



AGNICO EAGLE

MELIADINE GOLD PROJECT

Roads Management Plan

**MARCH 2017
VERSION 5
6513-MPS-05**

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EXECUTIVE SUMMARY

Agnico Eagle Mines Limited (Agnico Eagle) is developing the Meliadine Gold Project (the Project), located approximately 25 kilometres (km) north of Rankin Inlet, and 80 km southwest of Chesterfield Inlet in the Kivalliq Region of Nunavut. The Project is located within the Meliadine Lake watershed of the Wilson Water Management Area (Nunavut Water Regulations Schedule 4).

The proposed mine is located on Inuit Owned Lands and, as such, land and environmental management are generally governed by the provisions of the Nunavut Land Claims Agreement. This document presents the Roads Management Plan (the Plan) for the proposed mine and forms a component of the documentation series produced for the Type A Water Licence Application. A list of anticipated permits, licenses, agreements, authorizations, and approvals applicable to this Plan are provided.

Agnico Eagle proposes open pit and underground mining methods for the development of the Tiriganiaq gold deposit, with two open pits (Tiriganiaq Pit 1 and Tiriganiaq Pit 2) and one underground mine. The proposed mine will produce approximately 12.1 million tonnes (Mt) of ore, 31.8 Mt of waste rock, 7.4 Mt of overburden waste, and 12.1 Mt of tailings. There are four phases to the development of Tiriganiaq: just over 4 years construction (Q4 Year -5 to Year -1), 8 years mine operation (Year 1 to Year 8), 3 years closure (Year 9 to Year 11), and post-closure (Year 11 forwards).

Roads Management

The Plan includes access, service, and haul roads proposed within the Project area, and covers construction, operations, closure and post-closure phases of the Project. This Plan is linked to the Spill Contingency Plan and the Terrestrial Environment Management and Monitoring Plan (Agnico Eagle 2014a). Access roads will be used by Agnico Eagle but will also provide unrestricted access to the public, if it is safe to do so. Roads outside the mine area include:

1. A 30 km All-weather Access Road (AWAR) from Rankin Inlet to the proposed mine site. The AWAR will be used to transport the building materials, construction/mining equipment, fuel, reagents, supplies, workers, and contractors to the proposed mine site. This road will have unrestricted public access providing rules of the road are observed.
2. A 5.9 km bypass road around the Hamlet of Rankin Inlet from the Rankin Inlet Itivia land-based facilities (Itivia) to the AWAR. This road will be closed to public use.

A manned gate is installed on the AWAR near the proposed mine site to prevent public entry. There will also be an unmanned gate at the south end of the AWAR. It will be closed during periods of bad weather, in the event of a road accident, during periods of major road maintenance, and, during migration.

A sign will be installed near Rankin Inlet giving the daily status of the AWAR, stating whether it is open or closed to the public that day. Monitoring the average daily traffic on the AWAR including the type and numbers of vehicles depending on the season, is included in the Plan.

This Plan presents mitigation measures and protocols to be implemented during construction and operations to preserve wildlife, to prevent permafrost degradation, to control surface runoff and sedimentation, and to mitigate dust. Agnico Eagle will put in place operational procedures for daily operation and maintenance of the roads including dust suppression methods, snow removal, de-icing and snow drifts/banks management, and snow management at bridges and culverts.

Protocols for accidents and anticipated use of police services are presented in the sections below. Agnico Eagle will put the procedures in place and will keep resources close-at-hand to respond to emergencies on the roads in a timely manner. Agnico Eagle will also report all reportable incidents to the appropriate Government authority.

Reclamation of the access, service and haul roads will follow the completion of all mining. For a third party to take over the road(s), that third party would have to complete its own arrangements with the landowner (the Kivalliq Inuit Association and/or the Hamlet) and then complete its own environmental assessment and permitting process covering future use.

Dust Management

Agnico Eagle will use best management practices to minimize dust generation from becoming airborne at the proposed mine site, Itivia, and AWAR, service, and haul roads. This includes identification of major sources of dust, implementation of dust mitigation measures, inspections for unacceptable levels of dust, and recording dust monitoring data to document Agnico Eagle's success in controlling and reducing dust at the Project. The Dust Management Plan (Appendix C) focusses primarily on dust generated from roads, with some reference to other mining activities. Dust generated from other mining activities, such as the tailings storage facility, are addressed in other plans, including the Mine Waste Management Plan.

Dust could potentially be generated by such activities as road use, drilling, blasting, crushing, conveying, loading, hauling, unloading, stockpiling, and by wind erosion of dry, exposed mine areas. Dust emissions will be prevalent during late spring and summer, while being much reduced in fall and winter.

Mitigation measures to control dust include mine design and operational procedures. Operational practices, such as speed limits and road maintenance, will assist in reducing dust. Water and, if necessary, chemical dust suppressants, will be used to control and reduce dust on roads and other mine areas when airborne dust becomes a safety hazard or impacts sensitive natural areas.

Dust suppression measures will be in place during construction, operations, and closure.

SOMMAIRE EXÉCUTIF

Agnico Eagle Mines Limited (« Agnico Eagle ») s'affaire à mettre en valeur le projet aurifère de Meliadine (« projet »), situé à environ 25 kilomètres au nord de Rankin Inlet et à 80 km au sud-ouest de Chesterfield Inlet, dans la région de Kivalliq, au Nunavut. Le projet est situé dans le bassin versant du lac Meliadine, dans la zone de gestion des eaux de Wilson (annexe 4 du *Règlement sur les eaux du Nunavut*).

La mine proposée est située sur les terres inuites et, à cet égard, la gestion des terres et de l'environnement est généralement régie par les dispositions de l'*Accord sur les revendications territoriales du Nunavut*. Ce document présente le plan de gestion des routes (« plan ») relatif à la mine proposée et constitue l'un des documents requis dans le cadre du processus de demande de la licence d'eau de type A. Il comprend aussi la liste des permis, licences, accords, autorisations et approbations qui devraient s'appliquer à la mise en œuvre du plan.

Agnico Eagle propose des méthodes d'exploitation à ciel ouvert et souterraine pour la mise en valeur du gisement aurifère Tiriganiaq, soit deux fosses ouvertes (Tiriganiaq Fosse 1 et Tiriganiaq Fosse 2) et une mine souterraine. La mine proposée produira environ 12,1 millions de tonnes (Mt) de minerais, 31,8 Mt de roches stériles, 7,4 Mt de morts-terrains et 12,1 Mt de résidus miniers. L'exploitation du gisement de Tiriganiaq se fera en quatre phases : un peu plus de 4 ans pour la construction des installations minières et connexes (Q4 année -5 à année -1) ; 8 ans d'exploitation minière (année 1 à année 8) ; 3 ans pour la fermeture du site et ses installations (année 9 à année 11) ; activités post-fermeture (année 11 et suivantes).

Gestion des routes

Le plan s'applique aux routes d'accès, de service et de transport proposées dans la zone du projet et couvre les phases de construction, d'exploitation, de fermeture et de post-fermeture. Ce plan est lié au plan d'urgence en cas de déversement et au plan de gestion et de surveillance de l'environnement terrestre (Agnico Eagle 2014a). Les routes d'accès utilisées par Agnico Eagle pourront aussi être utilisées sans restriction par le public, à condition que celles-ci soient sécuritaires. Les routes situées à l'extérieur de la zone minière comprennent :

1. Route d'accès praticable par tous les temps (AWAR) de 30 km, depuis Rankin Inlet jusqu'au site minier proposé. Cette route sera utilisée pour transporter le matériel de construction, l'équipement de construction/minier, le carburant, les réactifs, les fournitures, les travailleurs et les entrepreneurs vers le site minier proposé. Le public y aura accès, sans restriction, à condition de respecter les règles de circulation qui y sont prescrites.
2. Route de contournement de 5,9 km autour du hameau de Rankin Inlet, depuis les installations terrestres d'Itivia jusqu'à la route d'accès praticable par tous les temps. Cette route sera fermée à l'usage public.

Une barrière de sécurité, avec gardiens, sera aménagée à proximité du site minier proposé pour empêcher l'accès au public. Une autre barrière, sans gardien, sera également aménagée à l'extrémité sud de la route d'accès praticable par tous les temps. Celle-ci sera fermée lors des périodes de mauvais temps, en cas d'accident de la route, lors de travaux d'entretien majeur de la route et pendant la période migratoire.

Un panneau indiquant l'état et les conditions d'accès de cette route sera installé près de Rankin Inlet. Le plan prévoit aussi la surveillance de la circulation quotidienne moyenne sur la route d'accès praticable par tous les temps, y compris les types et le nombre de véhicules y circulant selon la saison.

Ce plan comprend les mesures d'atténuation et les protocoles à mettre en œuvre lors des phases de construction et d'exploitation afin de préserver la faune, prévenir la dégradation du pergélisol, surveiller les eaux de ruissellement et sédiments et contrôler les poussières. Agnico Eagle mettra en place des procédures opérationnelles pour l'utilisation et l'entretien quotidiens des routes, y compris les méthodes à employer pour réduire les émissions de poussières, déneiger et dégivrer les routes et gérer les amoncellements et bancs de neige, plus particulièrement à proximité des ponts et ponceaux.

Les sections ci-dessous présentent les protocoles d'intervention lors d'accidents et l'utilisation anticipée des services de police. Agnico Eagle mettra des procédures en place et mobilisera des ressources en tout temps pour intervenir rapidement à toutes urgences pouvant survenir sur les routes. Agnico Eagle signalera également tous les incidents à déclaration obligatoire à l'autorité gouvernementale appropriée.

Les routes d'accès, de service et de transport seront remises en état après l'achèvement des activités minières. La responsabilité des routes susmentionnées pourrait être transférée à une tierce partie à la fermeture de la mine. Cette tierce partie devrait alors conclure ses propres arrangements avec le propriétaire foncier (la Kivalliq Inuit Association et/ou le hameau) et ensuite entreprendre son propre processus d'évaluation environnementale et d'autorisation couvrant l'utilisation future.

Gestion des poussières

Agnico Eagle entend appliquer les meilleures pratiques de gestion pour minimiser la production et la propagation aérienne de poussières sur le site minier proposé, à Itivia et sur la route d'accès praticable par tous les temps et les routes de service et de transport. Cela implique d'identifier les principales sources de poussières, de mettre en œuvre des mesures d'atténuation appropriées, de veiller à ce que les niveaux d'émission de poussières demeurent acceptables (par le biais d'inspections) et de maintenir un registre de données de surveillance démontrant qu'Agnico Eagle gère adéquatement les émissions de poussières dans le cadre de son projet. Le plan de gestion des poussières (annexe C) se concentre principalement sur les poussières générées sur les routes. Les

poussières générées par les autres activités minières, comme l'installation d'entreposage des rejets, sont surtout abordées dans d'autres plans, y compris le plan de gestion des déchets miniers.

Les activités génératrices de poussières pourraient inclure la circulation routière, les activités de forage, de dynamitage et de broyage, le transport, le chargement, le déchargement et le stockage de matériaux et d'équipements et l'érosion éolienne des zones minérales exposées et sèches. Les émissions de poussières seront plus importantes à la fin du printemps et au cours de l'été qu'en automne et en hiver.

Les mesures d'atténuation des poussières seront envisagées dès la phase de conception de la mine et lors de l'élaboration des procédures opérationnelles. L'application de limites de vitesse et l'entretien approprié des routes aideront à réduire les émissions de poussières. De l'eau ou d'autres dépoussiérants chimiques seront pulvérisés ou appliqués sur les routes ou dans les autres zones de travaux miniers pour contrôler et réduire les poussières en suspension dans l'air qui pourraient comporter un risque pour la sécurité ou toucher des zones naturelles sensibles.

Les mesures d'atténuation des poussières seront en place pendant les phases de construction, d'exploitation et de fermeture.

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DOCUMENT CONTROL

Version	Date	Section	Page	Revision	Author
1	September 2012			First draft of the Roads Management Plan	John Witteman, Env. Consultant, Agnico Eagle
2	March 2013	6.4	17	Additions made throughout the Plan Addition of Section 6.4	John Witteman, Env. Consultant, Agnico Eagle
3	April 2014	1.2.1	4	Added IQ box	Larry Connell, Corp.
		1.2.5	6-7	Details on snowmobile trails	Dir. Reg. Affairs,
			8	Added new Figure 1-2 (Itivia)	Agnico Eagle
		2.2	12-14	Update including <i>Navigation Protection Act</i>	
		4	17	Added details on consultation wrt road mgmt. and use	
		6.1	20	Details on emergency reporting	
		6.5	23	Territorial Park	
		6.6	24	Periodic survey of road use	
		7.1	25-26	Section on sedimentation control	
		7.2.1	28	Protection of archaeological sites	
		7.3	29	Meadowbank experience wrt winter maintenance	
		8.2	34	Role of the Royal Canadian Mounted Police (RCMP)	John Witteman, Env. Consultant, Agnico Eagle
		App. C		New Appendix: Dust Management Plan	
4	April 2015			Complete plan update based on Feasibility Study and NIRB Conditions for the Water Licence Application	John Witteman, Env. Consultant, Agnico Eagle
5	March 2017			General review of the plan	Environment Department, Agnico Eagle Mines

ACRONYMS

Agnico Eagle	Agnico Eagle Mines Limited
ARD/ML	Acid Rock Drainage/Metal Leaching
ATV	All-Terrain Vehicle
AWAR	All-weather Access Road
CGS	Department of Community and Government Services, Government of Nunavut
DFO	Department of Fisheries and Oceans Canada
ERT	Emergency Response Team
GN	Government of Nunavut
HTO	Hunters and Trappers' Organization
INAC	Indigenous and Northern Affairs Canada
IOL	Inuit Owned Lands
IQ	Inuit Qaujimajatuqangit
KIA	Kivalliq Inuit Association
MDAG	Multidisciplinary Advisory Group
NIRB	Nunavut Impact Review Board
NLCA	Nunavut Land Claims Agreement
NTI	Nunavut Tunngavik Incorporated
NU	Nunavut
NWB	Nunavut Water Board
RCMP	Royal Canadian Mounted Police

UNITS

km	kilometre
m	metre

SECTION 1 • INTRODUCTION

1.1 Project Description

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), on Inuit Owned Lands (IOL). The Project is located within the Meliadine Lake watershed of the Wilson Water Management Area (Nunavut Water Regulations Schedule 4).

Agnico Eagle proposes open pit and underground mining methods for the development of the Tiriganiaq gold deposit, with two open pits (Tiriganiaq Pit 1 and Tiriganiaq Pit 2) and one underground mine. The proposed mine will produce approximately 12.1 million tonnes (Mt) of ore, 31.8 Mt of waste rock, 7.4 Mt of overburden waste, and 12.1 Mt of tailings. There are four phases to the development of Tiriganiaq: just over 4 years construction (Q4 Year -5 to Year -1), 8 years mine operation (Year 1 to Year 8), 3 years closure (Year 9 to Year 11), and post-closure (Year 11 forwards).

Figure 1-1 provides an overview of the Project access road network. There is presently a controlled access, Phase 1 All-weather Access Road (AWAR) between the proposed mine site and Rankin Inlet¹ (constructed in 2013/2014). A bypass road remains to be built. The remote location of the Project necessitates that access, service, and haul roads be built to support the development.

The following structures and facilities located near the Tiriganiaq gold deposit include:

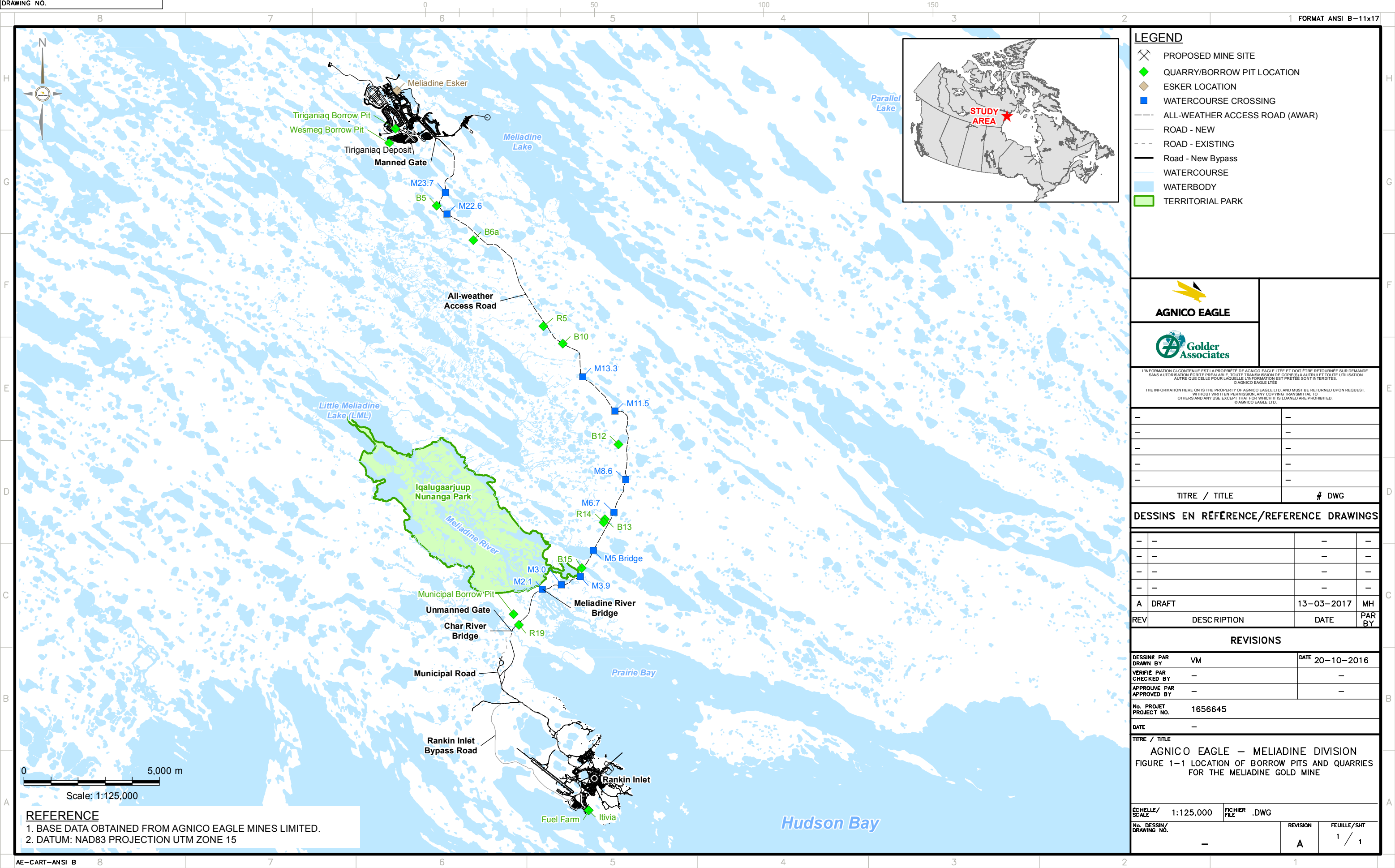
- Two open pits for the Tiriganiaq gold deposit and ancillary facilities;
- Underground and ancillary facilities;
- Tailings storage facility consisting of dry stack tailings;
- Overburden/waste rock storage facilities;
- Plant site and ancillary facilities;
- Storage areas;
- Fuel tanks holding up to 9 million litres;
- Quarries and granular borrow pits;
- Water management facilities;
- All-weather access, bypass, service and haul roads;

¹ The Meliadine Phase 1 AWAR was authorized under a separate process (Golder Associates 2010, 2011a, 2011b) and subject to separate monitoring and management plans (Agnico Eagle 2011, 2012). The concepts and monitoring and management plans are being merged with the current Project.

- Incinerator building;
- Landfarm for petroleum hydrocarbon contaminated soils and snow/ice; and
- Industrial waste landfill.

The following structures and facilities located in Rankin Inlet include:

- Spud barge located at Itivia and serving as a dock;
- Oil Handling Facility at Itivia holding up to 38 million litres;
- Laydown yard at Itivia;
- 5.9 km bypass road around the community;
- Two kilometres of the AWAR located on municipal land;
- Bridges over the Char and Meliadine Rivers on municipal land; and
- Reclaimed rock quarry (R19) on municipal land.



1.2 Access Roads, Service Roads, and Haul Roads

What is the difference between access roads, service roads and haul roads?

Access Roads will have public access. The public can use small vehicles such as All-Terrain Vehicle (ATVs), skidoos, and pick-up trucks on these roads, providing use is in a safe manner. Small mine and contractor vehicles will frequently use access roads. Large vehicles such as fuel tankers, buses, transport trucks, graders, and snow plows can also be expected. If oversized vehicles were to use an access road, they will be accompanied by escort vehicles. Access roads will have two-way traffic, be 6.5 metres (m) wide with pull offs approximately every 400 ± 50 m.

Service Roads will not have public access. These roads will be restricted to mine and Agnico Eagle contractor vehicles. All mine and contractor drivers using service roads will be trained to do so. Large equipment will on occasion use service roads but will normally use haul roads. Service roads will have two-way traffic and be 6.5 m wide.

Haul Roads will not have public access. All mine and contractor drivers using haul roads will be trained to do so. Haul roads will essentially be reserved for haul trucks transporting waste rock and ore from open pits. Haul roads will be approximately 17 m, and will have safety berms where required.

Access, service, and haul roads are needed in the operation of the Project. Access roads will be used by Agnico Eagle but will also have unrestricted access by the public, if it is safe to do so. The only access road will be a 30 km AWAR between Rankin Inlet and the proposed mine site as shown on Figure 1-1. The bypass road around Rankin Inlet, which remains to be built, will be closed to public use. It will be used by Agnico Eagle and its contractors to transport fuel, supplies, and reagents from Itivia to the AWAR.

A gate is installed on the AWAR near the proposed mine site to prevent public entry. There will be an unmanned gate at the south end of the AWAR. It will be manually closed during periods of bad weather, in the event of a serious road accident, during periods of major road maintenance, and, if supported by consultation, during migration. A chronological record of consultation on the AWAR to date is provided in Appendix A.

Service roads will be exclusively for Agnico Eagle and its contractors use; the public will not have right of entry to these roads. These will service mine areas. They will be found in and around open pits, leading to waste rock storage facilities, around the mill site, to the landfill and Emulsion Plant to mention a few. Service vehicles, trucks carrying explosives, and small trucks with mine personnel will use the service roads. All Agnico Eagle workers and its contractors using service roads will receive training before doing so.

Haul roads will primarily be restricted to haul trucks, loaders, and other heavy machinery. Small vehicles operated by Agnico Eagle and its contractors can also use haul roads, but only after driver training and when it is safe to do so.

The Plan applies equally to access, service, and haul roads. Operations and maintenance of all types of roads will largely be the same. While public safety is emphasized in the use of the access roads, the safety of its workers and contractors will be of no less importance to Agnico Eagle in their use of all roads.

1.2.1 Road Routes

The routing of the AWAR and service roads were selected to minimize possible effects of construction and operation on the environment, and to facilitate maintenance of the road, particularly during winter. Prior to future road construction, Agnico Eagle will conduct a survey along proposed road routes to verify that dens of foxes, bears or wolverines are not destroyed or damaged. Other considerations include the overall length of the road, the route's proximity to satellite ore bodies, the number of stream crossings, the availability of quarries along the route, acid rock drainage/metal leaching (ARD/ML) potential of borrow materials, geomorphology, avoidance of archaeological resources, avoidance of the Iqalugaarjuup Nunanga Territorial Park, Inuit Qaujimajatuqangit (IQ), and avoidance of raptor nesting sites. An additional design consideration for roads was to remain on the height of land as much as possible to allow for drainage in the summer and for wind to assist in clearing snow in the winter.

The location of the Meliadine Bridge was in part determined by IQ. Inuit Elders spoke of graves on an esker downstream of the present bridge location, which ruled out crossing at this location.

The elevation of the bridge above the Meliadine River was based on IQ as Elders spoke of significant overflow at the selected location, which could impinge on the bridge. This caused Agnico Eagle to raise the elevation of the bridge more than first described in the engineering design.

Wildlife concerns also factor into road routes. Their design will take into account measures that roads do not prevent or unduly limit the movement of wildlife. This includes limiting the height of the road above the surrounding topography and limiting safety berms on haul roads where possible. Ore from the underground mine will be transported by conveyor underground to the primary crusher. This design feature eliminates the surface transport of underground ore and mitigates possible interactions with wildlife.

Haul roads will be proximal to open pits and used year round; they connect open pits to Waste Rock Storage Facilities, ore storage pads and the primary crusher. Haul roads will be kept as short as possible and, where feasible, follow routes that limit the need for safety berms, which can block the movement of wildlife.

The routing of the bypass road, as shown on Figure 1-1, avoids the built-up part of the Hamlet thereby ensuring homes, businesses, recreation centres, schools, and healing centre are not disturbed by mine traffic. It does not interfere with the operation of the airport, potential runway expansion, community's water intake source (i.e. Nipassar Lake) or the new Hamlet landfill, and joins the municipal road leading to the AWAR, Iqalugaarjuup Nunanga Territorial Park, and a community borrow pit. Land leases with Nunavut Airports and the Hamlet are currently being finalized.

1.2.2 All-weather Access Road

The AWAR, as shown on Figure 1-1, connects Rankin Inlet to the proposed mine site. The route was selected following consultation with Inuit. The AWAR is a 30 km private road built with a 6.5 m running surface between the Char River bridge turn-off and the proposed mine site, and has passing turnouts approximately every 400 ± 50 m (9.5 m total road width at passing turnouts²).

There will be controlled access to the proposed mine area by a manned gate located on the AWAR just south of the mine area. There will also be an unmanned gate at the south end of the AWAR. It will be closed during periods of bad weather, in the event of a road accident, during periods of major road maintenance and, during caribou migration. Finally, a sign will be installed near Rankin Inlet giving the daily status of the AWAR stating whether it is open or closed to the public today.

1.2.3 Hamlet Bypass Road

A bypass road will be built around the south of the airstrip to Itivia as shown on Figure 1-1. Its design and width will be identical to the AWAR (6.5 m). The bypass road will be approximately 5.9 km long and will allow traffic from Itivia to bypass the Hamlet in delivering materials and fuel to the proposed mine site. By building the bypass road, use of municipal roads by Agnico Eagle will be kept to a minimum. The bypass road will be closed to the public use.

Why a bypass road is preferable to using existing roads in the Hamlet?

Thirty million litres of fuel are required annually for mine operations and it is to be stored in the Itivia tank farm. All this fuel needs to be transported to the proposed mine site where two tank farms, each having 2 tanks will be constructed. The total fuel that can be stored on site is approximately 9 million litres. If each fuel tanker carries 45,000 litres, it will result in a total of 667 trips annually or, on average, 1.8 trips per day. Added to this would be moving 20,000 to 40,000 tonnes of dry cargo from Itivia to the site annually, and up to 350 workers to and from the airport for each two-week work rotation.

² Passing turnouts allow vehicles to pass each other when travelling in opposite directions.

A small amount of material will also be transported from the proposed mine site to Itivia for transport south by sea, including hazardous materials and other wastes that require shipment to the south.

1.2.4 Traditional ATV and Snowmobile Trails

The building of roads and the infrastructure at Itivia will impact existing ATV and snowmobile trails. Where these trails cross a road, a ramp will be constructed to ease road crossing, and signage installed to alert road users of the crossing. Similarly, there will be a sign alerting ATVs and snowmobiles when approaching a road. Maintenance of the roads would ensure the snowmobile crossings are kept clear of snow.

Rankin Inlet residents, the Rankin Inlet and Kangiqliniq Hunters' and Trappers' Organization (HTO) have identified that there is an existing snowmobile trail in the area of the proposed Itivia laydown yard that local residents use in winter months to access the sea ice at Melvin Bay. Agnico Eagle is aware of this trail and designed its laydown area to allow continued unfettered snowmobile access along the east side of the proposed laydown yard to the sea ice at Melvin Bay. The location of this trail in relation to the proposed laydown yard is shown in Figure 1-2.

While the laydown area will be fenced, this snowmobile trail will not be hampered or blocked by any fencing.

1.2.5 Haul Roads

The building of haul roads will be governed by the sequence of the two open pits to be mined, Tiriganiaq 1 and 2, and their width determined by the size of the haul trucks and other equipment using the roads. Haul roads will be kept separate from access and service roads to ensure road safety. The proposed layout of haul roads in the vicinity of the proposed mine site is presented in Figure 1-3.

Haul roads outside the open pits will be 26 m wide to allow for two way traffic, or 17 m for single lane traffic with passing zones spaced accordingly. A two-lane 17 m wide haul road designed for 70-t trucks in dual lanes is required for access to the TSF and Paste Plant. Safety berms will be installed where necessary along the haul roads.

The ramps and haul roads were designed for the largest equipment (70 payload tonne class haul trucks), with an operational width not exceeding 5.7 m, in accordance with Nunavut mine regulations. For double lane traffic, the ramp width will be 21.5 m decreasing to 15.8 m for single lane traffic at the pit bottom (last three benches) to reduce waste stripping. The ramp's width includes a protection berm and a drainage ditch. The safety berm on the outside edge will be constructed of crushed rock to a height equal to 3/4 of the rolling radius of the largest tire using

the ramp. To facilitate drainage, ramp gradients have been established at 10% and will increase to 12% for the last three benches at the bottom of the open pit.