

**YELLOWKNIFE LITHIUM PROJECT  
DESCRIPTION  
EREX International Ltd.**

**Table of Contents**

**Introduction ..... 3**

**Purpose ..... 4**

**Proposed Activities ..... 5**

**Winter 2023 ..... 6**

**Hidden Lake Camp ..... 7**

**Bighill Lake area ..... 10**

**Fuel Storage ..... 11**

**Water Usage ..... 12**

**Summer 2023 ..... 15**

**Closure & Reclamation ..... 17**

**Potential Environmental Impacts and Mitigation ..... 17**

**Figures**

**Figure 1. Map of the Yellowknife Lithium Project area and EREX’s leases ..... 3**

**Figure 2. Maps of Akaitcho territory and Tlicho Agreement Boundaries ..... 4**

**Figure 3. Location map for EREX’s mineral leases closest to Yellowknife ..... 6**

**Figure 4. Areas for proposed drilling, campsite and fuel cache, Fi-Hi-Ki leases .... 8**

**Figure 5. Previous camp of reclamation contractors at Hidden Lake gold mine ... 9**

**Figure 6. View of Hidden Lake gold mine area as of September 17, 2022 ..... 9**

**Figure 7. Areas for proposed drilling, shelter, and fuel cache, NITE & BIG leases 10**

**Figure 8. Areas for proposed drilling, camp, and fuel cache, THOR lease ..... 15**

**Tables**

**Table 1. Camp Accommodations ..... 7**

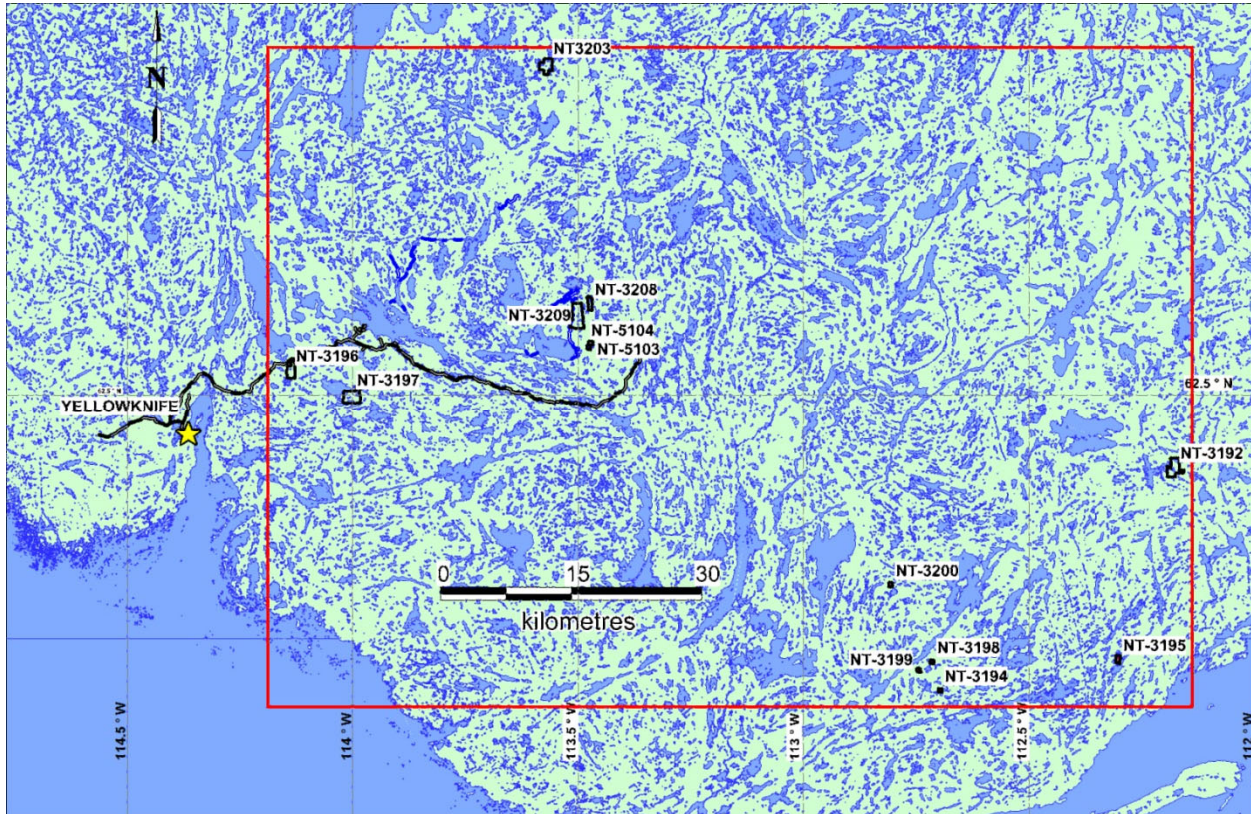
**Table 2. Fuel Types to be used in the Project ..... 12**

**Table 3. Estimated capacity of total available water use ..... 14**

**Table 4. Potential environmental impacts and proposed mitigations ..... 17**

**INTRODUCTION:**

EREX International Ltd. (“EREX”) holds 13 mineral leases east of Yellowknife, bounded by the red rectangle in Figure 1 (i.e. latitudes: 62.179129 to 62.854255, and longitudes: 112.135661 to 114.186622); referred to as the Yellowknife Lithium Project (the “Project”).



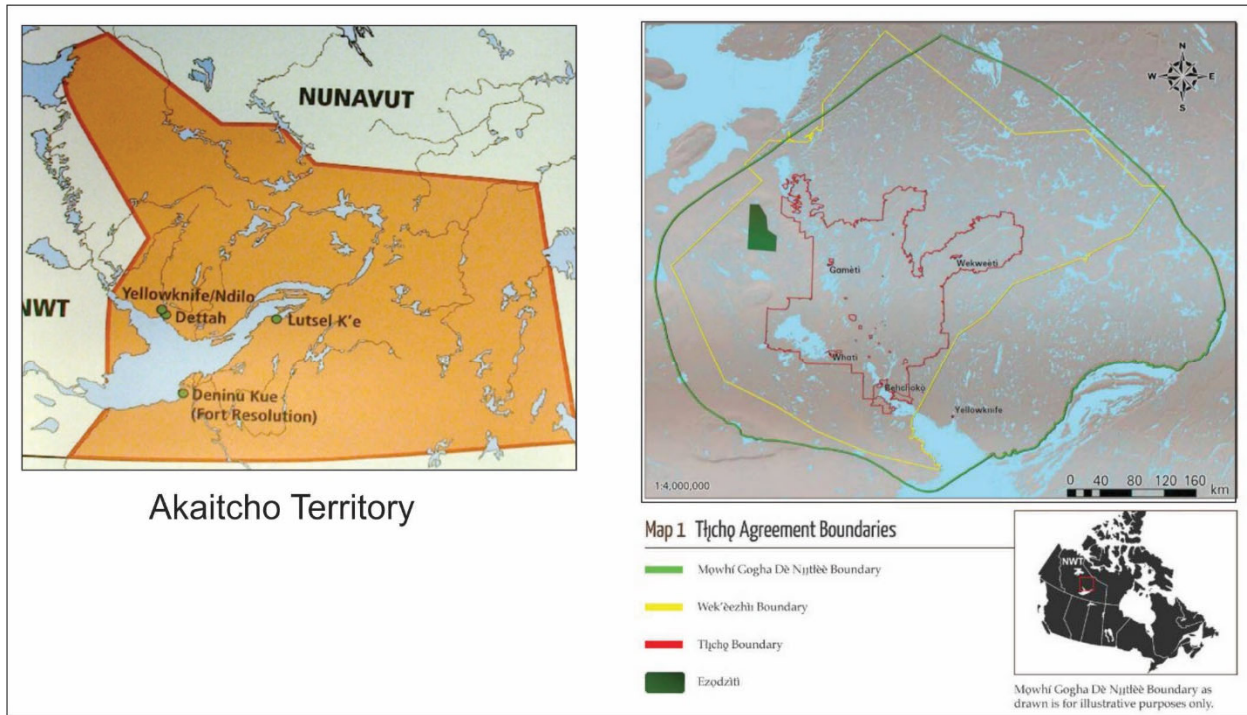
**Figure 1. Map outlining the Yellowknife Lithium Project area (red rectangle) and EREX’s leases**

The leases range from 14 km northeast of Yellowknife, in the case of NT-3196 (NITE) and 112 km east in the case of N-3192 (THOR). Yellowknife is, therefore, the closest supply and logistics center.

The Project area is traditionally known as the Akaitcho Territory to five Dene First Nations<sup>1</sup> who occupy the area. It is also within M̄qwhì Gogha Dè N̄j̄t̄l̄èè<sup>2</sup> of the Tlicho (Figure 2). In addition, Metis people, represented by the North Slave Metis Alliance, have considered the area as part of their traditional territory.

<sup>1</sup> The five Dene First Nations are: Deninu Kue, Lutsel K’e Dene, Smith’s Landing, Yellowknifes Dene Ndilo, and Yellowknife Dene Dettah. Akaitcho Territory is defined by Treaty 8 of 1899.

<sup>2</sup> M̄qwhì Gogha Dè N̄j̄t̄l̄èè is the traditional use area of the Th̄çq̄, the boundaries of which were settled by Chief Monfwi during the signing of Treaty 11 in 1921. In this area, the Th̄çq̄ are able to exercise their traditional land use activities as set out in the Th̄çq̄ Agreement.



**Figure 2. Maps of Akaitcho territory and Tlicho Agreement Boundaries.**

Within the Project area the leases cover low-lying, rolling topography ranging in elevation between 250 and 320 metres above sea level. Muskeg, marshes, and lakes separated by northwesterly to northeasterly trending bedrock ridges are the dominant features. Numerous small lakes occur in the area where drilling is proposed. Recent forest fires have burnt the area covered by several of the leases, others are relatively sparsely treed. There are no major rivers running through the leases. With the exception of the six leases closest to Yellowknife, there are no communities, lodges or trap lines in the immediate vicinity of the other leases. Therefore, the impact of the proposed operation is expected to be minimal from a social, as well as environmental point of view. However, parts of the project area are used for food gathering, hunting and trapping by various aboriginal groups. Bison Historical Services Ltd has been retained to prepare an Archaeological Overview Study of the historical resources within and around the lease areas.

**PURPOSE:**

The purpose of the exploration work is to estimate lithium resources in the pegmatite dykes that are known to occur on the leases. If successful, EREX will then proceed to study the feasibility for extracting the lithium minerals, predominantly spodumene, from the pegmatite rock, as well as, building a mine for that purpose. Production of a spodumene concentrate can be done using conventional mineral processing technology. The tailings and mine waste generated from mining of the pegmatites and surrounding Burwash Formation



metasedimentary rocks are believed to be relatively benign in terms of toxicity or acid generating capability.

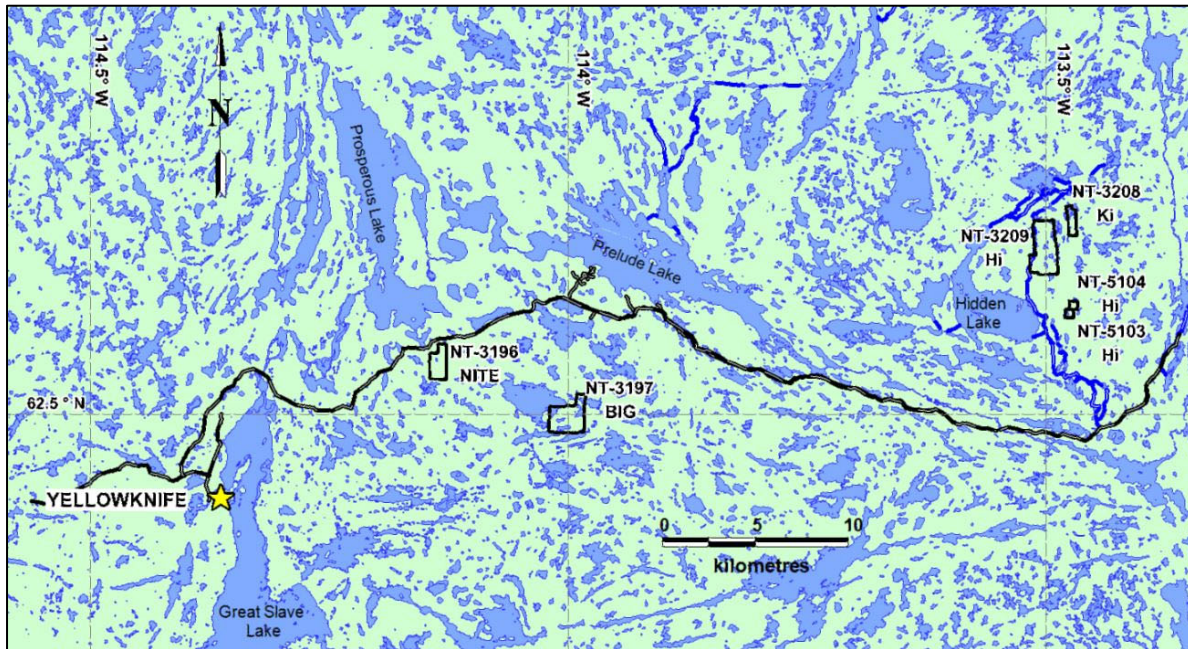
**PROPOSED ACTIVITIES:**

EREX is applying to the Mackenzie Valley Land and Water Board for a Type A Land Use Permit (“LUP”) and Type B Water Licence (“WL”) for the following activities:

1. Mineral exploration including diamond core and reverse circulation (RC) drilling, saw-cut channel sampling, and trenching;
2. Use of water for drilling and camp consumption, less than 300 cubic metres/day.
3. Use of equipment, vehicles, and machines;
4. Use and storage of fuel;
5. Use of helicopters and float-equipped fixed-wing aircraft during summer operations;
6. Construction, operation, and maintenance of a temporary camp and potential satellite camps, and;
7. Opening and maintenance of existing winter access road (Thompson-Lundmark road)
8. Establishing and maintaining over the course of the winter program temporary access roads;
9. Engagement with all affected parties to inform them of EREX’s plans in a timely manner so that they will be able to fully consider the project and provide their consent to the proposed activities if they are acceptable.

The LUP application will cover a period of five years, with a possible two-year extension. During the operation of the exploration program progressive restoration of drill sites will occur on an ongoing basis. Diamond drilling may consist of 180 or more drill holes per year.

Initially, exploration will focus on the six leases closest to Yellowknife (Figure 3). The Ingraham Trail (Highway 4) passes to the north of the NITE and BIG lease and to the south of the other leases. There is an existing winter road to the abandoned Thompson-Lundmark mine that passes through lease NT-3209 (Fi). Access to these leases is by helicopter or float-equipped fixed-wing aircraft during summer months.



**Figure 3. Location map for EREX’s mineral leases closest to Yellowknife**

**WINTER 2023:**

It is anticipated that the first phase of work during winter 2023 will consist of a large diamond drilling program (“LDP”).

Unitized drills, either track or skid-mounted, will be used during the winter programs. These drills will bore with NQ-sized core and be capable of drilling to depths of 500 metres. Drilling will be planned in a series fences of angle holes designed to intersect and cross cut the relatively steep dipping pegmatite dykes at varying depths. Initial drilling will be on fences 100 metres apart with spacing of holes at 100 metres along fences. Angles of the holes will depend on the dip or inclination of the dykes as determined by surface mapping. If utilized, the RC drill will move around all the leases completing the short holes of less than 150 metres.

The drilling will take place in the area outlined on Figure 4, typically during the period February to mid-May, but with climate change that may vary from year to year. The opening of the Thompson-Lundmark winter road in January or February 2023 by the proponent will allow for mobilization of camp equipment into the main camp site (“Hidden Lake Camp”, Figures 5 and 6) that is proposed to be located on land within the reclaimed area of the abandoned Hidden Lake mine that is under the jurisdiction of the Federal Government of Canada. An access agreement for the camp site with CIRNAC has been concluded. In addition, an application for a Water Licence for Federal Lands has been submitted to the MVLWB.

**Hidden Lake Camp - Fi-Ki-Hi leases (NT-3208, NT-3209, NT-5103, and NT-5104)**

The Hidden Lake camp will consist of accommodations for up to 49 people in facilities listed in Table 1, below and illustrated in Figures 4, 5, and 6. There will not be more than 50 people in camp at one time. The camp will serve drill crews, geologist and associated technicians working on the Fi-Ki-Hi leases (NT-3208, NT-3209, NT-5103, and NT-5104). The Hidden Lake camp and any other camps set out during the YLP will be constructed and arranged according to Northern Land Use Guidelines for Camp and Support Facilities (2015, GNWT, Lands Department).

**Table 1. Hidden Lake Camp Accommodations**

<b>Item, Purpose</b>	<b>Quantity</b>	<b>Dimensions (m)</b>	<b>Area (m<sup>2</sup>)</b>
Tent, Sleepers	18	4.3 x 4.9	379.26
Tent, First Aid	1	4.3 x 4.9	21.07
Tent, Kitchen	1	4.3 x 20.0	84.28
Tent, Men’s Dry	1	4.3 x 9.8	42.14
Tent, Women’s Dry	2	4.3 x 6.1	52.46
Tent, Office	2	4.3 x 4.9	42.14
Tent, Core logging	3	4.3 x 9.8	126.42
Tent, Core cutting	3	4.3 x 4.9	63.21
Tent, Washrooms	2	4.3 x 4.9	42.14
Generator, Shack	1	3.7 x 4.9	18.13

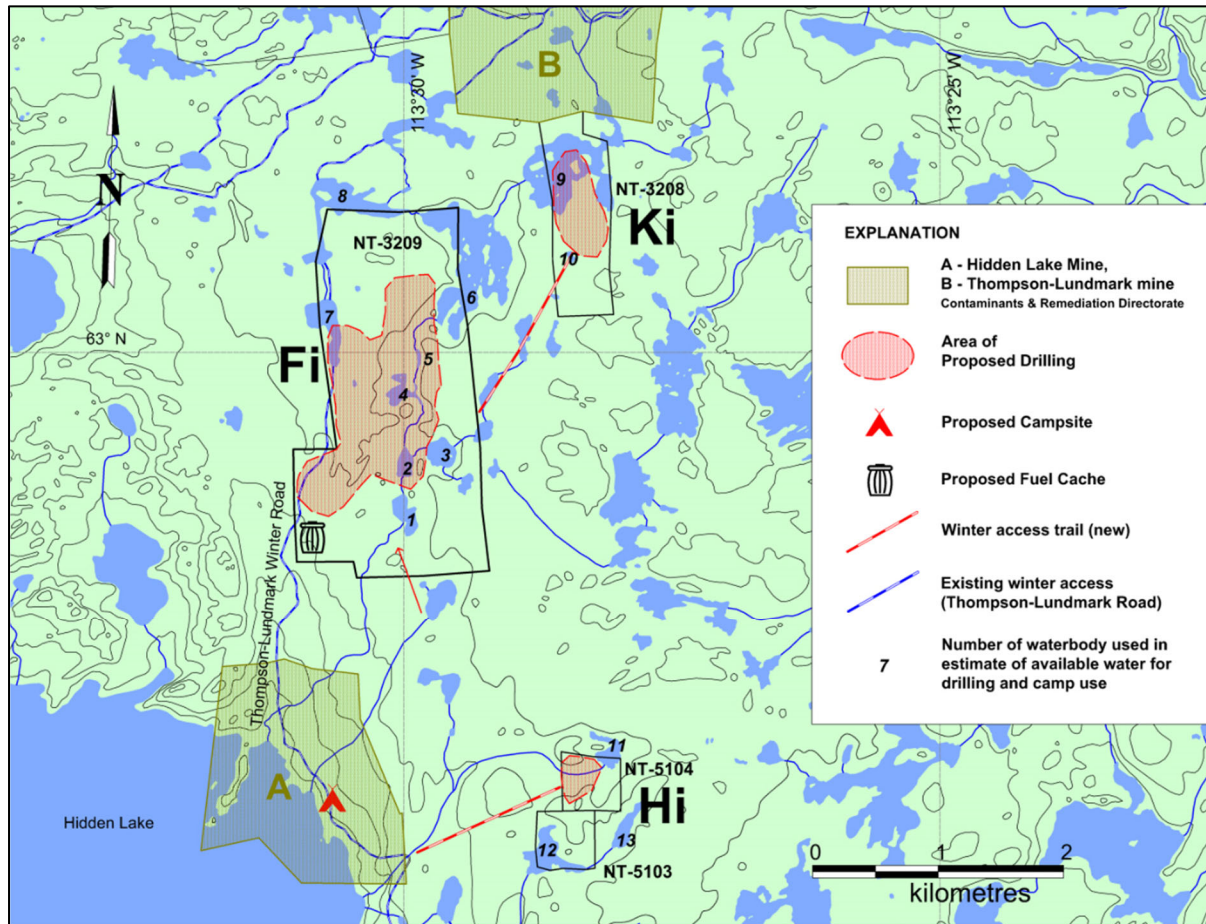


Figure 4. Areas for proposed drilling, campsite and fuel cache, Fi-Hi-Ki leases





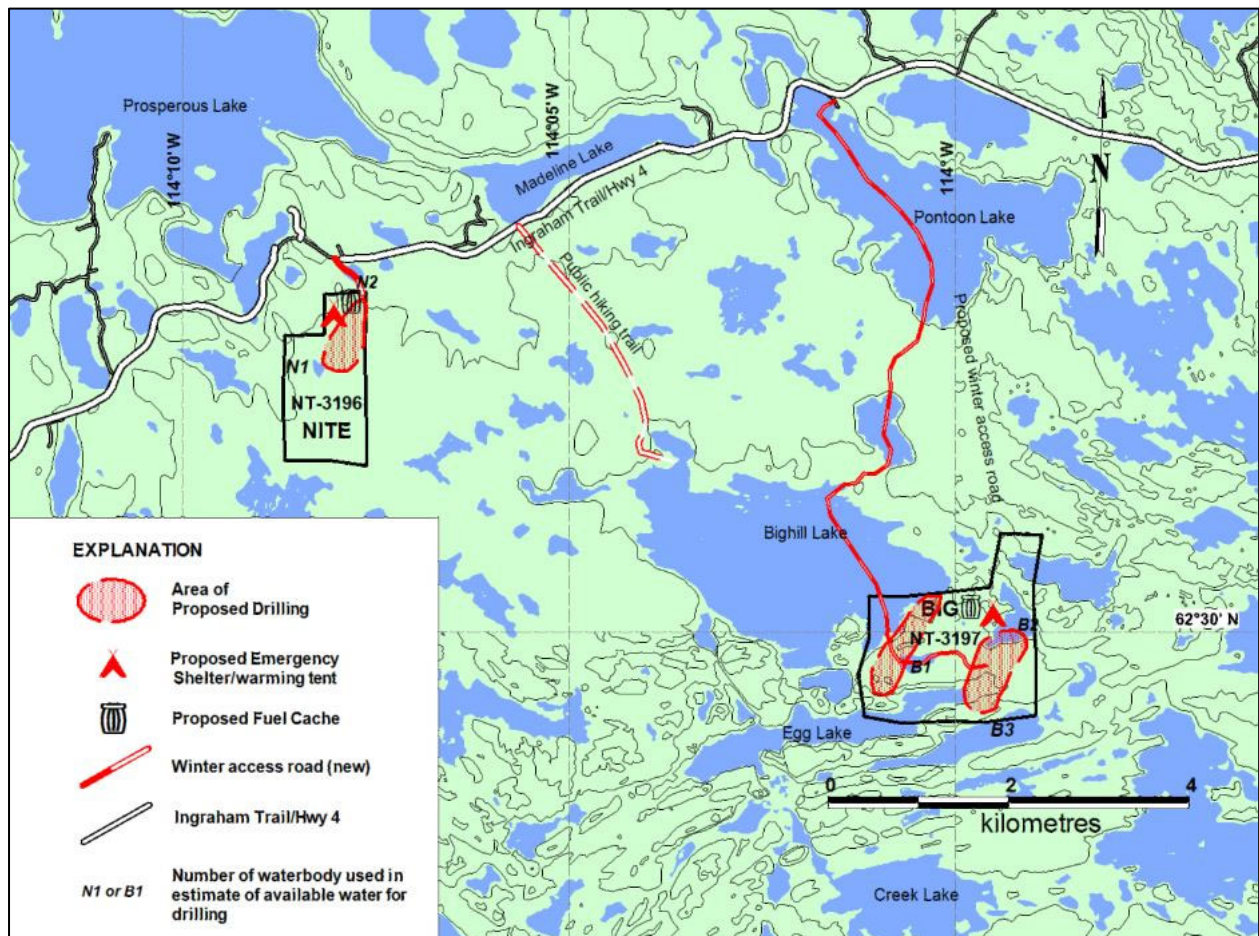
Figure 5. Previous camp of reclamation contractors at Hidden Lake gold mine. 2010.



Figure 6. View of reclaimed area Hidden Lake gold mine as of September 17, 2022.

**Bighill Lake area – NITE and BIG leases (NT-3198, NT-3197)**

Drilling proposed to be conducted on the NITE and BIG leases (Figure 7) will be undertaken with crews based in Yellowknife as a small drill program (“BDP”) independent of the LDP. Drill crews consisting will commute daily to and from Yellowknife to staging points on the Ingraham Trail/Highway 4. From the staging point for the NITE lease crews will use snow machines to go to drill sites on the lease. For the BIG lease crews will go to drill sites again using snow machines crossing Pontoon Lake, an existing portage through to Bighill Lake, and then across the east side of Bighill Lake to the drill sites on the leases. At the end of each shift drill core will be packed out by the drillers and taken to a core logging and sampling facility in Yellowknife where geologists and technicians will log and sample the core. Temporary emergency warming tent will be established on each of the leases while drilling is going on. Drill mobilization, moves, and demobilization will use helicopter support and possibly a skidder if unitized drill rigs are used.



**Figure 7. Areas for proposed drilling, shelter, and fuel cache, NITE & BIG leases**



Access roads to drill sites will be prepared in accordance with guidelines specified in Northern Land Use Guidelines: Access: Roads and Trails (GNWT, 2015). New access roads have not been ground truthed, but final decisions on routes will be determined from recently completed LiDAR and orthophotography of the lease areas in order to locate the routes in areas having the least environmental impact; existing or old trails will be used where possible.

Initiation of drilling will depend on permit and licence approvals and attached conditions. Once the Thompson-Lundmark winter road is opened and the Hidden Lake camp is completed drills will start to be mobilized to the first hole positions on the Fi lease and the drilling for the LDP will commence. As additional drills are mobilized; these will be set out at the Hi and Ki Leases. The independently operated BDP on the NITE lease and BIG lease will commence as soon as access conditions allow and drill rigs are available. The BDP may start up before the LDP depending on progress establishing the Hidden Lake camp.

#### **Fuel Storage:**

For the LDP, diesel and jet (helicopter) fuel will be stored in bulk fuel systems with a capacity of up to 75,000 litres, consisting of double-walled steel tanks. These tanks will be situated within the southern part of the Fi lease (Figure 4). Storage Tank Permits will be obtained prior to being deployed and used at the Project for all tanks with capacity >4,000 L, as required by the *Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations* (Canada, 2008).

Fuel will be transferred from the bulk systems into smaller containers (e.g. 205 litre steel drums or tidy tank) for local transport to drill sites, the generator shack or the helicopter pad, or directly into vehicles. Drums will be stored horizontally with their caps in the “3 and 9 o’clock” positions to minimize bung pressure and potential leakage.

All caches, including bulk fuel systems, fill lines and distribution lines will be marked with flags, posts, or similar devices to maximize their visibility.

Fuel will be dispensed using purpose-built manual or electric pumps. Liquid-tight containers or sumps will be placed below each tap, valve and nozzle used to dispense fuel. Spill kits, absorbent matting and copies of the Spill Contingency Management Plan will be present at all bulk fuel, small cache, and refuelling sites.

Please refer to the attached Spill Contingency Management Plan for details on standard safety practices and spill emergency response plans.

A limited amount of fuel in 205 litre drums will also be brought in and stored beside the bulk fuel tanks cached on Fi lease, in a secondary containment area. The amount and variety of fuels that can be on site at any one time are listed in Table 2.

**Table 2. Fuel Types to be used in the Project**

Type of Fuel	Number of containers	Capacity of containers (e.g., litres, pounds)	Type of container (e.g., barrel, tank, tidy-tank)	Proposed storage or staging location(s)
Diesel	3	25,000 ltr	Tanks	Camp
Diesel:	60	205 ltr	Barrel	Camp and drill sites
Gasoline:	10	205 ltr	Barrel	Camp
Aviation Fuel:	60	205 ltr	Barrel	Camp
Propane:	40	45 kg	100# cylinders	Camp and drill water pumps
Other: various lubricants, including drilling fluids	100	1 ltr to 22 ltr	Tubes, cans, and pails	Camp and drills

**Water Usage**

During the Project water will be used initially for winter road construction, drill pads on lakes, if any, to supply camp needs, and for core drilling.

Water for the drilling will be from the nearest waterbody to the drill sites. A list of potential water sources for each of the leases and their estimated water availability are found in Table 3 and illustrated on Figures 4, 7 and 8. It is expected that the water consumption by each diamond drill will average 40 cubic metres/day. A total of seven diamond drills may be used during the course of the winter drilling; implying water consumption by all drilling will total approximately 280 cubic metres/day. Water consumption in the camp is anticipated to range from 0.2 m<sup>3</sup>/day to 0.5 m<sup>3</sup>/day.

When the cumulative proposed water withdrawal is more than 100 m<sup>3</sup>/day, it is understood that the water sources need to have a minimum under-ice depth of 1.5 m, a minimum total depth of 3 m, and no more than 10 % of the total available water below the ice surface may be used for winter drilling. Using sonar in at least three locations greater than 20 m apart and at least 20 m from shore, the depth of these water sources will be determined prior to use. If a suitable water source is not located close enough to drilling locations, transporting via a water tanker or alternative method would be employed from a larger lake that can support a higher demand for water.

Using the document *LWB Method for Determining Winter Water Source Capacity for Small-Scale Developments – Apr 7\_21* as a guide, EREX used 1:50,000 scale topographic maps and GIS



software to determine the surface area of prospective water sources for a conservative evaluation of total available water use capacity, using the equation:

$$\textit{Total Available Water Use Capacity (m3)} = \textit{Surface Area (m2)} \times 0.10 \textit{ (m)}$$

It is understood that reasonable variations may preclude some of these lakes and that they will, therefore, need to be field verified for area and depth prior to use. GPS coordinates of all test locations will be recorded with depth associated measurement results.

**Table 3. Estimated capacity of total available water use.**

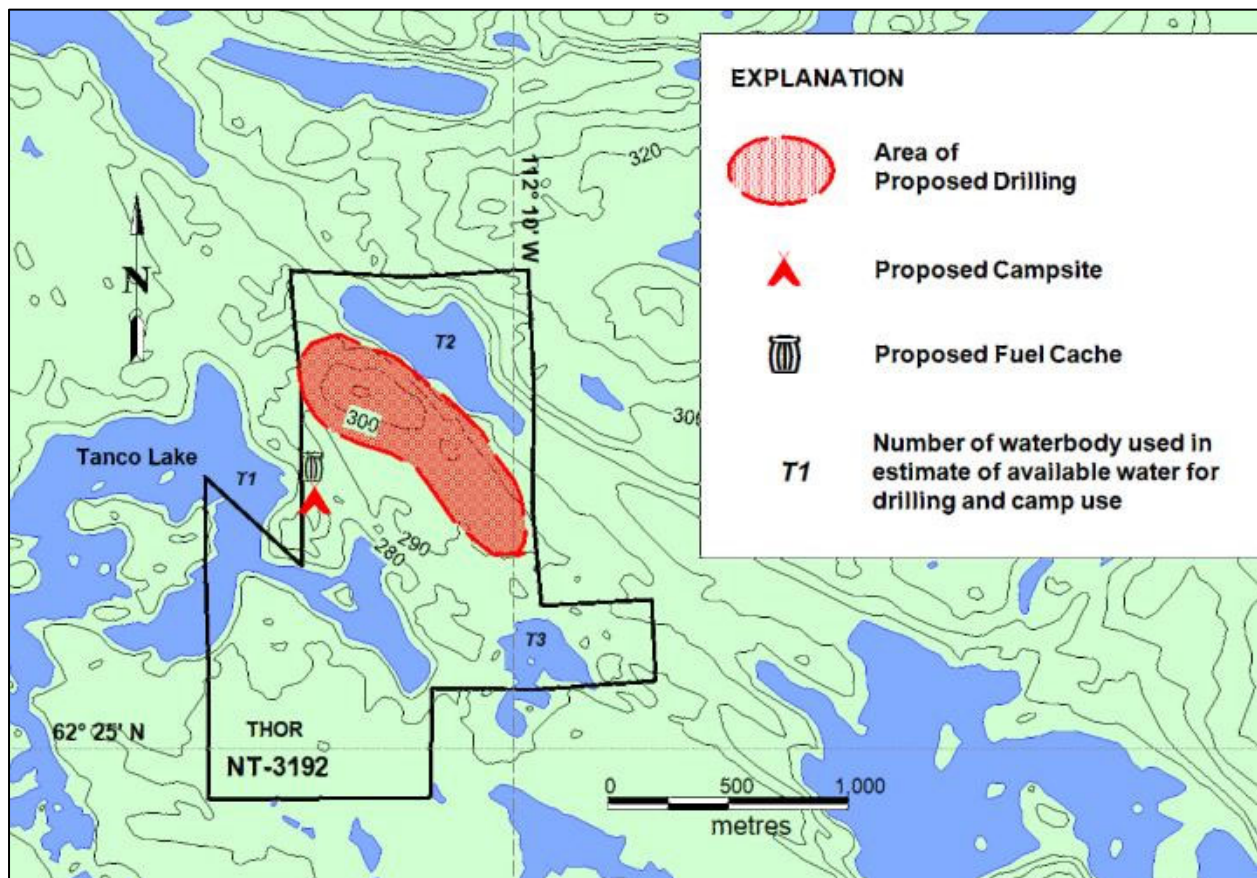
Lease / Waterbody number	Estimated surface area m <sup>2</sup>	Estimated total available water use capacity m <sup>3</sup>	Other water source users	Proposed <sup>3</sup> maximum daily water use volume (m <sup>3</sup> )
<b>Fi/NT-3209</b>				<b>120</b>
1	37,230	3,723	no	
2	22,849	2,285	no	
3	41,390	4,140	no	
4	29,980	2,998	no	
5	3,732	373	no	
6	337,700	33,770	no	
7	72,840	7,284	no	
8	139,000	13,900	no	
Hidden Lk			yes	<b>18</b>
<b>Ki/NT-3208</b>				<b>40</b>
9	290,900	29,090	no	
10	3,482	348	no	
<b>Hi/ NT-5103 &amp; NT-5104</b>				<b>40</b>
11	33,740	3,374	no	
12	75,990	7,599	no	
13	33,360	3,336	no	
<b>NITE/NT-3196</b>				<b>40</b>
1	13,290	1,329	no	
2	31,190	3,119	no	
<b>BIG/NT-3197</b>				<b>40</b>
Bighill Lake	4,482,600	448,260	yes	
4	53,450	5,345	no	
Egg Lake	871,760	87,176	yes	
6	158,880	15,888	no	
	<b>Estimated total daily water consumption (m<sup>3</sup>)</b>			<b>298</b>

<sup>3</sup> Water use for drilling assumes 3 core drills operating on Fi, 1 on Ki, 1 on Hi, 1 on NITE, and 1 on BIG.

**SUMMER 2023:**

During the summer to early fall (mid-June to mid-October) work on the leases will utilize helicopter-supported diamond drills operating on the Fi-Hi-Ki leases out of the Hidden Lake camp. If not completed during winter, the BDP on the NITE and BIG leases will continue with helicopter support for daily drill crews shuttling from Yellowknife, as well as drill moves, including final demobilization once the BDP is completed.

A small drill program (“SDP”) may also take place on the THOR lease (NT-3192) during the summer. It is anticipated that this work will be conducted out of a smaller, helicopter-supported drill camp that will be established on the lease for that purpose; capable of accommodating up to 16 persons in seven 4.3 m by 4.9 m tents. Mobilization of camp and fuel by fixed wing aircraft on skis will likely take place in the early spring of 2023 before break-up. Campsite, fuel cache, and proposed drill area locations are illustrated on Figure 6. Fuel cached at the THOR campsite will total a maximum of 50 drums of Jet-B, 50 drums of diesel, 3 drums of regular gasoline at any one time. Water for the camp will be drawn from Tanco Lake; for drilling from the unnamed lake labelled T2 in Figure 8 and possibly from lake T3.



**Figure 8. Areas for proposed drilling, camp, and fuel cache, THOR lease**

In addition, surface saw-cut channel sampling will be conducted on outcropping exposures of the pegmatite dykes on the leases that have been drilled. The channel samples will be located at 100 metres intervals crossing the dykes along the fence lines of the drill holes. The channels will be cut with gas powered cut-off saws equipped with circular saw blades fitted with diamonds for cutting rock. Channels will be approximately 7 centimetres wide and 10 centimetres deep. Samples collected from the channels will be shipped out for lithium analysis. Results will be used in conjunction with the results from drill core to estimate lithium resources for the dykes. Furthermore, at selected sites on some of the dykes trenches may be blasted out to obtain samples of less than one tonne. It is anticipated that up to 10 tonnes of rock may be broken out of 10 trenches using explosives. Based on the estimated average bulk density of the pegmatite (assumed to be approximately 2.7 tonnes/m<sup>3</sup>), each trench will measure approximately 2.5 m long, 0.5 m deep and 0.3 m wide. A licenced contractor with a valid blasting certificate will be retained to supply explosives and do the blasting. These samples will be used for metallurgical studies on the recovery of lithium minerals from the dykes and in support of preliminary economic analyses for mine development.

Mapping, prospecting and surface sampling will continue during summer programs on a project wide basis, focussing on pegmatites on the THOR (NT-3192) and VO (NT-3203), as well as other leases. It is anticipated that additional diamond drilling will occur on some of the other outlying leases during the term of the permit.

Analyses and assays of rock cores retrieved from diamond drilling, chips from RC drilling, as well as surface saw-cut channel samples, and mini-bulk samples will provide the primary data used in the estimation of the lithium resources for the pegmatites. In addition, the geochemical data derived from this work will provide information on the levels of toxic elements, such as arsenic, cadmium, mercury, and selenium, in the rock, that could contaminate the surrounding environment. This information will help to inform measures to mitigate pollution from these elements should they exceed CCMC allowable levels and should development proceed. It should be noted that in a LUP application (MV2009X0045) submitted by the Contaminants and Remediation Directorate, CIRNAC, for a Remedial Action Plan for the abandoned Hidden Lake Mine, it was pointed out that:

*“Acid-base accounting analysis was conducted to determine the acid generating potential of both categories of waste rock. Preliminary investigations determined that a small portion of the waste rock may have some potential to result in metal leaching. However, subsequent evaluations determined that the waste rock has a negligible potential to result in adverse impacts. More specifically, the potential for measurable impacts to Hidden Lake is considered to be nil.”*



Beyond the first year of the permit, drilling is expected to resume in the winter of 2024 and continue into summer 2024. Additional infill drilling as well as geotechnical drill will also be required in succeeding years of the LUP on the Fi, Hi, Ki, NITE, BIG, and THOR leases in order to upgrade resources to measured and indicated categories to support development planning.

**CLOSURE & RECLAMATION:**

At the end of the permit, if a renewal is not sought, all unnecessary equipment will be removed. Any potential spill sites will be inspected and cleaned up. All camp infrastructure (tents/shacks) will be completely removed, and the land returned to a stable condition. All fuel storage sites and caches will be removed at the end of the project. Any contamination will be cleaned up as per the Spill Contingency Plan. EREX intends to comply with security requirements for closure and reclamation that the MVLWB requests as a condition of the Land Use Permit and Water Licenses. EREX has submitted a Closure and Reclamation Plan, as well as a security estimate for reclamation and closure prepared using RECLAIM 7.0 to the MVLWB.

**POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION**

Over the life of the Project the proponent recognizes that there is the potential for environmental impacts to the Project area and wildlife within it. Every effort will be made to avoid or minimizes these impacts as summarized in Table 4 below.

**Table 4. Overview of potential environmental impacts and proposed mitigations**

Potential Environmental Impact	Proposed Mitigation
Prospecting, Mapping and Sampling	None, these activities will have minimal impact on the land
Land Disturbance due to Drilling Activities	Drilling operations will be restricted to a very small footprint which will subsequently be reclaimed to its natural state using CCME and industry best practices. Permittee will remove or cut off and seal each drill casing at ground level.
Contamination of Soil, Groundwater, and Waterbodies due to Drilling or Fuel Spills	Follow an approved spill plan and procedure. Spill kits and equipment will be in place and readily available. Regular inspection of fuel caches and transfer areas. Personnel will be trained in proper spill procedures. Sealing of any drill holes that encounter artesian aquifers. Proper waste management practices. Secondary containment for fuel caches. Proper labeling and positioning of fuel drums.
Contamination of Waterbodies due to Drilling Waste	Both depositing drill-cuttings in a natural depression and locating sumps at least 100 m from the highwater mark of any water course will limit potential for contamination.

**Table 4. Continued.**

Potential Environmental Impact	Proposed Mitigation
Soil compaction, Settling, and Erosion	<p>Disturbed sites will be re-vegetated and the disturbed land be returned as close to the original condition as possible.</p> <p>Will ensure the ground is capable to support vehicle movements so that the land is not disturbed.</p> <p>Backfilling and restoring sumps following their use will limit potential for localized erosion.</p> <p>Provide adequate insulation of the ground surface beneath all camp structures to prevent vegetation from being removed, the melting of permafrost, and the ground from settling/eroding</p>
Damage to Vegetation	<p>During the winter portion of the land-use operation EREX will ensure there is adequate snow pack to support vehicle movements so that vegetation is not disturbed.</p> <p>Any campsite will be located on durable land or another previously cleared area so as to limit the amount of vegetation disturbed.</p>
Impacts to Wildlife and Fish Habitat	<p>Abide by all applicable legislation so as to prevent damage to fish habitat and impacts to wildlife, especially Bathurst Caribou.</p> <p>No feeding wildlife.</p> <p>Minimize erosion, properly-manage drilling wastes, prevent obstruction of natural drainage, ensure proper waste management practices so as not to attract wildlife, and respond to spills immediately.</p> <p>Will not commence any drilling or movement of equipment within 500 m of any caribou.</p>
Disturbances to Archaeological Sites	<p>Making workers aware of what to do if they suspect they have encountered an archaeological site and following the guide: <i>Chance Archaeological Find Procedure</i> document.</p> <p>Working with government bodies that have documented Archaeological and Cultural Heritage sites and ensure that they are being avoided.</p>
Increases in Noise Levels	<p>No mitigation is proposed for the noise generated from the camp facilities, by the drilling operations or helicopter use.</p> <p>The project will be discontinuous, short term, and limited to smaller individual areas.</p>