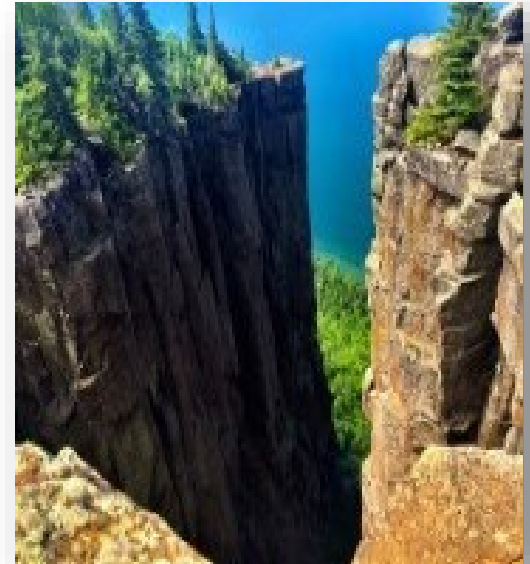


An Introduction to CELA

Northern Services Pilot Project

- Launched in September 2018
- 9-month pilot, part time
- Collaborate with communities, residents, non-profits and community legal aid clinics on existing and emerging issues affecting human health and environmental protection
- Increase reach in areas historically underserved



<http://www.cela.ca/collections/justice/northern-services>

Part I

Context of Drilling Program

Study Areas

Status of Activities

Hornepayne, Ignace and Manitouwadge Status

Preliminary Assessment (Step 3: Phase 2)

Description of Activities

1. Field activities

- Initial field studies: Geophysical surveys, environmental surveys, and geological mapping
- Intensive fieldwork phase: detailed studies that focus on potential repository sites within an area

2. Engagement Activities

Timeline: estimated completion by 2022 (site selection 2023)

Study Areas

Current Drilling and Exploration Activities

Hornepayne

- Permission from MNRF sought for potential drilling – drilling to commence late 2018/early 2019
- Environmental characterization baseline studies being prepared
- Indigenous engagement report not yet submitted (as of Jan 22, 2019) – consultation ongoing

Ignace

- Hydraulic testing finished; drilling commenced (first exploratory hole drilled Jan 2017)
- Preparation for additional borehole drilling underway

Study Areas

Borehole Drilling and Testing

- Rotary drill rig used to obtain rock cores up to a depth of about 1 km
 - DGR is to be constructed at approximate depth of 500m
- Footprint required to drill a borehole is 60m x 60m
- Core reveals geophysical (*ie.* Information on minerals, fractures and groundwater flow) and geomechanical features (*ie.* rock strength), and hydraulic conductivity

Part II

Provincial Authority

*Memorandum of Understanding
Permission Agreement
Mining Act*

2. Provincial Authority

Minister of Natural Resources and Forestry

Public Lands Act, RSO 1990, c P 43

MINISTRY OF NATURAL RESOURCES

Function of Minister

2 (1) The Minister shall have charge of the management, sale and disposition of the public lands and forests.

Agreements

(2) The Minister may enter into agreements with any person for the purpose of carrying out his or her duties under this Act.

2. Provincial Authority

Memorandum of Understanding b/t NWMO & MNRF

MEMORANDUM OF
UNDERSTANDING between ... Minister of Natural Resources and Forestry
And
NUCLEAR WASTE MANAGEMENT ORGANIZATION (referred to as "NWMO")

WHEREAS, when NWMO proposes to conduct a Borehole Drilling Project on Crown Land NWMO will be required to provide site-specific details related to the Borehole Drilling Project;

WHEREAS, MNRF will require NWMO to comply with terms or conditions addressing a range of requirements related to Borehole Drilling Projects on Crown Land, including but not limited to, the environment, biodiversity, and public safety;

2. Provincial Authority

Agreement between NWMO and MNRF

AGREEMENT

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF ONTARIO, as represented by the **Minister of Natural Resources and Forestry** (the "**Ministry**")

AND

THE NUCLEAR WASTE MANAGEMENT ORGANIZATION, as (the "**NWMO**")

(referred to together as the "**Parties**")

AND WHEREAS pursuant to subsection 2(2) of the *Public Lands Act*, 1990, c. P.43 (*PLA*), the Minister, as defined below, has the authority to enter into agreements` with any person for the purpose of carrying out his or her duties under the *Public Lands Act*, including the management of public lands;

Source: "MNRF Ignace Borehole Permission" [online](#)

2. Provincial Authority

Agreement between NWMO and MNRF (con't)

“Borehole Drilling Site” means the lands specified in Appendix A on which the NWMO may conduct the Borehole Drilling Project; this also includes the lands containing roads, trails, equipment laydown, staffing areas—all the areas on Crown land that would be used by NWMO for a Borehole Drilling Project.

“Borehole Drilling Project” means the technical and other activities described in more detail in Appendix B, necessary for the NWMO to determine whether the Borehole Drilling Site may be suitable for a long-term underground storage facility for Canada’s nuclear fuel waste;

7. RESPONSIBILITIES

- 7.1 The NWMO shall be responsible at its own cost and expense for all maintenance directly associated with its use of the Borehole Drilling Site, including, without limitation: janitorial services, garbage removal, access maintenance, snow removal and any necessary rehabilitation of the Borehole Drilling Site as further specified in Appendix B.
- 7.2 In addition to complying and fulfilling the conditions referred to in Article 7.1, on termination or expiry of this agreement, the NWMO shall remove all the improvements, property or other assets from the Borehole Drilling Site, and remove all garbage and debris that resulted from the NWMO’s use of the Borehole Drilling Site during the Term, and leave the Borehole Drilling Site in a clean and safe condition, restored as much as possible to its pre- Borehole Drilling Project. NWMO will be required to submit a *Crown Land Occupation: Occupier’s Self Reporting Form* attached as Appendix C to this Agreement. The Ministry will permit the NWMO to access the Borehole Drilling Site for the purposes described above.

2. Provincial Authority

Agreement between NWMO and MNRF (con't)

- b) Core logging - All core retrieved will be logged, photographed and sampled on site and stored in core boxes. Some core samples will be taken and shipped off-site for laboratory testing. The core boxes, with the remaining core, will be removed from the site and stored in the core laboratory located in Ignace. All core will be logged and labelled for traceability.
- c) Geophysical well logging – The well will be logged using the appropriate truck-based equipment that will be lowered down into the drilled hole. At the completion of each activity, the equipment will be retrieved from the hole. One or more of the tests may require a radioactive source. All regulatory requirements for transporting, handling and removing the equipment will be followed.
- d) Hydraulic testing – A straddle packer system and accompanying equipment will be used to perform the hydraulic testing to determine the hydraulic conductivity of the rock at regular intervals down the borehole. The test locations will be based on the information gained from the geophysical well logging and core logging activities.

2. Provincial Authority

Agreement between NWMO and MNRF (con't)

e) Groundwater sampling and testing – If permeable zones are detected during the drilling and coring activities, samples of water from those areas will be collected, prepared for testing and shipped out for further laboratory analysis.

f) Well sealing – At this time, it isn't determined if the borehole will be abandoned, or revisited and instrumented for additional monitoring. Based on the results from the planned program, there may be a requirement to return to the hole to perform additional testing at a later stage. The borehole will be temporarily sealed at surface and between zones that have differing hydraulic pressures or ground water chemistry (if any are identified). The wells may be instrumented to perform longer term data collection. If longer term data collection is not required, the well will be permanently sealed and abandoned according to provincial regulations.

g) Site operation - The site will operate on a 24/7 basis during drilling and certain testing operations. Workers will access the work site on a daily basis as required for their working shift. The number of workers at the site will vary from 1 to an expected maximum of 15 per shift over the course of the work program. NWMO personnel and authorized visitors may be periodically at the site. Workers will drive to and from the work site.

2. Provincial Authority

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2. Provincial Authority

Mining Act

Public Lands Act

R.S.O. 1990, CHAPTER P.43

Consolidation Period: From March 22, 2017 to the [e-Laws currency date](#)

Last amendment: 2017, c. 2, Sched. 14, s. 21.

Legislative History: 1994, c. 17, s. 133; 1994, c. 25, s. 85; 1996, c. 1, Sched. N, s. 4; 1996, c. 1, Sched. I, s. 48-59; 1999, c. 12, Sched. N, s. 6; 2000, c. 26, Sched. L, s. 9; 2001, c. 5; 2002, c. 17, Sched. F, Table; 2002, c. 18, Sched. L, s. 7; 2002, c. 24, Sched. E, s. 19, Sched. P, s. 5; 2006, c. 21, Sched. F, s. 136 (1); 2006, c. 33, Sched. Z.3, s. 1; 2006, c. 33, Sched. L, ss. 22-24; 2010, c. 16, Sched. 10, s. 4; 2010, c. 18, s. 25 (1, 2); 2011, c. 38; 2012, c. 8, Sched. 49; 2015, c. 38, Sched. 7, s. 59; 2016, c. 8, Sched. 5; 2017, c. 2, Sched. 14, s. 21. [-]

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Mining Act

R.S.O. 1990, CHAPTER M.14

Consolidation Period: From July 1, 2018 to the [e-Laws currency date](#).

Last amendment: 2018, c. 3, Sched. 5, s. 33.

Legislative History: [+]

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8.	Deletion, correction and amendment to registry
8.1	Patented mining claims, application of Acts

2. Provincial Authority

Mining Act - Purpose

“The purpose of this Act is to encourage prospecting, registration of mining claims and exploration for the development of mineral resources, in a manner consistent with the recognition and affirmation of existing Aboriginal and treaty rights in section 35 of the *Constitution Act, 1982*, including the **duty to consult**, and to minimize the impact of these activities on **public health and safety and the environment.**”

2. Provincial Authority

Mining Act - Early Exploration Plans and Permits

- Plans and permits oversee line cutting, mechanized drilling, surface stripping, and pitting and trenching of rock
- **Exploration permit** required if:
 - Clearing is more than 1.5 m in width
 - Drill weight exceeds 150 kg
 - Surface stripping exceeds 100 m²
 - Trenching disturbs more than 3 m³ or 200 m radius
- If thresholds not exceeded, no exploration permit required – only **exploration plan** submitted to Ministry informing of actions

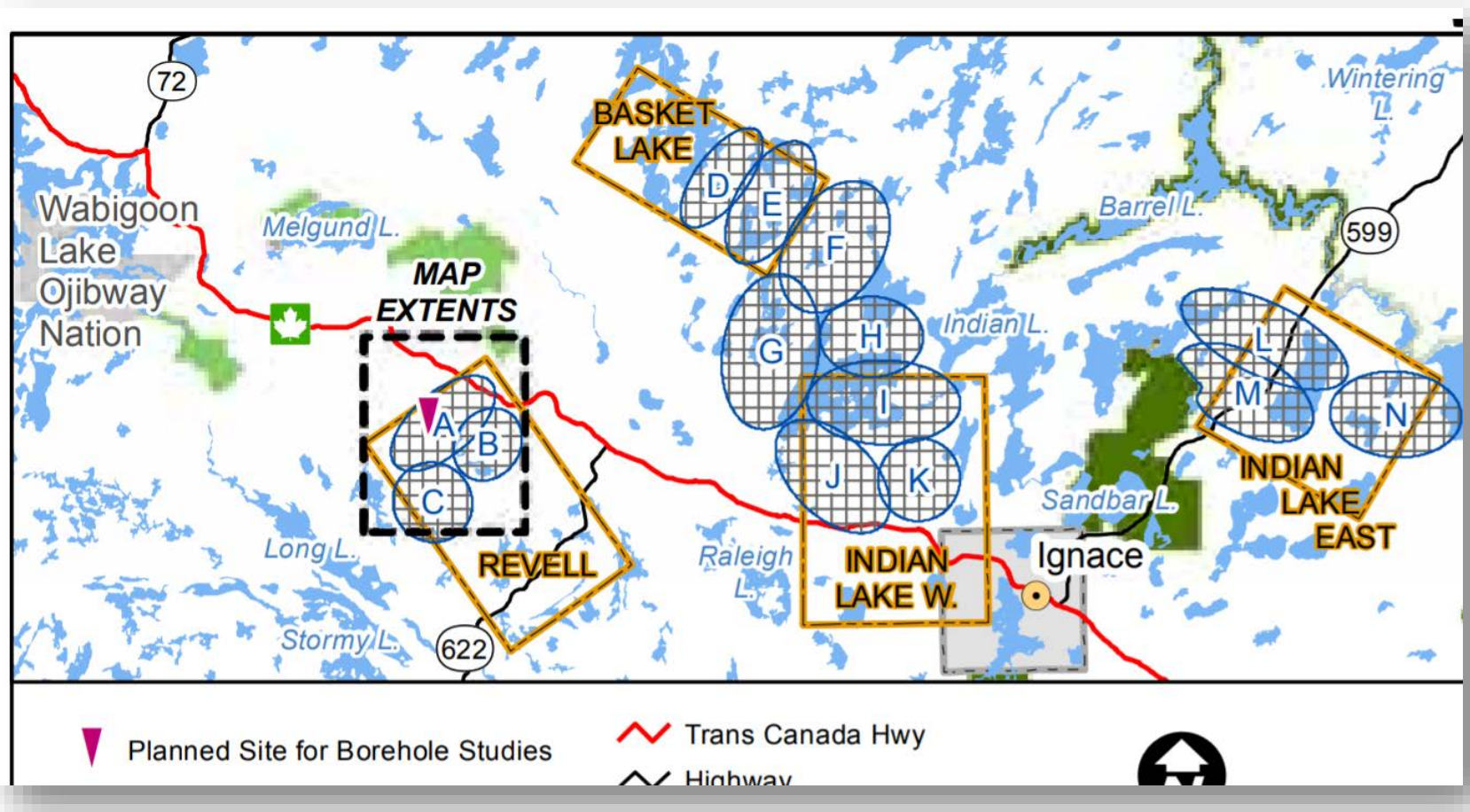
2. Provincial Authority

Mining Act and Environmental Compliance Approvals

- Environmental compliance approvals (ECA) likely to accompany exploration activity include approvals for air emissions, noise, and waste, permit to take water
- ECA (Air and Noise)
 - Air quality modelling done to predict effects of project on existing air quality
 - Noise assessment done to predict effects of project on existing noise levels
- Explore environmental compliance approvals using:
<http://www.accessenvironment.ene.gov.on.ca>

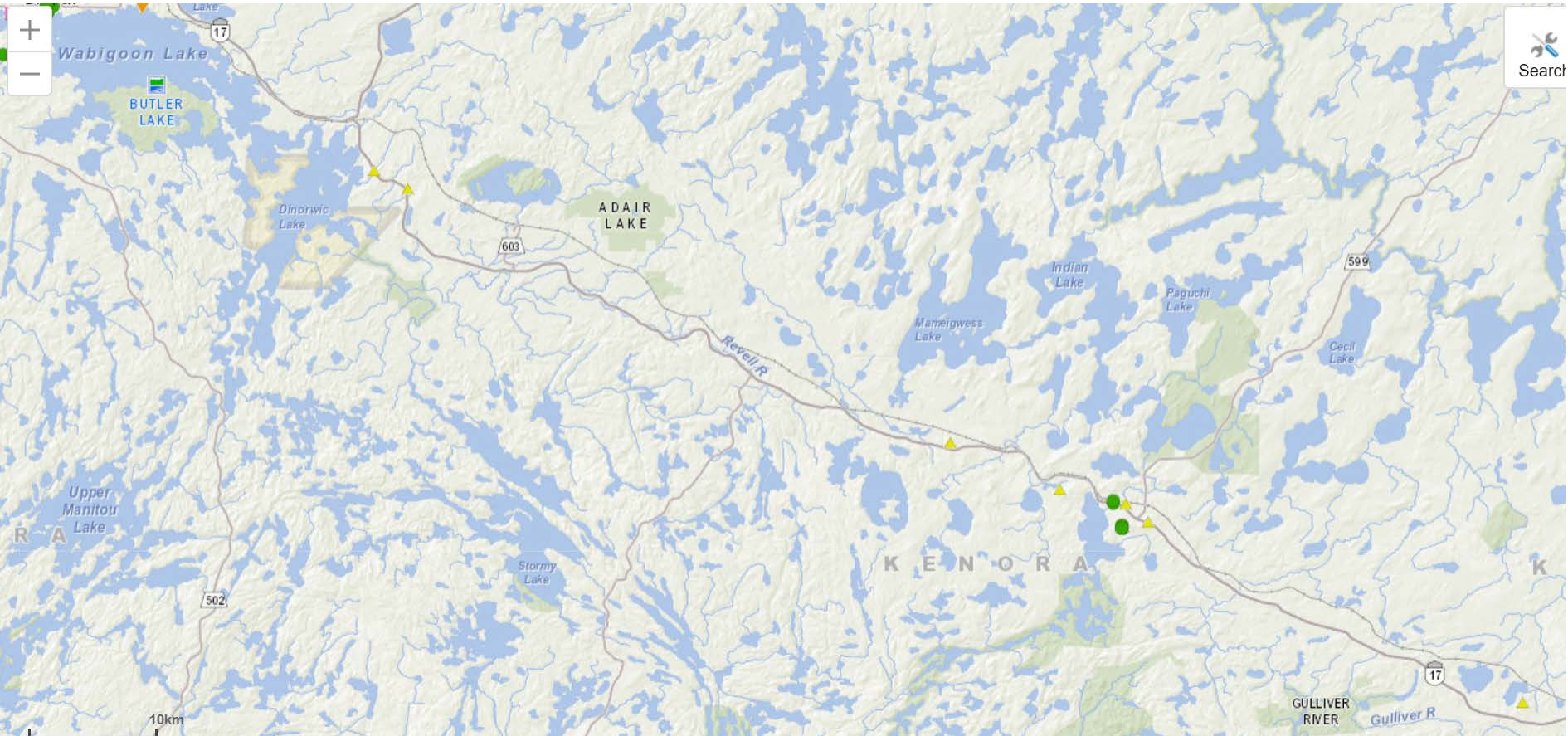
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Mining Act and Environmental Compliance Approvals



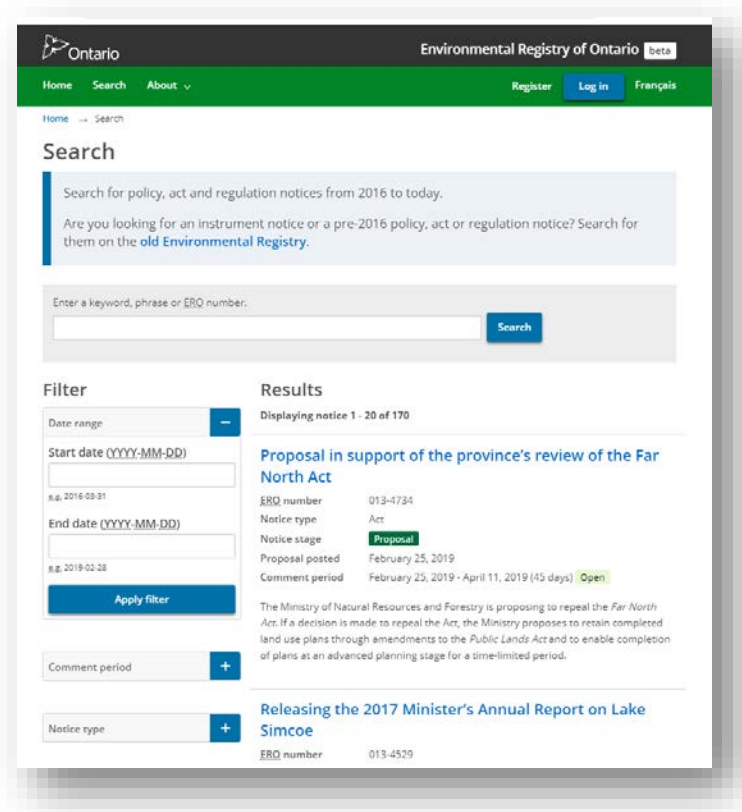
2. Provincial Authority

Mining Act and Environmental Compliance Approvals



3. Resources

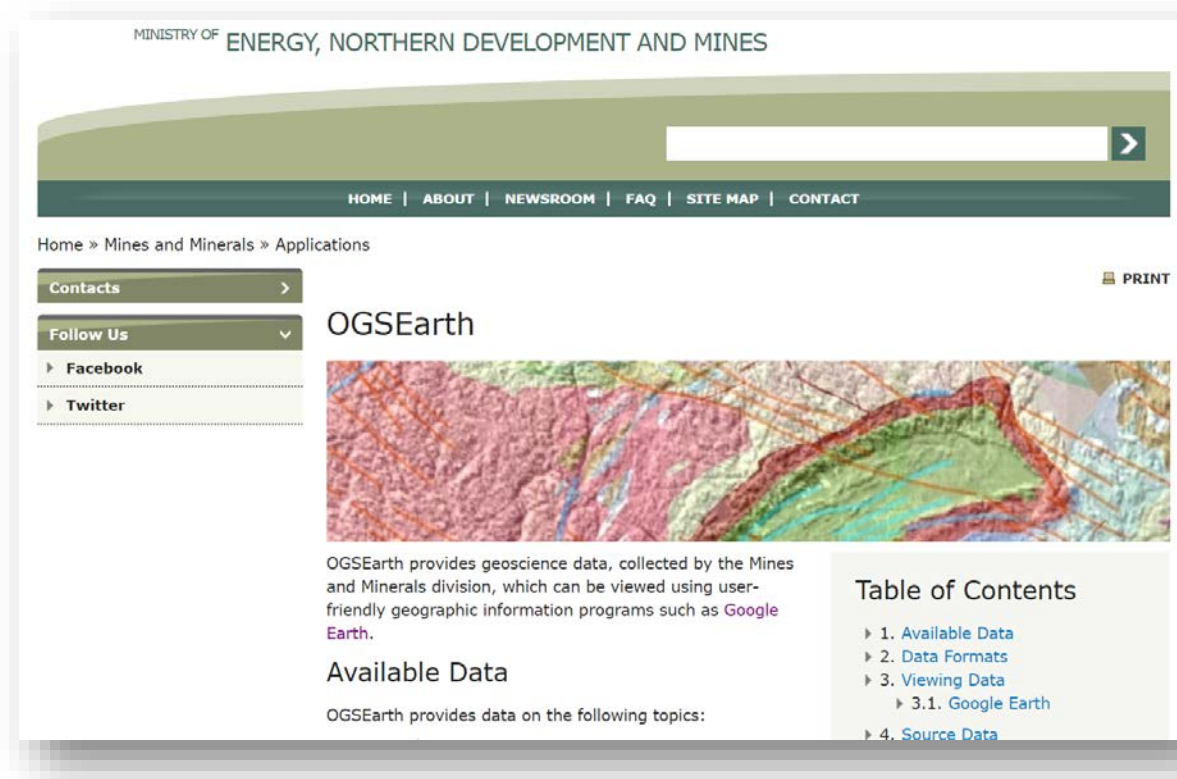
Environmental Registry



Search the Environmental Registry: <https://ero.ontario.ca/>

3. Resources

Tracking Exploration Plans and Permits



Source: <https://www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearch>

3. Resources

Tracking Drill Holes

Drill Holes



Drill Holes contains information on surface and underground drilling done as outlined by assessment files. Data includes: company name, company hole number, township and a link to the full drill hole record on [GeologyOntario](#).
Download the [Diamond Drill Hole database](#) in GIS format. (updated February 1, 2019)

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Last modified: February 4, 2019

Source: <https://www.mndm.gov.on.ca/en/mines-and-minerals/applications/ogsearch/drill-holes>



**Canadian
Environmental Law
Association**
EQUITY. JUSTICE. HEALTH.

3. Resources

Community Liaison Committees

Hornepayne:

<http://clcinfo.ca/hornepayne/meetings/>



Ignace:

<http://clcinfo.ca/ignace/meetings/>



Manitouwadge:

<https://clcinfo.ca/manitouwadge/meetings/>



Thank you!

For more information:

<http://www.cela.ca>

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