



Mackenzie Valley Land and Water Board
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March 7, 2019

File: MV2016S0016

Ms. Natalie Plato
Deputy Director
Crown-Indigenous Relations and Northern Affairs Canada
Giant Mine Remediation Project
4923 52nd St., Gallery Building
YELLOWKNIFE NT X1A 2R3

Email: Natalie.Plato@canada.ca

Dear Ms. Plato:

**Issuance of Type A Land Use Permit – Amendment #2
Geotechnical Drilling – Giant Mine, NT**

Attached is the amended Type A Land Use Permit MV2016S0016 granted by the Mackenzie Valley Land and Water Board (MVLWB or the Board) in accordance with the *Mackenzie Valley Resource Management Act*. The amended conditions set forth in Permit MV2016S0016 have been imposed to ensure the land-use operation is conducted in a manner which ensures impacts to surrounding lands and waters are minimized and that the Board deems necessary to ensure and monitor compliance with the MVRMA and the Regulations made thereunder.

Permit Conditions

Please read all conditions carefully. New conditions have been included to address and mitigate potential impacts associated with new activities taking place on or near ice. An updated preliminary screening has also been completed to reflect all new activities identified in the Amendment Application, dated January 25, 2019. Under-ice drilling activities; winter road construction, use and maintenance; and removal of ice dams on Baker Creek were not included in previous preliminary screenings carried out for this authorization.

Management Plans - Approved

No changes to existing Board-approved Management Plans were proposed or identified during the Amendment Application Review. The Board expects that Crown-Indigenous Relations and Northern Affairs Canada will abide by all commitments outlined in its management plans, including all mitigation measures identified in its Amendment Application and response to reviewers' comments.

Public Registry

A copy of this Permit and all related correspondence and documents has been filed on the [Public Registry](#) at the MVLWB office. Please be advised that this letter, inspection reports, and related correspondence is part of the Public Registry and is intended to keep all interested parties informed of the manner in which the Permit requirements are being met. All Public Registry material will be considered if an amendment to the Permit is requested.

The full cooperation of Crown-Indigenous Relations and Northern Affairs Canada is anticipated and appreciated. If you have any questions or concerns, please contact Shannon Allerston at (867) 766-7465 or email sallerston@mvlwb.com.

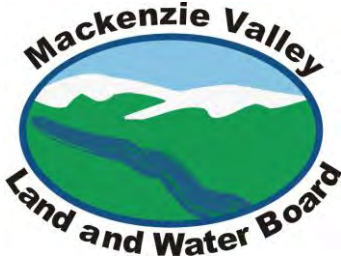
Yours sincerely,



Mavis Cli-Michaud
MVLWB, Chair

Copied to: Distribution List
Tim Morton, Resource Management Officer III, Resources and Land Management,
Crown-Indigenous Relations and Northern Affairs Canada

Attached: Land Use Permit MV2016S016
Preliminary Screening



Land Use Permit

Permit Class	Permit No	Amendment No and Date
A	MV2016S0016	Amendment #2: Mar 7, 2019

Subject to the Mackenzie Valley Land Use Regulations and the terms and conditions in this Permit, authority is hereby granted to:

Department of Indian Affairs and Northern Development

Permittee

to proceed with the land use operation described in the Application of:

Signature Ms. Natalie Plato	Date June 6, 2016
Type of Land Use Operation Drilling and Soil Testing	
Location Giant Mine, NT	

This Permit may be assigned, extended, discontinued, suspended, or cancelled pursuant to the Mackenzie Valley Land Use Regulations.

Dated at Yellowknife this 7 day of March, 2019

Signature Chair

Mavis Cli-Michaud

Signature Witness

Amanda Gauthier

Effective Date

July 21, 2016

Expiry Date

July 20, 2021

ATTENTION

It is a condition of this Permit that the Permittee comply with the provisions of the *Mackenzie Valley Resource Management Act* and Regulations and the terms and conditions set out herein. A failure to comply may result in suspension or cancellation of this Permit.

Conditions Annexed to and Forming Part of Land Use Permit MV2016S0016

Part A: Scope of Permit

1. This Permit entitles the Permittee to conduct the following land-use operation:
 - a) conduct soil investigations;
 - b) conduct drilling;
 - c) conduct test pitting;
 - d) use and storage of fuel; and
 - e) use of machinery.
2. This Permit is issued subject to the conditions contained herein with respect to the use of land for the activities and area identified in Part A, item 1 of this Permit.
3. Compliance with the terms and conditions of this Permit does not excuse the Permittee from its obligation to comply with the requirements of any applicable Federal, Territorial, Tłchq, or Municipal laws.

Part B: Definitions (defined terms are capitalized throughout the Permit)

Act - the *Mackenzie Valley Resource Management Act*.

Board - the Mackenzie Valley Land and Water Board established under Part 4 of the Act.

Drilling Fluids - any liquid mixture of water, sediment, drilling muds, chemical additives or other wastes that are pumped down hole while drilling and are specifically related to drilling activity.

Drilling Waste - all materials or chemicals, solid or liquid, associated with drilling, including drill cuttings and Drilling Fluids.

Engagement Plan – a document, developed in accordance with the Board’s June 2013, or amended editions, Engagement and Consultation Policy and the Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits, that clearly describes how, when, and which engagement activities will occur with an affected party during the life of the project.

Fuel Storage Tank - a closed container for the storage of petroleum or allied petroleum products with a capacity of more than 230 litres.

Greywater - all liquid wastes from showers, baths, sinks, kitchens, and domestic washing facilities but not including toilet wastes.

Habitat - the area or type of site where a species or an individual of a species of wildlife naturally occurs or on which it depends, directly or indirectly, to carry out its life processes.

Inspector - an Inspector designated by the Minister under the *Mackenzie Valley Resource Management Act*.

Minister - the Minister of Indian Affairs and Northern Development Canada or the Minister of the Government of the Northwest Territories – Department of Lands, as the case may be.

Ordinary High Water Mark - the usual or average level to which a body of water rises at its highest point and remains for sufficient time so as to change the characteristics of the land. In flowing waters (rivers, streams) this refers to the “active channel/bank-full level” which is often the 1:2 year flood flow return level. In inland lakes, wetlands, or marine environments, it refers to those parts of the Watercourse bed and banks that are frequently flooded by water so as to leave a mark on the land and where the natural vegetation changes from predominately aquatic vegetation to terrestrial vegetation (excepting water tolerant species). For reservoirs, this refers to normal high operating levels (full supply level).

Permittee – The holder of this Permit

Secondary Containment - containment that prevents liquids that leak from Fuel Storage Tanks or containers from reaching outside the containment area and includes double-walled Tanks, piping, liners, and impermeable barriers.

Sewage - all toilet wastes and Greywater.

Spill Contingency Plan - a document, developed in accordance with Aboriginal Affairs and Northern Development Canada’s *Guidelines for Spill Contingency Planning* (April 2007), that describes the set of procedures to be implemented to minimize the effects of a spill.

Sump - a man-made pit or natural depression in the earth's surface used for the purpose of depositing waste that does not contain Toxic Material, such as non-toxic Drilling Waste or Sewage, therein.

Toxic Material- any substance that enters or may enter the environment in a quantity or concentration or under conditions such that it:

- a) Has or may have an immediate or long-term harmful effect on the environment or its biological diversity;
- b) Constitutes or may constitute a danger to the environment on which life depends; or
- c) Constitutes or may constitute a danger in Canada to human life or health.

Waste – any garbage, debris, chemical, or Toxic Material to be used, stored, disposed of, or handled on land, and also as defined in section 51 of the Act.

Waste Management Plan (WMP) - a document, developed in accordance with the Board's *Guidelines for Developing a Waste Management Plan* that describes the methods of waste management from waste generation to final disposal.

Watercourse - a natural body of flowing or standing water or an area occupied by water during part of the year, and includes streams, springs, swamps and gulches but does not include groundwater.

Part C: Conditions Applying to All Activities (headings correspond to subsection 26(1) of the Mackenzie Valley Land Use Regulations)

Condition	CATEGORY
26(1)(a) Location and Area	
1. Prior to the commencement of drilling, the Permittee shall submit the drill target locations on a 1:50,000-scale map with coordinates and map datum to an Inspector and the Board.	DRILL LOCATIONS
2. The Permittee shall not conduct this land-use operation on any lands not designated in the complete application.	LOCATION OF ACTIVITIES
26(1)(b) Time	
3. At least 48 hours prior to the commencement of this land-use operation, the Permittee's Field Supervisor shall contact an Inspector at (867) 669-2442 or (867) 669-2468.	CONTACT INSPECTOR
4. At least 48 hours prior to commencement of this land-use operation, the Permittee shall provide the following information, in writing, to the Board <u>and</u> an Inspector: <ul style="list-style-type: none"> a) the name(s) of the person(s) in charge of the field operation; b) alternates; and c) all methods for contacting the above person(s). 	IDENTIFY AGENT
5. At least ten days prior to the completion of the land-use operation, the Permittee shall advise an Inspector of: <ul style="list-style-type: none"> a) the plan for removal or storage of equipment and materials; and b) when final cleanup and reclamation of the land used will be completed. 	REPORTS BEFORE REMOVAL
6. The Board, for the purpose of this operation, designates April 15, as spring break-up.	SPRING BREAK-UP
26(1)(c) Type and Size of Equipment	
7. The Permittee shall not use any equipment except of a similar type, size, and number to that listed in the complete application.	ONLY APPROVED EQUIPMENT
26(1)(d) Methods and Techniques	
8. Immediately upon completion of operations at each Borehole, the Permittee shall remove or cut off and seal each drill casing at ground level.	DRILL CASINGS
9. The Permittee shall plug all boreholes as the land use operation progresses unless otherwise authorized in writing by an Inspector.	PLUG HOLES

10.	The Permittee shall cap each drill casing immediately upon completion of drilling, unless delayed capping of the drill casing is authorized in writing by an Inspector.	SEALING OF DRILL CASINGS
11.	The Permittee shall construct and maintain the overland portion of winter roads with a minimum of 10 cm of packed snow and/or ice at all times during this land-use operation.	WINTER ROADS
12.	The Permittee shall not erect camps or store material, other than that required for immediate use, on the ice surface of a Watercourse.	STORAGE ON ICE
13.	The Permittee shall replace all excavated material from any test pits prior to the expiry of this Permit, unless otherwise authorized in writing by an Inspector.	TEST PITS
 26(1)(e) Type, Location, Capacity, and Operation of All Facilities		
14.	The Permittee shall ensure that the land use area is kept clean at all times.	CLEAN WORK AREA
 26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land		
15.	The land-use operation shall not cause obstruction to any natural drainage.	NATURAL DRAINAGE
16.	The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.	PREVENTION OF RUTTING
17.	The Permittee shall minimize erosion by installing erosion control structures as the land-use operation progresses.	PROGRESSIVE EROSION CONTROL
18.	The Permittee shall, where flowing water from a Borehole is encountered: a) plug the Borehole in such a manner as to permanently prevent any further outflow of water; and b) immediately report the occurrence to the Board and an Inspector.	FLOWING ARTESIAN WELL
19.	The Permittee shall not use any material other than clean water and snow in the construction of ice bridges.	ICE BRIDGE MATERIALS
20.	The Permittee shall not use any materials other than clean snow and water in the construction of snow fills.	SNOWFILL MATERIALS
21.	Prior to spring break-up or completion of the land-use operation, the Permittee shall clean up and either remove or v-notch all snowfills from stream crossings, unless otherwise authorized in writing by an Inspector.	REMOVE OR V-NOTCH SNOWFILLS
22.	Prior to spring break-up or completion of the land-use operation, the Permittee shall clean up and v-notch all ice bridges, unless otherwise authorized in writing by an Inspector.	V-NOTCH ICE BRIDGES

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| 23. | The Permittee shall minimize approach grades on all Watercourse crossings. | MINIMIZE APPROACH |
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| 26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material | | |
| 24. | At least seven days prior to the use of any chemicals that were not identified in the complete application, the MSDS sheets must be provided to an Inspector and the Board. | CHEMICALS |
| 25. | When drilling within 100 metres of the Ordinary High Water Mark of any Watercourse, and when drilling on ice, the Permittee shall contain all drill water and waste in a closed circuit system for reuse, off-site disposal, or deposit into a land-based Sump or natural depression. | DRILLING NEAR WATER |
| 26. | The Permittee may deposit Drilling Waste that does not contain Toxic Material in a Sump or natural depression. Any Sumps or natural depressions used to deposit Drilling Waste must be located at least 100 metres from the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector. | DRILLING WASTE |
| 27. | The Permittee shall remove all Drilling Waste containing Toxic Material to an approved disposal facility or as described in the Waste Management Plan. | DRILLING WASTE DISPOSAL |
| 28. | The Permittee shall not allow any Drilling Waste to spread to the surrounding lands or Watercourses. | DRILLING WASTE CONTAINMENT |
| 29. | The Permittee shall maintain a record of all spills. For all reportable spills, in accordance with the GNWT <i>Spill Contingency Planning and Reporting Regulations</i> , the Permittee shall: | REPORT SPILLS |
| | a) immediately report each spill to the 24-hour Spill Report Line (867) 920-8130; | |
| | b) report each spill to an Inspector within 24 hours; and | |
| | c) submit, to the Board and an Inspector, a detailed report on each spill within 30 days. | |
| 30. | The Permittee shall dispose of all Toxic Material as described in the approved Waste Management Plan. | WASTE CHEMICAL DISPOSAL |
| 31. | The Permittee shall dispose of all waste petroleum products by removal to an approved disposal facility as described in the approved Waste Management Plan. | WASTE PETROLEUM DISPOSAL |
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| 26(1)(h) Wildlife and Fish Habitat | | |
| 32. | The Permittee shall take all reasonable measures to prevent damage to wildlife and fish Habitat during this land-use operation. | HABITAT DAMAGE |

26(1)(i) Storage, Handling, and Disposal of Refuse or Sewage

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| 33. | The Permittee shall adhere to the Waste Management Plan, once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations, technology, chemicals, or fuels, or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval. | WASTE MANAGEMENT |
| 34. | The Permittee shall keep all garbage and debris in a secure container until disposal. | GARBAGE CONTAINER |
| 35. | The Permittee shall dispose of all garbage, waste, and debris as described in the approved Waste Management Plan, unless otherwise authorized in writing by an Inspector. | REMOVE GARBAGE |

26(1)(j) Protection of Historical, Archaeological, and Burial Sites

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| 36. | The Permittee shall not knowingly remove, disturb, or displace any archaeological specimen or site. | SITE DISTURBANCE |
| 37. | The Permittee shall, where a suspected archaeological or historical site, or burial ground is discovered:
a) immediately suspend operations on the site; and
b) notify the Board at (867) 669-0506 or an Inspector at (867) 669-2442, and the Prince of Wales Northern Heritage Centre at (867) 767-9347 ext. 71251 or (867) 767-9347 ext. 71250. | SITE DISCOVERY AND NOTIFICATION |

26(1)(k) Objects and Places of Recreational, Scenic, and Ecological Value

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26(1)(l) Security Deposit

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| 38. | All costs to remediate the area under this Permit are the responsibility of the Permittee. | RESPONSIBILITY FOR REMEDIATION COSTS |
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26(1)(m) Fuel Storage

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| 39. | The Permittee shall not place any Fuel Storage Tanks or container within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector. | FUEL NEAR WATER |
| 40. | The Permittee shall not allow petroleum products to spread to surrounding lands or Watercourses. | FUEL CONTAINMENT |
| 41. | The Permittee shall locate mobile fuel facilities on land when the facilities are stationary for more than 12 hours. | FUEL ON LAND |

42.	The Permittee shall adhere to the Spill Contingency Plan, once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations, technology, chemicals, or fuels, or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.	SPILL CONTINGENCY PLAN
43.	Prior to commencement of operations, the Permittee shall ensure that spill-response equipment is in place to respond to any potential spills.	SPILL RESPONSE
44.	All equipment that may be parked for two hours or more, shall have a hazmat/drip tray under it or be sufficiently diapered. Leaky equipment shall be repaired immediately.	DRIP TRAYS
45.	The Permittee shall clean up all leaks, spills, and contaminated material.	CLEAN UP SPILLS
26(1)(n) Methods and Techniques for Debris and Brush Disposal		
46.	The Permittee shall progressively dispose of all brush and trees and shall complete all brush disposal; all disposal shall be completed prior to the expiry date of this Permit.	BRUSH DISPOSAL/ TIME
47.	The Permittee shall not clear areas larger than identified in the complete application.	MINIMIZE AREA CLEARED
26(1)(o) Restoration of the Lands		
48.	Prior to the expiry date of this Permit, the Permittee shall complete all cleanup and restoration of the lands used.	FINAL CLEANUP AND RESTORATION
49.	The Permittee shall carry out progressive reclamation of disturbed areas as soon as it is practical to do so.	PROGRESSIVE RECLAMATION
26(1)(p) Display of Permits and Permit Numbers		
50.	The Permittee shall keep a copy of this Permit on hand at all times during this land-use operation.	COPY OF PERMIT
26(1)(q) Biological and Physical Protection of the Land		
51.	If any plan is not approved by the Board, the Permittee shall revise the plan according to the Board's direction and re-submit it to the Board for approval.	RESUBMIT PLAN
52.	The Permittee shall adhere to the Engagement Plan, once approved, and shall annually review the plan and make any necessary revisions to reflect changes in operations or as directed by the Board. Revisions to the plan shall be submitted to the Board for approval.	ENGAGEMENT PLAN
53.	All revised plans submitted to the Board shall include a brief summary of the changes made to the plan.	SUMMARY OF CHANGES