

Number/Numero:

PR-22-000193

This permit is issued under the authority of section 78.3 of the *Mining Act* and the Exploration Plans and Exploration Permits Regulation (O. Reg. 308/12). It is subject to the provisions of the Act and regulation as well as the terms and conditions included in this permit.

Ce permis est émis conformément aux dispositions de section 78.3 de la *Loi sur les mines* et des règlements et est sujet aux restrictions et dispositions de ce lois et règlements ainsi qu'aux conditions ci-énoncées.

**Note: The issuance of this permit does not relieve the applicant from the responsibility of acquiring any other agency, board, government, etc. approval as may be required nor does it relieve the permittee from the requirements of any other legislation or guarantee access to the land.**

**Remarque : La délivrance de ce permis n'exempte pas le demandeur de l'obligation d'obtenir l'autorisation de tout autre organisme, commission, gouvernement, etc. qui pourrait être exigée, n'exempte pas le titulaire des dispositions de toute autre loi et ne garantit pas l'accès à la terre.**

## Project Details/ Détails sur le projet

Project Name/ Titre du projet

Crystal Lake

Qualified Supervisor/Superviseur qualifié

Jeff Jurinak

## This Permit is issued to: Ce Permis est délivré a:

Name of Permittee:/Nom du détenteur:

Rio Tinto Exploration Canada Inc.

Mailing Address:/Adresse postale:

300-815 West Hastings St, Vancouver, BC, V6C 1B4

To conduct early exploration activities from/ Pour effectuer des activités d'exploration du (yyyy/mm/dd):

2022/09/08

to: 2025/09/07

On claim/lease/licence of occupation number(s):/Sur le numéro(s) du claim/bail/permis d'occupation:

639535, LEA-108868, LEA-108869, LEA-108870, LEA-109983

As per the project map(s) and Activity Details Report, all of which are attached hereto and which form part of this permit/  
Selon la/les carte(s) du projet et le Rapport Détaillé des Activités, tous qui sont attachés ici et qui forment partie du permis

for the purpose of Permit activities:

- Mechanized Drilling (assembled weight >150kg)/ Forage mécanisé (poids assemblé >150 kg)
- Mechanized Stripping (>100m<sup>2</sup> in 200m radius)/ Décapage mécanisé (>100 m<sup>2</sup> dans un rayon de 200 m)
- Pitting and Trenching (>3m<sup>3</sup> in 200m radius)/ Creusement de fosses et de tranchées (>3 m<sup>3</sup> dans un rayon de 200 m)
- Line Cutting (>1.5m width)/ Découpage des quadrillages (>1,5 m de largeur)
- Other (Early exploration activities for which Director has required a permit)/Autre (Activités d'exploration préliminaires pour laquelle le Directeur a demandé un permis):

for the purpose of Plan activities:

- Ground geophysical survey requiring a generator (Les levés géophysiques au sol qui nécessitent l'utilisation d'une génératrice)
- Mechanized Drilling (assembled weight <150kg)/ Forage mécanisé (poids assemblé <150 kg)

- Mechanized Stripping (<100m<sup>2</sup> in 200m radius)/ Décapage mécanisé (<100 m<sup>2</sup> dans un rayon de 200 m)
- Pitting and Trenching (1-3m<sup>3</sup> in 200m radius)/ Creusement de fosses et de tranchées (1-3 m<sup>3</sup> dans un rayon de 200 m)
- Line Cutting (<1.5m width)/ Découpage des quadrillages (<1,5 m de largeur)

Subject to the following conditions:/Et sous les conditions suivantes:

1. The Permittee shall keep this permit or a true copy thereof on the permit area./Le détenteur conserver ace permis ou une copie conforme sur les lieux des travaux.
2. The person in charge of the operation conducted under this permit shall produce and show this permit or the true copy kept on the exploration permit area to any inspector whenever requested by the officer./Le responsable des travaux couverts par ce permis doit produire le permis ou sa copie conforme si un inspecteur lui demande.
3. The requirements outlined in Schedule 1 of Ontario Regulation 308/12 and applicable Provincial Standards for Early Exploration/ Les exigences générales identifier à l'annexe 1 du Règlement de l'Ontario 308/12 et les normes provinciale relatives a l'exploration préliminaire.
4. Other terms and conditions as listed on this permit./Autres termes et conditions énoncées sur ce permis.

Place of Issue/Emis a:

Thunder Bay

Issued by/Emis par:


Paula Allen, Director of Exploration

Date of Issue/Date émis (yyyy/mm/dd, aaaa/mm/jj):

2022/09/08

Signature of Director/Signature du directeur:

**Paula  
Allen**

 Digitally signed by  
Paula Allen  
Date: 2022.09.08  
14:34:35 -04'00'

Additional Terms and Conditions:

**Mobilization/Demobilization**

Written notice shall be provided to the Ministry of Northern Development and Mines as follows:

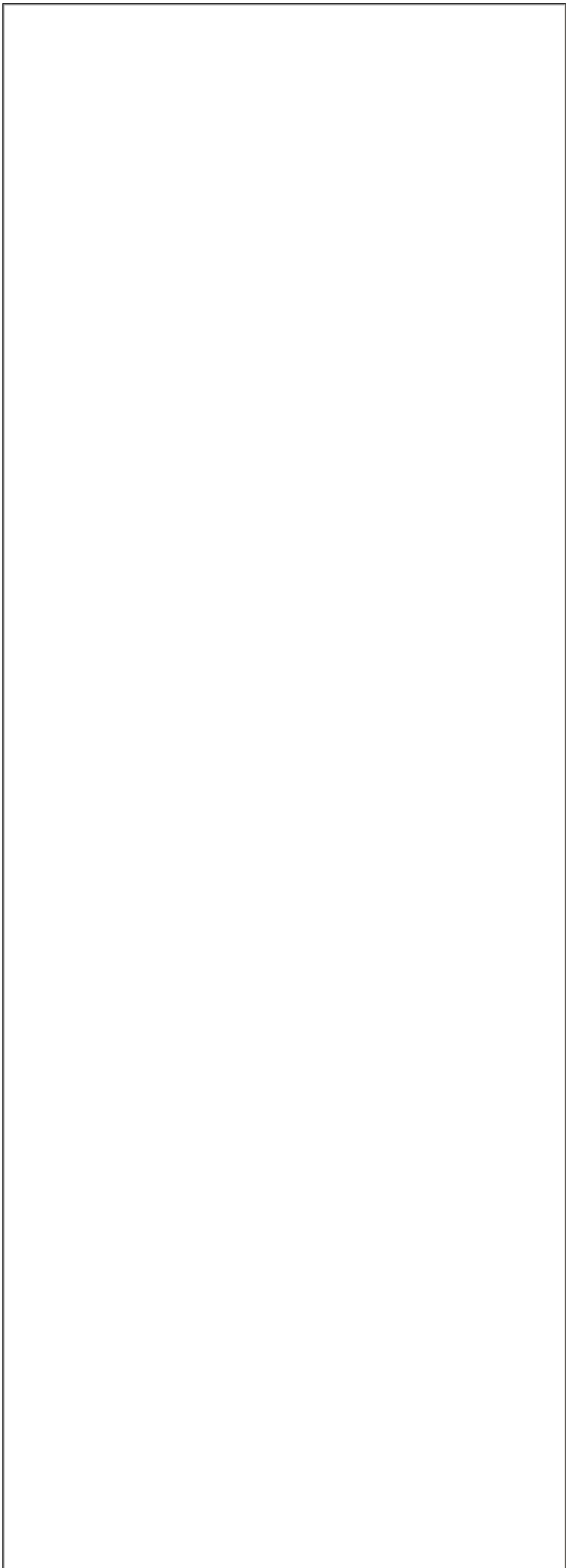
a) not less than two (2) weeks prior to commencing the early exploration activities authorized by this Permit which, for greater certainty, shall include the mobilization of personnel and equipment to the site required for carrying out those activities;

b) after a period of temporary suspension of activities of greater than four (4) weeks, not less than one (1) week prior to recommencing the early exploration activities authorized by this permit;

c) not less than two (2) weeks prior to the anticipated final demobilization of personnel and equipment required for carrying out the early exploration activities authorized by this Permit; and

d) delivered by email to [MNDM.PlansAndPermits@ontario.ca](mailto:MNDM.PlansAndPermits@ontario.ca)

Autre termes et conditions:



Collection of personal information, if any, on this form is authorized by sections 7, 78.2, 78.3, and subsection 178.2(1) of the *Mining Act* for the purpose of creating a public record as described in section 37 of the *Freedom of Information and Protection of Privacy Act*. This information may also be posted in a modified form on the Ministry of Northern Development and Mines website and on the Environmental Registry for public comment. Questions about this collection should be directed to the Mineral Exploration and Development Section, Ministry of Northern Development and Mines, 933 Ramsey Lake Road, Sudbury ON P3E 6B5. Telephone 705-670-5815.

Preferred language of  
correspondence

English

French

Fields marked with an asterisk (\*) are mandatory.

## 1. Project Details

Project Name \*

Crystal Lake - Drilling Permit 02

Name of Early Exploration Proponent \*

Rio Tinto Exploration Canada Inc

Is the proposed early exploration area within the project area for an existing filed closure plan? \*

Yes  No

Are there any mine hazards identified in the Abandoned Mines Information System (AMIS sites) in your project area? \*

Yes  No

Enter the Universal Transverse Mercator Coordinates (UTM) in North American Datum 83 (NAD 83) Grid for the centre of your project area

Zone (N) \*

16N

Easting (m) \*

306873

Northing (m) \*

5325759

## 2. Exploration Logistics and Detailed Information

Will explosives be used for any activity/activities? If yes describe in detail which activities require the explosives, where they will be stored, and any other relevant information.

No explosives will be used or stored on the site.

What commodity or commodities are being sought in the work program?

Ni, Co, PGE, Cu

How will you be transporting personnel to the exploration site for all activities? Describe in detail.

Personnel will travel by vehicle from accommodation in Thunder Bay on Hwy 61.

There are two planned work areas for Permit 02, one nearby or on Crystal Lake, and another on the Crystal Lake hill. Both work areas can be accessed from Hwy 61 either by Great Lakes Nickel Road or by Lake Lenore Road. The primary access route will likely be from Lake Lenore Road to an existing trail system. This trail junctions with Lake Lenore Rd about 1.2km west of Hwy 61. The Permit 02 drill pads on the Crystal Lake shore or on winter ice are roughly 4.3km from Hwy 61 via the Lake Lenore Rd, the existing trail system, and a new access trail. The Permit 02 drill pads on the Crystal Lake hill are roughly 6.2km from Hwy 61 via the Lake Lenore Rd, the existing trail system, and a new access trail.

The existing trail network may need minor brushing to ensure unobstructed passage to the proposed drill locations. Four new exploration trails will be constructed from existing trails to access planned drill pads. The exploration team will use fully equipped 4x4 trucks and UTVs to access the site(s). The trails will be UTV accessible.

How will you be mobilizing/demobilizing equipment to and from the exploration site for all activities? Describe in detail. The work program (WP1-WP4) are described in the notes section below. The work will be completed by 3rd Party Contractors (Contractors). The Contractors will transport earthworks and drilling equipment to/from the project area using trucks, typically by either lowbed or gooseneck trailers, as deemed safe and fit by the Contractors. The Contractors will take care to ensure all mob/demob of equipment will meet Ontario transportation requirements and will be mindful of road load ratings. The drilling rig will be offloaded at Lake Lenore Rd and skidded to the pad locations.

What type of equipment will you be using for all of the early exploration activities?  
WP 1-4 (described below) will use:

- (1) various earthworks equipment (e.g. loader, dozer, etc) to clear trail and build pads,
- (2) diamond drill,
- (3) personnel 1/2 ton trucks,
- (4) UTVs for drill pad access.

Specific earthworks equipment requirement will be determined by the Contractors following review of trail/pad area. The Contractors will take all practical measures to minimize the amount of equipment required to complete the work safely.

What type of drilling will take place? (e.g. core drilling, reverse circulation)  
KoBold proposes to drill and core with a standard skid-mounted diamond drill. Per industry standards, KoBold will elect to leave the casing in the bore to allow re-entry at a later date. Best-practice will be employed to protect groundwater aquifers and any artesian bores will be remediated per relevant regulations.

Do you anticipate the removal of the drill casing?

Yes  No

If yes, when will you be removing it?

Immediately  3 to 6 months  6 to 12 months  1 to 2 years

For the exploration activities you have selected in your early exploration submission please fill in the associated details (required for all activities proposed). \*

Geophysical surveys requiring a generator	▶	Type of Survey	<u>Borehole electro-magnetic (BHEM) survey</u>
Line cutting	▶	Estimated total line length	_____ metres
Mechanized Stripping	▶	Planned Number of stripped locations	_____
		Estimated total area of stripping	_____ square metres
Pitting and Trenching of Bedrock	▶	Planned Number of Pits/Trenches	_____
Mechanized Drilling	▶	Planned drill hole diameter	7.6 centimetres
		<input type="checkbox"/> 1 - 5 pads	
		<input checked="" type="checkbox"/> 6 - 10 pads	
		<input type="checkbox"/> 11 - 15 pads	
		<input type="checkbox"/> 16 - 20 pads	
		<input type="checkbox"/> > 20 pads	

Please identify any non-prescribed activity/activities you will be undertaking to support the prescribed early exploration activity/activities

- Creating trails for the purposes of early exploration
- Creating roads for the purposes of early exploration
- Creating/setting up camp(s) to house personnel to perform your prescribed early exploration activities  
Number of people in camp \_\_\_\_\_ Number of camps \_\_\_\_\_
- Ground geophysical surveys without a generator

Airborne geophysical surveys

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Are you planning to store fuel or other hazardous materials on the property? \*

Yes    No

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Please provide any other information relevant to this project.

KoBold Metals Co DBA Duffey Lake Holdings Inc will conduct this work under agreement with Rio Tinto Exploration Canada Inc.

This permit application discloses the maximum work program that might be undertaken during the permit period, contingent on successful results. The following Work Packages are proposed for Permit 02:

1. WP1: Build up to two (2) access trails minimizing disturbance as best as possible to as many as three (3) diamond drill pads (the other surface pad location and three (3) ice pad locations are accessible by existing trails), and,
2. WP2: Build up to three (3) pad locations on winter ice on Crystal Lake. Cuttings will be captured appropriately and an ice monitoring program will be in place to ensure the safety of the workers and drill,
3. WP3: Build up to four (4) diamond drilling pads at surface locations,
4. WP4: Complete at least one NQ diamond drillhole per pad to selected exploration targets (collect core, geologic information and complete a borehole EM survey, etc),
5. WP5: Reclaim all access trails, pads and drillholes to meet Industry Best Practice for all completed work.

The construction of trails (746.4m, ~2m wide) and four (4) drill pads (roughly 30m x 30m each) in WP1 and WP2 will result in estimated disturbance areas of 1,492.8 m<sup>2</sup> and 3,600 m<sup>2</sup> respectively. Disturbance will be remediated to the extent practical. Pad sizes will be reduced as much as practicable and the sizes mentioned above are estimates based off of previous practice.

Our intent to minimize the impact of our project on the permit area. This extends to the selection of trail routes and pad locations. Care has been taken in project planning to reduce the amount of brushing/tree clearing and to reduce exposure to wetland areas. The final location of pads and access routes will be determined by site inspection prior to the commencement of operations, but will be selected to minimize disturbance created by this project. Not all drill pads and trails will be built in the first year of operation. Rather, ongoing infrastructure development will be contingent on drilling results. It is possible that only one-two of the drill pads and supporting trails contemplated in this application will ever be built.

Proposed drill pad (center) locations (NAD83 16N) are:

P1: 307998.681 5326481.710 (winter ice only)

P2: 307915.201 5326220.930 (winter ice only)

P3: 307625.942 5326347.668 (winter ice only)

P4: 307728.077 5326515.710

P5: 307251.875 5326327.040

P6: 306863.024 5326496.344

P7: 306500.885 5326634.665

It is possible that more than one bore will be drilled from any given pad, contingent on drilling results. This approach is being taken to minimize disturbance associated with pad construction.

Pads 4 and 5 are shoreline locations. It is possible that these locations are not practically accessible. Ice Pads 1-3 are alternatives to Pads 4-5, and would be undertaken if site assessment shows that these ice locations create less disturbance than the shoreline alternatives. The hilltop Pads 6-7 will be located so to not interfere with wetlands or waterways.

The permit area is composed of claim 639535 and leases 108868, 108869, 108870 and 109983. All tenure is in good standing. The surface rights are held by Rio Tinto (RTEC) or the Crown.

KoBold has engaged with communities of interest (COI) in the proposed work area, including the Fort William First Nation. KoBold has consistently communicated its work plans and progress to affected parties, and has addressed

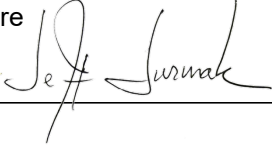
questions it has received.

As stated previously, this plan is for the permit life, assuming continued success. The entire work program will not be completed in the first year. A systematic approach will be taken based on the results of key initial targets. Supporting infrastructure (e.g. trails and pads) will be built as required to follow success.

### 3. Signature

Name (Last Name, First Name)  
Jurinak, Jeff

Email Address  
jeff.jurinak@koboldmetals.com

Signature  


Date (yyyy/mm/dd)  
2022/05/23

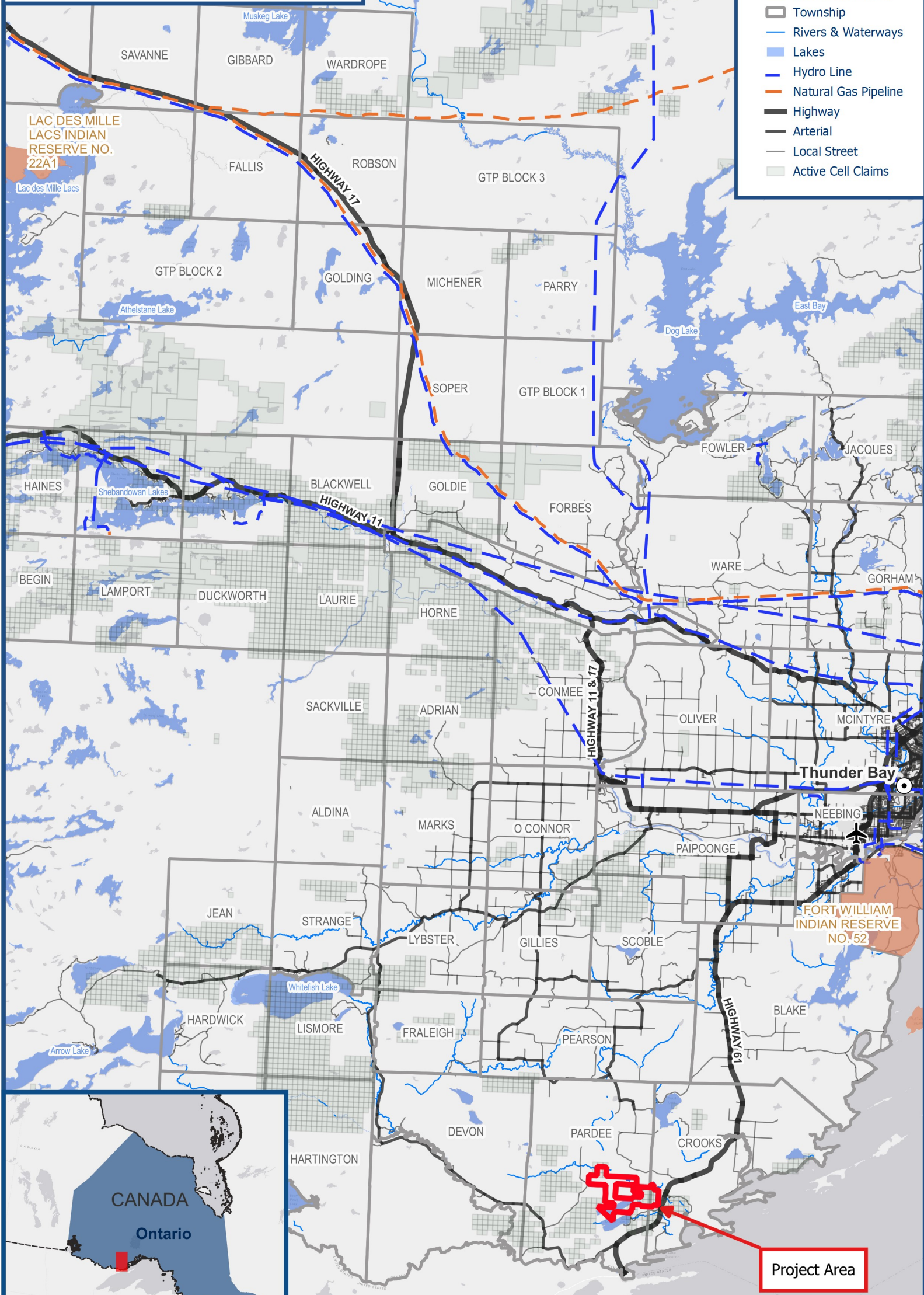


KoBold Metals

Crystal Lake Project:  
Regional Map

Legend

- City
- Airport
- Project Area
- First Nations Area
- Township
- Rivers & Waterways
- Lakes
- Hydro Line
- Natural Gas Pipeline
- Highway
- Arterial
- Local Street
- Active Cell Claims



Project Area

CRS - EPSG:26916  
NAD83 / UTM zone 16N

1:400,000







# KoBold Metals

## Crystal Lake Project: Permit 2 - Local Map

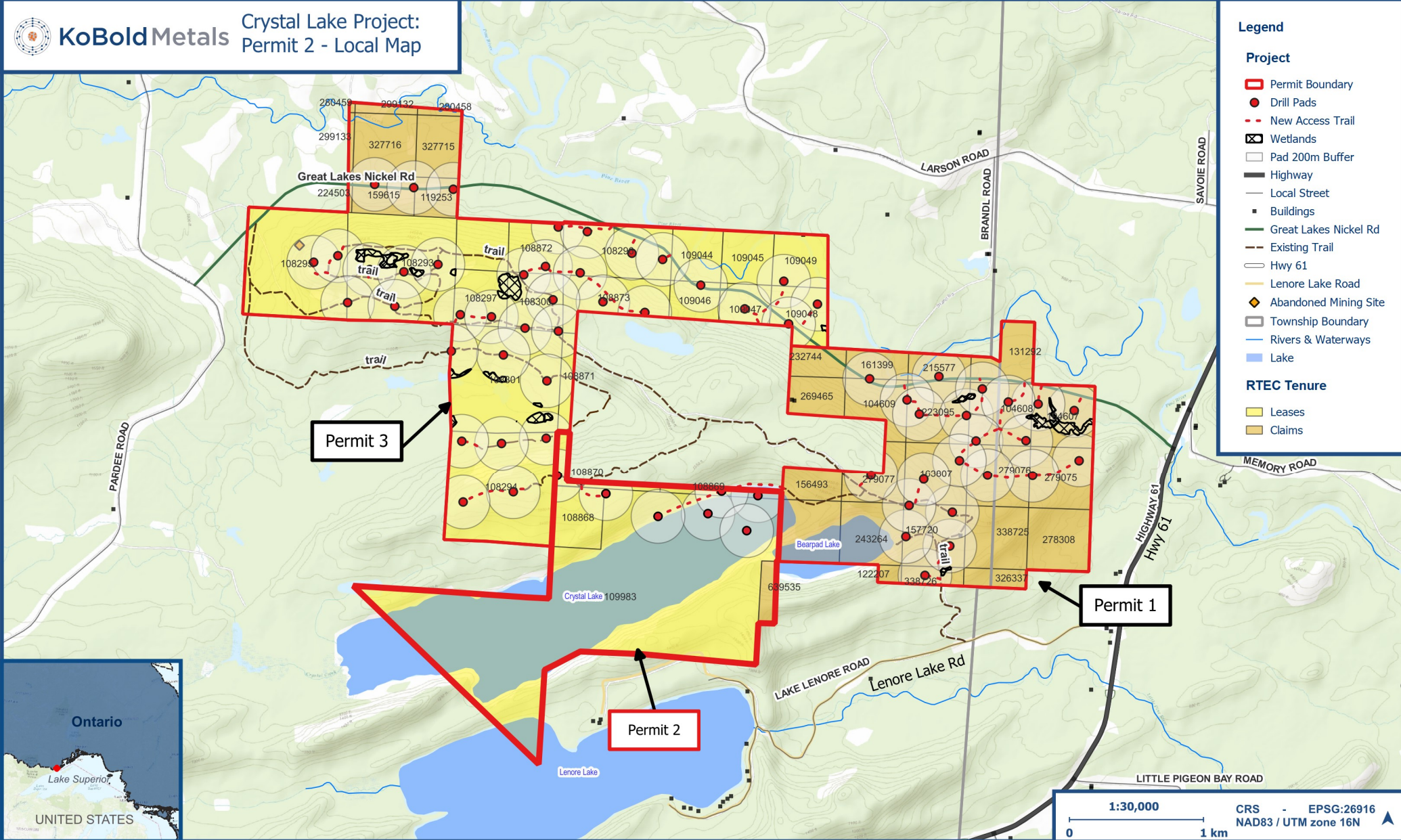
### Legend

#### Project

- Permit Boundary
- Drill Pads
- New Access Trail
- Wetlands
- Pad 200m Buffer
- Highway
- Local Street
- Buildings
- Great Lakes Nickel Rd
- Existing Trail
- Hwy 61
- Lenore Lake Road
- Abandoned Mining Site
- Township Boundary
- Rivers & Waterways
- Lake

#### RTEC Tenure

- Leases
- Claims



1:30,000  
0 1 km

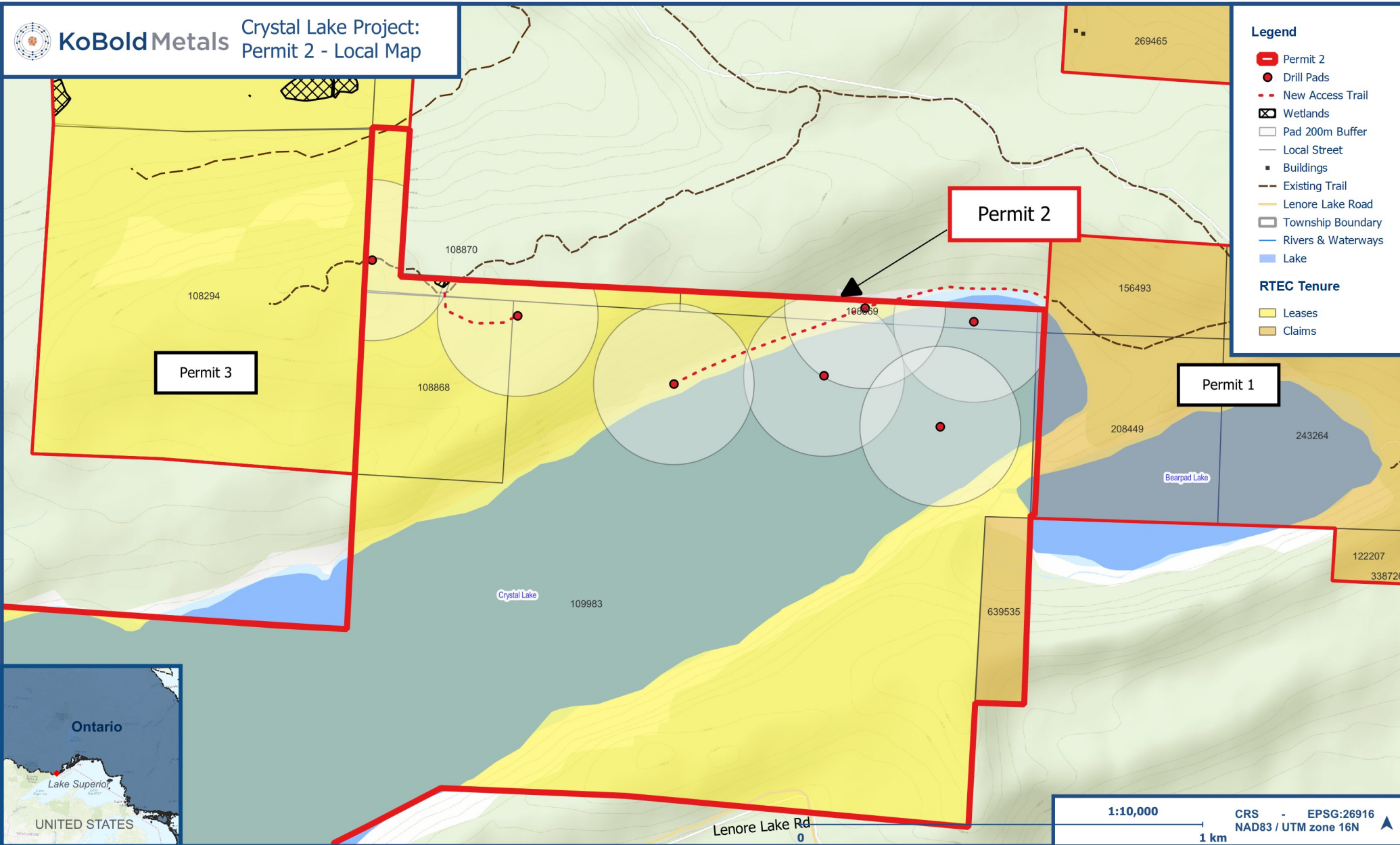
CRS - EPSG:26916  
 NAD83 / UTM zone 16N



**KoBoldMetals** Crystal Lake Project:  
Permit 2 - Local Map

**Legend**

- ▬ Permit 2
  - Drill Pads
  - - - New Access Trail
  - Wetlands
  - Pad 200m Buffer
  - Local Street
  - Buildings
  - Existing Trail
  - Lenore Lake Road
  - Township Boundary
  - Rivers & Waterways
  - Lake
- RTEC Tenure**
- Leases
  - Claims



1:10,000 CRS - EPSG:26916  
1 km NAD83 / UTM zone 16N