

NIRB Application for Screening #125046

Itivia Quarry

Application Type: New
Project Type: Quarry
Application Date: 1/18/2017 1:50:36 PM
Period of Operation: From 2017-03-15 to 2017-12-30
Proposed Authorization: From 2017-03-15 to 2017-12-30
Project proponent: Manon Turmel
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DETAILS

Non-technical project proposal description

English: Agnico Eagle Mines Limited (Agnico Eagle) is developing the Meliadine Gold Project (Project), located approximately 25 kilometres (km) north of Rankin Inlet, and 80 km southwest of Chesterfield Inlet in the Kivalliq Region of Nunavut. Situated on the western shore of Hudson Bay, the proposed Project site is located on a peninsula between the east, south, and west basins of Meliadine Lake (63°1'23.8'' N, 92°13'6.42''W). To support the Project, infrastructures will be developed in Rankin Inlet, in the Itivia harbour area. These infrastructures include a bypass road, and a fuel farm and laydown area which are incorporated within Project Certificate 11MN034 and Water License 2AM-MEL1631. Agnico Eagle is proposing to use the Itivia Quarry (62°47'58.88'' N, 92°04'50.48''W) located within the boundaries of the Hamlet of Rankin Inlet as the source of material for the Itivia laydown and bypass road. Approximately 200,000 m³ of solid rock (300,000 m³ from quarry) will be required from the Itivia Quarry to build these infrastructures. Material will be extracted using a drilling & blast method. Activities would start in March 2017 and would continue until September 2017 pending regulatory approval. During quarrying operations, Agnico Eagle will use existing infrastructures at the Meliadine Project Site and no new roads will need to be built to access this site. The quarry site will be accessed using municipal roads and the Meliadine All-Weather Access Road. This Project will not require erection of new structures. There will be no fuel tank or hazardous material storage facility at the Itivia Quarry. Resupply of diesel and emulsion required for operations will be done daily or when required by trucks coming from the Meliadine site. Alternatives assessed include quarry sites along the Meliadine All-Weather Access Road and approved under quarry leases with the KIA and quarry sites located on Commissioner's Land but located further away from the Itivia laydown and bypass road areas. The Itivia Quarry was chosen based on its close proximity to the Project reducing costs and to make the Itivia area cleaner, safer, better organized and nicer looking for the community of Rankin Inlet. The primary potential environmental impacts include: noise, vibration and dust. To mitigate noise, vibration and dust, Agnico Eagle will provide controls including: 1. Daytime blasting only; 2. Blast monitoring for vibration and noise; 3. Dust suppression on drilling equipment; 4. Crusher location selected to minimize dust emissions; and 5. Dust monitoring. All waste generated at the Itivia Quarry will be brought back to the Meliadine site and handled as per approved management plans. The quarry will be tested for Acid Rock Drainage/Metal Leaching (ARD/ML) potential. No known archaeological and cultural sites are located in the area. In conclusion, based on best practices and proposed mitigation actions, no significant impacts are predicted at the Itivia Quarry. Upon completion of operations in 2017, the quarry area will be decommissioned and left in a geo-technically stable state and reclaimed as the Preliminary Closure and Reclamation Plan approved under water Licence 2AM-MEL1631.

French: Les Mines Agnico Eagle Limited travaillent à développer le projet aurifère Meliadine (le Projet), situé approximativement 25 km au nord de Rankin Inlet, et 80 km au sud-ouest de Chesterfield Inlet dans la région du Kivalliq (Nunavut). Situé sur la rive ouest de la Baie d'Hudson, le projet proposé est situé sur une péninsule entre les bassins est, sud et ouest du lac Meliadine (63°1'23.8'' N, 92°13'6.42''O). Pour supporter le projet, des infrastructures seront construites à Rankin Inlet dans le secteur du port d'Itivia. Ces infrastructures incluent une route de contournement, un parc de carburant, et une aire d'entreposage qui sont incorporés sous le certificat de projet 11MN034 et le permis d'utilisation des eaux 2AM-MEL1631. Les Mines Agnico Eagle proposent d'utiliser la carrière d'Itivia (62°47'58.88'' N, 92°04'50.48''O) située à l'intérieur des limites de la municipalité de Rankin Inlet comme source de matériel pour l'aire d'entreposage et la route de contournement. Environnementalement 200,000 m³ de roche solide (300,000 m³ de la carrière) seront requis de la carrière Itivia pour construire ces infrastructures. Le matériel sera extrait en utilisant une méthode de forage et dynamitage. Les activités commenceraient en mars 2017 et continueraient jusqu'en septembre 2017 selon les approbations réglementaires. Durant les opérations d'extraction, Agnico Eagle utilisera les infrastructures existantes au site du projet Meliadine et aucune nouvelle route ne sera requise pour accéder au site. L'accès à la carrière sera possible via les routes municipales et la route d'accès toute saison de Meliadine. Le projet ne requerra pas l'érection de nouvelles structures. Il n'y aura pas de réservoir de stockage de carburant ou de matière dangereuses à la carrière. Le ravitaillement en diesel et émulsion requis sera complété quotidiennement ou lorsque requis par des camions provenant du site Meliadine. Parmi les alternatives évaluées sont incluses les carrières le long de la route d'accès toute saison et approuvées sur les permis de

ACTIVITIES

Project Activities

Location	Activity Type	Land Status	Site History	Site Archaeological or Palentological Value	Proximity to the nearest communities and any protected areas
Break	Quarry/Borrow pit	Commissioners	The Itivia quarry area was used in the 1990's and 2000's for quarrying activities. It is currently not in operation. Agnico Eagle has never conducted quarrying activities in this area in the past.	There is no known archaeological site within the quarry boundaries. According to the GN archaeological site database, the nearest site documented to the Itivia quarry is KeJM-10 located approximately 250 m southeast near the coast. The site was recorded in 1975, revisited in 1976 and identified as a Late Dorset lithic scatter.	The quarry is located 500m from the community of Rankin Inlet in the Itivia harbor area. There are no protected areas in the vicinity of the quarry.

Community Involvement and Regional Benefits

Community	Name	Organization	Date Contacted
Rankin Inlet	Nun Airports: T. McKay, J. Kusugak, B. Fredlund; GN-CGS: J. Garbarczyk; Hamlet: J. Merritt, A. Ymana	Nunavut Airports, GN-CGS, Hamlet	2016-06-06
Rankin Inlet	Hamlet: J. Merritt; Nunavut Airports: T. McKay	Nunavut Airports, Hamlet	2016-08-25
Rankin Inlet	Hamlet: J. Merritt, A. Ymana; Nu Airports: B. Fredlund; GN-CGS: J. Garbarczyk	Nunavut Airports, Hamlet, CGS	2016-11-28
Rankin Inlet	Hamlet Councilors	Rankin Inlet Hamlet	2016-11-28
Rankin Inlet	Hamlet Councilors	Rankin Inlet Hamlet	2016-12-13

AUTHORIZATIONS

Project Locations

Kivalliq

Project Authorization

Authorizing Agency	Authorization Description	Current Status	Date Issued / Applied	Expiry Date
Other	Conformity Determination with NPC	Active	2016-12-22	
Other	Rankin Inlet Hamlet Council motion passed.	Active	2016-12-13	
Government of Nunavut, Community and Government Services	Quarry Permit. Based on discussions with GN-CGS, Agnico Eagle will apply for a quarry permit once the NIRB process has been completed.	Not Yet Applied		

MATERIAL USE

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

Equipment Type	Quantity	Size - Dimensions	Proposed Use
Hydratrac Drill	1	2.6m x 10.31m	Drilling activities
Cat 345 Excavator	1	3.6m x 5.4m	Load blasted material onto haul trucks.
Cat 773 Haul Truck	2	5.6m x 10.2m	Move extracted material from quarry to laydown area and bypass road.
Cat D8 Dozer	1	3.1m x 6.1m	Place material onto laydown area and bypass road.
Service truck Fuel/Lube	1	2.5m x 10m	Resupply equipment with fuel, lube, etc.
Mechanic truck	1	2.4m x 7.26m	Fix and perform preventive maintenance on equipment.
Explosive truck	1	2.4m x 7.26m	Bring explosives from Meliadine site (where it is prepared) to quarry.
Allman Heaters	2	2.03m x 4.91m	Warm up equipment.

Detail Fuel and Hazardous Material Use

Fuel / Material	Type	Number of Containers	Container Capacity	Total Amount	Units	Proposed Use
Diesel	fuel	0	0	0	Liters	Resupply drilling, crushing, hauling and other equipment. No fuel will be stored at the Quarry. Fuel will be stored at an already approved facility at the meliadine site. Fuel will also be taken at the GN tankfarm in Rankin Inlet.
Ammonium nitrate	hazardous	0	0	0	Liters	Blasting rock. Emulsion will be stored and prepared at Meliadine site in approved facility and transported to the quarry daily when needed.

Project Water Consumption

Daily Amount (m3)	Proposed Water Retrieval Methods	Proposed Water Retrieval Location
0	Not applicable	Not applicable

WASTE

Waste Management

Project Activity	Type of Waste	Projected Amount Generated	Method of Disposal	Additional Treatment Procedures
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Quarry/Borrow pit	Combustible wastes	1 m3/day	Disposed of at the approved Meliadine incinerator.	Not applicable
Quarry/Borrow pit	Hazardous waste	100L/month	Waste oil brought back to Meliadine Site for reuse in burners/furnaces or shipped south in an approved facility.	Not applicable.
Quarry/Borrow pit	Non-Combustible wastes	1 m3/week	Disposed of at the approved Meliadine landfill.	Not applicable

Environmental Impacts

The predicted environmental impacts are discussed in the document attached here.

DETAILS PART 2

Project General Information

Agnico Eagle Mines Limited (Agnico Eagle) is developing the Meliadine Gold Project, located approximately 25 kilometres (km) north of Rankin Inlet, and 80 km southwest of Chesterfield Inlet in the Kivalliq Region of Nunavut. Situated on the western shore of Hudson Bay, the proposed Project site is located on a peninsula between the east, south, and west basins of Meliadine Lake (63°1'23.8'' N, 92°13'6.42''W). Agnico Eagle is proposing to use the existing Itivia Quarry (62°47'58.88'' N, 92°04'50.48''W) located within the boundaries of the Hamlet of Rankin Inlet as the source of material for the Itivia fuel farm and laydown, and Rankin Inlet bypass road (Figures 1 and 2). The quarry is located on Commissioner's Land. Approximately 300,000 m³ of rock will be required from the Itivia Quarry to build these infrastructures. Activities would start in March 2017 and would continue until September 2017 pending regulatory approval. Following a conformity determination by the Nunavut Planning Commission (NPC) on December 22nd, 2016, Agnico Eagle is forwarding its project proposal to the Nunavut Impact Review Board (NIRB) for screening. During quarrying operations, Agnico Eagle will use existing infrastructures at the Meliadine Project Site (camp, fuel tanks, emulsion plant, landfill, landfarm, incinerator) and no new roads will need to be built to access this site. There will be no fuel tank or hazardous material storage facility at the Itivia Quarry. Resupply of diesel and emulsion will be done daily or when required by trucks coming from the Meliadine site. All domestic solid waste, waste oil and sewage will be brought back to the Meliadine site and handled as per approved management plans. Agnico Eagle assessed the effects of using alternatives to the Project. Table 2 summarizes the alternatives assessment to evaluate the project with consideration and overview of the effects on construction activities at Itivia and community wellbeing. Table 2: Project Alternatives and effects on Itivia construction Alternative Effect on Construction Effect on Community Wellbeing Hamlet Borrow Pit • Longer hauling distance • Higher construction costs • Delay to advancement of construction • More circulation of heavy equipment in the Hamlet between quarry and construction sites. • Increased safety risks. • Increased dust generation in town. • Itivia Quarry left not-reclaimed and presenting safety hazards for community. Approved quarries on AWAR (IOL) • Longer hauling distance • Higher construction costs • Delay to advancement of construction • More circulation of heavy equipment in the Hamlet between quarry and construction sites. • Increased safety risks. • Increased dust generation in town. • Itivia Quarry left not-reclaimed and presenting safety hazards for community. Do Nothing • Bypass road not built • Fuel farm and permanent laydown area not built • Increased operation and construction costs of Meliadine Gold Project • Heavy traffic on municipal roads leading to increased safety risks, and increased dust generation and noise in town. The Itivia Quarry was chosen related to its close proximity to the construction sites. It will ensure efficient and less costly construction of Agnico Eagle's infrastructures in Itivia. It was also selected among other options due to the fact that it will make the Itivia area cleaner, safer, better organized and nicer looking. The area was not reclaimed following past operations. Land Use Planning All project proposals in the Keewatin Planning Region that require a licence or authorization from a land use authorizing agency must be assessed by the NPC for conformity with the Keewatin Regional Land Use Plan (NPC 2000). Agnico Eagle received an NPC conformity determination on December 22nd, 2016 for the Itivia Quarry Project (Refer to Appendix A). Commissioner Land As stated previously, the Itivia Quarry is located on Commissioner's Land and managed by the GN. CGS administers the land on behalf of the GN and it intends to transfer ownership to the Hamlet in the future. As such, GN-CGS requires that the Project be approved by the Hamlet prior to issuing a quarry permit. On December 13th, 2016, the Hamlet Council passed a motion to approve the Itivia Quarry project. Please refer to Appendix B (Item 4, Resolution Number 163-16) for the Council's motion. Please refer to Appendix C for GN-CGS's non-objection letter to proceed with NIRB screening. Officials within the Department are requesting Agnico Eagle to go through the NIRB process first prior to issuing a quarry permit.

DFO Operational Statement of Conformity

This is not applicable as the proposed activities do not interact with fish or fish habitat.

Transportation

The quarry site will be accessed using Rankin Inlet municipal roads and the Meliadine All-Weather Access Road. No need transportation infrastructure will be required for this project.

Camp Site

No new camp site is required for this application.

Equipment

Table 3 of the Main Application Document summarizes the equipment needs for the Itivia Quarry. Hydratrac Drill 1 2.6m x 10.31m Drilling activities Cat 345 Excavator 1 3.6m x 5.4m Load blasted material onto haul trucks. Cat 773 Haul Truck 2 5.6m x 10.2m Move extracted material from quarry to laydown area and bypass road. Cat D8 Dozer 1 3.1m x 6.1m Place material onto laydown area and bypass road. Service truck Fuel/Lube 1 2.5m x 10m Resupply equipment with fuel, lube, etc. Mechanic truck 1 2.4m x 7.26m Fix and perform preventive maintenance on equipment. Explosive truck 1 2.4m x 7.26m Bring explosives from Meliadine site (where it is prepared) to quarry. Allman Heaters 2 2.03m x 4.91m Warm up equipment.

Water

No additional water use is requested.

Waste Water (Grey water, Sewage, Other)

Combustible wastes Conservatively 1 m³/day of waste can be expected Disposed of at the approved Meliadine incinerator. Hazardous waste Conservatively, 100 Liters/ month is expected Waste oil brought back to Meliadine Site for reuse in burners/furnaces or shipped south in an approved facility. Non-combustible wastes Conservatively 1 m³/week of waste can be expected Disposed of at the approved Meliadine landfill. No additional waste water will be produced.

Fuel

Table 4 of the Main Application Document summarizes the fuel needs for the Itivia Quarry (6000L/day). There will be no fuel tank storage facility at the Itivia Quarry. Resupply of diesel required for operations will be done daily or when required by trucks coming from the Meliadine site or at the Rankin Inlet GN fuel farm. Agnico Eagle will comply with its Spill Contingency Plan.

Chemical and Hazardous Material

Table 5 of the Main Application Document summarizes the hazardous materials needs for the Itivia Quarry. There will be no hazardous material storage facility at the Itivia Quarry. Resupply of emulsion required for operations will be done daily or when required by trucks coming from the Meliadine site Agnico Eagle will comply with its Hazardous Materials Management Plan.

Workforce and Human Resources / Socio-Economic Impacts

Approximately 10 additional full time contract workers will be required for operation of the quarry. The construction contractor hired by Agnico Eagle will be required to have a Contractors Inuit Employment Plan and Agnico Eagle expects that several companies with Inuit Joint Ventures will submit proposals. Kivalliq residents and businesses will receive preference with respect to employment and local business opportunities associated with maintenance of the road. Local business opportunities may include logistical support, project management, fuel delivery, and heavy equipment operation. Local positions are expected to consist of general labourers and heavy equipment operators. Agnico Eagle works consistently to develop well thought out and planned approaches for involving Inuit in employment, high levels of training, and business opportunities for their projects. It is expected that through ongoing consultation and socio-economic monitoring, Agnico Eagle and local communities will be well positioned to respond to social or economic concerns as they arise during the permitting, construction, operations and closure phases of this Project. These few additional positions are expected to have a net socio economic benefit within the Kivalliq.

Public Involvement / Traditional Knowledge

Sections 3.7 and 7 of the main application document summarizes traditional knowledge and public involvement information. Results of field studies, interview and focus groups done for the Meliadine Gold Project in 1999, 2010 and 2011 and encompassing the Itivia quarry area, indicated that the general Itivia quarry area was occupied with camps in the period before 1956. The Itivia quarry area was also used in the 1990's and 2000's for quarrying activities. It is currently not in operation. Agnico Eagle has never conducted quarrying activities in this area in the past. Based on field observations done in 2017, there is one cabin located in the vicinity of the quarry site. The cabin is in an abandoned state following the death of the owner but Agnico Eagle is currently reaching out to potential current owners. The proposed quarry is not located near known designated sensitive environmental areas, parks, recreational areas, sport or commercial fisheries, protected wildlife areas or other designated protected areas. Agnico Eagle is committed to continue liaising with regulators and public officials (GN-Nunavut Airports, GN-CGS, Hamlet) throughout planning, operation, closure and post-closure phases. Agnico Eagle is finalizing its Community Information Plan which will include community engagement prior to operating the quarry. Outreach activities will include bulletin, radio announcements, open houses, and door-to-door meetings with residents impacted.

SECTION C: Pits and Quarries: Project Information

Agnico Eagle is proposing to use the Itivia Quarry (62°47'58.88" N, 92°04'50.48" W) located within the boundaries of the Hamlet of Rankin Inlet as the source of material for the Itivia laydown and bypass road. Approximately 200,000 m³ of solid rock (300,000 m³ from quarry) will be required from the Itivia Quarry to build these infrastructures. Material will be extracted using a drilling & blast method. Activities would start in March 2017 and would continue until September 2017 pending regulatory approval. Agnico Eagle received an NPC conformity determination on December 22nd, 2016 for the Itivia Quarry Project. The proposed quarry is composed of non-potentially acid draining/ non-metal leaching (NPAG/ML) material, and is small in size. Prior to operations, the quarry will initially be surveyed and staked to provide operational boundaries to ensure the protection of the environment (i.e. ensure that there are no nesting or denning sites). After pre-stripping standard blast procedures will be implemented to ensure geotechnical stability, safety of operators and residents of Rankin Inlet; consideration for drainage and closure will be made in the design of the blasts and quarry. Details of the Quarry Operation, Volume and Design are provided in Section 2.1 of the Main Application Document.

Description of Existing Environment: Physical Environment

The proposed quarry is located on land approximately 50m from Melvin Bay. It consists of an elevated bedrock landform. It is located in the zone of continuous permafrost. Archean mafic metavolcanics and associated metasediments of the Rankin Inlet Group underlie the Itivia quarry area. The proposed quarry is not located near known designated sensitive environmental areas, parks, recreational areas, sport or commercial fisheries, protected wildlife areas or other designated protected areas.

Description of Existing Environment: Biological Environment

The proposed quarry location consist of elevated bedrock landform; although the footprint of the quarry contain vegetation and wildlife habitat, it is generally considered low value to local fauna. Please refer to Section 3.0 of the Main Application Document.

Description of Existing Environment: Socioeconomic Environment

The Project will extend employment opportunities that are currently provided by the Meliadine project. Many of these opportunities will be targeted to the local population in Rankin Inlet and other Kivalliq communities. Most indirect employment opportunities occurring in Nunavut are expected to be filled by the existing labour force working in industries currently supplying Meliadine project. The Project will maintain current pick-up points in Kivalliq communities, and any incidental employment that arises via attrition will be filled with priority given to residents of the Kivalliq Region, and, secondarily, Nunavut. Given the size of the quarry work, the approach to recruitment is not expected to induce intra- or inter-territorial migration, population increase, or demographic change.

Identification of Impacts and Proposed Mitigation Measures

The Itivia quarry will interact with the natural and human environment of the area in both time and space. The Itivia quarry is expected to present few negative effects to the environment. The identified impacts will not occur in the long-term, or be significant due to mitigative measures and standard best practices that will be implemented. Nevertheless, for the purposes of this application, Agnico Eagle has conducted an abridged environmental assessment, that considers the temporal boundary for construction, operation, and closure of the quarry to be about seven months. As discussed in Section 2.1 of the Main Application Document, during the design phase of the proposed quarry application, Agnico Eagle prioritized the need to ensure that the quarry had a low environmental impact. The quarry is small in size, is located to ensure material is Non- PAG/ML, will be constructed within permafrost, the location is 31 m setback from waterbodies, and that the location does not impact known archaeological sites. As a result of these design decisions, no impacts to surface hydrology, fish or fish habitat (avoidance of waterbodies), wildlife (given the small size of the quarry), surface water quantity or quality are predicted. Furthermore, there will be nil to negligible changes to the physical environment, air and noise (atmosphere), and cumulative effects. Overall, the potential impacts on the Terrain, Soil and Permafrost, Atmospheric Environment, Marine Environment, Potential for Acid Generation/ Metal Leaching, Terrestrial Environment, Archaeological and Heritage Sites, and Traditional Knowledge and Land Use due to the construction, operation, and reclamation of the Itivia Quarry were considered and assessed. The details are provided in section 3 of the Main Application document and describe the existing environment, environmental impacts, and mitigation for the proposed Itivia Quarry. Agnico Eagle believes the content provided is appropriate for the type, scope, and scale of the application for NIRB to provide screening that may be required.

Cumulative Effects

The identified impacts will not occur in the long-term, will not impact a large footprint, nor be significant due to mitigative measures and standard best practices that will be implemented. Considering all past and present development, the level of development in the region of the proposed road is medium, and many of the developments are minor disturbances (Itivia harbor area use, airstrip, Rankin Inlet community activities). Overall, the potential for cumulative effects associated with the construction, operation and closure of the proposed Itivia Quarry is considered to be low.

