



New

Pits and Quarries

3/9/2021 11:20:38 AM

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ᐃᓪᕈᑦ ᐅᐱᑦ: 8678973619, ᓴᔭᓲᔭᓯ:

$\gamma_b \Delta^c \dot{\gamma} \cap \sigma^b \quad \wedge c_n \nabla^{\gamma_b} \gamma \nabla n \nabla^b l^a \sigma^b$

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-pilled 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.

▷ΔΛΠ▷C: Résumé non technique du projet de carrière d'Arctic Bay IntroductionCe 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 projetLe projet proposé comprend quatre (4) sites de

[illegible]

Personnel

Personnel on site: 5

Days on site: 365

Total Person days: 1825

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

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[illegible]

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ᐃᑲᐱᑕᑦᑭᑲᑲᑲ	Deborah Johnson	Municipal Corporation of the Hamlet of Arctic Bay	2019-09-01

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$a^b r^c \Delta_{\sigma} \Delta_{\tau} \Delta_{\rho} \Delta_{\delta} \Delta_{\gamma} \Delta_{\alpha}$

North Baffin

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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	Recommended Equipment	Length of Use
Land	Loader and dumpsters will be used in hauling the aggregate	

Project accomodation types

96 1300

$\triangleleft^b C d^c$
$$\Delta^b C d_{\sigma} \sim \Delta^{\epsilon} \sigma^{\epsilon b}$$

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Quarry/Borrow pit	የስራው ስም	Unknown	It will be stored on site and used to reclaim the site later	N/A

4907DC⁵DC 4^b5^bCD⁵PL⁵C

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

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Cumulative Effects

Impacts

$\omega \rightarrow \omega \Delta^{96} \text{CD} \sigma^{96} \text{r}^{\text{C}}$ $\Delta \text{C} \cap \Gamma \text{D} \text{C} \div^{\text{C}} \text{D}^{\text{C}}$ $\Delta^{\text{b}} \text{D}^{96} \text{CD} \text{r} \text{L} \text{r}^{\text{C}}$

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$$(P = \langle b \rangle \Delta_P \cap \langle a \rangle^c)^c, N = \langle b \rangle \Delta_P' \setminus \langle D \rangle \langle a \rangle^c \setminus \langle C \rangle \Gamma' \setminus \Gamma'^c \setminus \langle D \rangle \langle a \rangle^c \setminus \Gamma'^c)^c, M = \langle b \rangle \Delta_P' \setminus \langle D \rangle \langle a \rangle^c \setminus \langle C \rangle \Gamma' \setminus \Gamma'^c \setminus \langle D \rangle \langle a \rangle^c \setminus \Gamma'^c)^c, U = \langle b \rangle \Delta_P \setminus \langle a \rangle^c \setminus \Gamma'^c \setminus \langle C \rangle \Gamma' \setminus \Gamma'^c \setminus \langle D \rangle \langle a \rangle^c \setminus \Gamma'^c)$$



List of Project Geometries

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