NIRB Application for Screening #125486
Quarry in Pangnirtung

Application Type:	New
Project Type:	Pits and Quarries
Application Date:	9/19/2019 10:05:56 AM
Period of operation:	from 0001-01-01 to 0001-01-01
Proposed Authorization:	from 0001-01-01 to 0001-01-01
Project Proponent:	Rita Sewornu Government of Nunavut - CGS P O Box 145 Cape Dorset NU X0A0C0 Canada Phone Number:: 8678973619, Fax Number::

DETAILS

Non-technical project proposal description

English: The quarry site located on Lot 2 Block 3 Plan 3943 in Pangnirtung being proposed have been investigated by the Government of Nunavut in consultation with the Hamlet of Pangnirtung. It is established that this site can be used to extract aggregate to complement the existing quarry to meet the increasing construction demands of the community. The proposed site contains an abundance of aggregate (gravel, sand, silt, and riprap) that will fulfill the construction needs of the community now and in the future.This quarry will remain active until all its aggregate is depleted. The Municipality will use the proceeds from Quarry permit fees to remediate the area. Appropriate aggregate extraction equipment, such as dump trucks to hall aggregate, loaders to extract aggregate and a screener, will be used on site for all future projects requiring aggregate.The site is located about 1 kilometer to the north of the Pangnirtung community. This site is in reasonable proximity to Pangnirtung, which results in easier access for the residents of the community to retrieve gravel. Close proximity to the community also minimizes costs to the contractors and the Hamlet due to the fact that equipment has quicker access to the proposed sites.The Government did explore other quarry sites, but felt this site will adequately complement the existing quarry and thus the best option due to the reasonable proximity to Pangnirtung, its aggregate reserves, and the quality of the aggregates.

French: En consultation avec le hameau de Pangnirtung, le gouvernement du Nunavut a examiné le site de carrière proposé, soit le lot 2 du pâté de maisons 3, plan 3943. Il a été décidé qu'il servira à l'extraction de granulat, au même titre que la carrière existante, pour mieux répondre aux besoins en construction grandissants de la localité. Puisque le site est riche en granulat (gravier, sable, silt et enrochement), il saura combler la demande actuelle et future.La carrière sera exploitée jusqu'à l'épuisement du granulat, et la municipalité utilisera les revenus des permis d'exploitation pour restaurer le site. La machinerie appropriée, notamment des camions à benne, des chargeurs et un tamiseur, demeurera sur place pour tous les projets d'extraction à venir.Le site se situe à une distance raisonnable de Pangnirtung, soit environ un kilomètre au nord; il sera donc facile pour les résidents de se procurer du gravier. Cette proximité réduira aussi les couts pour les entrepreneurs et le hameau, puisque la machinerie pourra y être transportée rapidement.Bien entendu, le gouvernement a étudié d'autres possibilités, mais il croit que ce site complètera bien la carrière préexistante et constitue ainsi le meilleur choix, d'autant plus qu'il est près de Pangnirtung et qu'il abrite de grandes quantités de granulat de qualité.

Inuktitut: ᑐᐊᐸᑦᑕᕐᕕᒃ ᑕᕝᕙᓂ ᓄᓇᖁᑎᒥ 2 ᐊᕕᑦᑐᖅᓯᒪᓂᖓ 3 ᐸᕐᓇᐅᑎᖓ 3943 ᐸᓐᓂᖅᑑᒥ ᑐᐊᐸᑦᑕᖅᕕᑦᑖᕆᔭᐅᒍᒪᔪ ᖃᐅᔨᓴᖅᑕᐅᓯᒪᕗ ᓄᓇᕗ ᒐᕙᒪᒃᑯᓐᓄ ᑐᑭᓯᖃᑎᖃᖅᓯᑎᒃ ᐸᓐᓂᖅᑑᑉ Hᐊᒻᒪᓚᒃᑯᖕᒥᓐᓂ. ᑐᑭᓯᔭᐅᕗ ᑖᓐᓇ ᓄᓇ ᑐᐊᐸᑦᑕᕐᕕᐅᒍᓐᓇᕆᐊᖓ ᐃᓚᒋᐊᖁᓪᓗᒍ ᑐᐊᐸᑦᑕᕐᕕᐅᕙᒌᖅᑐᑦ ᑐᐊᐸᖃᑦᓯᐊᖁᓪᓗᒋ ᐃᓪᓗᓕᐅᖅᐸᑦᑐᑦ ᐊᒥᓱᙳᐸᓪᓕᐊᒻᒪᑕ ᓄᓇᓕᐅᔪᒥ. ᑐᐊᐸᑦᑕᖅᕕᑦᑖᕆᔭᐅᒍᒪᔪ ᐊᒥᒐᙱᓚ (ᑐᐊᐸᓂᒃ, ᓯᐅᕋᕐᓂᒃ, ᐅᔭᕋᕐᓂᓗ) ᑐᐊᐸᖃᑦᓯᐊᖁᓪᓗᒋ ᐃᓪᓗᓕᐅᖅᐸᑦᑐᑦ ᒫᓐᓇᒃᑯ ᓯᕗᓂᑦᓴᑎᓐᓂᓗ.ᑖᓐᓇ ᑐᐊᐸᑦᑕᕐᕕ ᐊᑐᖅᑕᐅᒐᔭᖅᑐᖅ ᓄᖑᙱᓐᓂᓕᒫᖓᓂ ᑐᐊᐸᖓ. Hᐊᒻᒪᓚᒃᑯ ᑮᓇᐅᔾᔭᑦᓵᕆᒐᔭᖅᑕᖕᒥ ᑐᐊᐸᐃᑦ ᐱᓕᕆᐊᖃᕈᒪᒍᓐᓇᐅᑎᖕᒥᓐᓄ ᐊᑐᖅᑕᐅᒐᔭᖅᑐᑦ ᐋᖅᑭᒋᐊᖅᑕᐅᑎᓪᓗᒍ ᓄᓇᖓ. ᑐᐊᐸᑦᑕᓕᕆᒍᑕᐅᒍᓐᓇᑦᓯᐊᖅᑐᑦ, ᓯᐅᕋᖅᑕᐅᑏᑦ ᑐᐊᐸᓂ ᐅᓯᒍᑏᑦ, ᓴᓕᒎᑏᑦ ᑐᐊᐸᐃᔭᐃᒍᑏᑦ, ᐊᕙᓚᒃᑲᐅᓪᓗ ᐊᑐᖅᑕᐅᒐᔭᖅᑐᑦ ᑐᐊᐸᑦᑕᖅᕕᒻᒥ ᓯᕗᓂᑦᓴᑎᓐᓂ ᑐᐊᐸᓕᕆᔾᔪᑕᐅᒐᔭᖅᑐᓂ.ᑖᓐᓇ ᓄᓇ ᐅᖓᓯᓐᓂᓕ 1 kilometerᒥ ᐸᓐᓂᖅᑑᑉ ᐅᐊᓐᓇᖓᓂ. ᑖᓐᓇ ᓄᓇ ᖃᓂᑦᑑᕗ ᐸᓐᓂᖅᑑᒧ, ᐱᔭᕆᐊᑭᑉᐳᖅ ᐃᓄᓐᓄ ᓄᓇᓕᒻᒥᐅᓄ ᑐᐊᐸᑦᑕᒍᒪᔪᓄ. ᑐᐊᐸᑦᑕᖅᕕᑦᑖᕆᔭᐅᒍᒪᔪ ᖃᓂᓐᓂᖓ ᓄᓇᓕᐅᔪᒧ ᐊᑭᑭᓈᕆᕗ ᐊᖏᖃᑎᒌᒍᑎᒃᑯᑦ ᐃᖅᑲᓇᐃᔮᖅᑖᑎᑕᓄ Hᐊᒪᓚᒃᑯᓄᓗ ᐱᔭᕆᐊᑭᒐᔭᕐᒪ ᑐᐊᐸᑦᑕᓕᕆᒍᑎᓄ.ᒐᕙᒪᒃᑯ ᐊᓯᖏᓐᓂ ᕿᓂᓚᐅᖅᑐᑦ ᑐᐊᐸᑦᑕᖅᕕᑦᓴᓂ, ᑭᓯᐊᓂ ᑖᓐᓇ ᑐᐊᐸᑦᑕᕐᕕᑦᑖᕆᔭᐅᒍᒪᔪ ᓈᒻᒪᒋᔭᐅᕗ ᐃᓚᒋᐊᖁᓪᓗᒍ ᑐᐊᐸᑦᑕᕐᕕᐅᕙᑦᑐᖅ ᓈᒻᒪᒋᔭᐅᑦᓯᑎᓗ ᖃᓂᓐᓂᖓ ᐸᓐᓂᖅᑑᒧ, ᑐᐊᐸᑦᑕᕐᕕᑦᓴᐅᑉ ᑐᐊᐸᖏ, ᑐᐊᐸᐃᓪᓗ ᖃᓄᐃᑦᑑᓂᖏ.

Personnel

Personnel on site: 2

Days on site: 120

Total Person days: 240

Operations Phase: from 2019-10-25 to 2029-10-25

Activities

Location	Activity Type	Land Status	Site history	Site archaeological or paleontological value	Proximity to the nearest communities and any protected areas
Quarry_1	Quarry/Borrow pit	Commissioners	Not known - site currently zoned as Industrial	No known historical site on the lot	Site about 1 km from the community and apart from being located within the 100 ft water strip, it is not near any protected area

Community Involvement & Regional Benefits

Community	Name	Organization	Date Contacted
Pangnirtung	Eric Lawlor	Hamlet of Pangnirtung	2019-08-06

Authorizations

Indicate the areas in which the project is located:

South Baffin

Authorizations

Regulatory Authority	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Nunavut Water Board	This site is located near the ocean however, it is not anticipated that the quarry activities will require water uses or deposit of waste into the waters	Not Yet Applied		
Government of Nunavut, Community Government & Services	Once NIRB approves the quarry, CGS will enter into a Quarry Administration agreement with the Hamlet. This agreement will give the Hamlet control of the quarry and will allowed them to issue permits	Active		
Hamlets and Municipalities	Hamlet of Pangnirtung currently approves land application and CGS issue quarry permit. When the quarry is screened and a Quarry Administration Agreement is signed, the Hamlet will approve and issue quarry permit .	Not Yet Applied		

Project transportation types

Transportation Type	Proposed Use	Length of Use
Land		

Project accomodation types

Community

Material Use

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Information is not available			

Detail Fuel and Hazardous Material Use

Detail fuel material use:	Fuel Type	Number of containers	Container Capacity	Total Amount	Units	Proposed Use
Information is not available						

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	Sewage (human waste)	5	Bins will be placed on site to collect waste. The quarry site is located about a block away from the community dump	No additional treatment will be done

Environmental Impacts:

These site will be used to extract aggregate (Sand, Gravel, riprap and silt) to be used for construction projects in the community of Pangnirtung. Stockpiling of aggregate may occur in the event that a project requires aggregate but will not be permanent. A road already exists to the site so construction of a road is not required.Minor slumping may occur to the landscape due to the extraction of aggregate but will be levelled off once the quarry is depleted. Once the sites are depleted of essential aggregate, the quarry will be levelled off to avoid any steep ditches using sand, silt and any other undesirable aggregate.No water will be used in this project and no waste will be dumped into any water source. The runoff from this site will be all natural material (dust,sand etc.) in which runoff of this material already occurs in nature. No plans for snow accumulation exist due to the fact that any changes in snow drifting in this area from extraction of aggregate will be minimal (if any)No fuel will be stored at this location so no official plan exists. In the unlikely event that a transportation vehicle's (dump truck/loader) fuel tank is punctured, the Municipality will call the NU 24-hour spill report line at (867) 920-8130 and immediately extract and remove the aggregate at the point of the spill. The contaminated soil will be relocated to the community land farm.The Municipality's contact information is as follows:ATTN: Eric LawlorMunicipality of PangnirtungP.O. Box 253Pangnirtung, NUX0C 0R0PH: (867) 473-8953

Additional Information

SECTION A1: Project Info

SECTION A2: Allweather Road

SECTION A3: Winter Road

SECTION B1: Project Info

SECTION B2: Exploration Activity

SECTION B3: Geosciences

SECTION B4: Drilling

SECTION B5: Stripping

SECTION B6: Underground Activity

SECTION B7: Waste Rock

SECTION B8: Stockpiles

SECTION B9: Mine Development

SECTION B10: Geology

SECTION B11: Mine

SECTION B12: Mill

SECTION C1: Pits

SECTION D1: Facility

SECTION D2: Facility Construction

SECTION D3: Facility Operation

SECTION D4: Vessel Use

SECTION E1: Offshore Survey

SECTION E2: Nearshore Survey

SECTION E3: Vessel Use

SECTION F1: Site Cleanup

SECTION G1: Well Authorization

SECTION G2: Onland Exploration

SECTION G3: Offshore Exploration

SECTION G4: Rig

SECTION H1: Vessel Use

SECTION H2: Disposal At Sea

SECTION I1: Municipal Development

Description of Existing Environment: Physical Environment

The quarry site is not designated as protected neither is it close to parks or protected areaThe ground is pretty level and stable. Generally, the dominant surface unit consists of colluvium made of sand and gravel layers up to 4 m thick on top of pre-existing washed till deposits below the marine limit. A thin peat layer (5 to 25 cm) overlies the colluvial deposit. Affected by periglacil processes such as gelifluction lobes nd frost boils. Ice wedges occassionally present in the near surface permafrost

Description of Existing Environment: Biological Environment

The tundra around Pangnirtung is home to vibrant dwarf rosy coloured fireweed and fluffy Arctic cotton. You may also see:purple bladder campionspink clusters of wintergreenArctic purple saxifrageyellow marsh saxifrageArctic daisiesmauve harebellsyellow Arctic poppiestar chickweed

Description of Existing Environment: Socio-economic Environment

Site not located near archaeological and cultural historic sites. The quarry will contributes to the socio-economic development of Pangnirtung by providing the community with aggregates for constructional works.

Miscellaneous Project Information

Identification of Impacts and Proposed Mitigation Measures

These site will be used to extract aggregate (Sand, Gravel, riprap and silt) to be used for construction projects in the community of Pangnirtung. Stockpiling of aggregate may occur in the event that a project requires aggregate but will not be permanent. A road already exists to the site so construction of a road is not required.Minor slumping may occur to the landscape due to the extraction of aggregate but will be levelled off once the quarry is depleted. Once the sites are depleted of essential aggregate, the quarry will be levelled off to avoid any steep ditches using sand, silt and any other undesirable aggregate.No water will be used in this project and no waste will be dumped into any water source. The runoff from this site will be all natural material (dust,sand etc.) in which runoff of this material already occurs in nature. No plans for snow accumulation exist due to the fact that any changes in snow drifting in this area from extraction of aggregate will be minimal (if any)No fuel will be stored at this location so no official plan exists. In the unlikely event that a transportation vehicle's (dump truck/loader) fuel tank is punctured, the Municipality will call the NU 24-hour spill report line at (867) 920-8130 and immediately extract and remove the aggregate at the point of the spill. The contaminated soil will be relocated to the community land farm.The Municipality's contact information is as follows:ATTN: Eric LawlorMunicipality of PangnirtungP.O. Box 253Pangnirtung, NUX0C 0R0PH: (867) 473-8953

Cumulative Effects

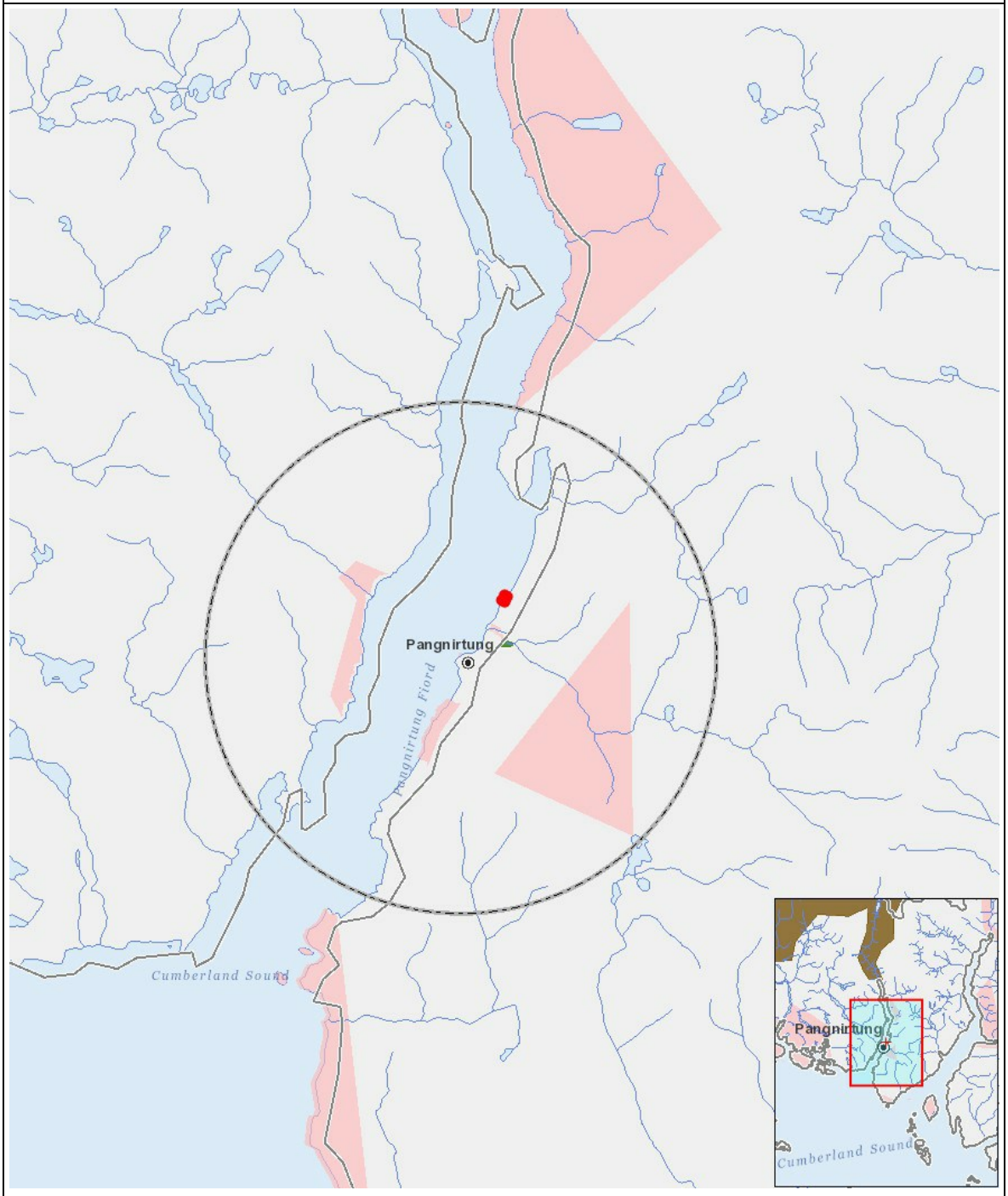
Impacts

Identification of Environmental Impacts

	PHYSICAL	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	BIOLOGICAL	Vegetation	Wildlife, including habitat and migration patterns	Birds, including habitat and migration patterns	Aquatic species, incl. habitat and migration/spawning	Wildlife protected areas	SOCIO-ECONOMIC	Archaeological and cultural historic sites	Employment	Community wellness	Community infrastructure	Human health
Construction																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-
Operation																									
Quarry/Borrow pit		-	P	U	-	U	N	U	N	N	U	N	N		N	P	P	P	P		P	P	P	P	N
Decommissioning																									
-		-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-		-	-	-	-	-

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

Project Location



List of Project Geometries

1	polygon	Quarry_1
2	polygon	Quarry_1
3	point	Quarry_1
4	point	Quarry_1
5	point	Quarry_1
6	point	Quarry_1
7	point	Quarry_1
8	point	Q1_1
9	point	Q1_2
10	point	Q1_3
11	point	Q1_4
12	point	Q1_5