

Preliminary Screening Report Form

<p>Preliminary screener: MVLWB</p> <p>Reference / File number: MV2018C0010</p> <p>TITLE: Type A Land Use Permit ORGANIZATION: Peregrine Diamonds Ltd.</p> <p>MEETING DATE: September 20, 2018</p>	<p>EIRB</p> <p>Reference number:</p>
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Type of Development:
(CHECK ALL THAT APPLY)

- New
- Amend, EIRB Ref. #
- Requires permit, licence, or authorization
- Does not require permit, licence, or authorization

Project Summary:

The purpose of this Permit application is for Peregrine to conduct mineral exploration on their 12 mineral leases, covering approximately 8,495 hectares of land. The project proposes the use of 4 diamond drills: 2 Helicopter Portable Core Drills; and 2 Helicopter Portable Reverse Circulation (RC) Drills. These drills will be transported to different locations via helicopter, as no trucks or off-roading activities are proposed for this land use operation.

Equipment List :

Number	Type	Proposed Use
2	Heli-portable Core Drill	Core Drilling
2	Heli-portable RC drill	Reverse Circulation Drilling
2	Snowmobile	For workers to travel during the winter
1	Helicopter	For slinging drills to new locations and transporting workers from camp

There is no camp proposed for this project. Peregrine holds Permit W2011C0005 with the Wek'eezhii Land and Water Board (WLWB) for similar activities in the same area, including the DO-27 camp which is accessed by a winter spur road off the Tibbitt to Contwoyto winter road and a fuel storage area, which Peregrine intends to use along with the activities proposed in the Application for Permit MV2018C0010. Additionally, all garbage will be collected daily and transported to the DO-27 camp for handling and disposal. All drill materials are to be removed from each drill location at the end of drill operations. Drill cuttings will be contained in a sump or natural depression. All non-mineral waste and hazardous waste (empty fuel drums) will be transported to the DO-27 camp where they will be stockpiled and then returned to Yellowknife at KBL Environmental Ltd. Sewage waste will be contained during drilling operations and transported to the DO-27 camp for incineration. Fuel for this

Fuel to be temporarily stored on site during active drilling:

Fuel Type	Number of Containers	Capacity of Containers	Location
Diesel	5	205 Litres	At drill
Gasoline	1	205 Litres	At drill
Aviation Fuel	1	205 Litres	At drill
Propane	1	100 lb	At drill

Scope:

The scope for the land use permit is described in the complete application and includes the following:

- a) Diamond drilling;
- b) Reverse circulation drilling;
- c) Use of equipment, vehicles and machines; and
- d) Use and storage of fuel.

Land Use Eligibility - Section 18 Mackenzie Valley Land Use Regulations: 18(a)(i)

18 A person is eligible for a permit who

- (a) Where the proposed land-use operation is in the exercise of a right to search for, win or exploit minerals or natural resources,
 - (i) holds the right

Type of Disposition

Disposition Number(s)

- Mineral Claims
- Prospecting Permit (s)
- Mineral Leases
- Oil and Gas: EL/SDL/PL
- Quarry Permit
- Timber Permit
- Other:

5266, 5269, 5263, 5264, 5267, 5265, 5268, 5270, 5271, 4131, 4132, 4133

Principal Activities (related to scoping) (CHECK ALL THAT APPLY)

- | | | |
|--|---|--|
| <input type="checkbox"/> Construction | <input checked="" type="checkbox"/> Exploration | <input type="checkbox"/> Decommissioning |
| <input type="checkbox"/> Installation | <input type="checkbox"/> Industrial | <input type="checkbox"/> Abandonment |
| <input type="checkbox"/> Maintenance | <input type="checkbox"/> Recreation | <input type="checkbox"/> Aerial |
| <input type="checkbox"/> Expansion | <input type="checkbox"/> Municipal | <input type="checkbox"/> Harvesting |
| <input type="checkbox"/> Operation | <input type="checkbox"/> Quarry | <input type="checkbox"/> Camp |
| <input type="checkbox"/> Repair | <input type="checkbox"/> Linear / Corridor | <input type="checkbox"/> Scientific/ |
| <input type="checkbox"/> Research | <input type="checkbox"/> Sewage | <input type="checkbox"/> Solid Waste |
| <input checked="" type="checkbox"/> Water Intake | | |
| <input type="checkbox"/> Other: | | |

Principal Development Components (related to scoping) (CHECK ALL THAT APPLY)

- | | |
|---|---|
| <input type="checkbox"/> Access Road <ul style="list-style-type: none"> <input type="checkbox"/> construction <input type="checkbox"/> abandonment/removal <input type="checkbox"/> modification e.g., widening, straightening | <input checked="" type="checkbox"/> Waste Management <ul style="list-style-type: none"> <input checked="" type="checkbox"/> disposal of hazardous waste <input checked="" type="checkbox"/> waste generation <input checked="" type="checkbox"/> sewage <input checked="" type="checkbox"/> disposal of sewage |
| <input checked="" type="checkbox"/> Automobile, Aircraft or Vessel Movement | <input type="checkbox"/> Geoscientific Sampling |
| <input type="checkbox"/> Blasting | <input type="checkbox"/> Trenching |
| <input type="checkbox"/> Building | <input checked="" type="checkbox"/> Diamond drill |
| <input checked="" type="checkbox"/> Burning | <input checked="" type="checkbox"/> Borehole core sampling |
| <input type="checkbox"/> Burying | <input type="checkbox"/> Bulk soil sampling <ul style="list-style-type: none"> <input type="checkbox"/> gravel <input type="checkbox"/> hydrological Testing |
| <input type="checkbox"/> Channelling | <input type="checkbox"/> Site Restoration <ul style="list-style-type: none"> <input type="checkbox"/> fertilization <input type="checkbox"/> grubbing <input type="checkbox"/> planting/seeding <input type="checkbox"/> reforestation <input type="checkbox"/> scarify <input type="checkbox"/> spraying <input type="checkbox"/> re-contouring |
| <input type="checkbox"/> Cut and Fill | |
| <input type="checkbox"/> Cutting of Trees or Removal of Vegetation | <input type="checkbox"/> Slashing and removal of vegetation |
| <input type="checkbox"/> Dams and Impoundments <ul style="list-style-type: none"> <input type="checkbox"/> construction <input type="checkbox"/> abandonment/removal <input type="checkbox"/> modification | <input type="checkbox"/> Soil Testing |
| <input type="checkbox"/> Ditch Construction | <input type="checkbox"/> Stream Crossing/Bridging |
| <input type="checkbox"/> Drainage Alteration | <input type="checkbox"/> Tunnelling/Underground |
| <input type="checkbox"/> Drilling other than Geoscientific | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Ecological Surveys | |
| <input type="checkbox"/> Excavation | |
| <input type="checkbox"/> Explosive Storage | |
| <input checked="" type="checkbox"/> Fuel Storage (temporary) | |
| <input type="checkbox"/> Topsoil, Overburden or Soil <ul style="list-style-type: none"> <input type="checkbox"/> fill <input type="checkbox"/> disposal <input type="checkbox"/> removal <input type="checkbox"/> storage | |

NTS topographic map sheet numbers:

076C

Latitude / longitude and UTM system:

NAD 83

Minimum Latitude: 64°17'7.44	Maximum Latitude: 64°22'4.05
Minimum Longitude: -109°57'10.08	Maximum Longitude: -109°45'49.28

Nearest community and water body:

Community: Wekweti

Water Body: Lac de Gras, MacKay Lake, Thonokied Lake, NT

Land Status (consultation information)

Free Hold/Private
 Commissioner's/Territorial Lands
 Federal Crown Land
 Municipal Land

Transboundary/Transregional Implications

British Columbia
 Alberta
 Saskatchewan
 Yukon
 Nunavut
 National Park
 Inuvialuit Settlement Region
 Wek'èezhii
 Gwich'in
 Sahtu

Type of transboundary implication:
 Impact / Effect
 Development

Public concern: _____
(Describe.)

Physical - Chemical Effects

Impact

1) Ground Water

Mitigation

water table alteration

Drilling may penetrate an aquifer causing artesian flow and possibly a lowered water table. A condition could be included to require the proponent to plug and permanently seal all drill holes where artesian flow is encountered in order to mitigate affects to the water table.

water quality changes

Improper handling of drill wastes, fuel, sewage and garbage may cause groundwater pollution at recharge areas. Conditions could be included in the Permit to require the proponent to collect drill cuttings in cutting bags and to deposit waste in a sump above the high-water mark of any water body. The Waste Management Plan submitted with the application also outlined how waste will be properly contained and disposed of.

infiltration changes

other:

N/A

Impact

2) Surface Water

Mitigation

flow or level changes

water quality changes

Improper handling of drill wastes, fuel, sewage and garbage may cause groundwater pollution at recharge areas. Conditions could be included in the Permit to require the proponent to collect drill cuttings in cutting bags and to deposit waste in a sump above the high-water mark of any water body. The Waste Management Plan submitted with the application also outlined how waste will be properly contained and disposed of.

The risk of hydrocarbon contamination can be mitigated by including Permit conditions related to fuel storage and transfer, such as secondary containment. There is also a Spill

Contingency Plan submitted with the application which outlined how spills will be avoided, contained and safely remediated. Workers will have access to spill kits and will be appropriately trained.

water quantity changes

Very minimal volumes of water will be used for the core drills. The RC drills do not use water. As there will likely only be one drill using water at a time, there should not be a significant change to surface water quantity.

drainage pattern changes

temperature

wetland changes/loss

other:

N/A

Impact

Mitigation

3) Noise

noise in/near water

Drilling activities will be temporary and intermittent. No mitigations proposed.

noise increase

other:

N/A

Impact

Mitigation

4) Land

geologic structure changes

soil contamination

Spills of drill wastes, fuel, sewage and garbage may cause soil contamination. Conditions could be included in the Permit on the proper handling of waste. The Waste Management Plan submitted with the application also outlines how waste will be properly contained and disposed of, such as collecting drill cuttings and depositing waste in a sump or natural depression above the high-water mark, and bringing garbage and fuel drums off site.

The risk of hydrocarbon contamination can be mitigated by including Permit conditions related to fuel storage and transfer, such as secondary containment. There is also a Spill Contingency Plan submitted with the application which outlined how spills will be avoided, contained and safely remediated. Workers will have access to spill kits and will be appropriately trained.

buffer zone loss

soil compaction and settling

Soil compaction may occur from the drills (heavy equipment), however standard conditions related to rutting, and erosion could be included in the Permit to mitigate impacts.

destabilization/erosion

Destabilization and erosion may occur from the drills (heavy equipment), however standard conditions related to rutting, and erosion could be included in the Permit to mitigate impacts.

permafrost regime alteration

explosives/scarring

other:

N/A

Impact

5) Non-renewable natural resources

Mitigation

resource depletion

other:

N/A

Impact

6) Air/climate/atmosphere

Mitigation

other:

N/A

BIOLOGICAL ENVIRONMENT

Impact

1) Vegetation

Mitigation

species composition

species introduction

toxin/heavy accumulation

other: Linear Migration routes, habitat fragmentation

N/A

Impact

2) Wildlife and Fish

Mitigation

effects on rare, threatened or endangered species

The project area overlaps with the ranges of the following NWT-listed and/or pre-listed species: Boreal Caribou – Threatened in the NWT; Barren-ground Caribou - Threatened in the NWT; Grizzly Bear – Special Concern in NWT; Little Brown Myotis (bat) – Special Concern in the NWT. The proponent has agreed to follow the Species at Risk (NWT) Act. Conditions could be included in the Permit to mitigate damage to wildlife habitat.

fish population changes

waterfowl population changes

breeding disturbance

population reduction

species diversity change

health changes

behavioural changes

Wildlife may avoid the drill sites because of the noise and smells. The drilling activity is temporary in nature and therefore no mitigation is proposed.

habitat changes / effects

- game species effects
- toxins/ heavy metals
- forestry changes
- agricultural changes
- other:
- N/A

Interacting Environment

Impact

Mitigation

1) Habitat and Communities

- predator-prey
- wildlife habitat/ecosystem composition changes
- reduction/removal of keystone or endangered species
- removal of wildlife corridor or buffer zone
- other:
- N/A

Impact

Mitigation

2) Social and Economic

- planning/zoning changes or conflicts
- increase in urban facilities or services use
- rental house
- airport operations/capacity changes
- human health hazard
- impair the recreational use of water or aesthetic quality
- affect water use for other purposes
- affect other land use operations
- quality of life changes
- public concern
- other:

N/A

Impact

3) Cultural and Heritage

Mitigation

effects to historic property

increased economic pressure on historic properties

change to or loss of historic resources

change to or loss of archaeological resources

There are archaeological sites within the project area, and only a portion of the area has been previously assessed. Standard conditions such as Archaeological Buffer, Site Disturbance, Site Discover and Notification, Archaeological Overview, and AIA-High Potential could be included in the Permit to mitigate impacts.

increased pressure on archaeological sites

There are archaeological sites within the project area, and only a portion of the area has been previously assessed. Standard conditions such as Archaeological Buffer, Site Disturbance, Site Discover and Notification, Archaeological Overview, and AIA-High Potential could be included in the Permit to mitigate impacts.

change to or loss of aesthetically important sites

effects to aboriginal lifestyle

other:

N/A

- Pursuant to Schedule 4.1 of the **Northwest Territory Métis Nation (NWTMN)** Interim Measures Agreement, the MVLWB determined that written notice was given to the NWTMN and that a reasonable period of time was allowed for NWTMN to make representations with respect to the application.
- Pursuant to subsection 1.6, paragraphs (a) and (b) of the **Akaiicho Territory Dene First Nations (ATDFN)** Interim Measures Agreement, the MVLWB determined that written notice was given to the ATDFN and that a reasonable period of time was allowed for ATDFN to make representations with respect to the Application.

Preliminary Screener / Referring Body Information

Organization	Organization
Akaitcho IMA Implementation Office	GNWT - MACA
Athabasca Denesuline Council CO Prince Albert Council	Golder Associates
Bathurst Inlet Development Ltd.	Hamlet of Fort Resolution
Bathurst Inlet Lodge	INAC - CARD
BNT Gold Resources Ltd.	INAC - NWT Inspectors
CanNor NWT Region	Katlocheeche First Nation
City of Yellowknife	Kitikmeot Inuit Association
Community Government of Behchoko	Lutsel K'e Dene First Nation - Chief or Wildlife, Lands and Environment
Community Government of Gameti	Mackenzie Valley Environmental Impact Review Board
Community Government of Whati	Manitoba Denesuline
Dene Nation	MVLWB
Deninu K'ue First Nation	National Energy Board
Det'on Cho Corporation	North Slave Metis Alliance
Environment and Climate Change Canada	Northwest Territory Metis Nation
Fisheries and Oceans Canada	NWT & Nunavut Chamber of Mines
Fort Resolution Metis Council	NWT- OROGO
GLWB	Salt River First Nation
GNWT - ECE	Smith's Landing First Nation
GNWT - ENR	Snap Lake Environmental Monitoring Agency - SLEMA
GNWT - ENR - North Slave Region	Tlicho Government
GNWT - ENR - South Slave Region - Fort Smith	Tlicho Lands Protection Department
GNWT - Health	Town of Fort Smith
GNWT - INF	Wek' eezhii Renewable Resources Board
GNWT - ITI	Wekweeti Community Government
GNWT - Lands	West Point First Nation
GNWT - Lands - Hay River Region	WLWB
GNWT - Lands - North Slave Region	Workers' Safety and Compensation Commission
GNWT - Lands - South Slave Region - Fort Smith	Yellowknives Dene First Nation

Reasons For Decision

(List all reasons and supporting rationales for preliminary screening decision)

DECISION

The Mackenzie Valley Land and Water Board (the Board) is satisfied that the preliminary screening of Application MV2018C0010, Peregrine Diamonds Ltd., Mineral Exploration, Lac de Gras Area has been completed in accordance with section 125 of the *Mackenzie Valley Resource Management Act* (MVRMA).

The Board is satisfied that communities and First Nations affected by the Application have been notified and provided adequate time to provide comment on the Application as required by land claim and self government agreements, the MVRMA, policy directions relating to Interim Measures Agreements, and any other applicable legislation and agreements.

Having reviewed all relevant evidence on the Public Registry, including the submissions of the Applicant, the written comments received by the Board and any Staff Reports prepared for the Board, the Board has decided that in its opinion:

- The proposed development will not have a significant adverse impact on the environment; and
- The proposed development is not a cause of public concern.

The Board is also of the opinion that the Application can proceed through the regulatory process and that any impacts of the development on the environment can be mitigated through the imposition of the terms and conditions in the attached Land Use Permit.

As a result, the Board, having due regard to the facts and circumstances, the merits of the submissions made to it, and to the purpose, scope, and intent of the MVRMA and the Mackenzie Valley Land Use Regulations has decided that this Land Use Permit be issued subject to the terms and conditions contained therein.

Preliminary Screening Decision	
<input checked="" type="checkbox"/>	Outside Local Government Boundaries
<input type="checkbox"/>	The development proposal might have a significant adverse impact on the environment, <i>refer it to the EIRB.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	The development proposal might have public concern, <i>refer it to the EIRB.</i>
<input checked="" type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	Wholly Within Local Government Boundaries
<input type="checkbox"/>	The development proposal is likely to have a significant adverse impact on air, water or renewable resources, <i>refer it to the EIRB.</i>
<input type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>
<input type="checkbox"/>	The development proposal might have public concern, <i>refer it to the EIRB.</i>
<input type="checkbox"/>	<i>Proceed with regulatory process and/or implementation.</i>

Preliminary Screening Organization

Mackenzie Valley Land and Water Board

September 20, 2018

Signatures

Mavis Cli-Michaud, Chair