

ᐅᐅᑭᐱ ᐃᐅᑎᑕᑎᐱᑲᑦᑕᑕ ᑲᑎᐱᐱᑦᑕ



# NUNAVUT IMPACT REVIEW BOARD

## NUNAVUMI AVATILIKIYIN KATIMAYIN

### NIRB Application for Screening #125142

#### Cambridge Bay Material Extraction and Quarrying

<b>Application Type:</b>	New
<b>Project Type:</b>	Quarry
<b>Application Date:</b>	5/24/2017 12:06:13 PM
<b>Period of operation:</b>	from 2017-05-24 to 2017-05-24
<b>Proposed Authorization:</b>	from 2017-05-24 to 2017-05-24
<b>Project Proponent:</b>	Glen Molloy Nunavut Excavating 2007 Inc. P.O.Box 1984 Iqaluit Nunavut X0A 0H0 Canada Phone Number:: 867-975-3320, Fax Number:: 867-975-3321

### DETAILS

#### Non-technical project proposal description

- English:** Nunavut Excavating 2007 Inc, have been in operation in Nunavut Since 2007, and currently managing 2 borrow areas out of the communities of Iqaluit and Rankin Inlet. Nunavut Excavation 2007 Inc. is planning to establish own quarry near the community of Cambridge Bay for the purpose of extracting an approximate quantity of 1200 cu.m annually. The proposed quarry is adjacent to the gravel pit being used by the Hamlet of Cambridge Bay. The proposed location have been disturbed and used previously for quarrying activities. Extracted materials will be used in the Community of Cambridge Bay to build house pads, parking areas, and access roads.
- French:** Nunavut Excavating 2007 Inc, have been in operation in Nunavut Since 2007, and currently managing 2 borrow areas out of the communities of Iqaluit and Rankin Inlet. Nunavut Excavation 2007 Inc. is planning to establish own quarry near the community of Cambridge Bay for the purpose of extracting an approximate quantity of 1200 cu.m annually. The proposed quarry is adjacent to the gravel pit being used by the Hamlet of Cambridge Bay. The proposed location have been disturbed and used previously for quarrying activities. Extracted materials will be used in the Community of Cambridge Bay to build house pads, parking areas, and access roads.
- Inuktitut:** Nunavut Excavating 2007 Inc Pualriqtuiyit, havakhimaliqtut Nunavunmi atulihaaqtillugu 2007, tadjalu aulapkaihimayut malrungnik pualriqturvianni hilataani Iqaluit Kangirlinirmilu. Nunavut Excavating 2007 Inc. Pualriqtuiyit parnaiyaqpalliyut uyaraktarvigiyumayaanni hilataani Iqaluktuuttiap immaqaak 1200 cu.m –nik ukiuq atauhirmi piyumaniaqtut. Una uyaraktarviuyumayuq ilanganiittuq uyaraktarviuvaktumi Hamalatkuat Iqaluktuuttiarmi. Tahamna uyaraktarviuyumayuq atuqtauhimayuunniatuq uyaraktarviuhimavakhuni. Pualriqhuqtauhimaniit atuqtauvangniaqtut Nunallaani Iqaluktuuttiap, akhaluutiqarviyuullu, apqutiqarviyuunilu.
- Inuinnaqtun:** Nunavut Excavating 2007 Inc Pualriqtuiyit, havakhimaliqtut Nunavunmi atulihaaqtillugu 2007, tadjalu aulapkaihimayut malrungnik pualriqturvianni hilataani Iqaluit Kangirlinirmilu. Nunavut Excavating 2007 Inc. Pualriqtuiyit parnaiyaqpalliyut uyaraktarvigiyumayaanni hilataani Iqaluktuuttiap immaqaak 1200 cu.m –nik ukiuq atauhirmi piyumaniaqtut. Una uyaraktarviuyumayuq ilanganiittuq uyaraktarviuvaktumi Hamalatkuat Iqaluktuuttiarmi. Tahamna uyaraktarviuyumayuq atuqtauhimayuunniatuq uyaraktarviuhimavakhuni.

Pualriqhuqtauhimaniit atuqtauvangniaqtut Nunallaani Iqaluktuuttiap, akhaluutiqarviuyullu, apqutiqarviuyunilu.

**Personnel**

Personnel on site: 3

Days on site: 20

Total Person days: 60

Period of operation: from 2017-05-24 to 2017-05-24

Proposed term of operation: from 2017-05-24 to 2017-05-24

**Activities****Activities**

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
9km West of Cambridge Bay Community	Quarry/Borrow pit	Municipal	The site has been used and still being used as a gravel pit for the use of the Hamlet of Cambridge Bay and others.	The site has been utilized for more than 20 years for gravel production, and does not have no archaeological / paleontological value.	The site is about 9km west of Cambridge Bay Community

**Community Involvement & Regional Benefits**

Community	Name	Organization	Date Contacted
Information is not available			

**Authorizations****Indicate the areas in which the project is located**

Kitikmeot

**Authorizations**

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Information is not available				

**Material Use****Equipment to be used (including drills, pumps, aircraft, vehicles, etc)**

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Excavator	1	3.92m x 2.7m x 2.95m	Extract Granular Materials
Dump Truck	1	6.15m x 3.81m x 2.72m	Moving Granular Materials

**Detail Fuel and Hazardous Material Use**

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	1	1000	1000	Liters	Fueling Equipments

**Water Consumption**

Daily amount (m3)	Proposed water retrieval methods	Proposed water retrieval location
0		

**Waste****Waste Management**

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional treatment procedures
Quarry/Borrow pit	Overburden (organic soil, waste material, tailings)	10	Re-use to cover exposed tundra	Top soil if need to be removed will be saved and reused to cover exposed soil.

**Environmental Impacts:**

No environmental impact is anticipated, as granulars will be extracted and hauled to the construction sites in the Community of Cambridge Bay. No water or special process is scheduled on site.

## **Details Part 2**

### **Project General Information**

Nunavut Excavating (NE) started building multiple housing units in Cambridge Bay in 2016, in order to complete building road access and parking area, NE need access to the Hamlet's Gravel Source and produce an estimated 1200 cu.m in 2017 construction season, and similar quantity annually for maintenance and new construction. NE can not acquire the gravel needed from other sources, and do not have an alternative other than accessing the quarry and extract need quantity of gravel. Extracting activities every year will start first week of September to Mid October. In addition to NIRB review, INAC approval is required before commencing any gravel extraction activities.

### **DFO Operational Statement (OS) Conformity**

None of the Department of Fisheries and Oceans (DFO) Operational Statement (OS) activities apply to the Project Proposal.

### **Transportation**

Nunavut Excavating will use the existing access road connecting the quarry site to Cambridge Bay, see attached site plan.

### **Camp Site**

No camp site will be established for this proposed project. Nunavut Excavating personnel will travel daily to from Cambridge Bay to the site and back.

### **Equipment**

The following equipment will be used in the project site: 1- 2014 CAT 336EL Excavator. 2- 2000 Western Star Dump Truck.

### **Water**

Water will not be use for granular production.

### **Waste Water (Grey water, Sewage, Other)**

No waste water will be generated as a result of the quarrying activities.

### **Fuel**

Type of Fuel and Quantity \* An estimated 600 liters/day of Diesel fuel will be used to run the equipment. \* Fuel will be delivered to the site using an approved fuel truck, and operated by a competent operator. \* Fuel will be delivered from the fuel truck directly into the equipment. Fuel Transfer and Re-fueling Procedure \* All dispensing or transferring of fuel will be attended for the duration of the operation. The attendant must be aware of proper fuel handling procedures to minimize the risk of a spill and shall continuously scan the area adjacent to the fueling operation for possible leaks or spills. \* The transferring and dispensing of fuel will be done with pumping equipment, an approved hose, and top-fill nozzle. \* A site-appropriate spill containment kit will readily available. \* When unreeling the fuel transfer hose and nozzle, the nozzle must be in the upright position. The nozzle shall be kept clear of the ground when returned to the reel or storage position. \* Verify that there is a proper connection between the fuel fill hose and the fill pipe of the equipment being filled. Verify that the fill valve is open. \* The transfer of fuel must be stopped prior to overflowing, leaving room for expansion. Fuel tanks on vehicles and equipment are not to be overfilled. \* The operation of moving equipment in the immediate area of a fueling operation shall be suspended. \* Welding operations within 3 meters must be stopped while fueling is in progress. \* Maintain regular inspections of fuel systems and their components. Check for leakage, deterioration, or damage. Fuel Spill Control Measures Preventative measures are the best means of avoiding an accidental release of petroleum products. However, in the event of an accidental release, the following will occur: Appropriate spill response equipment will be available for all phases of the project area. See spill contingency plan for a list of such equipment. Cleanup action will follow the spill contingency plan. See spill contingency plan. All spills or suspected spills of petroleum products, on land or into the water, regardless of size, will be reported immediately to the Supervisor. The Supervisor will report the spill immediately to the Project Manager, or his delegate, who shall ensure notification of the appropriate authorities.

### **Chemicals and Hazardous Materials**

No Chemicals or Hazardous Materials will be stored on site.

### **Workforce and Human Resources/Socio-Economic Impacts**

Nunavut Excavating is and Inuit Owned Contractor, Established in 2007 in Iqaluit, Nunavut. NE has a remarkable track record in Inuit training and employment successes. This project will enable NE to hire more local Inuit employees for both granular production and for housing development in the Community of Cambridge Bay. Work will be scheduled during the summer construction season. 3 employees will be needed on the quarry site and more than 10 employees will be working for the housing development in the Community.

### **Public Involvement/Traditional Knowledge**

Nunavut Excavating will use an established quarry site. It has been used for years to extract granular materials. Nunavut Excavating is building on past local experience with this quarry site.

## **SECTION C: Pits and Quarries**

Project Description \* Nunavut Excavating 2007 Inc. (NE), has been in operations since 2007 in Nunavut, and is currently managing borrow areas in Iqaluit, and Rankin Inlet with no incident and have spill programs as well as other preventative and safety plans in place. \* Nunavut Excavating is planning to establish own gravel quarry area adjacent to the existing borrow area in Cambridge Bay. \* This existing Cambridge Bay gravel pit has been in use for more than 20 years. This gravel pit is ready for immediate extraction activities. No water, flora, or fauna will be at risk as a result of the gravel extraction activities. \* NE is planning to extract approx 1200 cu.m of Gravel Materials this construction season (between September to Mid October) and an estimated similar quantity of material annually. \* This proposed location have been disturbed as a result of previous quarrying activities. Using the same disturbed area to extract the needed gravel quantity will minimize the impact to the quarry area. \* Extraction of the required materials will not require any blasting activities, and does not require deep excavations to acquire the gravel materials. Scratching and scoping upgradient materials will be sufficient for the small quantity needed every year. \* NE will use the existing established road between the quarry area and the Community of Cambridge Bay to move the extracted materials to the Community. \* Extracted gravel will be used for building base, access roads, and parking areas. \* No camp will be established, as the travel distance to the Community is only about 9 Km. NE personnel will stay in the community and travel back and forth daily to the gravel site and back. Restoration Plan 1- Restoration Plan will include stabilizing all slopes to a maximum slope of 1 horizontal to 1 vertical or less. 2- Oversized or unsuitable material stockpiled during operations will be used to stabilize slopes. 3- Organic material stockpiled on site from previous stripping operations will be spread on stabilized slopes. 4- Depleted areas will be graded to ensure drainage is maintained and no ponding exists. 5- Garbage will be collected daily and placed in the landfill Equipment 2012 Hitachi Excavator 160 LC-3 Extract and load aggregates 2000 Freightliner Dump Truck 10 cu.m. Move material to site and stockpile Fuel 1- Fuel will be delivered to the site by an approved Fuel Truck. 2- Fuel will be delivered from the truck directly into the equipment. 3- A Site appropriate spill containment kit will be readily available. Containment Fuel Spill Contingency Plan: In case of fuel spills the following procedure will be followed; 1- Extinguish all sources of ignition (i.e., shut off engines, no smoking). 2- If possible, identify the spilled material. 3- Make sure the area is safe for entry and the spill

does not represent threat to the health or safety of the responder or others. 4- Assess whether the spill can be readily stopped or brought under control and if safe and possible, stop the source of the spill, or place tarp under spill source and build up tarp edges to contain spill. 5- If the spill is sufficiently large that it cannot be controlled with the material at hand, the spill should be reported immediately. 6- Stop spilled liquids from spreading or entering waterways using absorbent materials or a soil dyke down slope from the spill. 7- Contact facility supervisor and report the spill. 8- If possible with materials at hand, clean up remaining spilled material and store in a secure container for disposal. Do not flush area with water. 9- If possible, pump any contained liquid into drums. 10- Complete a Spill Reporting Sheet. 11- Contact: Emergency Spill Hotline: Phone (867) 920-8130, Fax (867) 873-6924 for additional advise. 12- Contact: INAC Water Resources Inspector: Phone: (867) 975-4295 to report the spill. 13- Submit to the INAC Water Resources Inspector, a detailed report including the GPS location of the spill, no later than thirty (30) days after initially reporting the event. Spill Kit Requirements: Each spill kit should be inspected regularly to ensure that it contains, as a minimum, the following: \* 1 - 205 litre, open top steel drum with a lid, bolting ring and gasket; \* 1 Spark proof shovel; \* 1 package of 10 disposable 5 mil polyethylene bags (approx. 65 cm x 100 cm); \* 4 - 12.5 cm (approx. 5"0) x 3 m (approx. 10') sorbant (oil absorbing) booms; \* 10 kg bag of sorbant particulate; \* 1 bail of 50 cm x 50 cm (approx.) sorbant sheet (100 Sheets/bail); \* 1 x 5m x 5m approx. plastic tarp; \* 2 pairs of oil resistant gloves; and, \* 2 pairs of splash protective goggles. Spill Kit Locations: The spill kit, with the exception of the shovel, can be contained within the 205 L drum which should be sealed securely to protect contents. The drum will also be accessible without the use of tools (i.e., bolt ring only finger tight). The bolt ring should be inspected regularly to ensure that it turns freely and lubricated if it does not. At least one spill kit should be clearly identified and present on the site.

#### **Description of Existing Environment: Physical Environment**

The proposed quarry location is within the existing gravel pit, which has been in use for more than 20 years, the site has an access road connecting it to the Community or Cambridge Bay. The site does not include any protected areas. It does not have any existing marine routes. It is not close to any Designated environmental areas, or heritage sites. It is not close to sensitive habitat area, etc.

#### **Description of Existing Environment: Biological Environment**

The site have been in use for a long period of time to acquire gravel, the vegetation cover has been removed at the location of gravel extraction. No wild life habitat will be impacted as a result of the gravel extraction.

#### **Description of Existing Environment: Socio-economic Environment**

As Above

#### **Identification of Impacts and Proposed Mitigation Measures**

See impact table

#### **Cumulative Effects**

**Impacts**

**Identification of Environmental Impacts**

	<b>PHYSICAL</b>	Designated environmental areas	Ground stability	Permafrost	Hydrology / Limnology	Water quality	Climate conditions	Eskers and other unique or fragile landscapes	Surface and bedrock geology	Sediment and soil quality	Tidal processes and bathymetry	Air quality	Noise levels	<b>BIOLOGICAL</b>	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	<b>SOCIO-ECONOMIC</b>	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
<b>Construction</b>		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Quarry/Borrow pit		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
<b>Operation</b>																									
Quarry/Borrow pit		-	-	-	-	-	-	-	-	-	-	-	M		M	-	-	-	-		P	-	-	-	-
<b>Decommissioning</b>																									
Quarry/Borrow pit		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

(P = Positive, N = Negative and non-mitigatable, M = Negative and mitigatable, U = Unknown)

Project Map

