

Preliminary Screening Report Form

Preliminary screener: MVLWB Reference / File number: MV2005C0032, MV2005L2-0015 TITLE: Gahcho Kue Mine, Kennady Lake, NT ORGANIZATION: De Beers Canada Inc. MEETING DATE: March 20, 2014	EIRB Reference number:
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Type of Development:
(CHECK ALL THAT APPLY)

- | | |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | New |
| <input type="checkbox"/> | Amend, EIRB Ref. # |
| <input checked="" type="checkbox"/> | Requires permit, licence, or authorization |
| <input type="checkbox"/> | Does not require permit, licence, or authorization |

Project Summary

Both Land Use Permit MV2005C0032 and Water Licence MV2005L2-0015 were referred to Environmental Assessment on December 22, 2005. The Mackenzie Valley Environmental Impact Review Board (MVEIRB) ordered an Environmental Impact Review (EIR) on June 12, 2006. MVEIRB released its Report of EIR and Reasons for Decision on July 19, 2013 and the Minister of Aboriginal Affairs and Northern Development Canada approved the EIR on October 22, 2013. An Updated Project Description was submitted to the Mackenzie Valley Land and Water Board on November 28, 2013. Project components that have changed since the EIR, and have yet to be screened, including the following:

- Pit depths have increased (Hearne Pit from 205m to 252m, 5034 Pit from 300m to 310m and Tuzo Pit from 300m to 360m);
- Placement of Mine Rock into the Mined-out Hearne Pit; and
- Height of the West Mine Rock Pile has increased from 94m to 100m.

Scope

For the purpose of constructing, operating, closing, and reclaiming the Gahcho Kue Diamond Mine Project (the Project), a diamond mine located within the Kennady Lake watershed of the Kirk Lake basin, approximately 280 kilometres (km) northeast of Yellowknife, Northwest Territories (NWT). The scope of the Project is described in the Updated Project Description submitted on November 28, 2013, and the additional information submitted during the regulatory process. The scope of the project components applicable to this screening includes the following:

- An increase in Hearne Pit from 205m to 252m, 5034 Pit from 300m to 310m and Tuzo Pit from 300m to 360m;
- Placement of Mine Rock into the Mined-out Hearne Pit; and
- An increase in the height of the West Mine Rock Pile 94m to 100m.

Land Use Eligibility - Section 18 Mackenzie Valley Land Use Regulations

Type of Disposition

Disposition Number(s)

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

Principal Activities (related to scoping)

(CHECK ALL THAT APPLY)

- | | | |
|---|--|--|
| <input type="checkbox"/> Construction | <input 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 checked="" 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 type="checkbox"/> Water Intake | | |
| <input type="checkbox"/> Other: | | |

Principal Development Components (related to scoping)

- | | |
|---|---|
| <ul style="list-style-type: none"> <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 type="checkbox"/> Automobile, Aircraft or Vessel Movement <input checked="" type="checkbox"/> Blasting <input type="checkbox"/> Building | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Waste Management <ul style="list-style-type: none"> <input type="checkbox"/> disposal of hazardous waste <input checked="" type="checkbox"/> waste generation <input type="checkbox"/> sewage <input type="checkbox"/> disposal of sewage <input type="checkbox"/> Geoscientific Sampling <input type="checkbox"/> Trenching |
|---|---|

- Burning
- Burying
- Channelling
- Cut and Fill
- Cutting of Trees or Removal of Vegetation
- Dams and Impoundments
 - construction
 - abandonment/removal
 - modification
- Ditch Construction
- Drainage Alteration
- Drilling other than Geoscientific
- Ecological Surveys
- Excavation
- Explosive Storage
- Fuel Storage
- Topsoil, Overburden or Soil
 - fill
 - disposal
 - removal
 - storage

- Diamond drill
- Borehole core sampling
- Bulk soil sampling
 - gravel
 - hydrological Testing
- Site Restoration
 - fertilization
 - grubbing
 - planting/seeding
 - reforestation
 - scarify
 - spraying
 - re-contouring
- Slashing and removal of vegetation
- Soil Testing
- Stream Crossing/Bridging
- Tunnelling/Underground
- Other:

NTS topographic map sheet numbers:

75N

Latitude / longitude and UTM system:

63° 25' 12.5" N, 109° 6' 13.7" W and 63° 58' 34.1" N, 110° 15' 15.2" W

Nearest community and water body:

Lutsel K'e and Kennady Lake

Land Status (*consultation information*)

- Free Hold/Private
 Commissioners Land
 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	Mitigation	Location of condition
1) Ground Water		
<input type="checkbox"/> water table alteration		
<input type="checkbox"/> water quality changes		
<input type="checkbox"/> infiltration changes		
<input checked="" type="checkbox"/> other:	Pit depths have increased which may lead to further groundwater being affected. Implementation of the Water Management Plan should mitigate this concern.	Part G
<input type="checkbox"/> N/A		

Impact	Mitigation	Location of condition
2) Surface Water		
<input type="checkbox"/> flow or level changes		
<input type="checkbox"/> water quality changes		
<input type="checkbox"/> water quantity changes		
<input type="checkbox"/> drainage pattern changes		

- temperature
- wetland changes/loss
- other:

Pit depths have increased which may lead to further mine water being produced. Implementation of the Water Management Plan should mitigate this concern.
 Concerns with the placement of mine rock can be mitigated by adhering to the Geochemical Characterization Plan.

Part G
 Part G

N/A

Impact
3) Noise

Mitigation

Location of condition

- noise in/near water
- noise increase
- other:
- N/A

Impact
4) Land

Mitigation

Location of condition

- geologic structure changes
- soil contamination
- buffer zone loss
- soil compaction and settling
- destabilization/erosion
- permafrost regime alteration
- explosives/scarring
- other:
- N/A

Impact
5) Non-renewable natural resources

Mitigation

Location of condition

- resource depletion
- other:
- N/A

Impact
6) Air/climate/atmosphere

Mitigation

Location of condition

- other:
- N/A

BIOLOGICAL ENVIRONMENT

Impact
1) Vegetation

Mitigation

Location of condition

- species composition
- species introduction
- toxin/heavy accumulation
- other:
- N/A

Impact	Mitigation	Location of condition
2) Wildlife and Fish		
<input type="checkbox"/> effects on rare, threatened or endangered species		
<input type="checkbox"/> fish population changes		
<input type="checkbox"/> waterfowl population changes		
<input type="checkbox"/> breeding disturbance		
<input type="checkbox"/> population reduction		
<input type="checkbox"/> species diversity change		
<input type="checkbox"/> health changes		
<input checked="" type="checkbox"/> behavioural changes	An increase in the height of the mine rock pile may affect the behaviour of wildlife in the area. Conditions relating to the protection of wildlife habitat should mitigate this concern.	26(1)(h)
<input type="checkbox"/> habitat changes / effects		
<input type="checkbox"/> game species effects		
<input type="checkbox"/> toxins/ heavy metals		
<input type="checkbox"/> forestry changes		
<input type="checkbox"/> agricultural changes		
<input type="checkbox"/> other:		
<input type="checkbox"/> N/A		

Interacting Environment

Impact	Mitigation	Location of condition
1) Habitat and Communities		
<input type="checkbox"/> predator-prey		
<input type="checkbox"/> wildlife habitat/ecosystem composition changes		
<input type="checkbox"/> reduction/removal of keystone or endangered species		
<input type="checkbox"/> removal of wildlife corridor or buffer zone		
<input type="checkbox"/> other:		
<input checked="" type="checkbox"/> N/A		

Impact	Mitigation	Location of condition
2) Social and Economic		
<input type="checkbox"/> planning/zoning changes or conflicts		
<input type="checkbox"/> increase in urban facilities or services use		
<input type="checkbox"/> rental house		
<input type="checkbox"/> airport operations/capacity changes		
<input type="checkbox"/> human health hazard		
<input type="checkbox"/> impair the recreational use of water or aesthetic quality		

affect water use for other purposes

Pit depths have increased which may increase the time it takes to re-fill Kennady Lake or to meet the objectives for restoring Kennady Lake to its original condition. Implementation of the Closure and Reclamation Plan should mitigate concerns.

Part J

affect other land use operations

quality of life changes

public concern

other:

N/A

Impact

3) Cultural and Heritage

Mitigation

Location of condition

effects to historic property

increased economic pressure on historic properties

change to or loss of historic resources

change to or loss of archaeological resources

increased pressure on archaeological sites

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 **Akaiitcho 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

Sent To

AANDC
Akaithcho IMA Implementation
CanNor NWT Region
City of Yellowknife
Deninu K'ue First Nation
Enterprise Settlement
Environment Canada
Fisheries and Oceans Canada
Fort Resolution Metis Council
GNWT - Department of Transportation
GNWT - Environment and Natural Resources
GNWT - Health
GNWT - ITI
GNWT - MACA
GNWT - Prince of Wales Northern Heritage Centre
Hamlet of Fort Resolution
Hay River Metis Council
Katlodeeche First Nation
Kenneth Hudson
Lutsel K'e Dene First Nation
Mackenzie Valley Environmental Impact Review Board
Mountain Province Diamonds and associated interests
North Slave Metis Alliance
Northwest Territory Metis Nation
NWT Metis Nation Heron
Salt River First Nations
Smith Landing First Nation
Tlicho Government
Tlicho Lands Protection Department
Town of Fort Smith
Town of Hay River
West Point First Nation
Workers' Safety and Compensation Commission
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 MV2005C0032 and MV2005L2-0015, De Beers Canada Ltd., Mining and Milling, Kennady Lake, NT 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

Signatures



March 20, 2014