | <input checked="" type="checkbox"/> Linear / Corridor | <input type="checkbox"/> Scientific/ |
| <input type="checkbox"/> Research | <input type="checkbox"/> Sewage | <input type="checkbox"/> Solid Waste |
| <input type="checkbox"/> Water Intake | | |
| <input type="checkbox"/> Other: | | |

Principal Development Components (related to scoping) (CHECK ALL THAT APPLY)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Access Road | <input type="checkbox"/> Waste Management |
| <input checked="" type="checkbox"/> construction | <input type="checkbox"/> disposal of hazardous waste |
| <input type="checkbox"/> abandonment/removal | <input type="checkbox"/> waste generation |
| <input type="checkbox"/> modification e.g., widening, straightening | <input type="checkbox"/> sewage |
| <input type="checkbox"/> Automobile, Aircraft or Vessel Movement | <input type="checkbox"/> disposal of sewage |
| <input type="checkbox"/> Blasting | <input checked="" type="checkbox"/> Geoscientific Sampling |
| <input type="checkbox"/> Building | <input type="checkbox"/> Trenching |
| <input type="checkbox"/> Burning | <input type="checkbox"/> Diamond drill |
| <input type="checkbox"/> Burying | <input type="checkbox"/> Borehole core sampling |
| <input type="checkbox"/> Channelling | <input type="checkbox"/> Bulk soil sampling |
| <input type="checkbox"/> Cut and Fill | <input type="checkbox"/> gravel |
| <input checked="" type="checkbox"/> Cutting of Trees or Removal of Vegetation | <input type="checkbox"/> hydrological Testing |
| <input type="checkbox"/> Dams and Impoundments | <input type="checkbox"/> Site Restoration |
| <input type="checkbox"/> construction | <input type="checkbox"/> fertilization |
| <input type="checkbox"/> abandonment/removal | <input type="checkbox"/> grubbing |
| <input type="checkbox"/> modification | <input type="checkbox"/> planting/seeding |
| <input type="checkbox"/> Ditch Construction | <input type="checkbox"/> reforestation |
| <input type="checkbox"/> Drainage Alteration | <input type="checkbox"/> scarify |
| <input type="checkbox"/> Drilling other than Geoscientific | <input type="checkbox"/> spraying |
| <input type="checkbox"/> Ecological Surveys | <input type="checkbox"/> re-contouring |
| <input type="checkbox"/> Excavation | <input checked="" type="checkbox"/> Slashing and removal of vegetation |
| <input type="checkbox"/> Explosive Storage | <input type="checkbox"/> Soil Testing |
| <input type="checkbox"/> Fuel Storage | <input type="checkbox"/> Stream Crossing/Bridging |
| <input checked="" type="checkbox"/> Topsoil, Overburden or Soil | <input type="checkbox"/> Tunnelling/Underground |
| <input type="checkbox"/> fill | <input type="checkbox"/> Other: |
| <input type="checkbox"/> disposal | |
| <input checked="" type="checkbox"/> removal | |
| <input type="checkbox"/> storage | |

NTS topographic map sheet numbers:

105H16

Latitude / longitude and UTM system:

NE: Lat 62° 01'15.7188", Long 128° 17'21.9847" NW: lat 62° 00'35.0676", Long 128° 19'04.9672" SE: Lat 61° 56'22.9704", Long 128° 08'40.7044" SW: Lat 61° 55'42.4272", Long 128° 10'23.6723"

NAD83

Nearest community and water body:

Nahanni Butte, Flat River

Land Status (consultation information)

Free Hold/Private Commissioner's/Territorial Lands Federal Crown Land Municipal Land

Transboundary/Transregional Implications

British Columbia Alberta Saskatchewan Yukon
 Nunavut National Park Inuvialuit Settlement Region
 Wek'èezhii Gwich'in Sahtu

Type of transboundary implication: Impact / Effect Development

Public concern: _____
(Describe.)

Physical - Chemical Effects

Impact

Mitigation

1) Ground Water

water table alteration

water quality changes

All equipment will be outfitted with spill containment materials, to be replenished as required, and safe fuel handling practices will be used. Spill trays will be utilized under any parked equipment and during any refueling activities

infiltration changes

other:

N/A

Impact

Mitigation

2) Surface Water

flow or level changes

Sonic drilling could potentially use approximately 10 m³ of water per day and this water supply will be obtained from the Flat River at the Cantung Administration building. This quantity is small and will not measurably affect the flow of the Flat River or result in the mine site exceeding the weekly freshwater limit of 30,000 m³ set out in WL MV2015L2-003.

water quality changes

All equipment will be outfitted with spill containment materials, to be replenished as required, and safe fuel handling practices will be used. Spill trays will be utilized under any parked equipment and during any refueling activities

water quantity changes

drainage pattern changes

temperature

wetland changes/loss

other:

N/A

Impact
3) Noise

Mitigation

noise in/near water

noise increase

There will be temporary noise increase during operation of heavy equipment and drilling equipment. No mitigation proposed.

other:

N/A

Impact
4) Land

Mitigation

geologic structure changes

soil contamination

The greatest potential risks to the test pit or drill sites are hydrocarbon spills from equipment or refueling activities. Hydrocarbon management will be given high priority. All equipment will be outfitted with spill containment materials, to be replenished as required, and safe fuel handling practices will be used. Spill trays will be utilized under any parked equipment and during any refueling activities

buffer zone loss

soil compaction and settling

Standard Permit conditions preventing equipment use at the first sign of rutting of the ground surface will mitigate this potential impact.

destabilization/erosion

permafrost regime alteration

explosives/scarring

other:

N/A

Impact
5) Non-renewable natural resources

Mitigation

resource depletion

other:

N/A

Impact
6) Air/climate/atmosphere

Mitigation

other:

N/A

BIOLOGICAL ENVIRONMENT

Impact**1) Vegetation**

- species composition
- species introduction
- toxin/heavy accumulation
- other: Linear Migration routes, habitat fragmentation

 N/A**Mitigation**

Firefighting equipment is required to be maintained in accordance with the Government of the Northwest Territories' Forest Fire Prevention and Suppression Guidelines for Industrial Activities.

Impact**2) Wildlife and Fish**

- effects on rare, threatened or endangered species

Mitigation

Avoiding sensitive habitat will be the primary mitigation option, however, limiting the extent of disturbance will also be implemented by making use of existing disturbed areas as much as possible while conducting the drilling and test pitting programs. Personnel will also watch for wildlife and potential Species at Risk while on-site. Wildlife observations will be documented and recorded in the logbook kept at site. Should a Species at Risk be observed in the vicinity of project activities, activities will temporarily stop and an appropriate mitigation strategy developed.

Personnel working on-site will be mindful of potential wildlife in the area and will also adhere to the wildlife policies in place at the Cantung Mine (e.g., wildlife have the right of way and are not to be harassed if present). Wildlife sightings will be recorded in the logbook kept on site.

- fish population changes

- waterfowl population changes

- breeding disturbance

Any trees that may require clearing will be assessed in the field for nesting and fledgling activity. Trees believed to have occupied nests will be flagged for further investigation to confirm the identity of the species and determine an appropriate strategy going forward. In relation to dens, beaver lodges, muskrat push-ups, and hibernacula, project activities are proposed to occur outside of the September 30 to March 30 window.

If an active bear den is detected, or suspected, the Proponent will implement and maintain an 800 m exclusion zone until the bear emerges in spring. Proponent has committed to contact ENR and discuss alternative mitigation options if bear den and exclusion zone would result in the halt of part or the entire program.

- population reduction

- species diversity change

- health changes

- behavioural changes

The Proponent will utilize food and garbage handling and storage procedures that will minimize the attraction of wildlife.

- habitat changes / effects

- game species effects

- toxins/ heavy metals

- forestry changes

- agricultural changes

Interacting Environment

Impact

1) Habitat and Communities

- predator-prey
- wildlife habitat/ecosystem composition changes
- reduction/removal of keystone or endangered species

Mitigation

Avoiding sensitive habitat will be the primary mitigation option, however, limiting the extent of disturbance will also be implemented by making use of existing disturbed areas as much as possible while conducting the drilling and test pitting programs. Personnel will also watch for wildlife and potential Species at Risk while on-site. Wildlife observations will be documented and recorded in the logbook kept at site. Should a Species at Risk be observed in the vicinity of project activities, activities will temporarily stop and an appropriate mitigation strategy developed.

Personnel working on-site will be mindful of potential wildlife in the area and will also adhere to the wildlife policies in place at the Cantung Mine (e.g., wildlife have the right of way and are not to be harassed if present). Wildlife sightings will be recorded in the logbook kept on site.

- removal of wildlife corridor or buffer zone
- other:
- N/A

Impact

2) Social and Economic

- planning/zoning changes or conflicts
- increase in urban facilities or services use
- rental house
- airport operations/capacity changes
- human health hazard
- impair the recreational use of water or aesthetic quality
- affect water use for other purposes
- affect other land use operations
- quality of life changes
- public concern
- other:
- N/A

Mitigation

Impact

3) Cultural and Heritage

Mitigation

- effects to historic property
- increased economic pressure on historic properties
- change to or loss of historic resources

change to or loss of archaeological resources

increased pressure on archaeological sites

change to or loss of aesthetically important sites

effects to aboriginal lifestyle

other:

N/A

NATCL has engaged the Prince of Wales Northern Heritage Centre concerning potential archaeological sites in the specific locations associated with this LUP application, and has agreed that the field component of an Archaeological Impact Assessment (AIA) should be performed prior to any test pitting program. In this way potential archeological sites can be protected. The borehole drilling proposed in the TSF 6 area has previously been assessed by a Preliminary Field Reconnaissance program in 2014 (the report is available by request to the Prince of Wales Northern Heritage Centre, and no further archeological assessment work is proposed due to its lack of findings.

NATCL has engaged the Prince of Wales Northern Heritage Centre concerning potential archaeological sites in the specific locations associated with this LUP application, and has agreed that the field component of an Archaeological Impact Assessment (AIA) should be performed prior to any test pitting program. In this way potential archeological sites can be protected. The borehole drilling proposed in the TSF 6 area has previously been assessed by a Preliminary Field Reconnaissance program in 2014 (the report is available by request to the Prince of Wales Northern Heritage Centre, and no further archeological assessment work is proposed due to its lack of findings.

- Pursuant to Schedule 4.1 of the **Northwest Territory Métis Nation** (NWTMN) Interim Measures Agreement, the MVLWB determined that written notice was given to the NWTMN and that a reasonable period of time was allowed for NWTMN to make representations with respect to the application.
- Pursuant to section 27, paragraphs (a) and (b) of the **Dehcho First Nations** (DCFN) Interim Measures Agreement, the MVLWB has determined that written notice was given to the DCFN, and that a reasonable period of time was allowed for DCFN to make representations with respect to the application.

Preliminary Screener / Referring Body Information

Organization	Organization
Acho Dene Koe First Nation	Liidlii Kue First Nation (Ft Simpson)
CanNor NWT Region	Mackenzie Valley Environmental Impact
CPAWS - NT Chapter	Naha Dehe Dene Band
Deh Cho Land Use Planning Committee	North American Tungsten
Deh Cho Land Use Planning Committee	North Slave Metis Alliance
Deh Gah Got'ie Dene Council	NWT- OROGO
Dehcho First Nations	Parks Canada
Environment and Climate Change Canada	Sambaa Ke First Nation (Trout Lake)
Fisheries and Oceans Canada	Snap Lake Environmental Monitoring Agency - SLEMA
Fort Providence Metis Council #57	Tlicho Government
Fort Providence Resource Management Board	Tlicho Lands Protection Department
Forward Mining	Transport Canada
GNWT - ECE	Tthets'ek'ehdeli First Nation (JMR)
GNWT - ENR	West Point First Nation
GNWT - ENR - South Slave Region - Fort Smith	Willms@Shier Environmental Lawyers LLP
GNWT - Health	WLWB
GNWT - INF	Workers' Safety and Compensation Commission
GNWT - ITI	INAC - NWT Inspectors
GNWT - Lands	INAC - Yellowknife
GNWT - Lands - Dehcho Region	Ka'a'gee Tu First Nation
GNWT - Lands - Hay River Region	Katlodeeche First Nation
GNWT - Lands - North Slave Region	Liard First Nation (Yukon)

GNWT - MACA
INAC - CARD

Reasons For Decision
(List all reasons and supporting rationales for preliminary screening decision)

DECISION

The Mackenzie Valley Land and Water Board (the Board) is satisfied that the preliminary screening of Application MV2019S0009, NATCL, Geotechnical Investigations has been completed in accordance with section 125 of the *Mackenzie Valley Resource Management Act* (MVRMA).

The Board is satisfied that communities and First Nations affected by the Application have been notified and provided adequate time to provide comment on the Application as required by land claim and self government agreements, the MVRMA, policy directions relating to Interim Measures Agreements, and any other applicable legislation and agreements.

Having reviewed all relevant evidence on the Public Registry, including the submissions of the Applicant, the written comments received by the Board and any Staff Reports prepared for the Board, the Board has decided that in its opinion:

- The proposed development will not have a significant adverse impact on the environment; and
- The proposed development is not a cause of public concern.

The Board is also of the opinion that the Application can proceed through the regulatory process and that any impacts of the development on the environment can be mitigated through the imposition of the terms and conditions in the attached Land Use Permit.

As a result, the Board, having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope, and intent of the MVRMA and the Mackenzie Valley Land Use Regulations has decided that this Land Use Permit be issued subject to the terms and conditions contained therein.

Preliminary Screening Decision	
<input checked="" type="checkbox"/>	Outside Local Government Boundaries
<input type="checkbox"/>	The development proposal might have a significant adverse impact on the environment, <i>refer it to the EIRB.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	The development proposal might have public concern, <i>refer it to the EIRB.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	Wholly Within Local Government Boundaries
<input type="checkbox"/>	The development proposal is likely to have a significant adverse impact on air, water or renewable resources, <i>refer it to the EIRB.</i>
<input type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	The development proposal might have public concern, <i>refer it to the EIRB.</i>
<input type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>

Preliminary Screening Organization

Mackenzie Valley Land and Water Board

June 6, 2019

Signatures

Mavis Cli-Michaud, Chair