

# Government of Gouvernement des Northwest Territories Territoires du Nord-Ouest

June 15, 2023

EREX International Ltd. 300 – 1055 West Hasting Street VANCOUVER. BC V6E 2E9

Re: Land Use Permit MV2022C0021

**Mineral Exploration** 

Yellowknife Lithium Project, NT

Dear Ms. Hayward,

An inspection of the active diamond drill program in the Hidden Lake Area was conducted by Inspectors Clint Ambrose and Karine Gignac on June 14th, 2023. The inspection was carried out to ensure operating conditions annexed to the above noted land use permit are being adhered to during this land use operation. All findings of the inspection were discussed onsite with Mr. Mike Leidl (Permittee) and personnel from both Contractors.

Land use operations commenced on approximately June 1<sup>st</sup>, 2023 and two (2) diamond drills were active in the Hidden Lake Area at the time of the inspection. No major concerns were noted during the inspection and the cooperation of the Permittee & Contractors is appreciated by Inspectors. Your copy of the Environmental Inspection Report is enclosed and should be self-explanatory.

If you have any questions or concerns, please contact the undersigned at (867) 767-9188 or Ms. Karine Gignac at (867) 767-9187 ext. 24189.

Sincerely,

Clint Ambrose

Manager, Resource Management (Inspector) North Slave Regional Office

GNWT – Department of Lands

cc: MVLWB

EREX International Ltd. – via email GNWT-DECC Water Officers – via email CIRNAC – Tim Morton – via email Government of Gouvernement des
Northwest Territories Territoires du Nord-Ouest

# **ENVIRONMENTAL INSPECTION REPORT**

Permittee:	EREX International Ltd.	I	nspection Date – June 14 <sup>th</sup> , 2023		
		Permit Expiry Date Last P	revious Inspection		
Land Use Permit No.	MV2022C0021	January 2 <sup>nd</sup> , 2028	Initial		
Quarry Permit No.	N/A				
Contractor:	Equity Exploration Consultants Dorado Drilling Northtech Drilling Ltd.	Subcontractor:	Discovery Mining Services		
Location(s) Inspected:	Completed & active diamond dril	l sites and fuel cache in the Hi	dden Lake Area.		
Current Stage of Operation:					
Program Modifications	The Mackenzie Valley Land and V		d use permit on May 29 <sup>th</sup> , 2023 to		

Condition of Operation "A" - Acceptable "U" - Unacceptable "N/A" - Not Applicable

	Operating Condition Aspect Inspected			
		Drill Program	Fuel Cache	Condition
A	Location and Area	A	A	
В	Time	A	A	
С	Type and Size of Equipment	A	A	
D	Methods and Techniques	A	A	
Е	Type, Location, Capacity and Operation of All Facilities	A	A	
F	Control or Prevention of Ponding of Water, Flooding, Erosion, Slides and Subsidence of Land	A	A	
G	Use, Storage, Handling and Ultimate Disposal of Any Chemical or Toxic Material	A	A	#43 Drilling Waste
Н	Wildlife and Fisheries Habitat	A	A	
I	Storage, Handling and Disposal of Refuse or Sewage	A	A	
J	Protection of Historical, Archeological and Burial Sites	A*	A	#58 AIA – High Potential
K	Objects and Places of Recreational, Scenic or Ecological Value	N/A	N/A	
L	Security Deposit	A	A	
M	Fuel Storage	<b>A*</b>	A	#74 Spill Response
N	Methods and Techniques for Debris and Brush Disposal	A*	A	#78 Brush Disposal/Time
0	Restoration of the Lands	A	A	
P	Display of Permits and Permit Numbers	A	A	
Q	Matters Not Inconsistent With the Regulations	A	A	
R	Sections 8 to 16 M.V.L.U.R.	A	A	





Date: June 14th, 2023 Permit #: MV2022C0021

#### **Explanatory Remarks**

An inspection of the active diamond drill program in the Hidden Lake Area was conducted by Inspectors Clint Ambrose & Karine Gignac on June 14<sup>th</sup>, 2023. The inspection was carried out to ensure operating conditions annexed to the above noted land use permit are being adhered to during this land use operation. All findings of the inspection were discussed onsite with Mr. Mike Leidl (Contractor) and personnel from both diamond drill companies (Dorado & Northtech).

The diamond drill program commenced on approximately June 1<sup>st</sup>, 2023 and at the time of the inspection, two (2) diamond drills were actively drilling on the Fi mineral lease (Figure 1 through 3). The Inspector is pleased to report that no major concerns were noted and the following was observed;

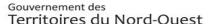
- Drill additives are being neatly stored in a laydown or at the drills (Figure 4 & 5). Prior to the commencement of exploration activities, SDS (safety data sheets) were provided to the Inspectors.
- With the current drilling of shallow holes, minimal to no drill additives are currently being used. If rod grease is used, it is imperative that rods are skimmed when pulled and rod grease collected for proper off-site disposal at a licensed facility in Yellowknife.
- Water use is being tracked at both diamond drills with meters that can be viewed in Figure 6 & 7,
- Water is being directed back to the mud tank with funnels (Figure 8 & 9) when the core barrel is being pulled and this practice will help ensure the drills continue to work in the "dry".
- All fuel containers are stored in secondary containment (Figure 10 & 11), the majority are top feed and Northtech is using double walled tanks within Tertiary containment (Figure 12).
- Dorado personnel are committed to placing hydrocarbon absorbent matting on top of the water that was observed in secondary containment. This will prevent inadvertent discharge of water that may be slightly impacted with hydrocarbons. This practice of using matting must continue as this land use operation progresses.
- Fuel nozzles are being stored in 5 gallon pails that have been lined with hydrocarbon absorbent matting (Figure 13 & 14),
- All ancillary equipment is being stored or used with a form of secondary containment present (Figure 15 & 16).
- Small hydrocarbon containers are being stored in secondary containment (Figure 17 & 18) and the only requirement is for Dorado personnel to place spill response materials in a highly visible location wherever hydrocarbon or other hazardous materials are being used/stored.
- The power packs (engines) of the diamond drills have a form of secondary containment present (Figure 19 & 20).
- Drill waste is being collected at the collar with either an impermeable liner (Figure 21) or a casing pot (Figure 22). Both methods currently appear to be acceptable but it is crucial that diligent monitoring occurs to prevent the loss of drill waste (water & cuttings) below the drill. All drilling must be conducted in the "dry" and if it cannot, other methods for drill waste management must be explored.
- Drill waste is being collected in containers (Figure 23 & 24) adjacent to the drill prior to pumping to a suitable disposal location (natural depression).
- Upon completion of drilling, the casing is being pulled and anchors are cut flush with the ground surface. Concerns were expressed by drill personnel as it can sometimes be difficult to cut right flush with the ground but if under 12" in height, this is acceptable.
- Drill holes are being sealed with a drill hole plug (Figure 25) at the Dorado rig and with a Van Ruth Plug & two bags of cement at the Northtech rig.

Although not noted as an immediate concern, both the Dorado & Northtech drills did not have a form of secondary containment below the feed frame (Figure 26 & 27). Since there are quite a few hydraulic lines at this location this concern was expressed to both Contractors who committed to immediately addressing this concern. This cooperation is appreciated by Inspectors.

The location of natural depressions for the disposal of drill waste was discussed with Mr. Mike Leidl and both drill contractors. The current practice has drill waste being pumped greater than 600' from the drill and is unnecessary since a shorter run would still allow compliance with Condition #43 of the land use permit. The intent of the aforementioned condition is to prevent drill waste from entering a watercourse during spring freshet or high precipitation events and with the lay of the land and vegetation cover where drilling is currently occurring, this distance can be drastically reduced.

The Permittee is hereby authorized to pump drill waste into a natural depression that is closer than 100 metres from a watercourse for the following reasons; the ground is relatively flat where drilling is occurring or proposed, vegetation is thick with numerous hummocks, and the depth of holes are less than 200 metres. It is respectfully requested that if disposal locations are between thirty-one (31) and fifty (50) metres, prior authorization from an Inspector must be sought to remain compliant with Condition #43.







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#### **Explanatory Remarks**

At the collar of the Northtech drill, drill waste was observed below the drill and discussions with personnel occurred. The Inspectors were informed that water is seeping up from around the casing and options to prevent/reduce volumes could be driving additional casing before drilling, using permaseals or using a drill additive (G-Stop). The Inspectors anticipate the best efforts of both drill contractors to mitigate the migration of water on the outside of the casing and this cooperation is anticipated.

When the aforementioned methods do not rectify the seepage, a shallow earthen sump can be excavated at the collar. The size of the sump must be kept to a minimum and if possible, no larger than what is required for a submersible pump.

The current practice for tree disposal in laydowns and at drill sites is cut & pile like viewed in Figure 28 & 29. This practice is not required and acceptable methods to comply with Condition #78 were discussed with the Mr. Mike Leidl and both drill Contractors. Trees can be cut and bucked up into suitable lengths so all parts of the tree lie flat on the ground surface and spread in the adjacent forest, or over a completed drill site.

All of the completed drill sites to date were inspected and can be viewed in Figure 29 through 35. With the exception of tree disposal at these sites, the Inspectors were pleased to see that the size of drill pads is being kept to a minimum, no garbage or debris was observed, anchors have been cut flush with the ground surface, drill waste is being managed correctly and it appears drilling is being conducted in the "dry". Overall, the Inspectors were very pleased with the manner in which land use operations are occurring and the cooperation of the Contractors is appreciated.

There is currently one fuel cache southwest of the Fi mineral lease and (Figure 36) only one improvement is required. Drums are being stored on their sides, the Permittee's name has or will be stenciled on the drums, a spill kit was present and bungs are positioned at 3 and 9 o'clock. The improvement required is to better space the rows of drums so that walkways between rows can be created to allow for ease of inspection. This will ensure diligent compliance with Condition #62 of the land use permit.

To ensure diligent tracking of small hydrocarbon or other spills occurs, the Inspector requires the Permittee to maintain a log of all spills, no matter the volume. A template has been provided to the Contractor (Equity) and it is respectfully requested that the log be submitted to Inspectors **prior to the tenth day of each month**. Therefore, the first log must be provided by July  $10^{th}$ , 2023 for the month of June and submissions must continue for the duration of land use operations.

The Permittee has completed an Archaeological Overview (AOA) to determine areas of High & Low Archeological potential in the land use area as required by Condition #57 of the land use permit. Since areas of high potential were identified in the AOA, the Inspectors were informed that an Archaeological Impact Assessment (AIA) will be completed this summer in snow free conditions.

Until the AIA can be completed, the Permittee has mapped the areas of high potential and will not conduct any new land disturbances in these areas. Once again, the commitment of the Permittee to comply with operating Conditions #54 to #58 is appreciated by Inspectors.

Once the AIA is complete, the summary report must be submitted in a timely manner to the Prince of Wales Northern Heritage Centre, the Mackenzie Valley Land and Water Board and Inspectors.

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Figure 1
Looking north at the current area of drilling on the Fi Mineral tenure. Two drills were active at the time of the inspection.



Figure 2
The Dorado diamond drill just completed this target and was preparing for a move.



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Figure 3
Looking northwest at the Northtech diamond drill.



Figure 4
SDS for drill additives for both drill contractors have been provided to the Inspectors. Minimal use is currently occurring since holes are relatively short.



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Figure 5
Other pails of drill additives at the Dorado drill.



Figure 6 Water use is being metered at the Dorado drill. Volumes are being recorded daily.



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Figure 7

Water meter on the mud tank of the Northtech drill.



Figure 8
Water funnel is being used at the Dorado drill when pulling the core barrel. Water is directed back into the mud tank.



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Figure 9

Funnel at the Northtech drill that is being used when pulling the tube.



Figure 10
All of the Dorado fuel containers are being stored in secondary containment. Hydrocarbon absorbent matting must be placed on the water surface within the containment structure.



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Figure 11
Fuel tanks at the Dorado water pump spill kit is present and fuel nozzles are being stored in containment with matting.



Figure 12
Top feed, double walled fuel tanks stored in tertiary containment at the Northtech drill. Generator and hydrocarbon pails are also being stored in secondary containment.



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Figure 13

All fuel nozzles are being stored in 5 gallon pails after each use.



Figure 14
Fuel nozzle in a 5 gallon pail at the Northtech drill.



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Figure 15

Ancillary equipment is being stored in containment with hydrocarbon absorbent matting lining.



Figure 16
Secondary containment and tertiary containment at the Northtech water pump.



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Figure 17

Small hydrocarbon containers at the Dorado survival shack are stored in containment. Spill response materials must be placed in a highly visible location.

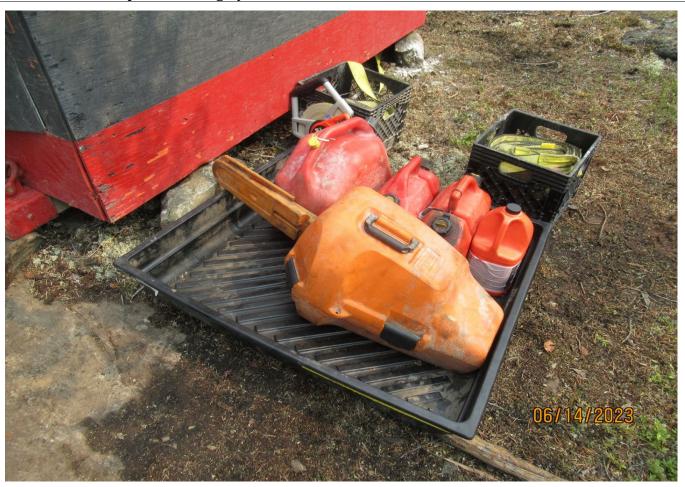


Figure 18
Hydrocarbon containers at the Northtech drill are stored in containment and spill response materials were present.



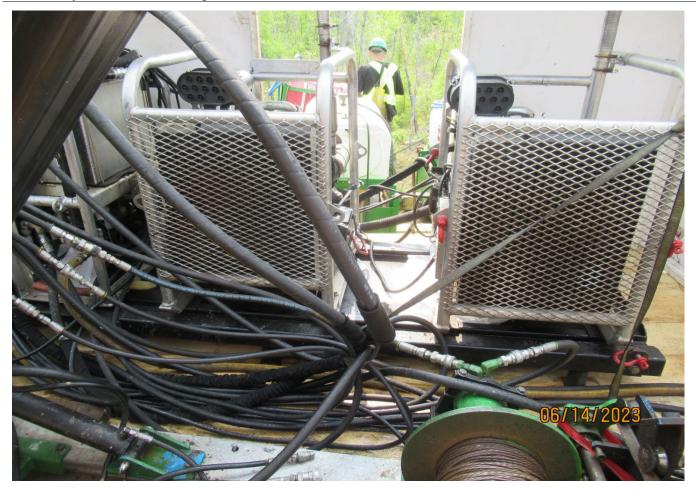
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Figure 19
The power pack for the Dorado drill had a form of secondary containment beneath it.



Figure 20 Secondary containment was present below the Northtech drill.



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#### Figure 21

An impermeable tarp and submersible pump are being used to collect drill waste at the collar for the Dorado drill. Diligent monitoring of its effectiveness must remain a priority.

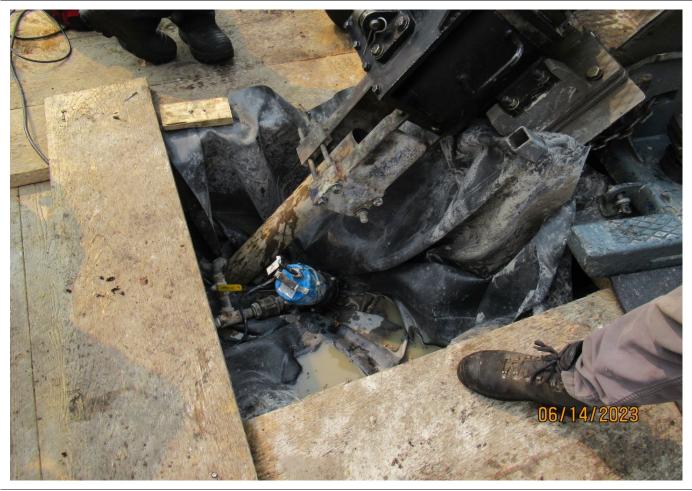


Figure 22
Casing pot for the collection of drill waste at the Northtech drill. Small earthen sump is being used to collect waste that is seeping around the casing.



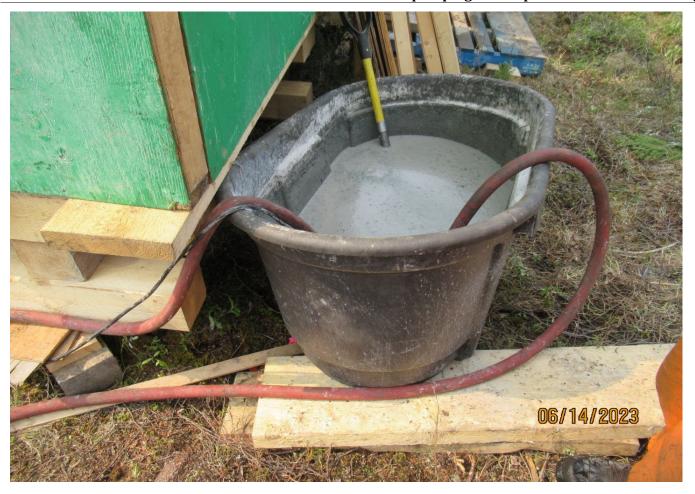
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Figure 23
Drill waste is being directed to this collection bin for pumping to a natural depression.



Figure 24
Drill waste collection tub at the Northtech drill. Continuous pumping to a disposal location is occurring.



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Figure 25

Drill hole plug is being used by Dorado for the sealing of holes upon completion of drilling a target. Northtech is using a Van Ruth Plug and cement.



Figure 26
A form of secondary containment must be implemented below the feed frame of the Dorado Drill.



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Figure 27

A form of secondary containment must be implemented below the feed frame of the Northtech drill.



Figure 28
All cut trees must be bucked up and spread in the adjacent forest or over a completed drill site. Double handling of trees should be avoided.



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Figure 29

Completed drill target on Fi Southwest. Proper tree disposal must occur.



Figure 30 Another completed drill target on Fi Southwest. All items will be removed in due course.



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Figure 31
Minor amount of blocking to retrieve from a completed drill site.



Figure 32
Completed drill site to the south of the timber pad. It appears cuttings management is occurring and drilling is being undertaken in the dry.



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Figure 33
Completed target and no concerns noted with the exception of tree disposal.



Figure 34
Another example of a completed drill site. Operations are being conducted in a manner that complies with operating conditions of the land use permit.



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Figure 35

Completed drill site on Fi Main.



Figure 36
Fuel cache southwest of where drilling is occurring. Only concern was the requirement to establish walkways between rows of drums.



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