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August 7, 2020

File: MV2019X0007

Natalie Plato  
Crown-Indigenous Relations and Northern Affairs Canada  
PO Box 1500  
Yellowknife NT X1A 2R3

Sent by e-mail

Dear Natalie Plato:

**Issuance of Type A Land Use Permit  
Crown-Indigenous Relations and Northern Affairs Canada – Giant Mine Remediation Project –  
Yellowknife, NT**

Attached is Type A Land Use Permit (Permit) MV2019X0007 issued by the Mackenzie Valley Land and Water Board (MVLWB or the Board) in accordance with the *Mackenzie Valley Resource Management Act* (MVRMA). Board recommendations for the associated Water Licence, MV2007L8-0031, have been sent to the Minister for review and decision.

Management Plans

The Board hereby provides interim approval of the following plans for the Existing Condition (Phase 1) of the Giant Mine Remediation Project:

- Giant Mine Remediation Project Closure and Reclamation Plan
- Erosion and Sediment Management and Monitoring Plan
- Dust Management and Monitoring Plan
- Tailings Management and Monitoring Plan,
- Wildlife and Wildlife Habitat Management and Monitoring Plan
- Waste Management and Monitoring Plan
- Spill Contingency Plan
- Engagement Plan

These Plans are approved on an interim basis for the Existing Condition (Phase 1) only.

The Giant Mine Remediation Project Closure and Reclamation Plan must be revised and resubmitted for written confirmation of conformity from Board staff within nine months of the effective date of this Permit and prior to the commencement of Active Remediation and Adaptive Management (Phase 2). The Erosion and Sediment Management and Monitoring Plan, Dust Management and Monitoring Plan, Tailings Management and Monitoring Plan, Waste Management and Monitoring Plan, and Spill Contingency Plan require resubmission for Board approval a minimum of 90 days prior to the commencement of Active Remediation and Adaptive Management (Phase 2). The Wildlife and Wildlife Habitat Management and Monitoring Plan must be revised and resubmitted for written confirmation of conformity from Board staff 90 days prior to commencing Active Remediation and Adaptive Management (Phase 2), and the Engagement Plan requires resubmission for Board approval within six months of Permit issuance.

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In addition, the following reports are required for review and Board approval for Phase 2:

- Borrow Materials and Explosives Management and Monitoring Plan
- Arsenic Trioxide Frozen Shell Management and Monitoring Plan
- Design Plans
- Construction Plans

The Borrow Materials and Explosives Management and Monitoring Plan and the Arsenic Trioxide Frozen Shell Management and Monitoring Plan are required to be submitted for Board approval a minimum of 120 days prior to the commencement of Active Remediation and Adaptive Management (Phase 2). Design Plans are required to be submitted for Board approval 90 days prior to the initiation of Construction for each applicable Project Component while the accompanying Construction Plans are required a minimum of 45 days prior to Construction of each applicable Engineered Structure.

Recommendations and commitments for Plan revisions and submission identified during this review, are outlined in Appendix A, attached, and the Schedules of the Draft Water Licence which is being sent to the Minister for final approval. Please include a conformity table when submitting/resubmitting Plans to clearly outline how each Board Directive is addressed.

#### Public Registry

A copy of this Permit has been filed on the [Public Registry](#) at the office of the MVLWB. Please be advised that this letter, with attached procedures, all Inspection Reports, and correspondence related thereto is part of the Public Registry and is intended to keep all interested parties informed of the manner in which the Permit's 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](mailto:sallerston@mvlwb.com).

Yours sincerely,



Mavis Cli-Michaud  
MVLWB Chair

Copied to: Distribution List

Attached: Land Use Permit MV2019X0007  
Reasons for Decision  
Appendix A – Board Directives for Management Plan Submission

**Appendix A**  
**Board Directives for Management Plan Submissions**

**Table 1. Board Directives for the Erosion and Sediment Management and Monitoring Plan**

<b>Item</b>	<b>Requirement</b>
a)	Add details to Step 3 for 'Ecological Consequences' that this step of the assessment will look at potential arsenic levels in soils and eroded material to determine the level of activity-specific monitoring and mitigation that takes place;
b)	Add definition of "near Water" to the Plan;
c)	Include cover Construction as an activity that may require erosion and sediment control measures in Active Remediation and Adaptive Management (Phase 2);
d)	Include general classification of erosion potential at the site, using polygons to identify areas of erosion potential;
e)	Add clarity about which mitigation measures or best management practices for sediment and erosion control falls under each of the categories defined in Table 4-5 and describe how mitigation measures correlate to risks and the characterizations currently identified; and
f)	Provide a framework for decision-making about re-vegetation requirements at the site.

**Table 2. Board Directives for the for the Dust Management and Monitoring Plan**

<b>Item</b>	<b>Requirement</b>
a)	Include a subsection which includes approved EA0809-001 measure 20 and suggestion 12, and reference to past dust events;
b)	Add information related to general best management practices for stockpile management that will be implemented onsite;
c)	Identify the need to reconsider NO2 in the event of a change in the Freeze program in the contingencies section of the Air Quality Monitoring Plan;
d)	Include adaptive management thresholds for PM2.5, NO2 and metals (arsenic, antimony, lead, iron, and nickel);
e)	Define short-term, short-medium term, medium-term, and long-term;
f)	Further describe the wind threshold levels;
g)	Clarify the intention of the 'Values at Risk' section of Table 6.2-1 that is referring to the Valued Components as outlined in Section 1.4.2 of the Updated Project Description; and
h)	Modify the text in Table 6.2-1 to provide numeric/further descriptions for the 'Values at Risk' column.

**Table 3. Board Directives for the for the Wildlife and Wildlife Habitat Monitoring and Management Plan**

<b>Item</b>	<b>Requirement</b>
a)	Discuss the recommendation from the Human Health and Ecological Risk Assessment (HHERA) for the small mammal monitoring program.
b)	Discuss the recommendation from the HHERA for collecting insect data to verify the assumptions for birds and animals that eat insects.
c)	Update Table 1 to accurately reflect the application of Species At Risk Act (SARA) prohibitions.
d)	Change "cranes" to "waterbirds" in Table 1.
e)	Include contact information for ECCC in Sections 4.3 and 5.5.1.
f)	Add text to Section 3.2. that indicates inactive stockpiles greater than 70 degrees will be reported to the on-site Environmental Manager so that appropriate action can be taken.

**Table 4. Board Directives for the for the Waste Management and Monitoring Plan**

<b>Item</b>	<b>Requirement</b>
a)	Update definition of Greywater to mirror the definition in the Licence;
b)	Ensure that all activities on-site are covered under one Waste Management and Monitoring Plan, including those in past authorizations administered by the Board;
c)	Attach letter from the City of Yellowknife that indicates the current agreement to accept both sanitary Sewage and municipal solid Waste from the Giant Mine Remediation Project;
d)	Include the temporary storage location for all non-arsenic contaminated hazardous Waste that will meet the GNWT Guideline for Hazardous Waste Management;
e)	Update to reflect the commitment to document the type, quantity, location, and placement of arsenic-impacted materials in Chamber 15 or B1 pit;
g)	Details of soil washing, if applicable;
h)	Update with detail and clarification on how Waste material will be verified and segregated, as well as the auditing procedure;
i)	Outline any maintenance or contingency activities that will be undertaken if monitoring results show that improper Waste segregation has occurred; and
j)	Include details about the management of overburden that may be contaminated from historic aerial deposition.

**Table 5. Board Directives for the for the Spill Contingency Plan**

<b>Item</b>	<b>Requirement</b>
a)	Update to indicate that Dynalene is planned to be removed; and
b)	Ensure that all activities on site are covered under one Spill Contingency Plan, including those in past authorizations administered by the Board.

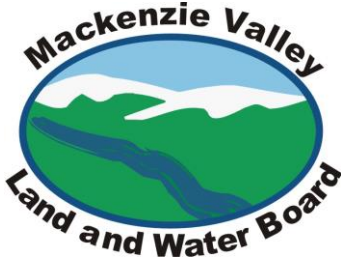
**Table 6. Board Directives for the Giant Mine Remediation Project Closure and Reclamation Plan**

Item	Requirement
a)	Update with re-evaluated climate change assumptions (MAAT of +7.3°C with winter air temperatures increasing +9.0°C over 100120 years and summer air temperatures increasing by +5.5°C);
b)	Include Figure 3.4-1 in the Plain Language Summary;
c)	Summarize the results of the Quantitative Risk Assessment;
d)	Update to reflect that the controlled raise of the Minewater in the underground mine workings and associated Reclamation Research Plan was removed from the Application;
e)	Update to include any new information about historic arsenic disposal locations being discovered;
f)	Update SW1-1 in Table 5.0-1 (and 5.0A-1) to previous wording (“NWT Ambient Air Quality Standards, or Ontario Ambient Air Quality Standards where there are no applicable NWT standards, are met for PM-10 and integrated total suspended particulate metals, including arsenic”);
g)	Edit SW4-2 in Table 5.0-1 (and 5.0A-1) to refine wording to read “A final report land map with residual risks/constraints identified will be made available to the Commissioner of the NWT, and posted on the Project website”;
h)	Update Table 5.5-3 (and 5.0A-6) wording above BC5-2 and BC5-3 to “Criterion in Development through the outcomes of engagement for the Fisheries Act Authorization”;
i)	Update Table 5.6-3 (and 5.0A-7) criteria for objective T4 as applicable to demonstrate that the objective will be achieved. This could include a quantification of water ponding that would be considered, acceptable, if any.
j)	Edit SI1-1 in Table 5.9-1 (and 5.0A-10) to include references to appropriate and applicable guidelines;
k)	Add confirmatory-type criteria and Waste classification and tracking to objective SI2 in Table 5.9-1 (and 5.0A-10) to provide positive confirmation and documentation that all inventoried hazardous materials have been removed;
l)	Include a definition of ‘classified Tailings’;
m)	Update Section 5.1.4 to include details of the breakdown of the 16,000 m3 of arsenic contaminated material; and
n)	Update Section 5.0 according to the Board approved regulatory process.



**Table 7. Board Directives for the Engagement Plan**

Item	Requirement
a)	Update to include commitment to meet with the City of Yellowknife and the Government of the Northwest Territories to review and update the traffic and access plans;
b)	Update the trigger table to reflect the commitments made through the licensing process and to reflect changes in the proposed submission process;
c)	Outline pre-engagement for the Site-Wide Management and Monitoring Plans;
d)	Update to include a description of how engagement with affected parties will occur for scaling back the dust management and monitoring post-remediation;
e)	Update to include plans to communicate advances in the Project implementation schedule ahead of time;
f)	Outline the plan for engaging on the following specific topics: <ul style="list-style-type: none"> <li>i. Final volumes and location of borrow sources;</li> <li>ii. Post-closure site appearance;</li> <li>iii. Baker Creek final design and Closure Criteria;</li> <li>iv. Remediation activities in Yellowknife Bay including nearshore sediments and Foreshore Tailings design;</li> <li>v. Criteria under development; and</li> <li>vi. Timing and access to the Townsite and marina area.</li> </ul>
g)	Update to clarify engagement process with respect to all Fisheries Authorizations;
h)	Update on the development of the Community-Based Monitoring Program and how it will be engaged upon;
i)	Update to include the commitment to document engagement related to: <ul style="list-style-type: none"> <li>i. Health Effects Monitoring Program;</li> <li>ii. Socio-Economic Strategy;</li> <li>iii. Perpetual Care Plan; and</li> <li>iv. Quantitative Risk Assessment.</li> </ul>
j)	Outline how the results of the Stress Study will inform further engagement and communication;
k)	Outline the plan for the development of any socio-economic strategy;
l)	A description of the public communications plan in the even Action Levels are realized; and
m)	Append Emergency Communication Plan



**Land Use Permit**

Permit Class	Permit No	Amendment No
A	MV2019X0007	

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

Crown-Indigenous Relations and Northern Affairs  
Canada – Giant Mine Remediation Project

Permittee

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

Signature Ms. Natalie Plato	Date April 1, 2019
Type of Land Use Operation Miscellaneous - Remediation	
Location Giant Mine Site - Yellowknife, 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 August, 2020

Signature Chair

Signature Witness

Mavis Cli-Michaud

Amanda Gauthier

Effective Date  
August 7, 2020

Expiry Date  
August 6, 2025

**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.

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## Conditions Annexed to and Forming Part of Land Use Permit # MV2019X0007

### Part A: Scope of Permit

1. This Permit entitles the Permittee to conduct the following activities associated with Existing Condition (Phase 1) and Active Remediation and Adaptive Management (Phase 2) of the Giant Mine Remediation Project:
  - a) Use of motorized earth drilling machinery;
  - b) Fuel storage; and
  - c) Use of equipment for moving earth and clearing land.
2. The scope of this Permit is as described in the scope of Development in the Report of Environmental Assessment EA0809-001; as described in the scope of Preliminary Screening for MV2007L8-0031 and MV2019X0007, dated October 8, 2019; as described in the project scope of MV2012L8-0010; as described in the scope of Preliminary Screenings for MV2016S0016, dated July 21, 2016 and December 18, 2017; as described in the scope of Preliminary Screening for MV2017L8-0006 and MV2017X0030, dated September 28, 2017; and as described in the **Giant Mine Remediation Project Closure and Reclamation Plan**.
3. 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, conditions 1 and 2 of this Permit.
4. 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, ~~Thcch~~, or Municipal laws.

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

**Active Remediation and Adaptive Management (Phase 2)** – begins when Construction commences on the first Project Component(s). The Active Remediation and Adaptive Management phase lasts until all Closure Activities are complete.

**Archaeological Impact Assessment** – as defined by the Prince of Wales Northern Heritage Centre – *Guidelines for Developers for the Protection of Archaeological Sites in the Northwest Territories*.

**Arsenic Trioxide Frozen Shell** – a zone of frozen bedrock or fill around each arsenic containing chamber, stope, drift, or pit fill to contain the arsenic trioxide waste as described in the **Arsenic Trioxide Frozen Shell Management and Monitoring Plan**.

**Board** – the Mackenzie Valley Land and Water Board established by subsection 99(1) of the *Mackenzie Valley Resource Management Act*.

**Borehole** – a hole that is made in the surface of the ground by drilling or boring.

**Closure Activities** – the Closure and Reclamation activity chosen from the closure options for each Project Component.

**Closure and Reclamation Completion Report** – provides details, including figures and photos, of the final reclamation work; an explanation of any work that deviated from the approved Design Plan; an inventory of the infrastructure removed and that remaining; all engineered As-Built Reports; and descriptions of any monitoring that is still required.

**Closure Criteria** – standards that measure the success of selected Closure Activities in meeting Closure Objectives. Closure criteria may have a temporal component (e.g., a standard may need to be met for a pre-defined number of years). Closure criteria can be site-specific or adopted from territorial/federal or other standards and can be narrative statements or numerical values.

**Closure Objectives** – statements that describe what the selected Closure Activities are aiming to achieve; they are guided by the closure principles. Closure Objectives are typically specific to Project components, are measurable and achievable, and allow for the development of closure criteria.

**Closure and Reclamation** – the process and activities which facilitate the return of areas affected by historical mining activities to viable and, wherever practicable, self-sustaining ecosystems that are compatible with a healthy environment, human activities, and the surrounding environment.

**Construction** – any activities undertaken during any phase of the Project to construct or build any structures, facilities or components of, or associated with, the development of the Project.

**Dam** – an Engineered Structure or barrier that meets the definition of a Dam as per the Dam Safety Guidelines and is intended to contain, withhold, divert, or retain Water or Waste.

**Dogleg** – the clearing of a line, trail, or right-of-way that is curved sufficiently so that no part of the clearing beyond the curve is visible when approached from either direction.

**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 *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.

**Engineered Structure** – Any structure or facility and associated area related to Water Use or the deposit of Waste that is designed and approved by a Professional Engineer, including but not limited to the underground mine workings, freeze system pit fill cover(s), soil cover(s), nearshore sediment cover, surface water management sumps/pond/channels/culverts, Baker Creek channel/banks, Tailings Containment Area (TCA) covers, TCA spillways, Foreshore Tailings cover, Dams, Water Treatment Plant and outfall system, Water crossings, Non-Hazardous Waste Landfill, Borrow Sources, and associated stormwater management pond, Effluent Treatment Plant associated with the Project.

**Existing Effluent Treatment Plant System (Effluent Treatment Plant)** – the Wastewater treatment plant in operation at the time of Licence issuance and associated infrastructure including; pumping station, piping systems, storage, and treatment ponds.

**Environmental Assessment (EA0809-001)** – Environmental Assessment EA0809-001, conducted by the Mackenzie Valley Environmental Impact Review Board for the Giant Mine Remediation Project.

**Existing Condition (Phase 1)** – the period that commences upon Permit issuance, prior to commencement of the Active Remediation and Adaptive Management (Phase 2) activities.

**Foreshore Tailings** – Tailings that were historically deposited along the shore of north Yellowknife Bay without Dams to contain them.

**Fuel Storage Container** – a container for the storage of petroleum or allied petroleum products with a capacity of less than 230 litres.

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

**Giant Mine Remediation Project Closure and Reclamation Plan** – a document, developed in accordance with this Permit, Licence MV2007L8-0031, and the MVLWB/AANDC *Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*, that clearly describes the Closure and Reclamation activities for the Project.

**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 subsection 84.1 of the *Mackenzie Valley Resource Management Act*.

**Minister** – the Minister of Northern Affairs.

**Non-Hazardous Waste Landfill** – the ~~Engineered~~ Project Component designed to contain solid non-hazardous Waste.

**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.

**Perpetual Care Plan** – required by the Environmental Agreement, a document that addresses improvements in records management, communication with future generations, long-term access to funds for the Project and analysis of different possible future scenarios that might affect the Perpetual Care of the Project.

**Project** – the undertaking described in Part A, conditions 1 and 2.

**Project Component** – The Giant Mine Remediation Project has been divided into twelve projected components, following the approach outlined in the *MVLWB/AANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories*. The twelve Project Components are: 1) underground mine workings; 2) freeze/Arsenic Trioxide Frozen Shell; 3) open pit mine workings; 4) contaminated soils and sediments, 5) Baker Creek and surface Water drainage, 6) Tailings Containment Areas; 7) borrow/quarry material; 8) Water Treatment Plant and outfall systems; 9) buildings and site infrastructure; 10) Non-Hazardous Waste Landfill; 11) contamination downgradient from Dam 3; and 12) passive/semi-passive wetland treatment.

**Remediation** – the removal, reduction, or neutralization of substances, Wastes, or hazardous material from a site in order to prevent or minimize any adverse effects on the environment and public safety, now and in the future.

**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 but does not include Greywater.

**Site-Wide Management and Monitoring Plans** – Plans that outline the general, site-wide, requirements for the maintenance and management of Water and Waste for the Project.

**Spill Contingency Plan** – a document developed for the Project in accordance with INAC's *Guidelines for Spill Contingency Planning*.

**Spring Break-Up** – April 15 each year, for the purpose of this operation.

**Sump** – a human-made excavation or natural depression designed for depositing Water and/or Waste.

**Tailings** - the materials rejected from the processing facilities after the recoverable valuable materials have been extracted.

**Tailings Containment Areas** – the area(s) designed to contain Tailings generated during historical operations, including the Northwest Pond, the North Pond, Central Pond, and the South Tailings Pond.

**Toxic Material** – any substance that:

- 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** – as defined in section 51 of the *Mackenzie Valley Resource Management Act*.

**Waste Management and Monitoring Plan** – a document, developed in accordance with the Board's *Guidelines for Developing a Waste Management Plan*, which describes the methods of Waste management from Waste generation to final disposal.

**Water(s)** – any Waters as defined by section 51 of the *Mackenzie Valley Resource Management Act*.

**Watercourse** – a 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
<b>26(1)(a) Location and Area</b>	
1. The Permittee shall only conduct this land-use operation on lands identified under Part A, condition 2.	LOCATION OF ACTIVITIES
2. At least 48 hours prior to the commencement of drilling, the Permittee shall submit the drill hole locations on a 1:50,000-scale map with coordinates and map datum to the Board and an Inspector.	DRILL LOCATIONS
3. The Permittee shall not conduct a quarry operation within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.	QUARRY SETBACK
4. The Permittee shall not construct parallel lines or roads, unless an existing line or road cannot be used.	PARALLEL ROADS
5. The Permittee shall locate all new lines, trails, and right-of-ways to be constructed parallel to any Watercourse a minimum of 100 metres from the Ordinary High Water Mark, except at crossings.	PARALLEL WATERCOURSE SETBACK
6. The Permittee shall not locate any new Sump within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.	SUMP SETBACK
7. Prior to the commencement of the land-use operation and the initiation of activities approved under any <b>Design Plan</b> , the Permittee shall accompany an Inspector during an inspection of the proposed land use area.	INSPECT LOCATIONS
8. The Permittee shall confine the width of the right-of-way of a road to a maximum of 30 metres.	WIDTH RIGHT-OF-WAY
<b>26(1)(b) Time</b>	
9. At least 48 hours prior to the commencement of the land-use operation, the Permittee's Field Supervisor shall contact an Inspector at (867) 669-2442.	INITIAL NOTIFICATION - CONTACT INSPECTOR
10. At least ten days prior to commencement of the land-use operation and the initiation of activities described under each Design Plan, the Permittee shall provide the following information, in writing, to the Board and an Inspector:	IDENTIFY AGENT
<ul style="list-style-type: none"> <li>a) the name(s) of the person(s) in charge of the field operation or activity;</li> <li>b) alternates; and</li> <li>c) all methods for contacting the above person(s).</li> </ul>	



<p>11. At least ten days prior to the completion of activities described under each Design Plan, the Permittee shall advise an Inspector of:</p> <p>a) the plan for removal or storage of equipment and materials; and</p> <p>b) when final cleanup and reclamation of the land used will be completed.</p>	<p><b>REPORTS BEFORE FINAL REMOVAL</b></p>
<p><b>26(1)(c) Type and Size of Equipment</b></p>	
<p>12. The Permittee shall not use any equipment except of a similar type, size, and number to that listed in the application.</p>	<p><b>USE APPROVED EQUIPMENT</b></p>
<p><b>26(1)(d) Methods and Techniques</b></p>	
<p>13. The Permittee shall comply with the <b>Erosion and Sediment Management and Monitoring Plan</b>, once approved.</p>	<p><b>EROSION AND SEDIMENT MANAGEMENT AND MONITORING PLAN</b></p>
<p>14. A minimum of 90 days prior to the commencement of Active Remediation and Adaptive Management (Phase 2), the Permittee shall submit to the Board, for approval, an <b>Erosion and Sediment Management and Monitoring Plan</b>.</p>	<p><b>EROSION AND SEDIMENT MANAGEMENT AND MONITORING PLAN – REVISED</b></p>
<p>15. The Permittee shall comply with the <b>Dust Management and Monitoring Plan</b>, once approved.</p>	<p><b>DUST MANAGEMENT AND MONITORING PLAN</b></p>
<p>16. A minimum of 90 days prior to the commencement of Active Remediation and Adaptive Management (Phase 2), the Permittee shall submit to the Board, for approval, a <b>Dust Management and Monitoring Plan</b>.</p>	<p><b>DUST MANAGEMENT AND MONITORING PLAN – REVISED</b></p>
<p>17. The Permittee shall comply with the <b>Tailings Management and Monitoring Plan</b>, once approved.</p>	<p><b>TAILINGS MANAGEMENT AND MONITORING PLAN</b></p>
<p>18. A minimum of 90 days prior to the commencement of Active Remediation and Adaptive Management (Phase 2), the Permittee shall submit to the Board, for approval, a <b>Tailings Management and Monitoring Plan</b>.</p>	<p><b>TAILINGS MANAGEMENT AND MONITORING PLAN – REVISED</b></p>
<p>19. The Permittee shall comply with the <b>Borrow Materials and Explosives Management and Monitoring Plan</b>, once approved.</p>	<p><b>BORROW MATERIALS AND EXPLOSIVES MANAGEMENT AND MONITORING PLAN</b></p>

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| 20. | A minimum of 120 days prior to the commencement of Active Remediation and Adaptive Management (Phase 2), the Permittee shall submit to the Board, for approval, a <b>Borrow Materials and Explosives Management and Monitoring Plan</b> .  | SUBMIT BORROW<br>MATERIALS AND<br>EXPLOSIVES<br>MANAGEMENT<br>AND MONITORING<br>PLAN |
| 21. | The Permittee shall comply with the <b>Arsenic Trioxide Frozen Shell Management and Monitoring Plan</b> , once approved.   | ARSENIC TRIOXIDE<br>FROZEN SHELL<br>MANAGEMENT AND<br>MONITORING PLAN                |
| 22. | A minimum of 120 days prior to commencement of Construction of the Arsenic Trioxide Frozen Shell System, the Permittee shall submit to the Board, for approval, an <b>Arsenic Trioxide Frozen Shell Management and Monitoring Plan</b> .   | SUBMIT ARSENIC<br>TRIOXIDE FROZEN<br>SHELL<br>MANAGEMENT AND<br>MONITORING PLAN      |
| 23. | A minimum of 90 days prior to commencement of Construction of any Project Component, the Permittee shall submit to the Board, for approval, a <b>Design Plan</b> . The Permittee shall not commence Construction prior to Board approval.  | DESIGN PLANS   |
| 24. | Once approved, the management and monitoring details submitted in the <b>Design Plans</b> are to be incorporated into the applicable existing Site-Wide Management and Monitoring Plans. Updated Plans are to be submitted to the Board.   | UPDATE PLANS   |
| 25. | A minimum of 45 days prior to commencement of Construction of any Engineered Structure, the Permittee shall submit to the Board, a <b>Construction Plan</b> .  | CONSTRUCTION<br>PLANS  |
| 26. | The Permittee shall Dogleg lines, trails and right-of-way that approach Watercourses or public roads.  | DOGLEG<br>APPROACHES   |
| 27. | Prior to the movement of any vehicle that exerts pressure on the ground in excess of 35 kPa, the Permittee shall scout proposed lines and routes to select the best location for crossing streams and avoiding terrain obstacles.  | DETOURS AND<br>CROSSINGS   |
| 28. | As the land-use operation progresses, the Permittee shall recontour craters caused by explosives, as described in applicable <b>Design Plan(s)</b> , <b>Construction Plan(s)</b> , and the <b>Borrow Materials and Explosives Management and Monitoring Plan</b> .   | RECONTOUR<br>CRATERS   |
| 29. | Immediately upon completion of operations at each Borehole, except for Boreholes for freeze program of the underground arsenic trioxide stores, underground stabilization, paste backfill delivery and monitoring, or those with instrumentation for long-term monitoring, the Permittee shall remove or cut off and seal each drill casing at ground level. | DRILL CASINGS  |
| 30. | 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  |

31.	The Permittee shall remove all wire from the land as the land-use operation progresses.	<b>REMOVE WIRE</b>
32.	The Permittee shall construct and maintain the overland portion of winter roads with a minimum of ten cm of packed snow and/or ice at all times during this land-use operation.	<b>WINTER ROADS</b>
33.	The Permittee shall not erect camps or store material, other than that required for immediate use, on the ice surface of a Watercourse.	<b>STORAGE ON ICE</b>
<b>26(1)(e) Type, Location, Capacity, and Operation of All Facilities</b>		
34.	The Permittee shall ensure that the land use area is kept clean at all times.	<b>CLEAN WORK AREA</b>
<b>26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land</b>		
35.	The Permittee shall install and maintain culverts such that scouring does not occur.	<b>CULVERT SIZE</b>
36.	The Permittee shall minimize erosion by installing erosion control structures as the land-use operation progresses.	<b>PROGRESSIVE EROSION CONTROL</b>
37.	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.	<b>FLOWING ARTESIAN WELL</b>
38.	The Permittee shall prepare the site in such a manner as to prevent rutting of the ground surface.	<b>PREVENTION OF RUTTING</b>
39.	The Permittee shall suspend overland travel of equipment or vehicles at the first sign of rutting or gouging.	<b>SUSPEND OVERLAND TRAVEL</b>
40.	The Permittee shall not move any equipment or vehicles unless the ground surface is in a state capable of fully supporting the equipment or vehicles without rutting or gouging.	<b>VEHICLE MOVEMENT FREEZE-UP</b>
41.	The Permittee shall—only use clean Water and snow in the Construction of ice bridges and snow fills.	<b>CONSTRUCT ICE BRIDGES SNOWFILLS</b>
42.	Prior to Spring Break-up or completion of the land-use operation, the Permittee shall clean up and either remove or v-notch all ice bridges and snowfills from stream crossings, unless otherwise authorized in writing by an Inspector.	<b>REMOVE ICE BRIDGES/SNOWFILLS</b>
43.	The Permittee shall not cut any stream bank, unless otherwise authorized in writing by an Inspector.	<b>STREAM BANKS</b>
44.	The Permittee shall contour approach grades on all Watercourse crossings, as approved through applicable <b>Design Plan(s)</b> and/or <b>Construction Plan(s)</b> .	<b>CONTOUR APPROACH</b>

45. The Permittee shall slope the sides of Waste material piles, excavations, and embankments — except in solid rock — as per an approved <b>Design Plan(s)</b> , or as otherwise authorized in writing by an Inspector.	<b>EXCAVATION AND EMBANKMENTS</b>
<b>26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material</b>	
46. At least seven days prior to the use of any chemicals that were not identified in the application, the Safety Data Sheets must be provided to the Board and an Inspector.	<b>CHEMICALS</b>
47. 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 Drilling Waste in a closed circuit system for reuse, off-site disposal, or deposit into a land-based Sump or natural depression.	<b>DRILLING NEAR WATER OR ON ICE</b>
48. The Permittee shall remove all Drilling Waste in accordance with the approved Waste Management and Monitoring Plan.	<b>DRILLING WASTE DISPOSAL</b>
49. The Permittee shall not allow any Drilling Waste to spread to the surrounding lands or Watercourses.	<b>DRILLING WASTE CONTAINMENT</b>
50. The Permittee shall dispose of all Toxic Material as described in the approved <b>Waste Management and Monitoring Plan</b> .	<b>WASTE CHEMICAL DISPOSAL</b>
51. The Permittee shall dispose of all Waste petroleum products as described in the approved <b>Waste Management and Monitoring Plan</b> .	<b>WASTE PETROLEUM DISPOSAL</b>
<b>26(1)(h) Wildlife and Fish Habitat</b>	
52. The Permittee shall comply with the <b>Wildlife and Wildlife Habitat Management and Monitoring Plan</b> , once approved.	<b>WILDLIFE AND WILDLIFE HABITAT MANAGEMENT AND MONITORING PLAN</b>
53. A minimum of 90 days prior to the commencement of Active Remediation and Adaptive Management (Phase 2), the Permittee shall submit to the Board, for approval, a revised <b>Wildlife and Wildlife Habitat Management and Monitoring Plan</b> .	<b>WILDLIFE AND WILDLIFE HABITAT MANAGEMENT AND MONITORING PLAN</b>
54. The Permittee shall take all reasonable measures to prevent damage to wildlife and fish Habitat during this land-use operation.	<b>HABITAT DAMAGE</b>
<b>26(1)(i) Storage, Handling, and Disposal of Refuse or Sewage</b>	
55. The Permittee shall comply with the <b>Waste Management and Monitoring Plan</b> , 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.	<b>WASTE MANAGEMENT AND MONITORING PLAN</b>

56.	A minimum of 90 days prior to the commencement of Active Remediation and Adaptive Management (Phase 2), the Permittee shall submit to the Board, for approval, a revised <b>Waste Management and Monitoring Plan</b> .	<b>WASTE MANAGEMENT AND MONITORING PLAN – REVISED</b>
57.	The Permittee shall keep all domestic garbage and debris in a secure container until disposal.	<b>GARBAGE CONTAINER</b>
58.	The Permittee shall dispose of all garbage, Waste, and debris as described in the approved <b>Waste Management and Monitoring Plan</b> , unless otherwise authorized in writing by an Inspector.	<b>WASTE DISPOSAL</b>
59.	The Permittee shall dispose of all Sewage and Greywater as described in the approved <b>Waste Management and Monitoring Plan</b> .	<b>SEWAGE DISPOSAL – PLAN</b>
 <b>26(1)(j) Protection of Historical, Archaeological, and Burial Sites</b>		
60.	The Permittee shall not operate any vehicle or equipment within 30 metres of a known or suspected historical or archaeological site or burial ground.	<b>ARCHAEOLOGICAL BUFFER</b>
61.	The Permittee shall, where a suspected archaeological or historical site, or burial ground, is discovered: <ul style="list-style-type: none"> <li>a) immediately suspend operations on the site; and</li> <li>b) notify the Board at (867) 669-0506 or an Inspector at (867) 669-2442, and the Prince of Wales Northern Heritage Centre at 767-9347 ext. 71250 or ext. 71251; and</li> <li>c) notify any affected Aboriginal communities and organizations.</li> </ul>	<b>SITE DISCOVERY AND NOTIFICATION</b>
62.	The Permittee shall not knowingly remove, disturb, or displace any archaeological specimen or site unless deemed sufficiently mitigated by the Prince of Wales Northern Heritage Centre (PWNHC) as demonstrated through the submission of a Report signed by the PWNHC to the Board and the Inspector.	<b>SITE DISTURBANCE</b>
63.	Prior to any new land disturbance, the Permittee shall conduct an Archaeological Impact Assessment of the sites where disturbance is planned and shall submit a summary report to the Board and the Prince of Wales Northern Heritage Centre.	<b>ARCHAEOLOGICAL IMPACT ASSESSMENT</b>
 <b>26(1)(k) Objects and Places of Recreational, Scenic, and Ecological Value</b>		
<i>Intentionally left blank</i>		
 <b>26(1)(l) Security Deposit</b>		
64.	All costs to remediate the area under this Permit are the responsibility of the Permittee.	<b>RESPONSIBILITY FOR REMEDICATION COSTS</b>

## 26(1)(m) Fuel Storage

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| 65. | The Permittee shall:<br>a) regularly examine all Fuel Storage Containers and Tank for leaks; and<br>b) repair all leaks immediately.   | REPAIR LEAKS                            |
| 66. | The Permittee shall not place any Fuel Storage Containers or Tanks within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.   | FUEL STORAGE<br>SETBACK                 |
| 67. | The Permittee shall ensure that all fuel caches have adequate Secondary Containment.   | FUEL CACHE<br>SECONDARY<br>CONTAINMENT  |
| 68. | The Permittee shall set up all refueling points with Secondary Containment.  | SECONDARY<br>CONTAINMENT –<br>REFUELING |
| 69. | The Permittee shall not allow petroleum products to spread to surrounding lands or Watercourses.   | FUEL CONTAINMENT                        |
| 70. | The Permittee shall locate mobile fuel facilities on land when the facilities are stationary for more than 12 hours.   | FUEL ON LAND                            |
| 71. | The Permittee shall mark all Fuel Storage Containers and Tanks with the Permittee's name.  | MARK CONTAINERS<br>AND TANKS            |
| 72. | The Permittee shall mark all stationary fuel caches and Fuel Storage Tanks and Containers with flags, posts, or similar devices so that they are at all times plainly visible to local vehicle travel.   | MARK FUEL<br>LOCATION                   |
| 73. | The Permittee shall seal all outlets of Fuel Storage Containers and store the containers on their sides with the outlets located at three and nine o'clock, except for containers currently in use.  | SEAL OUTLET                             |
| 74. | The Permittee shall comply with the <b>Spill Contingency Plan</b> , 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<br>PLAN               |
| 75. | A minimum of 90 days prior to the commencement of Active Remediation and Adaptive Management (Phase 2), the Permittee shall submit to the Board, for approval, a revised <b>Spill Contingency Plan</b> in accordance with the INAC Guidelines for Spill Contingency Planning.  | SPILL CONTINGENCY<br>PLAN – REVISED     |
| 76. | Prior to commencement of the land-use operation the Permittee shall ensure that spill-response equipment is in place to respond to any potential spills.   | SPILL RESPONSE                          |

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| 77. | All equipment that may be parked for two hours or more, shall have a haz-mat/drip tray under it or be sufficiently diapered. Leaky equipment shall be repaired immediately.  | <b>DRIP TRAYS</b>      |
| 78. | The Permittee shall clean up all leaks, spills, and contaminated material.   | <b>CLEAN UP SPILLS</b> |
| 79. | During the term of this Permit, if a spill occurs or is foreseeable, the Permittee shall: <ul style="list-style-type: none"> <li>a) implement the approved <b>Spill Contingency Plan</b>;</li> <li>b) report it immediately using the NU-NT Spill Report Form by one of the following methods:             <ul style="list-style-type: none"> <li>• Telephone: (867) 920-8130</li> <li>• Fax: (867) 873-6924</li> <li>• E-mail: <a href="mailto:spills@gov.nt.ca">spills@gov.nt.ca</a></li> <li>• Online: Spill Reporting and Tracking Database</li> </ul> </li> <li>c) within 24 hours, notify the Board and an Inspector; and</li> <li>d) within 30 days of initially reporting the incident, submit a detailed report to the Board and an Inspector, including descriptions of causes, response actions, and any changes to procedures to prevent similar occurrences in the future. Any updates to this report shall be provided to the Board and an Inspector in writing as changes occur.</li> </ul> | <b>REPORT SPILLS</b>   |

**26(1)(n) Methods and Techniques for Debris and Brush Disposal**

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| 80. | The Permittee shall progressively dispose of all brush and trees; all disposal shall be completed prior to the end of this land use operation. | <b>BRUSH DISPOSAL/<br/>TIME</b>  |
| 81. | The Permittee shall not clear areas larger than identified in the application.   | <b>MINIMIZE AREA<br/>CLEARED</b> |

**26(1)(o) Restoration of the Lands**

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| 82. | The Permittee shall comply with the <b>Giant Mine Remediation Project Closure and Reclamation Plan</b> , once approved. The Plan shall be developed in accordance with the MVLWB/AANDC <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i> .   | <b>CLOSURE AND<br/>RECLAMATION PLAN</b>                      |
| 83. | Within nine months following the effective date of this Permit, the Permittee shall submit to the Board, a revised version of the <b>Giant Mine Remediation Project Closure and Reclamation Plan</b> . The updated version shall be developed in accordance with the MVLWB/AANDC <i>Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i> . | <b>CLOSURE AND<br/>RECLAMATION<br/>PLAN – REVISED</b>        |
| 84. | The Permittee shall submit an updated version of the <b>Giant Mine Remediation Project Closure and Reclamation Plan</b> , including tables of Closure Objectives and Closure Criteria, each year to reflect Project updates and changes identified in any <b>Site-Wide Management and Monitoring Plan(s)</b> or <b>Design Plan(s)</b> , approved by the Board.   | <b>CLOSURE AND<br/>RECLAMATION PLAN<br/>– ANNUAL UPDATES</b> |

85.	The Permittee shall submit a Table of Contents and Draft Schedule for the <b>Post-Closure Monitoring and Maintenance Plan</b> to the Board, for approval, within one year of completing all Design Plans. The <b>Perpetual Care Plan</b> should be included, for information only, as an appendix to the <b>Post-Closure Monitoring and Maintenance Plan</b> .	POST-CLOSURE MONITORING AND MAINTENANCE PLAN – TABLE OF CONTENTS
86.	Within six months of completing Closure and Reclamation of any Project Component, the Permittee shall submit to the Board, a Project Component-specific <b>Closure and Reclamation Completion Report</b> . The Report shall be in accordance with the <i>MVLWB/AANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i> .	CLOSURE AND RECLAMATION COMPLETION REPORT
87.	Within one year of submission of all <b>Closure and Reclamation Completion Reports</b> , the Permittee shall submit to the Board, a <b>Final Closure and Reclamation Report</b> to the Board.	FINAL CLOSURE AND RECLAMATION REPORT
88.	Upon submission of the <b>Final Closure and Reclamation Report</b> and a minimum of every five years thereafter, the Permittee shall submit to the Board, for approval, a <b>Performance Assessment Report</b> . The Report shall be in accordance with the <i>MVLWB/AANDC Guidelines for the Closure and Reclamation of Advanced Mineral Exploration and Mine Sites in the Northwest Territories</i> .	PERFORMANCE ASSESSMENT REPORT
89.	The Permittee shall manage overburden as approved in the <b>Waste Management and Monitoring Plan, Giant Mine Remediation Project Closure and Reclamation Plan</b> , and associated <b>Design Plan(s)</b> , or as otherwise authorized in writing by an Inspector.	MANAGEMENT OF OVERBURDEN
90.	Prior to the expiry date of this Permit, the Permittee shall complete all cleanup and restoration of the lands used as described in the approved <b>Giant Mine Remediation Closure and Reclamation Plan</b> and associated <b>Design Plans</b> .	FINAL CLEANUP AND RESTORATION
91.	Prior to the expiry date of this Permit, the Permittee shall initiate active revegetation of disturbed areas as described in the approved <b>Giant Mine Remediation Closure and Reclamation Plan</b> and associated <b>Design Plan(s)</b> .	ACTIVE REVEGETATION
92.	The Permittee shall carry out progressive reclamation of disturbed areas as soon as it is practical to do so.	PROGRESSIVE RECLAMATION
<b>26(1)(p) Display of Permits and Permit Numbers</b>		
93.	The Permittee shall display a copy of this Permit in the main administrative building established to carry out this land-use operation.	DISPLAY PERMIT
94.	<b>26(1)(q) Biological and Physical Protection of the Land</b>	
	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



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| 95. | The Permittee shall comply with the <b>Engagement Plan</b> , 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.  | <b>ENGAGEMENT PLAN</b>               |
| 96. | The Permittee shall, within six months following the effective date of this Permit, submit to the Board, for approval, an updated version of the <b>Engagement Plan</b> . The updated version shall be developed in accordance with the MVLWB <i>Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits</i> . | <b>ENGAGEMENT PLAN<br/>– REVISED</b> |
| 97. | All revised plans submitted to the Board shall include a brief summary of the changes made to the plan.  | <b>SUMMARY OF<br/>CHANGES</b>        |