ᓄᓇᕗᒻ ᐊᓯᑎᓕᕆᔨᒃᑯᑦ ᑲᑎᒪᔨᖏᑕᒧᑦ ᑐᑭᓯᐊᓂᒃ ᓯᑎᕐᑐᐃᓐᓇᖅ #126226

Hamlet of Gjoa Haven - Municipal Quarry Project

ᑐᑭᓯᖅᑐᑕᐅᔨᖅ ᖃᓄᐃᑦᑐᓂᖅ:	New
ᐱᓕᕆᐊᓱᐅᔪᒻᒪᔪᑦ ᖃᓄᐃᑦᑐᓂᖅ:	Pits and Quarries
ᐅᑉᓗᖅ ᑐᑭᓯᖅᑐᑎᓕᐊᓂᐅᑦ:	Wednesday, October 22, 2025
Period of operation:	from 2026-04-21 to 2031-10-21
ᐱᓕᕆᐊᖃᖅᑕᒪᔪᖅ:	Jennifer Hamlet of Gjoa haven PO Box 200 Gjoa Haven Nunavut X0B 1J0 Canada ᐅᖃᓗᐅᑎᑦ: Wakegijig, ᓱᓴᐅᔪᑦ:

ᑐᓴᐅᒪᔭᒃᓴᑦ

ᖃᓄᐃᑦᑑᑎᓂᒃ ᐱᓕᕆᐊᖅᓂᐊᕆᐊᖕᒐᓐᓂᒃ

ᖃᓪᓗᓈᑎᑐᑦ: The Hamlet of Gjoa Haven (Hamlet) is proposing to construct and operate up to four new quarry sites (GH-105, GH-106, GH-107, and 2N) to replace the Hamlet's currently operating quarries, which will become depleted in the next operating year. These new quarries contain sand, silt, and gravel which will serve the current and future aggregate needs of the Hamlet, such as road construction and maintenance. Quarry operation will occur on an as-needed basis, planned to begin in 2026, depending on project development, progress, and municipal need. Field assessments were conducted in 2024 and 2025 to support the proposed quarry development and application for a Quarry Permit. Geotechnical investigations carried out in 2024 focused on evaluating the potential sites for terrain conditions, dimensions and quality of the deposits. Geochemical testing was completed in 2025 to assess for acid rock drainage (ARD) and metal leaching (ML) potential. The results of the field studies will inform the Borrow/Quarry Management Plans and associated mitigation measures. Archaeological assessments were completed in both 2024 and 2025 to evaluate the quarry sites for archaeological significance and to designate high-sensitivity areas, where appropriate. The four proposed quarries are located in and around the Hamlet. Two of the four quarries, GH-105 and GH-106, are located on Crown land (federal). Quarry 2N is located within the municipal boundary of the Hamlet on Government of Nunavut Commissioners land. Quarry GH-107 is located partially within the Hamlet on Commissioners land, and partially on Crown land (see Figure 1). The proposed quarries can be accessed by municipal roads, which may require future upgrades. Equipment will be used for excavating material, crushing and sorting aggregate, and stockpiling and hauling material. Fuel is not anticipated to be stored at the quarries, and equipment will be properly cleaned and fueled prior to being operated. Accidental spills that may occur during quarry operation will be managed through the Spill Contingency Plan (Attachment 1). Water usage on site will be managed in accordance with the Hamlet's existing Water License (No. 3BM-GJO1828). Water usage is anticipated for dust control and will require approximately 5 cubic metres (m3)per day of operation. Water will be trucked from the approved water source, Swan Lake, to the quarry site and used on an as-needed basis. At the quarry locations, an intermodal container may be used for storage and transportation of equipment, as needed. One portable office trailer may also be used at active quarries. The portal office will include a bathroom for personnel, of which any wastewater produced will be trucked to the sewage lagoon for approved disposal. Waste from the quarries will be disposed of at the Gjoa Haven Solid Waste Disposal Facility.The quantity and type of aggregate anticipated to be extracted varies by quarry. Quarry GH-105 has an estimated 140,000 m3 of sandy gravel and cobbles, Quarry GH-106 is estimated to have 100,000 m3 of sand and gravel, Quarry 2N is estimated to have 250,000 m3 of sand, gravel, and cobbles, and Quarry GH-107 has an estimated 43,000 m3 of sand, gravelly sand, and gravel.Quarries are anticipated begin operation in 2026 on an as-needed basis until 2031 where the quarries will be depleted and undergo closure.

ᐅᐃᕖᑎᑐᑦ: Description du projet – Carrières de Gjoa HavenLe hameau de Gjoa Haven propose de construire et d'exploiter quatre nouvelles carrières (GH-105, GH-106, GH-107 et 2N) pour remplacer les carrières actuellement exploitées par le hameau, qui seront épuisées au cours de la prochaine année d'exploitation. Ces nouvelles carrières contiennent du sable, du limon et du gravier et répondront aux besoins actuels et futurs du hameau en matière de granulats, notamment pour la construction et l'entretien des routes. L'exploitation de la carrière se fera selon les besoins, et devrait commencer en 2026, en fonction du développement du projet, de son avancement et des besoins de la municipalité. En prévision de l'autorisation d'exploitation de carrière requise par Relations Couronne-Autochtones et Affaires du Nord Canada (RCAANC) pour les sites potentiels qui se trouvent à l'extérieur des limites municipales du hameau, des évaluations sur le terrain ont été effectuées en 2024 et 2025 pour appuyer le projet d'exploitation de carrière. Les études géotechniques menées en 2024 ont porté sur l'évaluation des sites potentiels en fonction des conditions du terrain, des dimensions et de la qualité des gisements. Des analyses géochimiques ont été réalisées en 2025 pour évaluer le drainage rocheux acide (DRA) et la lixiviation des métaux (LM), conformément au guide du promoteur de la Commission du Nunavut chargée de l'examen des répercussions (CNER 2020), ainsi qu'aux directives relatives à l'élaboration d'un plan de gestion des carrières et des carrières d'emprunt, à l'appui d'une demande d'autorisation d'exploitation de carrière auprès de RCAANC. Les résultats des analyses géochimiques serviront de fondement aux plans de gestion des carrières et des carrières d'emprunt, ainsi qu'aux mesures d'atténuation associées, s'il s'avère que le potentiel de DRA/LM est préoccupant pour le traitement des matériaux extraits dans les carrières. Des évaluations archéologiques ont été réalisées en 2024 et 2025 afin d'évaluer l'importance archéologique des sites de carrières et de désigner, le cas échéant, des zones très sensibles. Les résultats des travaux sur le terrain ont permis d'élaborer les mesures d'atténuation incluses dans la présente demande et ont été utilisés pour déterminer les sites d'extraction des agrégats de la carrière. Les quatre carrières proposées se trouvent à l'intérieur et autour du hameau. Deux des quatre carrières, GH-105 et GH-106, se trouvent sur des terres domaniales (fédérales), tandis que 2N se trouve à l'intérieur des limites municipales du hameau, qui appartient au gouvernement du Nunavut à titre de terres domaniales. Le site GH-107 se trouve en partie à l'intérieur du hameau, sur des terres domaniales provinciales et en partie sur des terres domaniales fédérales. Les sites des carrières proposés sont accessibles par des routes municipales, qui pourraient nécessiter des travaux d'amélioration à l'avenir. Divers équipements seront utilisés pour l'excavation des matériaux, le concassage et le tri des agrégats, ainsi que pour le stockage et le transport des matériaux. Le matériel nécessaire aux activités de la carrière sera réutilisé et proviendra d'autres exploitations de carrières appartenant actuellement au hameau. Il n'est pas prévu de stocker de carburant dans les carrières, le matériel sera correctement nettoyé et ravitaillé en carburant avant d'être utilisé. Les déversements accidentels susceptibles de se produire au cours de l'exploitation de la carrière seront gérés dans le cadre du plan d'urgence en cas de déversement. L'utilisation de l'eau sur le site sera gérée conformément au permis d'utilisation de l'eau obtenu par le hameau (n° 3BM-GJO1828). Il est prévu que l'eau soit utilisée pour le contrôle de la poussière, ce qui représente environ 5 m3 d'eau par jour d'exploitation. L'eau sera transportée par camion depuis la source d'eau approuvée, le lac Swan, jusqu'au site de la carrière et sera utilisée en fonction des besoins. Sur les sites des carrières, un conteneur multimodal pourra être loué par le hameau et servira à l'entreposage et au transport du matériel, selon les besoins. Une remorque-bureau mobile pourra aussi être utilisée dans les carrières en activité. Le bureau mobile comprendra une salle de toilettes pour le personnel, dont les eaux usées produites seront transportées par camion jusqu'à l'étang d'épuration pour y être éliminées de manière approuvée. Les déchets seront gérés dans les carrières conformément au plan de gestion des déchets.La quantité et le type de granulats que l'on prévoit d'extraire varient d'une carrière à l'autre. La carrière GH-105 contient environ 140 000 m3 de gravier sableux et de galets, la GH-106 contient environ 100 000 m3 de sable et de gravier, la 2N contient environ 250 000 m3 de sable, de gravier et de galets, et la GH-107 contient environ 43 000 m3

de sable, de sable graveleux et de gravier.

ᐃᓄᖅᑎᑐᑦ: ᐅᓂᖅᑲᐧ ᑕᐃᔨᐅᓂᖅᓴᒃ: ᐱᕐᓭᐊᖅᓴᐅᒪᓂᖅᓴᒃ – ᐅᖃᓕᓂᑐᖏᑦ ᑐᐊᐸᖅᑕᖏᓴᐃᓚᐅᕆᑦ ᐸᓴᐃᐃᔪᑦ ᓴᓐᓇᐃᔭᐊᖅᑕᒥᓄᓇᓕᒃ ᐊᐅᓚᕐᑎᓗᑎᓄᓪ ᓯᑕᒪᓂᖅ ᓄᑦᑖᓂᖅ ᑐᐊᐸᖅᑕᖏᓴᖅᓂᖅ (GH-105, GH-106, GH-107, 2N) ᐃᓇᖅᑭᓂᐊᖏᓪᓗᑎᒃ ᑐᐊᐸᖅᑕᖏᓴᖅᓂᖅ ᓇᖅᑎᓂᕐᓂᖅᑐᐊᓂ ᐄᑦᐃᓚᒋᓂᖅ ᐊᑐᐊᑦᑐᖅᑐᑦ, ᐊᑐᐃᓐᓇᐃᑭᑎᓪᓗᒍᑦ ᐊᖏᖅᑰᒍᓂᖅᑎᑦ. ᑕᒃᓂᐊ ᑐᐊᐸᖅᑕᖏᓴᑦ ᓯᐅᕆᖅᖃᓪᓚᑦ>ᑦ, ᓯᐅᕆᖅᖃᓗᑎᒃ, ᐊᓪᒪᓗ ᑐᐊᐸᖅᖃᓗᑎᒃ, ᓴᖅᑭᑕᑎᐸᓂᐅᓕᐊᑕᒪᓐᓇᖅᑐᓗ ᑕᒪᐃᓐᓇᑭᓂᖅᑐᓗ ᑐᐊᐸᖅᑕᖏᓴᖅᓂᖅ ᓇᓕᒪᓐᓇᖅᑐᓗ ᐊᓪᒪᓗ ᐊᐸᖅᑕᖏᓴᖅᓂᖅ ᐊᐅᓚᕐᑎᓗᑎᒃ ᐊᐅᓚᕐᑎᓗᑎᒃ ᐊᐅᓚᕐᑎᓗᑎᒃ

Immakmik Munagitjutikhaita Parnaiyaotat.Kanok ukkumaitilangitnik tatvalu kanogitunik hiogaknik katighoiniaktot agjaklugo naunaktok kanogingninga hiogaktakvioyop naunaikaklugo. Hiogaktakvikhak tatvani GH-105 takkuktaohimayok imatot 140,000 m3 hiogaovluni uappaliakaktok, GH-106 Takkuktaohimayok imatot 100,000 m3 hiogainak uappaliakakhuni, 2N takkuktaohimayok imatot 250,000 m3 hiogainaovluni, uappaliakakhuni, uyagakaktok, tatvalu GH-107 takkuktaohimayok imatot 43,000 m3 hiogainaovluni, avugiiktot hiogak uappaliaklo ilangalo uappaliakuktuvluni.

Personnel

Personnel on site: 6
Days on site: 180
Total Person days: 1080
Operations Phase: from 2026-04-21 to 2031-10-21
Operations Phase: from 2026-04-21 to 2031-10-21
Closure Phase: from 2031-04-21 to 2031-10-21
Post-Closure Phase: from to

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ᓇᒥ	ᖃᓄᐃᓪᓗᒋᑦ ᐱᓕᕆᐊᖃᓴᓂᐊᖅᐸ	ᑭᓴᓐᑦ ᓄᓇᕐᔨᑦᓂ	ᑐᓴᐅᒪᔭᓴᑦ ᓄᓇᐅᓐᐸ ᖃᑐᑎᐅᓪᓚᐅᖅᑕᐅᓪᓚᐊᓘᓂᓂᖅᑐᑦ	ᐃᑦᓴᕐᓂᑕᖃᓴᐃᐅᓪᓚᐅᖅᐸ ᐃᓄᖕᓄᑦ ᓇᔨᖅᑕᐅᖃᓴᑕᕐᓂᑦᑐᖅ ᑕᐃᑦᓭᒪᓂᑐᖃᓕᓪᓗᑎᒃ ᓴᓇᓕᓂᖅᑐᖅ	ᖃᓄᖕᓂᖅᐸᖅᑐᖅ ᓄᓇᕐᑎᐅᐅᔨᖅᑐᖅ ᐊᓚᒪᓗ ᓴᓇᓕᑎᓯᐃᐅᓪᓚᓗ ᓴᓇᔭᑦ
GjoaHaven_potential_quarry_sites	Quarry/Borrow pit	Commissioners	Proposed Quarry 2N and a portion of GH107 are located on Commissioners land within the municipal boundary	An archaeological impact assessment has been completed under a Class 2 Archaeologist's Permit.	The location is within the municipal boundary of Gjoa Haven.
GjoaHaven_potential_quarry_sites	Quarry/Borrow pit	Crown	Proposed quarries GH105 and GH106 are located on Crown land outside of the municipal boundary of Gjoa Haven	An archaeological impact assessment of the sites has been completed under a Class 2 Archaeologist's Permit.	The location is outside of, but adjacent to the municipal boundary of Gjoa Haven.

ᓄᓇᕐᐅᐸ ᐃᓕᐅᖃᑕᐅᓂᖓ ᓄᓇᕐᓵᓗ ᐊᐃᑦᑐᖃᓕᐅᓂᖓᓄᑦ ᐃᑲᔪᑕᐅᔨᓴᓇᓐᓂᖅᑐᑦ

ᓄᓇᕐᑎᔨᖅ	ᐊᑎᑦ	ᑲᑐᔾᔨᐊᖃᖅᑎᑭᑎᔨᖅ	ᖃᓄᖕᓗ ᑐᓴᖅᑎᑕᐅᓕᐅᓇᐊᖏᓂᑦ
ᐅᖃᓕᓂᒃᑐᖅ	Anthony Anguttitauruq	HTO	2025-02-06
ᐅᖃᓕᓂᒃᑐᖅ	Jennifer Wakegiig	Hamlet of Gjoa Haven	2025-02-05
ᖁᔭᓕᖃᒃᑐᖅ	Tannis Bolt	Kitkimeot Inuit Association	2025-02-13
ᐅᖃᓕᓂᒃᑐᖅ	Anthony Anguttitauruq	HTO	2025-08-14
ᐅᖃᓕᓂᒃᑐᖅ	Jennifer Wakegiig	Hamlet of Gjoa Haven	2025-08-13

ᓕᐃᓴᓐᓂᑦ ᐱᒍᓐᓇᐅᑎ ᐊᓐᑭᕐᑕᐅᓯᒪᔪᑦ

ᓇᒃᑎᐊᓐᑭᓐᓂᒃ ᐱᓕᕆᐊᖏᓴᐃᐅᓂᐊᖅᑐᑦ ᑎᑎᕋᓗᑦ:

Kitikmeot

ᓕᐃᓴᓐᓂᑦ ᐱᒍᓐᓇᐅᑎ ᐊᓐᑭᕐᑕᐅᓯᒪᔪᑦ

ᑲᐸᒪᕆᐅᔨᔪᑦ ᐊᐃᓱᐅᖅᑐᓯᒪᔪᓂᓂ ᒪᓕᑦᔨᓇᖏᓂᒃ ᐱᔪᓐᓇᐅᑎᑦᑐᓂᒃ ᐊᔪᖏᓇᐅᑎᑦᑐᓂᒃ ᓕᐃᓴᓐᓂᓯᓚᐅᖅᑐᓂᒃ ᑲᐸᒪᕆᐅᔨᔪᑦ	ᖃᓄᐃᓕᑐᑐᓕᕆᔨᒃᑐᑦ ᓕᐃᓴᓐᓂᓯᑕᑭᑕᐅᔪᖅ ᐱᔪᓐᓇᐅᑎᑦᑐᓂᒃ ᐊᐅᖏᑕᐅᔪᓐᓇᖅᑐᑦ	ᐃᓐᓇ ᖃᓄᐃᓕᑐᑐᓕᕆᔨᒃᑐᑦ	ᐅᓪᓗᒥ ᑐᓂᔭᖅ/ ᑐᓴᕐᑐᑎᑕᐅᓕᐅᖅᓯᒪᔪᖅ	ᑭᓪᓕᖁᔨᕐᓗᒃ
ᓄᓇᕗᒻ ᐃᒪᓕᓴᐃᑦ ᑲᑎᒪᔨᖏᑦ	Municipal Water Licence - Type B - 3BM-GJO-1828	Active	2019-12-19	2028-12-18
Crown Indigenous Relations and Northern Affairs Canada	Type A Land Use Permit	Not Yet Applied		
Crown-Indigenous Relations and Northern Affairs Canada	Quarrying Permit	Not Yet Applied		
Government of Nunavut, Department of Culture, Language, Elders, and Youth	Class 2 Archaeological Permit - 2024-32A	Active	2024-06-01	

Project transportation types

Transportation Type	ᓄᓇᒧᑦ ᐊᑐᓚᐅᓂᐊᖅᐸ	Length of Use
Land	Quarry locations will be accessed by land.	

Project accomodation types

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ᐱᖅᑯᑦ ᐊᖏᕐᕋᖅ ᐊᑐᖅᑕᐅᓂᐅᔭᖅ ᐃᓕᖅᑲᓗᐅᑎᓗᓂᑦ ᐃᑯᑕᐃᑦ, ᒥᓪᓗᐊᑭᐅᑎᑦ, ᖁᖏᓪᓕᓴᖅ, ᓄᓇᓗᐅᑦ ᐊᓗᕐᕋᓪᓗ

ᐊᖏᕐᕋᖅ ᐱᖅᑯᑦ ᐊᑐᓚᐅᓂᐊᖅᑐᖅ ᖁᓄᐃᑦᑐᓂᖏᓐᓄᑦ	ᖁᑦᓴᐅᕙᑦ	ᐊᖏᕐᓂᕐᒥᑦ - ᐳᖅᑐᓂᕐᒥᑦ	ᓴᓇᒧᑦ ᐊᑐᓚᐅᓂᐊᖅᓯ
Jaw Crusher	1	3 m x 4.1 m	Used to crush large aggregate into smaller sizes.
Dozer	1	3 m x 3 m x 5 m	Used to push up and level aggregate material, and in reclamation.
Screener	1	14.2m x 4m x 4.9m	Used to sort materials into different sizes for use
336 CAT Excavator	1	11.3 ft x 10.4 ft x 36.71 ft	Excavate, dig, and move quarry material.
950 CAT Loader	1	5.7m x 2.7m x1.5m	Move and load aggregate materials.
289 CAT Skid Steer	1	146.2 inch x 158.1 inch	Loads larger hauling equipment with aggregate materials
Hamm Compactor Smooth Drum	1	224 inch x 117 inch x 88 inch	Improves gradeability and compaction of excavated areas
Freight liner tandem dump truck	1	72 ft x 8.5 ft x 13.5 ft	Move and load aggregate materials
M140 CAT Grader	1	29 ft x 10 ft	Precise use and grading, typically used for road construction.
1000 Cone Crusher	1	9 ft x 47 ft x 11 ft	Crushing clean rock and raw material, producing high-quality aggregate and sub-base material.
Chieftain 1700 X2 Deck Screener	1	56 ft x 56 ft x 19 ft	Screening equipment which is aimed at producing finished products, e.g., crushed stone, sand, and gravel.
Power Screen CT80 Stacker	1	7.4 ft x 38 ft x 9.5 ft	Operates alongside the Deck Screener to produce finished products from the quarries.
F350 Ford Flat Bed Truck	1	22 ft x 8 ft x 7 ft	Heavy-duty pickup truck used for transporting large cargo and quarry material.
D6 / D7 Dozer	1	18 ft x 8 ft x 11 ft	Move and level aggregate material, and in reclamation.
Intermodal Container	1	20 ft x 40 ft	Container used to store and transport equipment to and from the quarries.

ᑎᑎᕋᐳᓲᓪᓚᔪ ᐅᖅᓯᓴᐃᑦ ᐊᑦᑕᓇᖅᑐᖅᑕᓪᓕᓪ ᐊᑐᖅᑕᐅᓂᐊᕐᓂᕐᒥᑦ

ᓴᓇᒧᑦ ᐅᖅᓯᓴᓕᕐᓂᐊᖅ ᐊᑐᓚᐅᓂᐊᖅᓯ	ᖁᓄᐃᑦᑐᓂᓪᓚᕆᐅᕙᓪ ᐅᖅᓯᓴᓕᕐᓂᐊᖅ	ᖁᑦᓴᐅᕙᑦ ᐅᖅᓯᓴᓕᖁᐅᑎᑦ	ᐃᓕᖅᑲᓗᐅᑎᓗᒃ ᐃᒪᖅᑎᑉᐱᓂᕐᓂᖏᓐᓄᑦ	ᑲᑎᓪᓗᔪ	ᐃᓕᖅᑲᓗᑦ ᐊᒥᓱᓂᕐᒥᑦ	ᓴᓇᒧᑦ ᐊᑐᓚᐅᓂᐊᖅᓯ
Lubricants and greases	hazardous	1	1	1	Liters	Equipment operation; quantities to be determined
Batteries and solvents	hazardous	1	1	1	Liters	Equipment operation; quantities to be determined
Other	fuel	1	1	1	Liters	No fuel will be stored on site.
Diesel	fuel	1	1	1	Liters	No fuel will be stored on site. Fuel in equipment fuel tanks only.

ᐃᒪᖅ ᐊᑐᖅᑕᐅᓴᒪᖅᑐᖅ

ᐅᓪᓗ ᑕᒧᖅ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ	ᖁᓄᖅ ᐃᒥᖅᑕᖁᖅᑕᖅᓂᐊᖅᐸᑦ	ᓇᑭᑦ ᐃᒥᖅᑕᖁᖅᑕᖅᓂᐊᖅᐸᑦ
5	Water use will be from Municipal water facilities per the Hamlet's water licence (3BM-GJO1828).	Water will be obtained from Swan Lake in accordance with the municipal water licence.

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ᐱᕕᓇᐊᓇᐅᐯᒪᔪᒍᑦ ᐱᕕᓇᐊᓇᐅᐅᓂᐅᐊᖅᑐᖅ	ᖃᓄᐃᑦᑐᖅ ᐊᑲᑕᑾᑦ	ᖃᓄᑎᒋ ᐊᑲᑕᑾᑦ ᓴᖅᑭᐊᓂᐊᖅᑐᓇᓇᐅᐅᓄᑦ	ᖃᓄᖅ ᐊᑲᑕᖅᑕᐅᓂᐊᖅᐸ	ᓴᓗᒪᖅᓴᐅᑎᑲᓴᖅᓂᐅᐅᓂᐊᖅᑐᑦ
Quarry/Borrow pit	ᐊᑲᑕᑾᑦ ᐃᑾᐊᓪᑕᐅᐯᐦᓇᖅᑐᑦ	Unknown	Cardboards, cans, food dribs will be disposed of at appropriate locations.	None
Quarry/Borrow pit	ᐊᑲᑕᑾᑦ ᐃᑾᐊᓪᑕᐅᐯᐦᓇᖅᖢᑎᑦ	Unknown	Non-combustible wastes (e.g., batteries) will be disposed of at the Gjoa Haven Solid Waste Disposal Facility.	None
Quarry/Borrow pit	ᐅᔾᕿᐃᔨᐃᓂᖅ ᓄᓇᒥᑦ ᓄᑎᑕᓂᖅ ᐊᑐᐸᐅᐯᐦᓇᓴᓐᖢᑎᑦᑐᓂᖅ, ᓇᒡᒐᕐᓗᑾᓂᖅ	283000 m3	Management of overburden and soil piles will be described in the Borrow/Quarry Management Plan.	None
Quarry/Borrow pit	ᕐᑾᖅᑕᓪᓕᓂᖅ	< 1m3 per day	Sewage produced will be trucked to the municipal sewage lagoon approved for disposal, in accordance with the Water License (No.3BM-GJO1828).	None

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Please refer to Identification of Impacts and Proposed Mitigation Measures section for details.

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

The Project is to develop four quarries surrounding the Hamlet of Gjoa Haven, which will serve the current and future aggregate needs of the Hamlet. The quarry operation will occur on an as-needed basis, with operation beginning in 2026. Project activities for the quarry include excavation of quarry material crushing and sorting aggregate, stockpiling and hauling material, water management, and waste disposal. Fuel is not anticipated to be stored at the quarries, and equipment will be properly cleaned and fueled prior to being operated. Water usage on site is anticipated for dust control. Once quarry material has been depleted, operations will cease. The quarry will be leveled and regraded to the quarry base, and all mobile equipment will be removed from the site. Waste and debris will be removed from the quarry, and revegetation may occur. A Borrow/Quarry Management Plan will be developed for each quarry, and will include environmental management details (e.g., water management, mitigation protection measures, ARD/ML testing procedures). It will also include a conceptual plan for reclamation and closure of the quarry, which will outline the abandonment of an active quarry face, waste disposal, stockpile removal, and soil remediation for contamination soils, if present. A framework of a Borrow/Quarry Management Plan has been included in Attachment 4 and will be further updated as part of the permitting process. The Borrow/Quarry Management Plans will be submitted to the regulator for approval. Geochemical sampling was completed in August 2025 to assess for ARD/ML potential and results will be used to inform monitoring and management protocols within the Borrow/Quarry Management Plans.The Spill Contingency Plan (Attachment 1), developed and approved in 2014 to support the Hamlet of Gjoa Haven's Municipal Water Licence (3BM-GJO1318) will be enacted to support the proposed quarries. This outlines general reporting and procedures for accidental spills to limit soil or water contamination. Field assessments were conducted in 2024 and 2025 to support the proposed quarry development. Geotechnical investigations carried out in 2024 focused on evaluating the potential sites for terrain conditions, dimensions and quality of the deposits (Attachment 2). Archaeological assessments were completed in both 2024 and 2025 to evaluate the quarry sites for archaeological significance and designate high-sensitivity areas, where appropriate. The quantity and type of aggregate anticipated to be extracted is dependent on quarry. Quarry source GH-105 has an estimated 140,000 m3 of sandy gravel and cobbles, GH-106 is estimated to have 100,000 m3 of sand and gravel, 2N is estimated to have 250,000 m3 of sand, gravel, and cobbles, and GH-107 has an estimated 43,000 m3 of sand, gravelly sand, and gravel.

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

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Air quality is consistent with sub-arctic conditions in rural areas. Noise levels are relatively low, consistent with sparsely populated areas. Regional surficial geology is typical of sub-arctic conditions and is dominated by glaciofluvial and glaciomarine sand and gravel sediments occurring as beach ridges, as well as till sediments occurring as a till blanket or reworked into beach ridges (Attachment 2). The Project is located in King William Island Watershed management area, which encompasses the King William Island and surrounding Arctic Archipelago. A geochemical sampling field program was conducted in 2025 to determine the potential of acid rock drainage (ARD) and metal leaching (ML) at the quarries.

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Wildlife present in the area is typical of sub-arctic conditions and mainly consists of ground squirrels, lemmings, weasels, arctic hares, arctic foxes, and arctic species of birds. Additionally, the Project is located within the M'Clintock Channel polar bear subpopulation range (GOC 2021), as well as the Dolphin and Union range of barren-ground caribou. A table of SARA and COSEWIC species is included as an attachment to this submission (Attachment 5). No wildlife has been observed at the site during field visits but will likely be encountered during construction and operation activities. Vegetation in the area is consistent with sub-arctic conditions, including moss and other Arctic plants.

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Archaeological sites were identified at all four quarry sites during the 2024 and 2025 field programs. A community engagement program was completed in February 2025 alongside a Gjoa Haven Quarry Engagement Summary Report (Attachment 3), consisting of a community meeting between the Hamlet and other community members, as well as meetings with both the local Hunters and Trappers Organization and Kitikmeot Inuit Association. These activities were undertaken following Guiding Inuit Qaujimajatuqangit Principles, as set out by the NIRB (2025).Community members expressed an urgent need for a long-term gravel source. There was a shared understanding that gravel is essential for key infrastructure projects, including road repairs, drainage improvements, and new construction such as homes and community buildings, including the planned Women's Shelter.

Miscellaneous Project Information

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The proposed quarries are intended to replace the depleted existing quarries and provide continual material for municipal developments (e.g., roads) and will be operated in a similar manner. Quarries will be owned and/or operated by the Hamlet only. Aggregate extraction will follow requirements outlined in the CIRNAC Quarry Permit for the three quarries on Crown land (GH-105, GH-106, and a portion of GH-107). For quarries located on commissioners land (2N and portion of GH-107), mitigation will follow the permits and agreed upon methods outlined in the Municipal Quarry Administration Agreement. Aggregate extractions at the four quarries will also follow the mitigation measures and conditions of approval as part of permitting and with requirements of the Nunavut Water Board Water Licence (No. 3BM-GJO1828). A Borrow/Quarry Management Plan will be developed for each quarry, and will include environmental management details (e.g., water management, mitigation measures, ARD/ML testing procedures) and a conceptual plan for reclamation and closure of the quarry. A framework of the Borrow/Quarry Management Plan is included in Attachment 4 and will be updated as part of the permitting process, as needed. Quarry operation will comply with the Spill

Contingency Plan (Attachment 1) which outlines general reporting and procedures for accidental spills, in accordance with the Water Licence (No. 3BM-GJO1828). Waste (e.g., cardboard, batteries) will be disposed of at the Gjoa Haven Solid Waste Disposal Facility.Mitigation measures, including best management practices outlined in the Northern Land Use Guidelines (INAC 2009), that will be conducted to limit impacts to the physical environment will include:•Dust suppression (i.e., water) will be used to limit short-term release of particulate matter during excavation•Maintain vegetation and stabilize exposed soils where possible to limit erosion and sedimentation•Limit the extent of grading and vegetation clearing to where is necessary•Stockpile soil away from watercourses, drainage features, and tops of steep slopes•Assess erosion and sediment control measures after significant rainfall and snowmelt events to confirm they are still operating as needed•Excavation will not be conducted in a manner that disturbs or diverts natural drainage•Re-contouring of the quarries will be conducted in a manner that allows material to naturally drain and does not cause pooling to occur•Material will be tested for ARD/ML potential. If ARD/ML is determined to be present, mitigation will be developed in consultation with the regulator •Heavy machinery and will only be in operation during approved times throughout the life of the quarry to mitigate for noise emissions•Extracting and stockpiling of material will occur during summer months when surface material is thawed, to limit impacts caused by permafrost thaw. Given that quarry material is largely gravel and sand, any thawed runoff will drain and pooling is unlikely to occur.During engagement, community members indicated concerns around protection of both the community's drinking water supply (Swan Lake) near GH-107/2N and a lake used for drinking water and fishing activities near GH-105 from contamination due to quarry operations, such as oil spills from equipment and dust from gravel extraction. Best management practices for dust suppression during excavation and spill control measures identified in the Spill Contingency Plan will be implemented to minimize impacts to water quality. Additionally, gravel extraction will avoid the southeasternmost portion of the 2N site located within the Swan Lakes watershed buffer for the Gjoa Haven water intake.Quarry operations will be conducted in a manner that limits impacts to biological environment and will follow previously approved mitigation. Mitigation measures that may be conducted include the following:•Waste will be stored in appropriate animal-proof containers to reduce animal attraction to the active quarry sites•If animals enter the quarry during operation activities, work will stop until the wildlife leaves the area•Progressive reclamation will occur following decommissioning of the quarry, including re-vegetation, as outlined in the detailed Borrow/Quarry Management Plan. Additional site-specific mitigation measures for wildlife, including species at risk, are included in Section 4.6 of Attachment 4.No concerns around mitigating impacts to archaeological resources were raised by the community during engagement. Archaeological sites have been identified in and around the quarries, and best management practices will be conducted to limit the impacts to archaeological resources, including the following:•Identified archaeological sites have been ground-truthed, mapped, and flagged for avoidance with a 30-metre buffer•Identified archaeological resources will be avoided and remain undisturbed during quarry operation.•If any chance archaeological finds are identified during quarrying activities, work will stop and Nunavut's Department of Culture and Heritage will be contacted immediately. During engagement, community members raised concerns regarding public safety, and access to hunting areas near quarry site GH-107, highlighting the need for incorporating IQ into the planning to balance environmental protection, cultural values, and infrastructure development. The Hamlet will continue discussions with the community regarding traditional use areas near the prospective quarry sites to minimize disturbance of traditional land use activities during quarry operations.

Cumulative Effects

A search of the NIRB registry returns 28 results for projects, the majority of which were submitted more than five years ago. Of the projects, seven are scientific research (five occurring since 2020), nine are tourism (three occurring since 2020), and one power plant (2022). The Hamlet is currently operating two quarries within the municipal boundary of the Hamlet, with similar impacts to the proposed quarry operations. As the existing quarries are depleted, the proposed quarries will be used, extending the duration of the existing impacts. There is potential that additional roads will be built, or existing access improved to access the quarries, which will improve access to those areas by people. However, the roads will not be extensive and many trails in these areas already exist. Other anticipated effects of the quarrying are mitigable.

Impacts

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	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
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Quarry/Borrow pit			-	-	M	-	-	-	-	-	-	-	-	M		M	-	-	-	-		M	P	-	P	-
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Quarry/Borrow pit			-	-	M	-	-	-	-	-	-	-	-	M		M	-	-	-	-		M	P	-	P	-
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Quarry/Borrow pit			-	-	M	-	-	-	-	-	-	-	-	-		M	-	-	-	-		M	P	-	P	-

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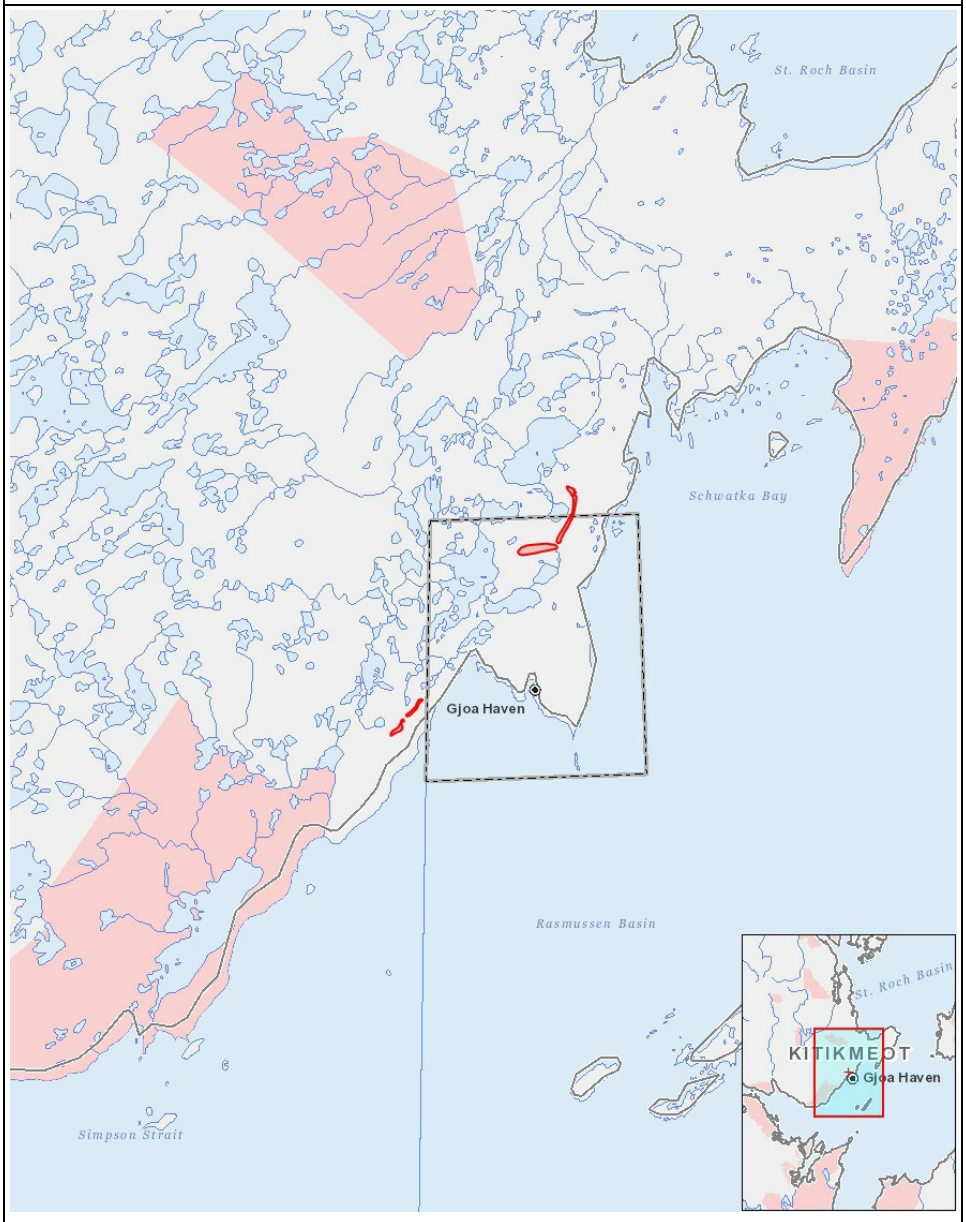

List of Project Geometries

1	polygon	GjoaHaven_potential_quarry_sites