

Preliminary Screening Report Form

<p>Preliminary screener: MVLWB</p> <p>Reference / File number: MV2019C0005</p> <p>TITLE: Van Property Mineral Exploration ORGANIZATION: Vanadium North Resources Inc.</p> <p>MEETING DATE: May 16, 2019</p>	<p>EIRB</p> <p>Reference number:</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:

Vanadium North Resources Inc. (Vanadium North) proposes to conduct mineral exploration on the Van Property, located near the Yukon border surrounded by Nahanni National Park Reserve (northwest of Cantung Mine). Primary activities will consist of drilling, both Reverse Circulation (RC) and Diamond. Up to 2 RC rigs will be used. Up to 15,000 m/year of RC drilling are planned, taking place from up to 50 separate sites per year. Each of these drill sites will have a clearing size up to 100 m², for a total annual clearing size of up to 5000 m² per year.

A seasonal camp will be established with pit privies and a greywater sump. The total footprint of the camp will be approximately 1 hectare, with no new clearing or surface disturbances required. The maximum camp size will be 30 persons, and it is expected that some phases of exploration will require less persons on site. The maximum person-days per season will be 3,000. Over the life of the permit, up to 10 km of road and 15 km of trails is expected to be required. Existing roads and trails will be used as much as possible.

The project is expected to span approximately five years. Exploration activities are planned to be conducted between March 15 and September 30 annually. In 2019, activities are not expected to begin until the later of May 15 or when the Land Use Permit is received. Activities are expected to occur within shorter periods between March and September of each year.

Scope:

This Permit entitles Vanadium North Resources Inc. to conduct the following activities on the Van Property, located approximately 280 km WNW of Nahanni Butte, NT:

- a) Mineral exploration, including diamond drilling;
- b) Use of equipment, vehicles, drills, and machines;
- c) Use and storage of fuel;
- d) Construction and operation of a camp;
- e) Construction and maintenance of access roads.

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

Type of Disposition	Disposition Number(s)
<input checked="" type="checkbox"/> Mineral Claims	I. Archer Cathro & Associates – K05630, K05631, K05632, K05633, K056340, K05635, K05637 II. Vanadium North Resources Inc. - K08171, K08172, K08173, K08174, K08175, K08176, K08177, K08178, K08179, K08180, K08181, K08182
<input type="checkbox"/> Prospecting Permit (s)	
<input type="checkbox"/> Mineral Leases	
<input type="checkbox"/> Oil and Gas: EL/SDL/PL	
<input type="checkbox"/> Quarry Permit	
<input type="checkbox"/> Timber Permit	
<input type="checkbox"/> Other:	

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

- | | | |
|--|---|--|
| <input type="checkbox"/> Construction | <input checked="" type="checkbox"/> Exploration | <input type="checkbox"/> Decommissioning |
| <input type="checkbox"/> Installation | <input 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 checked="" type="checkbox"/> Camp |
| <input type="checkbox"/> Repair | <input type="checkbox"/> Linear / Corridor | <input type="checkbox"/> Scientific/ |
| <input type="checkbox"/> Research | <input type="checkbox"/> Sewage | <input type="checkbox"/> Solid Waste |
| <input checked="" 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 checked="" type="checkbox"/> Waste Management |
| <input checked="" type="checkbox"/> construction | <input type="checkbox"/> disposal of hazardous waste |
| <input type="checkbox"/> abandonment/removal | <input checked="" type="checkbox"/> waste generation |
| <input checked="" type="checkbox"/> modification e.g., widening, straightening | <input checked="" type="checkbox"/> sewage |
| <input checked="" type="checkbox"/> Automobile, Aircraft or Vessel Movement | <input type="checkbox"/> disposal of sewage |
| <input type="checkbox"/> Blasting | <input type="checkbox"/> Geoscientific Sampling |
| <input type="checkbox"/> Building | <input type="checkbox"/> Trenching |
| <input type="checkbox"/> Burning | <input checked="" 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 checked="" 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 checked="" type="checkbox"/> Drilling other than Geoscientific | <input type="checkbox"/> spraying |
| <input type="checkbox"/> Ecological Surveys | <input checked="" 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 checked="" type="checkbox"/> Fuel Storage | <input checked="" type="checkbox"/> Stream Crossing/Bridging |
| <input type="checkbox"/> Topsoil, Overburden or Soil | <input type="checkbox"/> Tunnelling/Underground |
| <input type="checkbox"/> fill | <input type="checkbox"/> Other: |
| <input type="checkbox"/> disposal | |
| <input type="checkbox"/> removal | |
| <input type="checkbox"/> storage | |

NTS topographic map sheet numbers:

105 H-16, 105 I-1

Latitude / longitude and UTM system:

minimum latitude: 61°58'57.7" N
maximum latitude: 62°8'20.4" N

minimum longitude: 128°12'10" W
maximum longitude: 128°31'16.7" W

Nearest community and water body:

Ross River, TY (210 km W), Nahanni Butte, NT (280 km ESE) / Flat Lakes, Flat River

Land Status (consultation information)

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

Transboundary/Transregional Implications

- | | | | |
|---|--|---|--------------------------------|
| <input type="checkbox"/> British Columbia | <input type="checkbox"/> Alberta | <input type="checkbox"/> Saskatchewan | <input type="checkbox"/> Yukon |
| <input type="checkbox"/> Nunavut | <input type="checkbox"/> National Park | <input type="checkbox"/> Inuvialuit Settlement Region | |
| <input type="checkbox"/> Wek'èzhii | <input type="checkbox"/> Gwich'in | <input type="checkbox"/> 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

Proper fuel handling techniques should limit risk of contamination.

infiltration changes

other:

N/A

Impact

Mitigation

2) Surface Water

flow or level changes

water quality changes

The use of fuel and heavy equipment near water or on ice may impact water quality if a spill occurs or if sediments are transported into the water. RC drilling will be used wherever possible to reduce water consumption and effects of discharge. Drill water and cuttings will be directed via hose to a sump, which will be reclaimed at the end of the project. Use of drill additives will be minimized and, where used, only biodegradable products will be employed. Greywater will be isolated in sumps.

water quantity changes

drainage pattern changes

temperature

wetland changes/loss

other:

N/A

Impact

Mitigation

3) Noise

noise in/near water

Noise increase is expected due to road activities and the use of machinery. These impacts will be temporary in nature, and cease as soon as equipment passes by an area, or is turned off. No mitigation proposed.

noise increase

Noise increase is expected due to road activities and the use of machinery. These impacts will be temporary in nature, and cease as soon as equipment passes by an area, or is turned off. No mitigation proposed.

other:

N/A

Impact
4) Land

Mitigation

geologic structure changes

soil contamination

There is the potential for soil contamination due to the fuel being transported and used by equipment. Proper disposal of waste and handling of fuel should mitigate this concern. Conditions from the 'Standard Conditions for a Land Use Permit' list will be suggested to ensure that soil is not contaminated by fuel.

buffer zone loss

soil compaction and settling

Heavy equipment and vehicle movements have the potential to increase localized soil compaction and settling. Established erosion and sediment control measures should be followed.

destabilization/erosion

Erosion/sedimentation may increase as a result of heavy equipment operation. Standard prevention techniques and established erosion and sediment control measures should be followed. Restoration will scatter stockpiled vegetation and organic material on the scarified surface to help soil redevelopment and discourage 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

Mitigation

species composition

species introduction

toxin/heavy accumulation

other: Linear Migration routes, habitat fragmentation

N/A

Impact**2) Wildlife and Fish**

- effects on rare, threatened or endangered species
- fish population changes
- waterfowl population changes
- breeding disturbance
- population reduction
- species diversity change
- health changes
- behavioural changes

habitat changes / effects

- game species effects
- toxins/ heavy metals
- forestry changes
- agricultural changes
- other:
- N/A

Mitigation

Conditions from the 'Standard Conditions for a Land Use Permit' list will be suggested to ensure the protection of wildlife.

Interacting Environment**Impact****1) Habitat and Communities**

- predator-prey
- wildlife habitat/ecosystem composition changes
- reduction/removal of keystone or endangered species
- removal of wildlife corridor or buffer zone
- other:
- N/A

Mitigation**Impact****2) Social and Economic**

- planning/zoning changes or conflicts

Mitigation

- 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

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

No archaeological sites are known from the project area. Conditions from the 'Standard Conditions for a Land Use Permit' list will be suggested to ensure that effects will be limited and that regulators are notified in the event of discovery of heritage resources.

There is the potential for the activity to affect traditional land use by changing access to cabins or trails. Conditions from the 'Standard Conditions for a Land Use Permit' list will be suggested to ensure that adequate buffers are maintained.

- 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

Acho Dene Koe First Nation	Hamlet of Fort Providence
Bathurst Inlet Development Ltd	INAC – CARD
Bathurst Inlet Lodge	INAC - NWT Inspectors
CanNor NWT Region	Ka'a'gee Tu First Nation
Deh Cho Land Use Planning Committee	Katlodeeche First Nation
Deh Gah Got'ie Dene Council	Liard First Nation (Yukon)
Dehcho First Nations	Liidlii Kue First Nation (Ft Simpson)
Dene Nation	Mackenzie Valley Environmental Impact Review Board
Dene Tha' First Nation	MVLWB
Digaa Enterprises Ltd.	Naha Dehe Dene Band
Environment and Climate Change Canada (ECCC)	North Slave Metis Alliance
Fisheries and Oceans Canada (DFO)	NWT & Nunavut Chamber of Mines
Fort Providence Metis Council #57	Parks Canada
Fort Providence Resource Management Board	Pehdzeh Ki First Nation (Wrigley)
Fort Simpson Metis Local 52	Ross River Dena Council
Forward Mining	Sambaa Ke First Nation (Trout Lake)
GLWB	Snap Lake Environmental Monitoring Agency (SLEMA)
GNWT – ECE	Tliche Government
GNWT – ENR	Town of Hay River
GNWT – Health	Transport Canada
GNWT – INF	Ttsets'ek'ehdeli First Nation (JMR)
GNWT – ITI	West Point First Nation
GNWT – Lands	WLWB
GNWT – MACA	Wood PLC
GNWT – OROGO	Workers' Safety and Compensation Commission (WSCC)
Hamlet of Fort Liard	

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 MV2019C0005, Vanadium North Resources Ltd., Van Property Exploration, near the Yukon border surrounded by Nahanni National Park Reserve, 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 OR/AND the *Waters Act* and Waters Regulations has decided that this Land Use Permit OR/AND Water Licence 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

May 16, 2019

Signatures

Mavis Cli-Michaud, Chair