Project Description: Rock Lake Mine South Rehabilitation Project

BACKGROUND

The Rock Lake Mine (AMIS #07781) is a former gold, silver and copper mine that operated from 1899 to 1903. The mine is located off Highway 638, in the Township of Plummer Additional, approximately 16 km north of Bruce Mines, Ontario. The mine property can be divided into a northern area accessed by a private trail and a southern area accessed via a residential driveway. The Rock Lake cemetery is located between the two accessways. The location of the site is provided below on Figure 1.

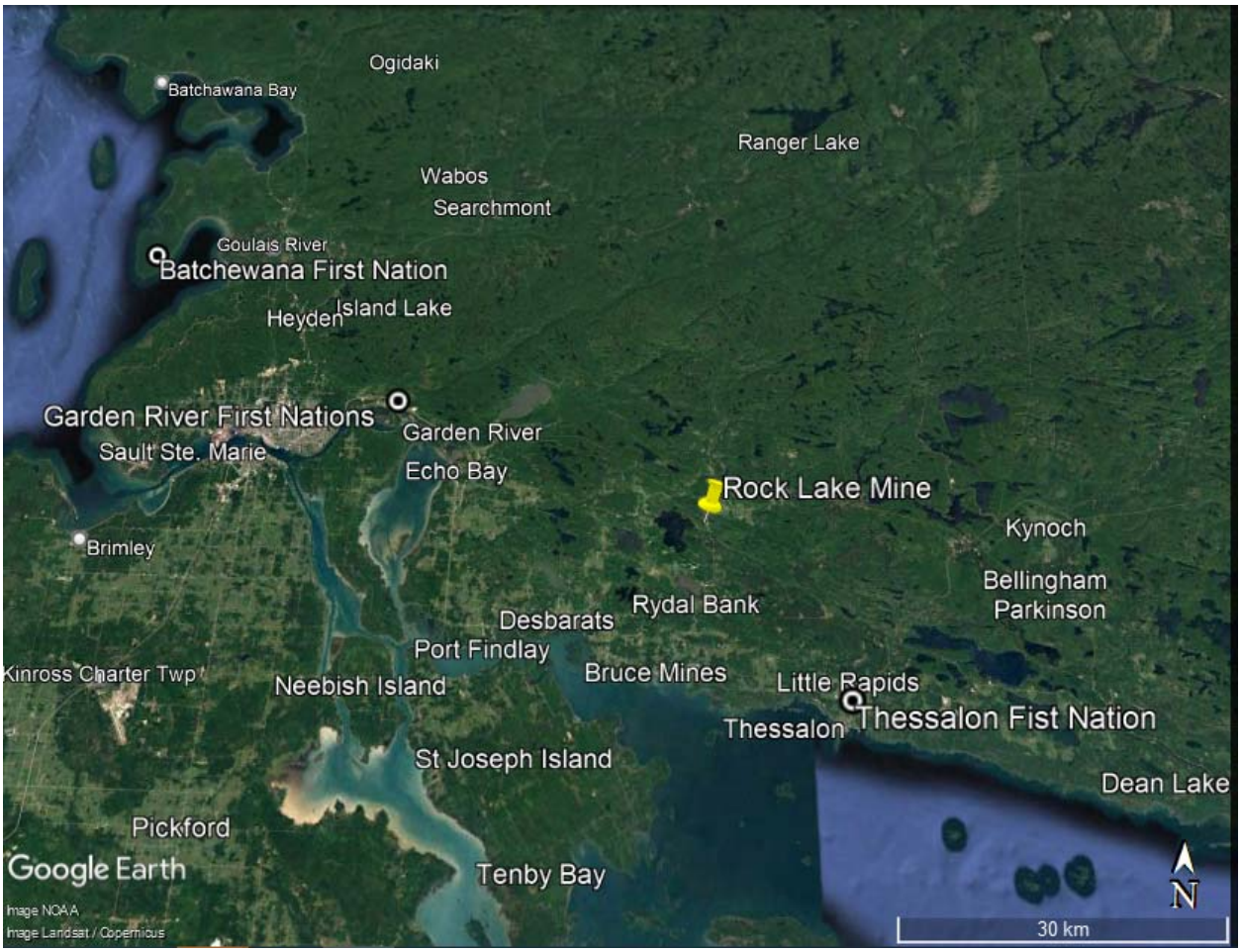

Figure 1 *– Site Location Plan.*

REHABILITATION ACTIVITIES

The objective of the project is to rehabilitate the mine hazards located in the southern portion of the Rock Lake Mine property, herein referred to as Rock Lake Mine South.

The proposed rehabilitation work will focus on the adit feature that allows access to the underground workings and is easily accessible by the public. The adit is accessed by a residential driveway off Highway 638, with limited access improvements needed to facilitate the work. The project boundary will be defined by the access road and the area east of the adit. All other hazards associated with the Rock Lake Mine are primarily situated in the northern portion of the property and will be assessed as part of a separate Class Environmental Assessment. The location of all mine hazards and the project boundary for the Rock Lake Mine South rehabilitation are illustrated below on Figure 2.

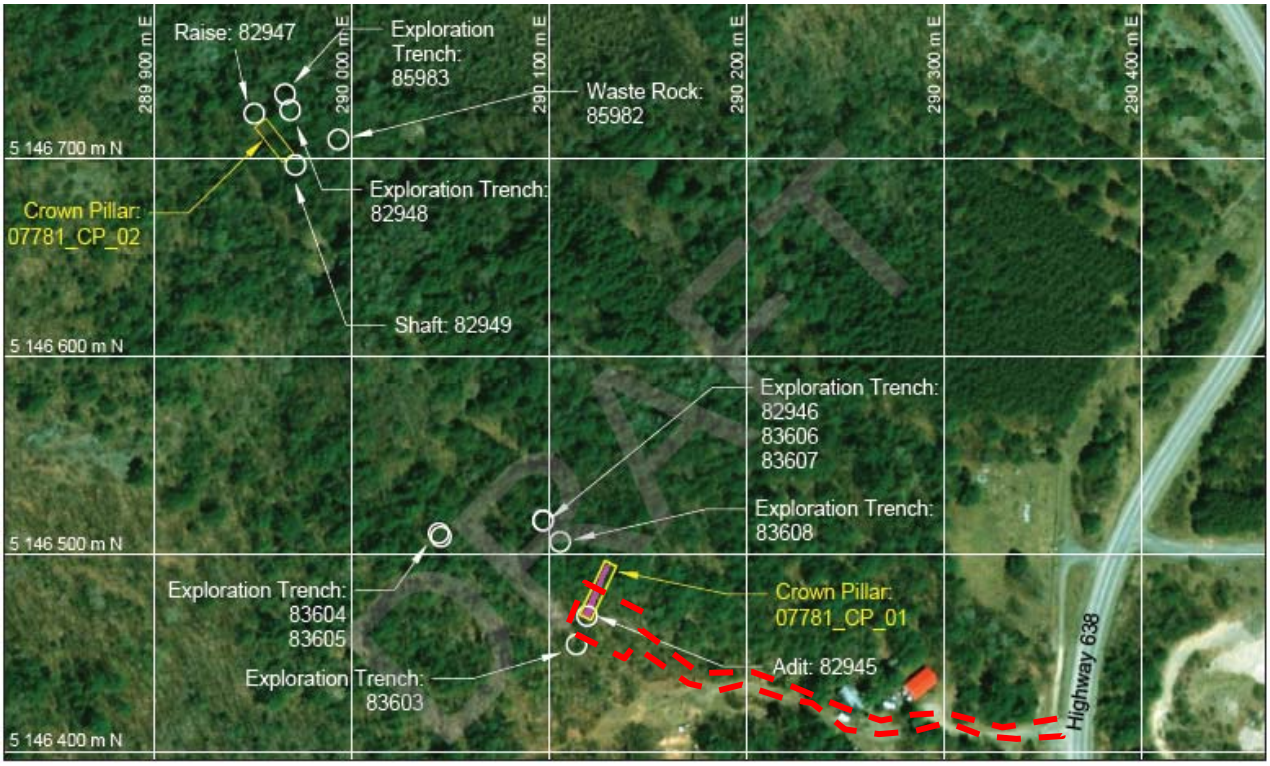

***Figure 2**- Location of mine hazards at the Rock Lake Mine property. The proposed rehabilitation activities will address the adit (feature ID 82945) located in Rock Lake Mine South. The boundary of the project area is defined by the site access road and area east of the adit.*

It is assumed that the underground workings provide habitat to bat species at risk and, as such the preferred rehabilitation strategy is the installation of a stainless-steel gate. The gate will eliminate safety concerns related to access by the public, while still allowing bats to easily enter/exit the underground workings. The work is expected to occur over five days, during the summer months (i.e., between May 1st and October 31st) when bats are not expected to be actively hibernating within the mine.

CLASS EA SCREENING

The proposed rehabilitation activities are subject to The Ministry of Mines Class Environmental Assessment (EA) Process. The undertaking has been screened as a Category B with low potential for environmental effects, in accordance with the requirements of the *Class Environmental Assessment for Activities of the Ministry of Northern Development and Mines under the Mining Act* (amended 2018).

ENVIRONMENTAL EFFECTS AND PROPOSED MITIGATION MEASURES

Several environmental effects associated with the undertaking have been identified during the Class EA screening process. A summary of negative environmental effects and proposed mitigation measures that would negate or reduce the significance of the environmental effects are provided below in Table 1.

Environmental Effect	Description	Proposed Mitigation Measure
Noise and Vibration	Short term noise and vibration impacts associated with vehicles and use of drilling equipment may occur.	All rehabilitation work and mobilization of equipment will be limited to the daytime hours and will comply with applicable noise guidelines (NPC-300)
Terrestrial Species or Habitat	Wildlife may be temporarily displaced due to increased noise levels, vibrations and vehicular traffic associated with the rehabilitation work. Wildlife-vehicle collisions may cause injury/mortality to individual animals. Domestic waste generated may unintentionally attract wildlife to the work area.	Any disturbances to wildlife will be short-term and limited to the footprint of the adit. Disturbed wildlife is expected to recolonize the area quickly upon project completion. The risk of mortality and injury to wildlife will be reduced by enforcing speed limits on access roads. The work area will remain free of little and all waste disposed of in accordance O.Reg 347.
Endangered Species / Species at risk or habitat	It is assumed that the underground workings provide overwintering habitat to bat species at risk. The rehabilitation strategy result in modifications to the adit but will not affect the ability for bats to utilize the habitat in the long-term. The Ontario Reptile and Amphibian Atlas do not identify any previous occurrences of other SAR on or adjacent to the mine. The NHIC Map identified	The work will occur over five days, during the summer months when bats are not expected to be actively hibernating within the mine. The activity will be completed in accordance with the requirements outlined in Section 23.18 of the Endangered Species Act (ESA 2007). Project activities are not expected to impact habitat of Arrowhead Spiketail. If any additional SAR are encountered during the rehabilitation activities, work must

	a previous occurrence of Arrowhead Spiketail (*Cordulegaster obliqua*), a dragonfly species considered vulnerable in Ontario.	immediately stop and the MECP consulted as to how to proceed. Applicable regulatory requirements will be adhered to, and mitigation measured implemented to avoid impacting SAR.
Soils - contaminants, sedimentation, erosion.	There is the potential to negatively impact soil quality through spills and sedimentation.	An emergency spill kit will be readily available at all times during construction activities and all workers trained on proper use. Should a spill occur, regardless of its severity, the Ministry of Environment, Conservation and Parks will be immediately notified through the Ontario Spill Action Centre (1-800-268-6060).
Air Quality	Standard trucks/vehicles will be utilized to mobilize equipment to the mine. No heavy equipment is required. The emissions associated with the vehicles is expected to be minimal. There is the potential for increased fugitive dust to occur associated with the use of drills to install the gates. The dust will be minimal and limited to the adit location.	If required, water or a dust suppression system will be utilized to reduce dust emissions as needed.
Seasonal or Permanent Residence	Project activities occur adjacent to a residential property. Temporary disturbances associated with noise, vibrations and dust may occur over the five-day duration of the work.	Mitigation measures for noise, vibration and dust have been detailed above. Communication with the property owner will be maintained and, if required, fencing established to secure the work area.

NEXT STEPS

The Ministry of Mines is seeking input on the undertaking and proposed mitigation measures as part of the Class EA process. The procurement to complete the rehabilitation activities is expected to be awarded in the early summer 2023. The rehabilitation activities will be completed by October 2023.