



**Environment and Climate**  
Environmental Approvals Branch  
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Public Registry File Number: 6000.00  
File Number: 53234

September 11, 2023

Morley Nagle  
Environmental Consultant  
Indigenous Reconciliation and Northern Relations  
27 – 2<sup>nd</sup> Ave SW, Box 15  
Dauphin MB R7N 3E5  
[Morley.Nagle@gov.mb.ca](mailto:Morley.Nagle@gov.mb.ca)

Dear Morley Nagle:

**Re: Pine Dock Regional Solid Waste Disposal Site Permit No. 36664 P1**

Please find enclosed Permit No. 36664 P1 in response to your proposal dated August 31, 2023. You wish to continue operating the Pine Dock Regional Solid Waste Disposal Site on portions of SW 18-30-6 EPM in the Province of Manitoba.

Indigenous Reconciliation and Northern Relations must follow all permit requirements and federal, provincial, and municipal regulations and by-laws.

Anyone affected by this decision may appeal, in writing, to the Minister of Environment and Climate at [minec@leg.gov.mb.ca](mailto:minec@leg.gov.mb.ca) by October 11, 2023. The permit is available on the public registry at <https://www.gov.mb.ca/sd/eal/registries/6000wmfpermits/index.html>.

For clauses 9-16, the designated environment officer of the Environmental Approvals Branch is Edwin Yazon, who may be contacted at [Edwin.Yazon@gov.mb.ca](mailto:Edwin.Yazon@gov.mb.ca) or 431-335-2554. If you have any questions about this approval, please contact Kim Kmet, Acting Regional Supervisor, Environmental Compliance and Enforcement Branch at [EnvCEInterlake@gov.mb.ca](mailto:EnvCEInterlake@gov.mb.ca) or 204-641-4091.

Sincerely,

Original Signed By  
Agnes Wittmann  
Director  
The Environment Act

Enclosure

c. Edwin Yazon  
Kim Kmet

# Waste Disposal Ground Operating Permit



File No. : 53234

Permit No.: 36664 P1

Issue Date: September 11, 2023

Following the Waste Management Facilities Regulation under The Environment Act, Indigenous Reconciliation and Northern Relations is hereby permitted to run the Pine Dock Regional Solid Waste Disposal Site (facility) on portions of SW 18-30-6 EPM in the Province of Manitoba. Schedule A of this permit identifies the facility.

This permit is subject to being amended, suspended, or revoked under sections 7 and 9 of the Waste Management Facilities Regulation.

## **General Terms and Operating Conditions**

1. This permit expires on September 11, 2028.
2. The operator must maintain and operate the facility following the Waste Management Facilities Regulation and any future amendments, and this permit.
3. The operator must obtain approval in writing from the director before altering the facility.

## **Materials Acceptance and Handling**

4. The operator must segregate materials collected for recycling or reuse, and must temporarily stockpile these materials in clearly signed designated areas. The operator must maintain these areas to control weeds, vectors, and the quality of the materials.
5. The operator must remove the materials identified in clause 4 of this permit regularly or upon the request of an environment officer, within the timeframe specified.

## **Placement and Cover**

6. The operator may use material other than soil to cover the active area upon receiving written approval from the director or the environment officer.

## **Surface Water Management**

7. The operator must construct the facility such that all uncontaminated surface water flows to the perimeter ditch and impacted water from all material storage areas is contained within the facility boundaries.

## **Site Construction and Upgrading**

8. The operator must have all waste disposal cells, modifications, or alterations designed by and construction overseen by an engineer.
9. The operator must, before beginning any construction at the facility, submit an electronic copy of the final engineering design plans, sealed by an engineer, to the designated environment officer. The plans will show the engineering details of each new or altered component and the location of each new or altered component relative to other components.

10. The operator must construct the facility following the design plans submitted to the designated environment officer following clause 9 of this permit and subject to any terms and conditions set by the designated environment officer.
11. Notwithstanding clause 10 of this permit, construction must be subject to the following conditions:
  - a) the operator must provide for testing of all clay liners and cut-off walls by a qualified consultant to confirm that compaction is 95% Standard Proctor Density on maximum lifts of 0.15 m (150 mm); and
  - b) all active areas or leachate containment developed from or with clay must be constructed to achieve a hydraulic conductivity of not more than  $1 \times 10^{-7}$  cm/s with a minimum thickness of one metre perpendicular to the surface. If appropriate or sufficient clay is not available an alternative proposal must be submitted to the designated environment officer for written approval before construction.
12. The operator must, unless approved by the designated environment officer, arrange with the designated environment officer a mutually acceptable time and date for any required soil sampling between the 15<sup>th</sup> day of May and the 15<sup>th</sup> day of October of any year.
13. The operator must, following Schedule B of this permit, take and test undisturbed soil samples from:
  - a) the clay of new waste disposal cell(s);
  - b) leachate ponds; and
  - c) any clay component of the facility requiring testing by the designated environment officer.
14. The number and location of samples and test methods will be specified by the designated environment officer up to a maximum of 20 samples per cell or clay component of the facility.
15. The operator must, not less than two weeks before using any component of the facility as referenced in clause 13 of this permit, submit for the approval of the designated environment officer the results of the tests carried out following clause 13 of this permit.
16. The operator must:
  - a) prepare record drawings of the facility and must label the drawings "record drawings"; and
  - b) submit "record drawings" along with a construction report to the designated environment officer within 120 days of the completion of construction of the facility. The construction report must include the following:
    - (i) the engineer's inspection dates and notes;
    - (ii) density measurements (for clay lined facility); and
    - (iii) updated site plan showing the new cell, monitoring well installation logs, locations, and background water samples (if applicable).

### **Burning of Specified Waste**

17. The operator must only burn:
  - a) separated and readily combustible materials such as boughs, leaves, loose straw, paper products, cardboard, non-salvageable untreated wood, and packing materials derived from wood; and
  - b) when there is an appropriate volume of materials as identified in clause 17 a) of this permit.

**Composting**

18. The operator must not allow composting at the facility.

**Monitoring and Reporting Requirements**

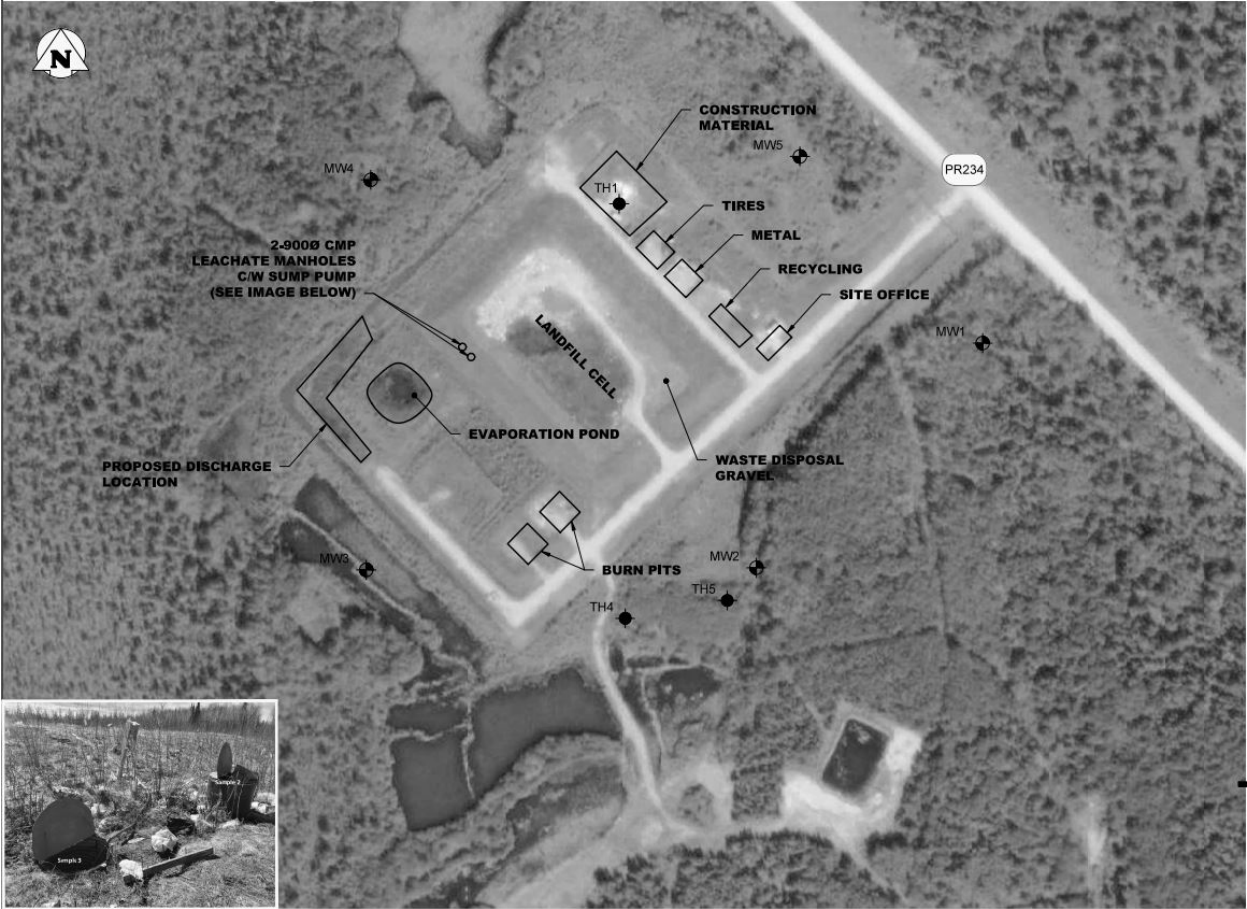
19. The operator must collect, store, and analyze groundwater monitoring well samples using approved field and laboratory techniques. The operator must retain the analytical results in a format acceptable to the environment officer.
20. The operator must sample the groundwater monitoring wells for those parameters identified in Schedule C of this permit once per year, or at a frequency approved by the environment officer.
21. The operator must submit an annual report, in a format acceptable to the environment officer, detailing the sampling methodology, field observations, and results of groundwater sampling analyses, complete with previous results and trends. The operator must submit the report annually to an environment officer no later than December 31<sup>st</sup> of each year.

**Revocation**

22. This permit replaces Permit No. 36664, which is expired.

Original Signed By  
Agnes Wittmann  
Director  
The Environment Act

Schedule A to Permit No. 36664 P1  
Facility layout



**Schedule B to Permit No. 36664 P1**  
**Soil sampling following clause 13 of this permit**

**Soil Sampling**

1. The licensee must provide a drilling rig, acceptable to the designated environment officer, to extract soil samples from the specified liner of the structure. This includes all liners constructed with clay. The drill rig must have the capacity to drill to the maximum depth of the clay liner plus an additional 2 metres. The drill rig must be equipped with both standard and hollow stem augers. The minimum hole diameter must be five inches.
2. For liners placed or found at the surface of the structure, the licensee must provide a machine, acceptable to the designated environment officer, capable of pressing a sampling tube into the liner in a straight line motion along the centre axis line of the sample tube and without sideways movement.
3. Soil samples must be collected and shipped following ASTM Standard D 1587 (Standard Practice for Thin-Walled Tube Sampling of Soils), D 4220 (Standard Practice for Preserving and Transporting Soil Samples), and D 3550 (Standard Practice for Ring-Lines Barrel Sampling of Soils). Thin-walled tubes must meet the stated requirements including length, inside clearance ratio, and corrosion protection. An adequate venting area must be provided through the sampling head.
4. At the time of sample collection, the designated environment officer must advise the licensee as to the soil testing method that must be used on each sample. The oedometer method may be used for a sample where the environment officer determines that the soil sample is taken from undisturbed clay soil which has not been remoulded and which is homogeneous and unweathered. The triaxial test must be used for all samples taken from disturbed and remoulded soils or from non-homogenous and weathered soils.
5. The licensee must provide a report on the collection of soil samples to the designated environment officer and to the laboratory technician which includes but is not limited to a plot plan indicating sample location, depth or elevation of sample, length of the advance of the sample tube length of soil sample contained in the tube after its advancement, the soil test method specified by the environment officer for each soil sample, and all necessary instructions from the site engineer to the laboratory technician.
6. All drill and sample holes must be sealed with bentonite pellets after the field drilling and sampling have been completed.

**Schedule B to Permit No. 36664 P1**  
**Soil sampling methods following clause 13 of this permit**  
**(continued)**

**Soil Testing Methods**

**1. Triaxial Test Method**

- a) The soil samples must be tested for hydraulic conductivity using ASTM D 5084 (Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter).
- b) Soil specimens must have a minimum diameter of 70 mm (2.75 inches) and a minimum height of 70 mm (2.75 inches). The soil specimens must be selected from a section of the soil sample which contains the most porous material based on a visual inspection. The hydraulic gradient must not exceed 30 during sample preparation and testing. Swelling of the soil specimen should be controlled to adjust for: the amount of compaction measured during sample collection and extraction from the tube and the depth or elevation of the sample. The effective stress used during saturation or consolidation of the sample must not exceed 40 kPa (5.7 psi) or the specific stress level, that is expected in the field location where the sample was taken, whichever is greater.
- c) The complete laboratory report, as outlined in ASTM D 5084, must be supplied for each soil sample collected in the field.

**2. Oedometer Test Method**

- a) The soil samples must be tested for hydraulic conductivity using ASTM D 2435 (Standard Test Method for One-Dimensional Consolidation Properties of Soils).
- b) Soil specimens must have a minimum diameter of 50 mm (2 inches) and a minimum height of 20 mm (0.8 inches). The soil specimens must be selected from a section of the soil sample which contains the most porous material based on a visual inspection. The soil specimen must be taken from an undisturbed soil sample. The soil specimen must be completely saturated.
- c) The complete laboratory report, as outlined in ASTM D 2435, must be supplied for each soil sample collected in the field.

**Schedule C to Permit No. 36664 P1**  
**Groundwater chemistry parameters following clause 20 of this permit**

<b>Chemical Parameters</b>	
<b>Inorganics</b>	
Alkalinity – Total	Magnesium – Dissolved
Ammonia – Total	Manganese – Dissolved
Arsenic – Dissolved	Mercury – Dissolved
Barium – Dissolved	Nitrate - Reported as N
Boron – Dissolved	Nitrite - Reported as N
Cadmium – Dissolved	Total Kjeldahl Nitrogen - Reported as N
Calcium – Dissolved	Total Phosphorous
Calcium Carbonate	Potassium – Dissolved
Chloride	Silicon – Dissolved
Chromium – Dissolved	Sodium – Dissolved
Conductivity	Total Dissolved Solids (TDS)
Copper – Dissolved	Sulphate
Iron – Dissolved	Uranium – Dissolved
Lead – Dissolved	Zinc – Dissolved
<b>Volatile Organic Compounds (VOCs)</b>	
BTEX	
<b>Other Organics</b>	
Biological Oxygen Demand (BOD)	Chemical Oxygen Demand (COD)
Dissolved Organic Carbon (DOC)	
<b>Field Parameters</b>	
pH	Groundwater Elevation
Conductivity	Dissolved Oxygen
Temperature	

Note: The director may revise this schedule. All dissolved samples should be filtered in the field and preserved in the field at the time of sampling. The operator must notify the director and the laboratory for dissolved samples not filtered and preserved in the field.