



Mackenzie Valley Land and Water Board
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June 18, 2015

File: MV2015X0006

Dr. Sally Pehrsson, Ph.D
Research Scientist/Geoscience for Energy and Minerals
Geological Survey of Canada
601 Booth Street
Ottawa ON K1A 0E8

Email: sally.pehrsson@NRCan-RNCan.gc.ca

Dear Dr. Pehrsson:

**Issuance of Type A Land Use Permit
South Rae Area Geological Sampling Study**

Attached is Type A Land Use Permit MV2015X0006, granted by the Mackenzie Valley Land and Water Board (MVLWB or the Board) in accordance with the *Mackenzie Valley Resource Management Act*. This Permit has been approved for a period of three years commencing June 18, 2015 and expiring June 17, 2018.

The Board hereby approves the following Plans as summarized in Table 1:

Table 1: Plans that have been approved

| Condition Number | Title of Plan/Program/Report | Date Received |
|-------------------------|-------------------------------------|----------------------|
| 18 | Waste Management Plan | May 8, 2015 |
| 35 | Spill Contingency Plan | May 8, 2015 |
| 45 | Engagement Plan | May 8, 2015 |

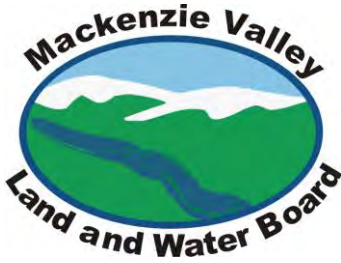
A copy of this Permit and all related correspondence and documents has been filed on the Public Registry at the MVLWB office. Please be advised that this letter, inspection reports, and related correspondence is part of the Public Registry and is intended to keep all interested parties informed of the 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 the Geological Survey of Canada is anticipated and appreciated. If you have any questions or concerns, please contact Angela Love at (867) 766-7456 or email angela.love@mvlwb.com.

Yours sincerely,

Willard Hagen
Chair

Copied to: Distribution List



Land Use Permit

| | | |
|--------------------------|---------------------------------|--------------|
| Permit Class A | Permit No MV2015X0006 | Amendment No |
|--------------------------|---------------------------------|--------------|

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

Geological Survey of Canada

Permittee

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

| | |
|--|-------------------------------|
| Signature Dr. Sally Pehrsson | Date April 20, 2015 |
| Type of Land Use Operation Miscellaneous | |
| Location South Rae Area (southeastern Northwest Territories) | |

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

Dated at Yellowknife this 18 day of June, 2015

Signature Chair

A handwritten signature in black ink, appearing to be "S. Pehrsson".

Signature Witness

A handwritten signature in black ink, appearing to be "A. Stewart".

Commencement Date

June 18, 2015

Expiry Date

June 17, 2018

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 # MV2015X0006

Part A: Scope of Permit

1. This Permit entitles the Geological Survey of Canada to conduct the following land use operation:
 - a) The use of vehicles,
 - b) The establishment of a camp, and
 - c) The establishment of fuel caches.

All activities will be bound, within the Northwest Territories, by the following locations:

NW corner: 62°00'00"N 108°00'00"W
NE corner: 62°00'00"N 102°00'00"W
S centre edge 1: 61°00'00"N 102°00'00"W
S centre edge 2: 61°00'00"N 105°00'00"W
SE corner: 60°00'00"N 105°00'00"W
SW corner: 60°00'00"N 108°00'00"W

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, 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.

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 June 2013, or subsequent 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 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 *Mackenzie Valley Resource Management Act*.

Minister - the Minister of Indian Affairs and Northern Development.

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).

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.

Sewage Disposal Facilities - Sump(s) and/or Sewage collection tank(s) and/or storage containers designed to hold Sewage.

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)

26(1)(a) Location and Area

- | | | |
|----|---|-------------------------------|
| 1. | The Permittee shall not conduct any part of the land-use operation within 300 metres of any privately owned or leased land or structure, unless otherwise authorized in writing by the Board. | Private Property |
| 2. | The Permittee shall locate all camps on Durable Land or previously cleared areas. | Camp Location |
| 3. | 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

- | | | |
|----|---|-------------------------------|
| 4. | At least 48 hours prior to the commencement of this land-use operation, the Permittee's Field Supervisor shall contact an Inspector at (867) 872-2558. | Contact Inspector |
| 5. | 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: 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 |
| 6. | At least ten days prior to the completion of the land-use operation, the Permittee shall advise an Inspector of: 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 |

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. | Prior to the expiry of this Permit, the Permittee shall replace all excavated material, unless otherwise authorized in writing by an Inspector. | Excavated Material |
|----|---|---------------------------|

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

- | | | |
|-----|---|-------------------------|
| 9. | The Permittee shall ensure that the land use area is kept clean at all times. | Clean Work Area |
| 10. | The Permittee shall not locate any Sump within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector. | Sumps From Water |

26(1)(f) Control or Prevention of Ponding of Water, Flooding, Erosion, Slides, and Subsidence of Land

11. The land-use operation shall not cause obstruction to any natural drainage. **Natural Drainage**

26(1)(g) Use, Storage, Handling, and Ultimate Disposal of Any Chemical or Toxic Material

12. 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**

13. Prior to the expiry date of this Permit or the end of operations, whichever comes first, the Permittee shall backfill and restore all Sumps, unless otherwise authorized in writing by an Inspector. **Backfill Sumps**

14. The Permittee shall maintain a record of all spills. For all reportable spills, in accordance with the GNWT *Spill Contingency Planning and Reporting Regulations*, the Permittee shall:
- 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.
- Report Spills**

15. The Permittee shall dispose of all Toxic Material as described in the approved Waste Management Plan. **Waste Chemical Disposal**

16. The Permittee shall dispose of all combustible waste petroleum products by removal to an approved disposal facility. **Waste Petroleum Disposal**

26(1)(h) Wildlife and Fish Habitat

17. 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

18. 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 Plan**

19. The Permittee shall keep all garbage and debris in a secure container until disposal. **Garbage Container**

20. 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**

21. The Permittee shall dispose of all Sewage and Greywater into a Sump at least 100 metres from the Ordinary High Water Mark of any Watercourse. **Sewage Disposal**

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

22. The Permittee shall not operate any vehicle or equipment within 150 metres of a known or suspected historical or archaeological site or burial ground, unless otherwise authorized in writing by an Inspector and the Prince of Wales Northern Heritage Centre. **Archaeological Buffer**

23. The Permittee shall not knowingly remove, disturb, or displace any archaeological specimen or site. **Site Disturbance**

24. The Permittee shall, where a suspected archaeological or historical site, or burial ground is discovered: **Site Discovery and Notification**

- a) immediately suspend operations on the site; and
- b) notify the Board at (867) 669-0506 or an Inspector at (867) 872-2558, and the Prince of Wales Northern Heritage Centre at (867) 920-6182 or 873-7688.

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

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26(1)(l) Security Deposit

25. All costs to remediate the area under this Permit are the responsibility of the Permittee. **Responsibility for Remediation Costs**

26(1)(m) Fuel Storage

26. The Permittee shall: **Check for Leaks**

- a) examine all Fuel Storage Tanks and containers for leaks a minimum of once per day; and
- b) repair all leaks immediately.

27. The Permittee shall not place any Fuel Storage Tanks or Containers within 100 metres of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector. **Fuel Near Water**

28. The Permittee shall ensure that all fuel caches have adequate Secondary Containment. **Fuel Cache Secondary Containment**

29. The Permittee shall set up all refueling points with Secondary Containment. **Secondary Containment - Refueling**

30. The Permittee shall not allow petroleum products to spread to surrounding lands or Watercourses. **Fuel Containment**

31. The Permittee shall locate mobile fuel facilities on land when the facilities are stationary for more than 12 hours. **Fuel on Land**

| | | |
|--|--|--------------------------------------|
| 32. | The Permittee shall mark all Fuel Storage Containers and Tanks with the Permittee's name. | Mark Containers |
| 33. | Within ten days of the establishment of any fuel cache, the Permittee shall report the location and quantity of the cache in writing to an Inspector and the Board. | Report Fuel Location |
| 34. | The Permittee shall seal all outlets of Fuel Storage Containers and store the containers on their sides with the outlets located at 3 and 9 o'clock, except for containers currently in use. | Seal Outlet |
| 35. | 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 |
| 36. | Prior to commencement of operations, the Permittee shall ensure that spill-response equipment is in place to respond to any potential spills. | Spill Response |
| 37. | 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 |
| 38. | 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 | | |
| 39. | The Permittee shall not clear any vegetation. | No Clearing |
| 26(1)(o) Restoration of the Lands | | |
| 40. | Prior to the expiry date of this Permit, the Permittee shall complete all cleanup and restoration of the lands used. | Final Cleanup and Restoration |
| 41. | 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 | | |
| 42. | The Permittee shall display a copy of this Permit in each campsite established to carry out this land-use operation. | Display Permit |
| 26(1)(q) Biological and Physical Protection of the Land | | |
| 43. | The Permittee shall not move any equipment or commence any drilling when one or more caribou are within five hundred (500) metres. | Caribou Disturbance |
| 44. | 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 |

45. 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

46. All revised plans submitted to the Board shall include a brief summary of the changes made to the plan.

Summary of Changes



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Reasons for Decision

Issued pursuant to paragraph 40(2)(c) of the Mackenzie Valley Land Use Regulations (MVLUR) and section 121 of the *Mackenzie Valley Resource Management Act* (MVRMA)

| Land Use Permit Application | |
|------------------------------|--|
| Preliminary Screener | Mackenzie Valley Land and Water Board |
| Reference/File Number | MV2015X0006 |
| Applicant | Geological Survey of Canada |
| Project | Geological Sampling Study in the South Rae Area (southeastern Northwest Territories) |

Decision from Mackenzie Valley Land and Water Board Meeting of

June 18, 2015

With respect to this Application, notice was given in accordance with sections 63 and 64 of the MVRMA. There was no public hearing held in association with this Application.

Background

- April 22, 2015 – Application submitted;
- May 1, 2015 – Application deemed incomplete;
- May 8, 2015 – Additional information submitted;
- May 11, 2015 – Application deemed complete;
- May 29, 2015 – Reviewer comments due;
- June 5, 2015 – Geological Survey of Canada responses due; and
- June 18, 2015 – Application presented to the Board for decision.

Decision

The Board is satisfied that:

- the development has been screened pursuant to the MVRMA;
- any potential adverse environmental effects are insignificant or mitigable with known technology; and
- there is no likelihood that the proposed development might be a cause of public concern.

After reviewing the submissions of the Applicant, the written comments received by the Board and the Staff Report prepared for the Board, the Board, having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope, and intent of the MVRMA and Regulations made thereunder, has determined that:

Land Use Permit MV2015X0006 be issued subject to the terms and conditions contained therein.

The Board's reasons for this decision are as follows:

- The Board is satisfied that appropriate consultation has been conducted and that advice has been sought and considered, in accordance with sections 63 and 64 of the MVRMA.
- It is the opinion of the Board that the terms and conditions attached to MV2015X0006, pursuant to the MVRMA, will prevent or mitigate any potential significant environmental impacts which might result from the project.
- The use of land proposed by the Applicant is of a nature contemplated by the MVRMA.
- The Board has reviewed the information contained in the June 9, 2015 Staff Report regarding environmental impacts and/or public concerns.

Land Use Permit MV2015X0006 contains provisions that the Board feels necessary to ensure and monitor compliance with the MVRMA and the Regulations made thereunder and to provide appropriate safeguards in respect of the Applicant's use of the land affected by the Permit.

SIGNATURE

Mackenzie Valley Land and Water Board



June 18, 2015

Chair

Date