

DRAFT Conditions Annexed to and Forming Part of Land Use Permit #MV2022S0011

Part A: Scope of Permit

1. This Permit entitles the Permittee to conduct the following land-use operation:
 - a) Geotechnical Drilling and monitoring within the City of Yellowknife at Pumphouse No.1, Pumphouse No.2, Pumphouse No.2 Access Road and Ingraham Trail (Hwy 4), and Lift Station No. 1.
 - b) Use of equipment
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, Deline, Tłıchǫ, or Municipal laws.

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

Act - the *Mackenzie Valley Resource Management Act*.

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

Archaeological Overview - a study of archaeological sites as defined by the Prince of Wales Northern Heritage Centre *Guidelines for Developers for the Protection of Archaeological Sites in the Northwest Territories*.

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

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

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

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 Fluid - 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.

Durable Land - land that is able to withstand repeated use, such as gravel or sand with minimal vegetative cover.

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 designed and approved by a Professional Engineer, including but not limited to the [enter list of structures/facilities] associated with the Project.

Flowing Artesian Well - a well in which water:

- a) Naturally rises above the ground surface or the top of any casing; and
- b) Flows naturally, either intermittently or continuously.

Fracturing Fluid - the fluid used to perform a hydraulic fracturing treatment, including the applicable base fluid and all additives.

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.

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 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.

Oil and Gas Drilling Sump - a surface excavation, constructed of material that exhibits low permeability (hydraulic conductivity of less than 10^{-6} cm/s), for the purpose of depositing and containing Drilling 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.

Permafrost - ground (soil or rock) that remains at or below 0°C for at least two consecutive years.

Professional Engineer - a person registered with the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists to practice as a Professional Engineer in the Northwest Territories as per the territorial *Engineering and Geoscience Professions Act*, and whose professional field of specialization is appropriate to address the components of the Project at hand.

Progressive Reclamation - Closure and Reclamation activities conducted during the operating phase of the project.

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.

Shut Down Period - The period of time between [DATE and DATE] each year, for the purpose of this operation.

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

Spring Break-up – [March 31/April 15] each year, for the purpose of this operation.

Safety Data Sheet - a technical document, typically written by the manufacturer or supplier of a chemical, that provides information about the hazards associated with the product, advice about safe handling and storage, and emergency response procedures.

Sump - a human-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 - 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.

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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. The Permittee shall only conduct this land-use operation on lands designated in the application.	LOCATION OF ACTIVITIES
2. Prior to the commencement of drilling, the Permittee shall submit the target areas and final 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 drilling operation or construct an adit or drill site within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.	DRILLING/ ADIT SETBACK
4. Prior to the commencement of the land-use operation, the Permittee shall accompany an Inspector during an inspection of the proposed land use area.	INSPECT LOCATIONS
26(1)(b) Time	
5. At least 48 hours prior to the initial commencement of the land-use operation, the Permittee's Field Supervisor shall notify the Board and contact an Inspector at (867) [REDACTED]	INITIAL NOTIFICATION – CONTACT INSPECTOR
6. At least 48 hours prior to commencement of the land-use operation, the Permittee shall provide the following information, in writing, to the Board and 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
7. 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; b) when final cleanup and reclamation of the land used will be completed; and c) when the Final Plan will be submitted. 	REPORTS BEFORE FINAL REMOVAL
26(1)(c) Type and Size of Equipment	

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| 8. | The Permittee shall only use equipment of a similar type, size, and number to that listed in the complete application. | USE APPROVED
EQUIPMENT |
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26(1)(d) Methods and Techniques

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26(1)(e) Type, Location, Capacity, and Operation of All Facilities

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| 9. | The Permittee shall ensure that the land use area is kept clean at all times. | CLEAN WORK
AREA |
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26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land

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| 10. | The Permittee shall insulate the ground surface beneath all structures associated with this land-use operation to prevent: <ul style="list-style-type: none"> a) any vegetation present from being removed; b) the melting of Permafrost; and c) the ground settling and/or eroding. | PERMAFROST
PROTECTION |
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| 11. | The land-use operation shall not cause obstruction to any natural drainage. | NATURAL
DRAINAGE |
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| 12. | The Permittee shall install and maintain suitable erosion control structures as the land-use operation progresses. | PROGRESSIVE
EROSION
CONTROL |
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| 13. | The Permittee shall apply appropriate mitigation at the first sign of erosion. | REPAIR
EROSION |
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| 14. | The Permittee shall, where flowing water from a Borehole is encountered: <ul style="list-style-type: none"> 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 |
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| 15. | The Permittee shall prepare the site in such a manner as to prevent rutting or gouging of the ground surface. | PREVENTION OF
RUTTING |
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| 16. | The Permittee shall suspend overland travel of equipment or vehicles at the first sign of rutting or gouging. | SUSPEND
OVERLAND
TRAVEL |
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| 17. | The Permittee shall not remove vegetation or operate heavy equipment within 100 metres of the Ordinary High Water Mark of any Watercourse. | EQUIPMENT:
WATERCOURSE
BUFFER |
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26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material

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| 18. | At least seven days prior to the use of any chemicals that were not identified in the complete application, the Safety Data Sheets must be provided to the Board and an Inspector. | CHEMICALS |
| 19. | 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. | DRILLING NEAR WATER OR ON ICE |
| 20. | The Permittee shall remove all Drilling Waste containing Toxic Material to an approved disposal facility. | DRILLING WASTE DISPOSAL |
| 21. | The Permittee shall not allow any Drilling Waste to spread to the surrounding lands or Watercourses. | DRILLING WASTE CONTAINMENT |
| 22. | The Permittee shall dispose of all Toxic Material as described in the approved Waste Management Plan. | WASTE CHEMICAL DISPOSAL |
| 23. | The Permittee shall dispose of all combustible Waste petroleum products by removal to an approved disposal facility. | WASTE PETROLEUM DISPOSAL |
| 24. | The Permittee shall provide written notification to the Board and Inspector a minimum of 10 days prior to the initial deposit of Waste, demonstrating that the licenced disposal facility has agreed to accept the Waste and has the capacity to receive the volumes of Waste requested.
26(1)(h) Wildlife and Fish Habitat | NOTIFICATION OF SOLID WASTE DISPOSAL |
| 25. | The Permittee shall take all reasonable measures to prevent damage to wildlife and fish Habitat during this land-use operation.
26(1)(i) Storage, Handling, and Disposal of Refuse or Sewage | HABITAT DAMAGE |
| 26. | The Permittee shall dispose of all Waste as described in 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 |
| 27. | The Permittee shall keep all garbage and debris in a secure container until disposal.
26(1)(j) Protection of Historical, Archaeological, and Burial Sites | GARBAGE CONTAINER |
| 28. | The Permittee shall not operate any vehicle or equipment within 150 metres of a known or suspected historical or archaeological site or burial ground. | ARCHAEOLOGICAL BUFFER |

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| 29. | The Permittee shall not knowingly remove, disturb, or displace any archaeological specimen or site. | SITE DISTURBANCE |
| 30. | 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) 873-0506 or an Inspector at (867) [REDACTED] and the Prince of Wales Northern Heritage Centre at 767-9347 ext. 71251 or ext. 71255. | SITE DISCOVERY AND NOTIFICATION |
| 31. | At least 30 days prior to any new land disturbance, including new drill sites, the Permittee shall conduct an Archaeological Overview to identify areas of high and low potential for archaeological and burial sites and shall submit a summary report to the Board and the Prince of Wales Northern Heritage Centre. | ARCHAEOLOGICAL OVERVIEW |
| 32. | Prior to disturbance in areas of high potential for archaeological or burial sites identified in the Archaeological Overview, 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. | AIA – HIGH POTENTIAL |
| 33. | 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. | AIA |
| 26(1)(k) Objects and Places of Recreational, Scenic, and Ecological Value | | |
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| 26(1)(l) Security Deposit | | |
| 34. | All costs to remediate the area under this Permit are the responsibility of the Permittee. | RESPONSIBILITY FOR REMEDIATION COSTS |
| 26(1)(m) Fuel Storage | | |
| 35. | The Permittee shall:
a) examine all Fuel Storage Containers and Tank for leaks; and
b) repair all leaks immediately. | REPAIR LEAKS |
| 36. | The Permittee shall not allow petroleum products to spread to surrounding lands or Watercourses. | FUEL CONTAINMENT |

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| 37. | The Permittee shall mark all Fuel Storage Containers and Tanks with the Permittee's name. | MARK
CONTAINERS AND
TANKS |
| 38. | The Permittee shall have a maximum of 600 litres of fuel stored on the land use site at any time, unless otherwise approved by the Board. | MAXIMUM FUEL
ON SITE |
| 39. | The Permittee shall comply with 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 |
| 40. | 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 |
| 41. | 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. | DRIP TRAYS |
| 42. | The Permittee shall clean up all leaks, spills, and contaminated material immediately | CLEAN UP SPILLS |
| 43. | During the period of this Permit, if a spill occurs or is foreseeable, the Permittee shall: <ul style="list-style-type: none"> a) implement the approved Spill Contingency Plan; b) report it-immediately using the NU-NT Spill Report Form by one of the following methods: <ul style="list-style-type: none"> • Telephone: (867) 920-8130 • Fax: (867) 873-6924 • E-mail: spills@gov.nt.ca • <u>Online: Spill Reporting and Tracking Database</u> c) within 24 hours, notify the Board and an Inspector; and 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. | REPORT SPILLS |

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

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| 44. | The Permittee shall not clear any vegetation. | NO CLEARING |
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26(1)(o) Restoration of the Lands

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| 45. | The Permittee shall dispose of all overburden as approved by the Board, or as otherwise authorized in writing by an Inspector. | DISPOSAL OF
OVERBURDEN |
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46. Prior to the end of the land-use operation, the Permittee shall complete all cleanup and restoration of the lands used. **FINAL CLEANUP AND RESTORATION**

26(1)(p) Display of Permits and Permit Numbers

47. 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

48. Prior to the commencement of the land-use operation, the Permittee shall submit a revised [REDACTED] Plan (e.g. Waste Management or Spill Contingency or Engagement Plan) in accordance with [REDACTED] Guidelines (e.g. MVLWB’s “Guidelines for Developing a Waste Management Plan” or Aboriginal Affairs and Northern Development Canada’s “Guidelines for Spill Contingency Planning” or MVLWB’s “Engagement Guidelines for Applicants and Holders of Water Licences and Land Use Permits”) to the Board for approval. **SUBMIT REVISED PLAN**

49. 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**

50. The Permittee shall comply with 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**

51. All revised plans submitted to the Board shall include a brief summary of the changes made to the plan. **SUMMARY OF CHANGES**