



NIRB Uuktuutinga Ihivriughikhamut #125595

Quarries in Arctic Bay

Uuktuutinga Qanurittuq: New

Havaap Qanurittunia: Pits and Quarries

Uuktuutinga Ublua: 3/9/2021 11:20:38 AM

Period of operation: from 0001-01-01 to 0001-01-01

Piumayaat Angirutinga: from 0001-01-01 to 0001-01-01

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QANURITTUT

Tukihinnaqtunik havaariyaumayumik uqauhiyun

Qablunaatitut: This project is being proposed by the Planning and Lands Division of the Department of Community and Government Services, Government of Nunavut on behalf of the Municipal Corporation of the Hamlet of Arctic Bay. This proposed project consists of four (4) quarry sites identified as Quarry 1, Quarry 2 and Quarry 3 and Quarry 5. Quarry 5 which is included in this application in error was already screened by NIRB in the past (refer to NIRB FILE No: 10QN050). The proposed project will entail the following activities: 1. site preparation (removing of the topsoil and overburden), 2. Extraction and Processing of the resources (excavating of the granular materials as well as crushing, screening, and stockpiling the materials), 3. Closure and Remediation (restoration of the quarry sites). All the quarry sites are within the municipal boundary of the Hamlet of Arctic Bay. They contained granular materials that are extracted for construction purposes, and the maintenance of roads and the airstrip in the Hamlet. No permanent structure will be constructed in or near the quarries. However, temporary buildings to house materials required for quarry operations such as tools and small equipment may be constructed. The site may have a mobile rock crusher, screener, and counting equipment. At least five (5) or less people may be on the site at a given time. A CAT loader will load aggregate into a dump truck. These dump trucks will then transport the aggregate to its desired location within the community, for immediate use or stock-piled for future use. There is an existing access road to all the quarry sites. This application is for the renewal of a Quarry Administration Agreement (QAA) between the Government of Nunavut and the Hamlet of Arctic Bay and eventual transfer of the quarries to the Hamlet. The QAA will delegate the management of the quarry sites including permitting, receiving fees, monitoring, and remediation in accordance with the Commissioner's Lands Act and Regulation to the Hamlet of Arctic Bay. The quarry sites contain gravel, sand, silt, and riprap suitable for construction purposes, roads, and airstrip maintenance, making these sites very beneficial for the growth of the community. In the next few years, major projects are anticipated for the community including the construction of a Small Craft Harbour, the maintenance of the Nanisivik Highway and the construction of a new Co-op hotel. These projects will require different types and volumes of granular materials. These sites are in reasonable proximity to Arctic Bay, which results in easier access for the residents of the community to retrieve gravel. Proximity to the community also minimizes costs to the contractors and the Hamlet since equipment has quicker access to the quarry sites. These quarry sites were identified and selected through geotechnical study conducted by the Government. These sites are suitable due to their aggregate reserves, the quality of the aggregates, and reasonable proximity to the community. The quarry sites will remain active until all the aggregate is depleted. The Municipality will use portion of the proceeds from quarry permit fees to remediate the area to a point in which the area's vegetation can grow back. The quarry sites proposed in this project are located within the municipal boundary of the Hamlet of Arctic Bay. Quarry 1, Quarry 2, and Quarry 3 is approximately 7 km, 6 Km and 5 Km from the Hamlet, respectively. There are no known protected sites that is close to these quarry sites. Quarry 2 and Quarry 3 are accessible by Road R60 Plan 4120 and Quarry 1 is accessible by Road R16 Plan 4120. The quarries will be in used until the aggregates are depleted. In effect, these quarries will be operated on a multi-year basis. The Hamlet does not have specified operating times for quarries. Operations including loading, hauling, and excavating may occur late in the evenings, but usually cease at approximately 9:00 PM. This allows for maximum extraction during the limited season. Use and frequency of the quarries will be sporadic as it will depend on the maintenance and construction schedule for that particular year. However, most activities will be in the summer and the fall months.

Uiviititut: Résumé non technique du projet de carrière d'Arctic Bay Introduction Ce projet est proposé par la division de la planification et des terres du ministère des Services communautaires et gouvernementaux, gouvernement du Nunavut, au nom de la corporation municipale du hameau d'Arctic Bay. Description du projet Le projet proposé comprend quatre (4) sites de carrières identifiés comme étant la carrière 1, la carrière 2, la carrière 3 et la carrière 5. La carrière 5, qui est incluse par erreur dans cette demande, a déjà fait l'objet d'un examen préalable par la CNER dans le passé (voir le dossier de la CNER no : 10QN050). Le projet proposé comprendra les activités suivantes : 1. la préparation du site (enlèvement de la terre végétale et des morts-terrains); 2. extraction et transformation des ressources (excavation des matériaux granulaires ainsi que concassage, criblage et stockage des matériaux); 3. fermeture et assainissement (réhabilitation des sites de carrières). Tous les sites de carrières se trouvent à l'intérieur des limites municipales du hameau d'Arctic Bay. Ils contenaient des matériaux granulaires qui sont extraits aux fins de construction et d'entretien des routes et de la piste d'atterrissage du hameau. Aucune structure permanente ne sera construite dans les carrières ou à proximité. Toutefois, des bâtiments temporaires destinés à abriter les matériaux nécessaires à l'exploitation de la carrière, tels que les outils et l'équipement léger, peuvent être construits. Le site peut disposer d'un concasseur de pierres mobile, d'un crible et d'un équipement de comptage. Au moins cinq (5) personnes ou moins peuvent se trouver sur le site à un moment donné. Une chargeuse CAT chargera l'agrégat dans un camion-benne. Ces camions-bennes transporteront ensuite les agrégats à l'endroit souhaité au sein de la collectivité, pour une utilisation immédiate ou un stockage en vue d'une utilisation ultérieure. Il existe une route d'accès à

[illegible]

Operations Phase: from 2021-06-01 to 2030-07-01

Hulilukaarutit

Inigiya	Hulilukaarut Qanurittuq	Nunannga Qanurittaakhaanik	Initurlinga qanuritpa	Initurlinga utuqqarnitat unaluuniit Ingilraaqnitat Uyarannguqtut akhuurninnga	Qanitqiyauyuq qanitqiamut nunallaat kitulluuniit ahiruqtailiyainnit nuna
Arctic Bay	Quarry/Borrow pit	Commissioners	Currently used for the extraction of granular materials	Unknown	Quarry 1 to the hamlet – 7km Quarry 2 to the Hamlet – 6km Quarry 3 to the Hamlet – 5km

Nunaliin Ilauyun, Aviktuqhimayuniitunullu Ikayuuhiarunguyun

Nunauyuq	Atia	Timiuyuq	Upluani Uqaqatigiyaungmata
Ikpiaryuk	Deborah Johnson	Municipal Corporation of the Hamlet of Arctic Bay	2019-09-01

Angiuttauvaktunik

Naunaiqlugu nunanga talvani havauhikhaq ittuq:

North Baffin

Angiuttauvaktunik

Munariniqmut Ayuittiaqtuq	Angirutinga Qanurittuq	Tadja Qanurittaakhaanik	Ublua Tuniyauyuq/Uuktuqtuq	Umikvikhaa Ublua
Government of Nunavut, Community Government & Services	Quarry applications are approved by the Hamlet and Permit are issued by the Commissioner	Active	2019-10-01	

Project transportation types

Transportation Type	Qanuq Atuqtauniarmangaa	Length of Use
Land	Loader and dumpsters will be used in hauling the aggregate	

Project accomodation types

Nunauyuq

Ihuaqutivaluin Atuqtauyukhan

Hanalrutit atuqtaunahuat (ukuallu ikuutat, pampiutainnik, tingmitinik, akhaluutinik, hunaluuniit)

Hanalrutit Qanurittuq	Qaffiuyut	Aktikkulaanga – Qanurittullu	Qanuq Atuqtauniarmangaa
Excavator	1	3000mm x 4075mm	To extract aggregates
Loader	1	3000mm x 4075mm	To load and haul aggregates
Jaw Crusher	1	3000mm x 4075mm	To crush aggregates
Screening machines	1	3000mm x 4075mm	To screen aggregates

Qanurittuq Urhuqyuaq unalu Qayangnaqtut Hunavaluit Aturninnga

Qanurittuq urhuqyuaq hunavaluit aturninnga:	Urhuqyuaq Qanurittuq	Qaffiuyut qattaryut	Qattaryuk Aktikkulaanga	Atauttimut Qaffiuyut	Ilanga	Qanuq Atuqtauniarmangaa
Gasoline	fuel	5	100	500	Liters	To power machines

Imaqmik Aturninnga

Ubluq qanuraaluk (m3)	Aturumayain imavaluin utiqittagaani qanuq	Atulirumayain imavaluin utiqittagani humi
0		

Iqqakuq

Ikkakunik Munakgiyauyunik

Havauhikhaq Hulilukaarut	Qanurittuq Iqqakut	Ihumagiyauyuq Qanuraaluktut Atuqtait	Qanuq Iqqakuurniarmangaa	Halummaqtirarnirutikhan piyutin
Quarry/Borrow pit	Atakuin (halumaiqtun nunan, iqqakuuvaluillu uyaqqiqivingmin)	Unknown	It will be stored on site and used to reclaim the site later	N/A

Avatiliriniqmut Ayurhautingit:

These sites will be used to extract aggregate (Sand, Gravel, riprap, and silt) to be used for construction projects in the community of Arctic Bay. Stockpiling of aggregate may occur if a project requires aggregate but will not be permanent. A road already exists to the sites, so construction of a road is not required. There is a tendency of minor slumping to occur due to the landscape but will be levelled off once the quarries are 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 mainly dust and sand in which runoff of this material already occurs in nature. No plans for snow accumulation exist since any changes in snow drifting in this area from extraction of aggregate will be minimal (if any). No fuel will be stored at these locations, yet a spill contingency plan is in place in case of any unforeseen spill from equipment used on site. 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. The Municipality's contact information is Municipality of Arctic Bay, (867) 439-9917 Dust Control Measures - Regular washing of extraction, processing, and transport equipment. Reducing haul trips and limiting speeds on unpaved roads. Wetting material prior to processing or loading. Covering stockpiles, conveyor belts, and loads in trucks. Locating stockpiles in locations that limit their exposure to wind. proper loading of trucks. Avoid scheduling loading, unloading, and blasting activities on a windy day. Re-vegetating disturbed areas as soon as possible to reduce erosion and minimize dust.

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

Qanurittuq Ittunik Avatinga: Avatingalluanga

The quarry site is not designated as protected neither is it close to parks or protected area. The 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 periglacial processes such as gelifluction lobes and frost boils. Ice wedges occasionally present in the near surface permafrost

Qanurittuq Ittunik Avatinga: Inuuhimayunut Avatinga

The tundra around Arctic Bay is home to vibrant dwarf rosy coloured fireweed and fluffy Arctic cotton. You may also see purple bladder campion pink clusters of wintergreen Arctic purple saxifrage yellow marsh saxifrage Arctic daisies mauve harebells yellow Arctic poppiestars chickweed

Qanurittuq Ittunik Avatinga: Inungit-maniliurutingit Avatinga

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

Miscellaneous Project Information

Please refer to the Quarry Management Plan

Naunaiyainiq ukuninnga Ayurhauingit unalu Piumayaat Ikikliyuumiutinahuarutit

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exposure to wind. proper loading of trucks. Avoid scheduling loading, unloading, and blasting activities on a windy day. Re-vegetating disturbed areas as soon as possible to reduce erosion and minimize dust. Erosion Control Measures - Progressive site stabilization will be implemented as soon as practically possible and always maintained during the operation of the quarries. Please see the quarry management plan for more details.

Tamatkiumayunik Ihuikgutivaktunik

Impacts

Ilitariyauniq Avatiliriniqmut Ayurhautingit

[illegible]

(P = Nakuuyuq, N = Nakuungittut unalu mikhilimaittuq, M = Nakuungittut unalu mikhittaaqtuq, U = Naluyauyuq)

Havaariyauyukhamut Nayugaa



List of Project Geometries

1	polygon	Arctic Bay
2	polygon	Arctic Bay
3	polygon	Arctic Bay
4	polygon	Arctic Bay
5	point	Arctic Bay
6	point	Arctic Bay
7	point	Arctic Bay
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