Mackenzie Valley Land and Water Board
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Application for:
New Land Use Permit ☐ **Amendment** ☐ **to** _____

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The number of persons on site will vary through the life of the proposed Gahcho Kué Project (Project). The maximum workforce is anticipated to be about 690 full time equivalents during the second year of construction (Year -1). This number will reduce to a workforce of about 372 full time equivalents during operation, of which only half this number would be on site at any given time due to rotational work schedules.

4. Eligibility:
(Refer to section 18 of the *Mackenzie Valley Land Use Regulations*)

a)(i) a)(ii) **X** a)(iii) b)(i) b)(ii)

5. a) Summary of operation (Describe purpose, nature and location of all activities.)

The purpose of this Land Use Permit is to support development and mining and milling activities at Kennady Lake, Northwest Territories (NWT). The Mine is located approximately 80 kilometres (km) southeast of the Snap Lake Mine and is approximately 280 km northeast of Yellowknife (refer to Attachment 1, Figure 1-1). The diamond-bearing kimberlite deposits are vertical pipes generally located beneath Kennady Lake and contain resource of approximately 33 million tonnes (Mt) of kimberlite rock in three economic ore bodies, named 5034, Hearne, and Tuzo. The Hearne pipe occurs approximately 3 kilometres (km) to the SW of the main facilities, the 5034 pipe occurs approximately 1.75 km to the SW of the main facilities, and the Tuzo pipe occurs approximately 1.25 km W of the main facilities (refer to Attachment 2, Figure 2-1). The ore extends from near the bottom of Kennady Lake down to more than 300 metres (m) below the lake. It will be extracted by open-pit-mining methods, requiring the alteration of Kennady Lake by dewatering to access the ore bodies. Future potential exists for deepening the pits further or underground mining based on potential resources defined by further drilling.

The extraction and milling of ore from the Hearne, 5034 and Tuzo pipes will involve the following mine components:

- Gahcho Kué Camp (accommodation complex) and mining infrastructure (e.g., fuel facilities, explosives magazines);
- access roads, including the 120 km winter access road from Kilometre 271 along the Tibbett-to-Contwoyto Winter Road, and transportation infrastructure (e.g., airstrip);
- water management infrastructure and operating procedures (e.g., dyke A to isolate Kennady Lake from downstream waters, diversion dykes E, F, and G in the upper headwater watersheds B, D, and E, water management pond);
- fish removal from Kennady Lake;
- dewatering pipeline from Kennady Lake to Lake N11 (which will serve as a supplemental inflow pipeline to Kennady Lake at closure), a diversion pipeline from Lake A1 to Area 8 of Kennady Lake, and a flow mitigation pipeline from Lake N11 to Area 8;
- excavation of the Hearne, 5034, and Tuzo open pits;
- processing plant operation; and
- mine rock, fine and coarse processed kimberlite management facilities.

Several attachments have been included with this Application to provide details on the Project:

- Attachment 1, Figure 1-1 is a map (scale: 1:3,500,000) showing the location of the Project relative to Yellowknife, other communities, and additional mines in the area.
- Attachment 2, Figure 2-1 illustrates the Project footprint (scale: 1:50,000), including locations and types of mine infrastructure, and distance of structures from nearby waterbodies. More specifically, Attachment 2, Figure 2-2 (scale 1:30,000) shows the relative locations of the proposed mine, plant site, tailings facilities (e.g., Fine Processed Kimberlite Containment [PKC] Facility; Coarse Processed Kimberlite [PK] Pile), mine rock storage piles (e.g., West Mine Rock Pile and South Mine Rock Pile), pipeline distribution systems (i.e., water diversion pipelines), and transportation access routes around the site. The size of the Project footprint has been estimated at approximately 1,153 hectares (ha).
- Attachment 3 is the Updated Project Description, which has been updated from Section 3 of the 2012 Environmental Impact Statement (EIS) Supplement (De Beers 2012).
- Attachment 4, Figure 4-1 is the site layout (scale: 1:5,000) for the Project.
- Attachment 5, Figure 5-1 is the local study area, showing the Kennady lake watershed, and the downstream watersheds within the Kirk Lake watershed (scale: 1:250,000).

b) Please indicate if a camp is to be set up. (Please provide details on a separate page, if necessary.)

An accommodation complex capable of housing 432 construction workers on a double-occupancy basis and 216 operations workers on a single-occupancy basis will be erected within the first six months of site mobilization. Single-occupancy accommodation is being contemplated. The accommodation complex, which will include the administration offices, will be of modular construction. The permanent incinerator, potable water, firewater, and sewage treatment modules will be installed and sized to handle the higher construction occupancy requirements. Fresh water for potable use by the Project will be withdrawn from Area 8 of Kennady Lake (Attachment 2, Figure 2-2). About 60,000 cubic metres per year (m^3/y) of fresh water will be required for potable water during the construction phase. During operations, with a smaller workforce, the potable water required will decrease to about 27,000 m^3/y. Additional details on site infrastructure are provided in the Updated Project Description (Attachment 3).

6. Summary of potential environmental and resource impacts (Describe the effects of the proposed land-use operation on land, water, flora & fauna and related socio-economic impacts. Use separate page if necessary.)

Potential environment and socio-economic effects were addressed during the Gahcho Kué Project Environmental Impact Review which obtained approval from the Mackenzie Valley Environmental Impact Review Board Panel on July 19, 2013, and Ministerial approval on October 22, 2013.

A number of valued components (VCs) have been identified for the Gahcho Kué Project. Please refer to Section 6.3 of the accompanying 2010 EIS (Attachment 6.1; this attachment also includes the 2011 EIS Update [Attachment 6.2], and 2012 EIS Supplement [Attachment 6.3]).

A number of protection measures will be integrated into the Project to prevent and mitigate potential environmental effects. In addition to the mitigation and environmental design features considered in the 2010 EIS (Attachment 6.1), the 2011 EIS Update (Attachment 6.2), and the 2012 EIS Supplement (Attachment 6.3), monitoring programs and management plans will be implemented during the life of the mine and reclamation of Kennady Lake. These programs and plans will include mitigation strategies learnt adopted from other diamond mining operations in the NWT, and suggested during community engagement activities. The monitoring programs and management plans attached in support of this application are as follows:

- Monitoring Programs:
  - Groundwater Monitoring Program (Attachment 7)
  - Geochemical Characterization Plan (Attachment 8)
  - Air Quality and Emissions Monitoring and Management Plan (Attachment 9)
  - Wildlife Effects Monitoring Program (Attachment 10)
  - Vegetation and Soils Monitoring Program (Attachment 11)

- Management Plans:
  - Conceptual Closure and Reclamation Plan (Attachment 12)
  - Adaptive Management Plan (Attachment 13)
  - Explosives Management Plan (Attachment 14)
  - Wildlife and Wildlife Habitat Protection Plan (Attachment 15)
  - Emergency Response Plan (Attachment 16)
  - Spill Contingency Plan (Attachment 17)
  - Waste Management Framework (Attachment 18):
    - Processed Kimberlite and Mine Rock Management Plan (Attachment 18.1)
    - Erosion and Sediment Management Plan (Attachment 18.2)
    - Water Management Plan (Attachment 18.3)
    - Incinerator Management Plan (Attachment 18.4)
    - Non-hazardous Solid Waste Management Plan (Attachment 18.5)
    - Hazardous Materials and Waste Management Plan (Attachment 18.6)
    - Landfarm Management Plan (Attachment 18.7)

7. Proposed restoration plan (please use a separate page if necessary).

Restoration for the Gahcho Kué Project is described in the Conceptual Closure and Reclamation Plan (Attachment 12), which describes the closure and reclamation objectives and goals by mine component.

The overall goal of the plan is to return the Mine site, as practical, to a state that is similar to other habitats in the same region and time period that are not affected by the Project; restore or replace the local fish habitat that may have been lost, altered, or disturbed as a result of the Mine; restore navigation routes at the site; return Kennady Lake to a state that is similar to its baseline condition, such that water quality will support a functioning aquatic ecosystem and populations of Lake Trout, Northern Pike, and Arctic Grayling, and traditional and non-traditional uses; and create, to the extent practical, a final landscape compatible with the end use of the site.

The success of the plan will be measured through setting closure criteria and performance based standards and monitoring.

8. Other rights, licences or permits related to this permit application (mineral rights, timber permits, water licences, etc.)

De Beers is concurrently submitting an application for a Type A Water Licence to the Mackenzie Valley Land and Water Board (MVLWB). Other licences and permits related to environmental protection or land tenure are listed below. This is not a comprehensive list of all licences and permits required to operate the Project.

- Wildlife Research Permit
- NWT Scientific Research Licence
- Archaeological Research Permit
- Permit to Fish for Scientific Purposes
- Water Licence
- Fisheries Act Authorization
- Approval for Construction within Navigable Waters
- Land Lease

De Beers currently holds Water Licence MV2003L2-0005 for the Kennady Lake Advanced Exploration Site (Attachment 19), and Land Use Permit MV2008C0022 for the existing camp and winter access road (Attachment 20).

Roads:

The existing 120 km winter access road identified from Kilometre 271 on the Tibbitt-to-Contwoyto Winter Road in Section 5 is currently permitted. Its location is shown in Attachment 5, Figure 5-1. It is a pioneered road and has been laid out.

The location of the site access roads are shown in Attachment 2, Figures 2-1 and 2-2 and Attachment 4, Figure 4-1. Some of these roads have been pioneered and laid out as part of the land use permit (MV2008C0022) for the exploration camp. Other limited access roads will be pioneered and groundtruthed. Design drawings for the limited site roads are included in the application supporting documents (see Attachment 21).

9. Proposed disposal methods.

To complete this section of the application form, a Waste Management Plan for the proposed activities is to be developed in accordance with the Board's *Guidelines for Developing a Waste Management Plan* (click here to access) and submitted as an attachment to the application form. A template for this Plan is provided in the *Guidelines*.

Please refer to the Updated Project Description (Attachment 3) and the Waste Management Framework documents (Attachments 18; 18.1 to 18.7) for a description of the waste management practices that will be implemented for the Project. A summary of the management of various waste streams are provided below.

Kimberlite and mine rock management includes the disposal of overburden, mine rock, and processed kimberlite. The following provides information on the quantities and locations of these materials.

Overburden:

- The kimberlite pipes and mine rock are overlain by a layer of overburden, which consists of lake-bottom sediment and till. Approximately 3.26 million cubic metres (Mm^3) of overburden will be removed from the three pits before mining of each begins. Overburden will be used in dyke/berm construction and other uses around the mine site, or stockpiled in the mine rock piles.

Mine rock:

- Mine rock, also referred to as "country rock", consists of the bed rock that surrounds, and is interspersed with, the kimberlite deposits. It is estimated that approximately 308 Mt of mine rock will be mined. Approximately 95% of the mine rock is granite (including gneissic granite), with lesser amounts of altered granite, granodiorite, altered granodiorite, diorite, and diabase.
- The deposition locations of mine rock for the Project and estimated tonnages include:
    - ~100 Mt to the South Mine Rock Pile;
    - ~100 Mt to the West Mine Rock Pile; and
    - ~100 Mt to the Hearne/5034 pits.

Processed kimberlite:

- Processed kimberlite (PK) is the material that remains after all economically and technically recoverable diamonds have been removed from the kimberlite during processing. The PK for the Project will be divided into two streams based on particle size:
  - coarse PK (including grits), which are represented by a particle size range between 0.25 mm and 6 mm, and
  - fine PK, which are less than 0.25 mm.
- Approximately 10.0 Mt of fine PK will be generated. The deposition locations and estimated tonnages include:
  - 3.7 Mt to the Fine Processed Kimberlite Containment (PKC) Facility (in Area 2); and
  - 6.3 Mt to the mined out Hearne Pit
- Approximately 23.4 Mt of Coarse PK and grits will be generated. The deposition locations and estimated deposited tonnages include:
  - 10.0 Mt to the Coarse PK Pile;
  - 1.8 Mt for dyke construction and reclamation; and
  - 11.6 Mt placed with the mine rock piles.

Solid waste includes food waste (**garbage**), inert bulk waste, and hazardous waste. Six on-site waste management areas will be used to contain and store solid wastes:

- a waste storage and management area;
- a designated zone in the fuel storage area for storage of waste petroleum products;
- landfill for inert solid wastes;
- a landfarm for hydrocarbon-contaminated soils (constructed as required);
- two incinerators for combustible waste and waste oil; and
- a sewage treatment plant.

Solid waste management will involve the following:

- Food wastes will be collected and transported directly to the incinerator facility for immediate incineration.
- Non-toxic, non-food solid wastes will be sorted into four types: combustible, non-combustible, recyclable, and reusable.
- Chemicals, such as waste oil, glycol, acids, solvents, battery acids, and laboratory agents will be collected in lined trays and drums and stored in suitable sealed containers in the fuel storage area and the waste storage and management area. Chemicals, other than waste oil that cannot be incinerated, will be shipped off-site for disposal or recycling. Some of the waste will be transferred to the Yellowknife Solid Waste Site. Other recyclable waste, such as waste oil (that cannot be incinerated), glycol, tires, and batteries, will be transferred to waste facilities outside the NWT.
- Toxic materials will be stored in sealed steel or plastic drums in the waste storage and management area and shipped off-site for proper disposal.

A modular **sewage** treatment system to handle a peak load of 432 people will be installed during the initial construction phase. Treated effluent will be discharged to Area 3 of Kennady Lake initially and later, during operations, added to the fine PK slurry pipeline.

10. Equipment (includes drills, pumps, etc.) (Please use separate page if necessary.)

Type	Number	Size	Proposed Use
Wheel Loader	1	17 m^3	Loader: Front End, Tool Carrier
Wheel Loader	2	12 m^3	Loader: Front End, Tool Carrier
Rubber Tire Dozer	1		Loader: Front End, Tool Carrier
Motor Grader	2		Motor Grader / Blade
Blasthole Drill	2	250 mm	Rock Drill
Blasthole Drill	1	165 mm	Rock Drill
Haul Truck	8	218 t	Truck: Haul, Articulated
Haul Truck	3	100 t	Truck: Haul, Articulated
Mega Water Tank	1	100 t	Tank
Hydraulic Shovel	2	29 m^3	Tracked Vehicle: Excavator, Dozer
Hydraulic Excavator	1	12 m^3	Tracked Vehicle: Excavator, Dozer
Track Dozer	4		Tracked Vehicle: Excavator, Dozer
Rough Terrain Crane	1	40 t	Crane
Rough Terrain Crane	1	85 t	Crane
Crawler Crane	1	240 t	Crane
Tire Manipulator	1		Fork Lift
Rt Telehandler	1	5 t	Fork Lift
Tool Carrier	3		Loader: Front End, Tool Carrier
Tool Carrier W/Attachments	1		Loader: Front End, Tool Carrier
Wheel Loader : Long Fork	1	4 m^3	Loader: Front End, Tool Carrier
Skid Steer Loader	1	1 m^3	Loader: Front End, Tool Carrier
Roll Off Truck	1		Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Winch tractor	1	60 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Scissor Neck Trailer	1	50 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Dump Truck	1		Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Heated Van	1	2 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Flat Deck Truck	1	5 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Picker Truck	1	20 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Flat Deck Truck W/ Hydraulic Crane	3	10 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
diesel Puck-Up (Blasters Box)	2	2 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Welding Service Truck	2	2 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Fuel Truck	2	10 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Lube/Service Truck	2		Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Ambulance/Rescue	1	1 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Pumper/Ladder Fire Truck	1	5 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Diesel Crew Cab Pick-Up	20	1 t	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.
Passenger Bus	2	40 passenger	Light Vehicle: Pick-Up, Fuel Truck, Bus, Tractor, Etc.

Type	Number	Size	Proposed Use
Vibrating Packer	1		
Airtrack Drill	1	102 mm	Rock Drill
Articulated Haul Truck	2	38 t	Truck: Haul, Articulated
Track Elevator	1	2 m^3	Tracked Vehicle: Excavator, Dozer
Track Elevator (Ore Feed)	1	2 m^3	Tracked Vehicle: Excavator, Dozer
Track Excavator	1	1 m^3	Tracked Vehicle: Excavator, Dozer
Track Dozer	1		Tracked Vehicle: Excavator, Dozer
Crusher - Jaw	1		Crusher / Mineral Sizer
Conveyor	3	100 t bin Feed	Conveyor: Belt, Sandwich
Feeder – Jaw Crusher	1		Apron Feeder
Conveyor - Coarse Ore Stockpile Feed	1		Conveyor: Belt, Sandwich
Conveyor - Plant Feed	1		Conveyor: Belt, Sandwich
Diverter - Stockpile Feed	1		Diverter
Feeder - Plant Feed Bin	1		Feeder: Apron
Feeder - Stock Pile Reclaim	1		Feeder: Apron
Conveyor - HPGR Bin Feed	2		Conveyor: Belt, Sandwich
Scrubber - Primary	1		Scrubber - Rotating Drum
Screen - Primary Sizing Double Deck	1		Screen
Screen - Fines Removal Banana Single Deck	1		Screen
Crusher - Secondary Cone	1		Crusher / Mineral Sizer
Feeder- Vibrating Grizzly	1		Grizzly
Crusher – HPGR	1		Crusher / Mineral Sizer
Conveyor - HPGR Product	1		Conveyor: Belt, Sandwich
Dust Scrubber - HPGR	1		Dust Scrubber
Belt Feeder - HPGR	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Conveyor – DMS Fines Bin Feed	3		Conveyor: Belt, Sandwich
Conveyor DMS Coarse Bin Feed	3		Conveyor: Belt, Sandwich
Scrubber - Secondary	1		Scrubber - Rotating Drum
Screen - Scrubber Discharge Double Deck	1		Screen
Screen - Fines Removal	2		Screen
Cyclone - DMS Cyclone, 510	4		Cyclone
Belt Feeder - Coarse DMS	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Magnetic Drum Separator	1		Magnetic Separator, Magnet
Screen - DMS Prep	1		Screen
Screen - Floats	1		Screen
Screen - Sinks	1		Screen
Conveyor - Coarse Reject Transfer	1		Conveyor: Belt, Sandwich
Conveyor - Coarse Reject	1		Conveyor: Belt, Sandwich

Type	Number	Size	Proposed Use
Cyclone - DMS Cyclone,	6		Cyclone
Belt Feeder - Fines DMS	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Magnetic Drum Separator	1		Magnetic Separator, Magnet
Screen - DMS Prep	1		Screen
Screen - Floats	1		Screen
Screen - Sinks	1		Screen
Dust Extraction System	1		Baghouse / Dust Collector
Roll Crusher	1		Crusher / Mineral Sizer
Dryer - Fines Concentrate	1		Dryer
Dryer - Coarse /Middles Concentrate	1		Dryer
Feeder - Fines Concentrate	2		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Middles Concentrate	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Coarse Concentrate	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Pan IR Dryer	4		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Recon X-Ray	4		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Reconc. Fines Tailings Stream	2		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Middles/Coarse	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Fines Grease Belt	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Coarse Grease Belt	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Tube Mill	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Tube Roll Crusher Discharge	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Reconc. Fines Tailings Stream	2		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Fines/Middles Tailings	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Feeder - Middles/Coarse Tailings	1		Feeder: Apron, Belt, Pan, Tubular, Vibrating
Grease Belt	1		Grease Package
Exchanger - Element Heater	1		Heater - Glycol
Preferential Mill	1		Mill, Rod, SAG, Ball, AG
Magnetic Separator	1		Magnetic Separator, Magnet
Magnetic Separator - Primary Wet	1		Magnetic Separator, Magnet
Magnetic Separator - Secondary Wet	1		Magnetic Separator, Magnet
Screen - Fines Concentrate	2		Screen
Screen - Fines/Middles Concentrate	1		Screen
Screen - Single Deck	1		Screen
Screen - Dewatering	1		Screen
Vacuum Receiver - Plant Spillage Transfer System	1		Vacuum Pump
X-Ray Machine - Wet Modrup	8		X-Ray Machine: Single Particle, Etc.
X-Ray Machine - Dry Modrup	8		X-Ray Machine: Single Particle, Etc.
Glove Box	1		
Glove Box - Grease Belt Concentrates	1		

Type	Number	Size	Proposed Use
Fines Single Particle Sorter	2		Laser Sorter
Middles Single Particle Sorter	1		Laser Sorter
Coarse Single Particle Sorter	1		Laser Sorter
Fines Tailings Scavenger Single Particle Sorter	1		Laser Sorter
Hoist - Service Electric Chain Hoist	1		Hoist
Cyclone - Cluster Degrit	4		Cyclone
Flocculent Mixing And Dosing Package	1		
Coagulant Mixing And Dosing	1		
Screen - Dewatering	1		Screen
Thickener - Slimes	1		Thickener
Pump - Reclaim Water Weir. Floway, 12lkl, 2 Stages	1		Pump
Pump - Reclaim Water # 2 (Stand-By) Weir. Floway, 12lkl, 2 Stages	1		Pump
Pump - Raw Water	1		Pump
Pump - Raw Water (Stand-By)	1		Pump
Pump - Fire Water (Electrical)	1		Pump
Pump - Fire Water (Diesel)	1		Pump
Pump - Fire Water Jockey (Electrical)	1		Pump
Compressor - Air	2		Air Compressor
Receiver Air - Process	1		Receiver
Receiver Air - Process Plant Instrument	1		Receiver
Crane - Overhead	2		Crane
Genset 1 & Heat Recovery Unit	5	2.8 MW	
Pump - Fuel Farm Unloading	1		Pump
Pump - Fuel Farm Unloading (Stand-By)	1		Pump
Pump - Fuel Farm Heavy Vehicle Dispensing	2		Pump
Tank – 18,000 m^3 (18,000,000 L)	2	18,000 m^3	Fuel Tank
Tank - 500 m^3 (500,000 L)	8	500 m^3	Fuel Tank
Boiler - Glycol No.1	1		Boiler
Boiler - Glycol No.2	1		Boiler
Pump - Fresh Water	1		Pump
Pump - Fresh Water (Stand-By) Weir, Floway, 8xkl, 6 Stages	1		Pump
Pump - Main Sewage Sump	1		Pump
Air Compressor - Truck Shop	1		Air Compressor
Overhead Crane - Truck Shop No.1	1		Crane
Overhead Crane - Truck Shop No.2	1		Crane
Package - Truck Wash System (Hotsy)	1		Miscellaneous Equipment
Oil Skimmer - Truck Shop Sump	1		Miscellaneous Equipment

Type	Number	Size	Proposed Use
Pump - Pit Dewatering	7		Pump
Emulsion Truck	1		

Note: Equipment list is general, specific equipment types, amounts, and sizes will be subject to final procurement.

m^3 = cubic metres; mm = millimetres; t = tonne; MW = mega watt; HPGR = high pressure grinding rolls; DMS = dense media separation.

11. Fuels	Volume (litres)	Number of containers	Capacity of containers	Location
Diesel	40,000,000	Eight prefabricated tanks and two welded steel tanks	500,000 L - prefabricated tanks 18,000,000 L - welded steel tanks Ten (10) x 60,000 L and two (2) 100,000 L tanks for diesel and lubricants sourced from the exploration camp	Fuel Storage Area, Southeast of the proposed coarse PK Pile (see Attachment 2)
Gasoline				
Aviation Fuel (Jet A/B)	25,000	Steel drums	205 L (45 imperial gallons)	Airstrip Storage Area (see Attachment 2)
Propane				
Other				

12. Containment fuel spill contingency plans.

A spill contingency plan for the proposed activities is to be developed in accordance with INAC's *Guidelines for Spill Contingency Planning, April 2007* (accessible here). This plan is to be submitted as an attachment to the application form.

A Spill Contingency Plan is included with this application (Attachment 17). A Spill Contingency Plan for the existing exploration camp is on file with the MVLWB.

An Emergency Response Plan is also included with this application (Attachment 16).

13. Methods of fuel transfer (to other tanks, vehicles, etc.)

Mobile equipment will refuel at a dispensing station associated with the bulk diesel storage tanks. Equipment that is less mobile, such as drills, large loaders, and the hydraulic shovel will be refueled from a mobile refueling truck. All refueling will be conducted following standard practices. Mobile fuel trucks will carry dedicated spill response equipment.

14. Period of operation (includes time to cover all phases of project work applied for, including restoration)

It is anticipated that the Project will start when regulatory approvals and mine engineering designs have been completed, by the 4th quarter of 2014 (Year -1). Construction is anticipated to take two years, with mining operations timed to commence in 3rd quarter of 2016 (Year 1). The mine plan estimates an 11 year operation, followed by an estimated 12 + years of closure (which includes two years of active reclamation and accounts for the refilling of Kennady Lake).

15. Period of permit (up to five years, with maximum of two years of extension).

Five years.

16. Location of activities by map co-ordinates (attach maps and sketches) - NAD83

Minimum latitude (degrees, minutes, seconds)	Maximum latitude (degrees, minutes, seconds)
63°25'12.5" N	63°58'12.5" N
Minimum longitude (degrees, minutes, seconds)	Maximum longitude (degrees, minutes, seconds)
109°6'13.7" W	110°16'0.9" W

See Attachment 1, Figure 1-1 Location of the Gahcho Kué Project relative to Yellowknife, Northwest Territories, other communities and additional mines in the area (scale: 1:3,500,000).

See Attachment 2, Figures 2-1 Project Footprint, including affected waterbodies and locations of proposed mine rock and processed kimberlite deposits (scale: 1:50,000) and Attachment 2, Figure 2-2 General Site Plan during Mine Operations shows the relative locations of the proposed mine, plant site, tailings facilities (e.g., Fine PKC Facility; Coarse PK Pile), mine rock storage piles (e.g., West Mine Rock Pile and South Mine Rock Pile), pipeline distribution systems (i.e., water diversion pipelines), and transportation access routes around the site (scale: 1:30,000).

See Attachment 4 for the Plant Site Layout (scale: 1: 5,000).

Map Sheet no. 75N/06

17. Applicant
Print name in full

Signature Date

18. Fees Type A - $150.00 ** Type B - $150.00 ** (**Application Fees are Non-Refundable**)

Land use fee: 330 ha (terrestrial mine footprint area) =

330 hectares @ $50.00/hectare	$ 16,500.00
Assignment fee $50.00	$
Total application and land use fees	$ 16,650.00

Please make all cheques payable to "Receiver General of Canada"