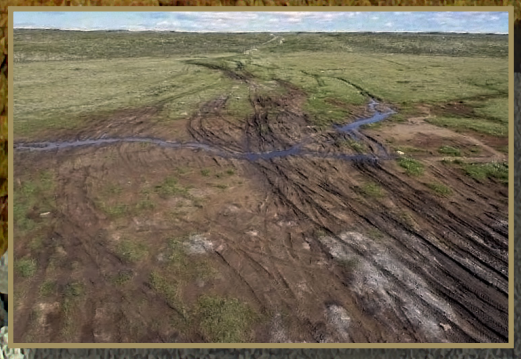
Agnico-Eagle Mines Limited

AGNICO-EAGLE

Project Description



January 2011

All Weather Road In Support Of The Underground Program

Rankin Inlet To The Meliadine Site

Non-Technical Project Summary

On July 7, 2010, Agnico-Eagle Mines Ltd., based in Toronto, Ontario, completed its purchase of Comaplex Minerals Corp., making it a wholly owned subsidiary. At the time Comaplex was planning to develop the Meliadine Gold Project into a mine.

In 2007-2008, Comaplex carried out an underground exploration and bulk-sampling program and Agnico-Eagle Mines is continuing this program. The work will provide greater certainty in the future method of mining and will confirm earlier diamond drilling from surface. However, this bulk-sampling program is more demanding than the earlier one. Approximately three times as much waste rock is to be removed from the underground, more mining equipment will be employed and it will be bigger, and 3.4 times as much fuel will be used. While the earlier program by Comaplex could be serviced adequately by a winter road, this is not the case for this program.

In early 2011, an approved bermed fuel-containment facility will be built, with ten bladders each holding 114,000 litres of fuel. This additional fuel storage, combined with that already on site, will allow the 2011 portion of the program to proceed. However, the 2012-2013 portion of the program cannot be carried out, because the fuel needs exceed the fuel-storage capacity on site. Agnico-Eagle considered two options: build even more fuel storage on site, or have regular fuel delivery from Rankin Inlet. It was decided to build an all-weather road from Rankin Inlet to the Meliadine site so that fuel stored in Rankin Inlet can be delivered to the site year-round.

The proposed all-weather road is a continuation of an existing municipal road in Rankin Inlet. It will start near the Char River and continue to the Meliadine River, east of Iqalugaarjuup Nunanga Territorial Park. The road will not enter the park. A bridge will be built over the Meliadine River. After crossing the river, the road climbs to the height of land and follows an all-terrain vehicle (ATV) trail to the site. A small section of road will also be built off the all-weather road to the edge of Meliadine Lake. This road will provide ease of access for the residents of Rankin Inlet to Meliadine Lake and other traditional areas nearby. Ultimately, sections of the all-weather road could form part of the road between Rankin Inlet and Chesterfield Inlet.

The road will be an open- access road; that is, anyone can use it at their own risk. Agnico-Eagle will provide regular public-education programs about road safety and road-operating procedures. The only manned gate on the road will be close to the Meliadine site. Public use of the road in the immediate area of the exploration camp will be restricted to those delivering fuel and other supplies, and to people working at the site.

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ᐃᑲᓂ July 7th, 2010 ᐊᐅᔭᐅᕙᒥ ᑕᑉᑯᐊ ᐅᔭᕿᖅᑕᕆᐊᑦ Agnico-Eagle Mines Limited ᓄᓇᖃᑐᑦ ᑐᕋᓐᑐᒥ ᓂᐅᕕᓚᐅᖅᓯᒪᒪᑕ Comaplex Mines Corp ᐱᑖᕆᓗᒃᑖᖅᓗᒍ. ᓂᐅᕕᐊᖑᖃᑎᓇᒍ ᑕᑉᑯᐊ Comaplex Mines Corp ᐸᕐᓇᐃᕙᓯᐊᓚᐅᒪᑕ ᐊᑦᑎᑐᒥ ᐅᔭᕿᖅᑕᕆᐊᓴᒥᑦ.

2007 – 2008 ᐃᑳᕕᐊᓂ ᑕᑉᑯᐊ Comaplex Mines Corp ᐃᑯᑕᓚᐅᒪᑕ ᐊᑦᑎᒃᑐᒥ ᑕᒪᒃᑯᐊᓗ ᐃᑰᑕᓂᑯᖏᑦ ᑲᑎᖅᓱᖅᑕᐅᓯᒪᒪᑕ ᐊᒪᓗ ᑕᑉᑯᐊ Agnico-Eagle Mines Limited ᑕᒪᓐᓇ ᐃᑰᑕᕈᓯᖅ ᑲᔪᓯᒪᓂᐊᒪᔪᒃ. ᑕᒪᓐᓇᓗ ᐃᑯᑕᕈᓯᐅᓂᐊᖅᑐᖅ ᖃᐅᔨᓐᓇᕈᑕᐅᓂᐊᒪᑦ ᖃᓄᖅ ᐃᑰᑕᓇᐊᖃᐸᓂᖅ ᑲᔪᓯᔪᑕᐅᓂᐊᕐᒪᖔᑦ ᑕᒪᓐᓇᓗ ᖃᐅᔨᓇᕈᑕᐅᓂᐊᕐᒪᑦ ᓄᓇᐅᑉ ᖃᖕᒐᓂ ᐃᑯᑕᕈᑕᐅᓚᐅᖅᑐᖅ ᓇᓗᓇᐃᕈᑕᐅᓗᓂ ᐱᑕᖃᒪᖕᖏᑦ ᕿᓂᖅᑕᖕᖏᓂᑦ. ᑭᓯᐊᓂᓕ ᑕᒪᓐᓇ ᒪᓐᓇ ᐃᑯᑕᓂᐅᔪᖅ ᐱᔭᕆᐊᑐᓂᖅᓴᒪᕆᐅᒪᑦ ᓯᕗᓂᐊᒍᑦ ᐃᑯᑕᕈᑕᐅᓂᑯᒥᑦ. ᐃᒻᒪᖄᓗᓐᓂᑦ ᐱᖕᖑᓱᐃᖅᑕᓯᒪᓂᐊᒪᑦ ᐅᔭᕿᖅ ᓄᓇᐅᑉ ᖃᖕᒐᓄᑦ ᐊᒡᔭᑐᑕᐅᓂᐊᖅᑐᖅ ᐊᑦᑎᒃᑐᒥᑦ, ᑕᐃᑉᑯᐊᓗ ᐊᒡᔭᑐᕈᑕᐅᓂᐊᖅᑐᑦ ᐊᖏᓂᖅᓴᐅᔪᑦ ᐊᑐᖅᑕᐅᔭᕆᐊᖃᓂᐊᒪᑕ ᐊᒪᓗ 3.4 ᓈᓴᐅᑕᓂᒃ ᐅᖅᓱᐊᓗᒥᑦ ᐊᑐᕐᓂᖅᓴᐅᓂᐊᕐᒪᑕ. ᓯᕗᓂᐊᒍᓪᓕ ᐊᕐᑯᓯᐅᐸᓚᐅᒪᑕ ᑕᑉᑯᐊ Comaplex Mines Corp ᐅᑭᐅᒃᑯᑦ ᐊᕐᑯᑎᖃᐸᓚᐅᒪᑕ ᑭᓯᐊᓂᓕ ᑕᒪᓐᓇ ᐊᑐᔪᖏᓇᑉᑎᒍ.

2011 ᐊᑐᓕᓴᖅᐸᑦ ᐅᖅᓱᐊᓗᖃᕕᓴᓂᒃ ᓇᑉᐸᖅᑎᕆᓂᐊᕐᒪᑕ ᖁᓕᓂᒃ ᓇᑲᓱᖑᐊᓂᑦ ᓇᑉᐸᖅᓯᕙᒪᒪᑕ ᑕᑉᑯᐊᓗ ᐊᑐᓂ ᐅᖅᓱᐊᓗᒥᑦ ᐃᒻᒥᓯᒪᔭᓇᓂᐊᖅᑐᑦ 114,000 litres ᐅᖅᓱᐊᓗᒥᑦ. ᑕᒪᓐᓇ ᐅᖅᓱᐊᓗᖃᕕᓴᖅ ᓇᑉᐸᖅᑕᐅᓂᐊᖅᑐᖅ ᐃᓚᒋᔭᐅᓂᐊᕐᒪᑦ ᒪᓐᓇ ᐅᖅᓱᐊᓗᖃᕕᐅᔪᒧᑦ, ᑕᒪᓐᓇᓗ 2011 ᐅᑭᐅᖑᓂ ᐱᓕᕆᐊᓴᐅᔪᖅ ᑲᔪᓯᔪᓐᓇᓂᐊᕐᒪᑦ. ᑭᓯᐊᓂ ᐊᓪᖀᒍ 2012-2013 ᐃᓚᖓ ᐱᓕᕆᐊᓴᖅ ᐱᐊᓂᓯᒪᔮᖏᑦᑐᖅ ᑭᓯᐊᓂ ᐅᖅᓯᑕᖅᑦᑎᐊᐸᑦ. ᑕᐃᒪᓕ ᑖᑉᑯᐊ Agnico-Eagle Mines Limited ᐃᒪᓐᓇᐃᓕᐅᕈᒪᔪᑦ ᒪᕈᓕᖕᒐᔪᒃ ᐃᒪᓐᓇᐃᓕᐅᕈᑎᒃᓴᒃ: ᐅᖅᓱᐊᓗᖃᕕᓴᓂᒃ ᓇᑉᐸᑎᕆᑲᓐᓂᖅᓗᑎᒃ ᐅᕙᓗᓐᓂᑦ ᐅᖅᓱᐊᓗᒃ ᐊᒡᔭᖅᑐᖅᑕᐅᓗᓂ ᑲᖕᒋᖅᓕᓂᕐᒥᑦ. ᐊᕐᑯᓯᐅᓂᐊᓕᓚᐅᖅᑐᑦ ᑲᐃᖅᓕᓂᕐᒥᑦ ᑕᓯᖅᔪᐊᒧᑦ ᑕᒪᓐᓇ ᐅᖅᓱᐊᓗᒃ ᑲᖕᒋᖅᓕᓂᕐᒥᑦ ᐊᒡᔭᖅᑐᖅᑕᐅᕙᓂᐊᕐᒪᑦ.

ᑕᒪᓐᓇ ᐊᕐᑯᓯᐅᖅᑕᐅᔪᒪᔪᖅ ᐅᐃᒍᓂᐊᕐᒪᑦ ᑲᖕᒋᖅᓕᓂᒥᐅᑦ Hᐊᓪᓚᖕᒐᑦᑕ ᐊᕐᑯᑎᕆᕙᒃᑖᓄᑦ. ᐊᕐᑯᓯᐅᕆᐊᓂᐊᖅᑐᑦ ᐃᓵᕿᓕᐅᑉ ᑯᖕᒐᓂᑦ ᐱᕆᐊᓗᑎᒃ ᒥᖑᐃᓯᕕᐊᓖᑉ ᑲᓇᖕᓇᓂᑦ. ᑕᒪᓐᓇ ᐊᕐᑯᑎᒃᓴᖅ ᒥᖑᐃᓯᕕᐅᑉ ᐃᓗᐊᓂᔫᖏᑦᑐᖅ. ᐃᑳᕕᓕᐅᓂᐊᖅᑐᑦ ᐃᓵᕿᓕᐅᑉ ᑯᖕᒐᑕ ᐃᓚᖓᓂ. ᑰᑉ ᐊᑭᐊᓂ, ᐊᕐᑯᑎᒃᓴᖅ ᒪᔪᖅᑲᖓᓂᐊᕐᒪᑦ ᒪᓕᓂᐊᕆᑉᓗᓂ ᐊᒃᓴᓗᐊᓕᑯᑦ ᐊᖁᑕᐅᕙᑐᒥᑦ. ᐊᖁᑎᒃᓴᐅᓂᐊᖅᑐᖅ ᐃᓚᖓ ᓇᐃᑦᑐᓂᐊᕐᒪᑦ ᑕᒃᐱᖁᖓ ᑕᓯᖅᔪᐊᒧᑦ ᑭᓪᓕᖅᑲᕕᒥᓗᒍ. ᐊᖁᑎᒃᓴᐅᓂᐊᖅᑐᖅ ᐃᓚᖓ ᐃᓄᑐᐃᓐᓇᕐᓄᑦ ᐊᑐᖅᑕᐅᔪᓐᓇᕐᓂᐊᖅᑐᖅ ᐊᒻᒪ ᐊᕙᑕᓄᑦ ᖃᓕᔪᑕᐅᕙᓂᐊᕐᒪᑦ. ᑕᐃᒪᑦᑕᐅᖅ ᑕᒪᓐᓇ ᐊᖁᑎᓴᐅᓂᐊᖅᑐᖅ ᐱᐊᓂᒃᓯᒪᓕᖅᐸᑦ ᑎᑭᖅᑲᔪᓐᓇᕐᓂᐊᕐᒪᑦ ᐃᒡᓗᓕᒫᔪᒧᑦ.

ᑕᒪᓐᓇ ᐊᖁᑎᒃᓴᐅᓂᐊᖅᑐᖅ ᑭᓇᒥᐊᖅ ᐊᑐᕈᓐᓇᓂᐊᖅᑐᖓ ᑭᓯᐊᓂᑦᑕᐅᖅ ᐅᐸᖅᑐᑦᑎᐊᖏᓐᓇᖅᓗᑎᒃ. ᑕᑉᑯᐊᑦᑕᐅᖅ Agnico-Eagle Mines Limited ᖃᖅᑯᑎᒃᑯᒐᓗᐊᖅ ᐃᓄᑐᐃᓐᓇᕐᓂᒃ ᐃᓕᓐᓂᐊᕈᒪᔪᓂᒃ ᐃᓕᓐᓂᐊᑎᑦᑎᕙᓂᐊᖅᑐᑦ ᐊᖁᒻᒥ ᐅᐸᖅᑐᓄᐊᓕᓂᒃ. ᑕᒪᓐᓇ ᐊᖁᑎᒃᓴᖅ ᓯᒥᒃᓯᒪᔫᖏᑦᑐᖅ ᕿᓯᐊᓂ ᑕᓯᖅᔪᐊᒧᑦ ᖃᓪᓕᒃᐸᑦ. ᑕᒪᓐᓇ ᑕᓯᖅᔪᐊᒥ ᐅᔭᕿᖅᑕᕆᐊᑦ ᓇᔪᖅᑕᖕᒐᑦ ᐊᑐᖅᑕᐅᔭᖏᓪᒪᑦ ᐃᓄᑐᐃᓐᓇᕐᓄᑦ ᑭᓯᐊᓂ ᓄᓇᑯᕈᑎᐊᓗᓄᑦ ᐅᖅᓱᐊᓗᒥᑦ ᐊᒡᔭᖅᑐᕈᑕᐅᔪᓄᑦ ᐅᕙᓗᓐᓂᑦ ᐱᖁᑎᓂᒃ ᐊᒡᔭᑐᐃᔭᓄᑦ ᐊᒪᓗ ᐱᓕᕆᔭᖅᑐᖅᑐᓄᑦ.

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Section 1 Proponent Information

The Meliadine Gold Project is being managed by Agnico-Eagle Mines Ltd. (AEM), a Canadian publicly traded mining company listed on the Toronto and New York Stock Exchanges, with trading symbol AEM, and head offices in Toronto, Ontario. AEM began exploring for minerals in Canada in 1953 and has been active in the Kivalliq Region since 1990.

The Project's mailing address is:

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1.1 Brief History of the Meliadine Gold Project

The Hamlet of Rankin Inlet was established as a mining community in the early-to-mid 1950s with the discovery and subsequent development of a nickel mine. North Rankin Nickel Mines identified gold mineralization in the area of Meliadine Lake during an exploration program for nickel and copper in the early 1960s. The first mineral claims in the Project area were staked by Comaplex and Asamera Minerals Ltd. in 1987, with the Discovery Gold Deposit found on the eastern half of the property in late 1989.

Successive exploration programs by Asamera, Rio Algom, and Comaplex from 1990 to 1994 identified gold mineralization along the 80-km-long east-west-trending Pyke Fault, with the first holes drilled into the Tiriganiaq, F Zone, and Pump deposits by Comaplex in 1993 and 1994. From 1995 to 2000, substantial exploration by WMC International Ltd., through an option on the west half of the Meliadine property, significantly expanded the Tiriganiaq gold deposit, led to the discovery of the Wolf deposit, and expanded the F Zone and Pump gold deposits. Work by Comaplex in 1996 and 1997 concentrated on the Discovery deposit on the Meliadine East property.

During the ensuing years and until late 2003, exploration continued by Comaplex and its partners on the eastern half of the Meliadine property, known as Meliadine East, while little field work was completed by WMC on Meliadine West. In late 2003, Comaplex acquired WMC International's interest in the Meliadine West property. From 2004 onward, the majority of Comaplex's efforts were devoted to outlining new, higher-grade gold resources in the deeper parts of the Tiriganiaq deposit, as well as reconnaissance work on outlying targets. Sporadic exploration was conducted on the eastern half of the property.

In 2007 and 2008, Comaplex safely conducted an underground exploration and bulk-sampling program on the Tiriganiaq deposit to gain information about the ore body at depth. There were no lost-time accidents and no health and safety, environmental, regulatory or personnel-related problems. This program was successful in bringing ore to the surface, testing different mining methods, and confirming earlier drilling from surface.

On July 7, 2010, Agnico-Eagle Mines completed the purchase of Comaplex Minerals Corp., making it a wholly owned subsidiary. AEM continues advanced exploration, and proposes to extend the underground exploration and bulk-sampling program.

Section 2 Project Proposal

2.1 Purpose

The Meliadine Gold Project moved from being just an exploration project to being an advanced exploration project in 2007, when the underground exploration and bulk-sampling program was carried out for the first time. This was a necessary incremental step in proving that the ore body found earlier through surface drilling and geophysics could be part of a viable mine. While diamond drilling from the surface gives one glimpses of the ore body below, it does not provide the assurance necessary to invest large sums of money in the development of a mine. Many prospective ore bodies are therefore explored in more detail by means of underground exploration and bulk-sampling programs. Such programs provide detailed information about the grade of the ore body, its variability over distance, and its structure; they also allow different mining methods to be investigated. The more that is learned in an underground program, the more risk that is dispelled, and—if what is learned is favourable—the greater the confidence in continuing with the development of a mine.

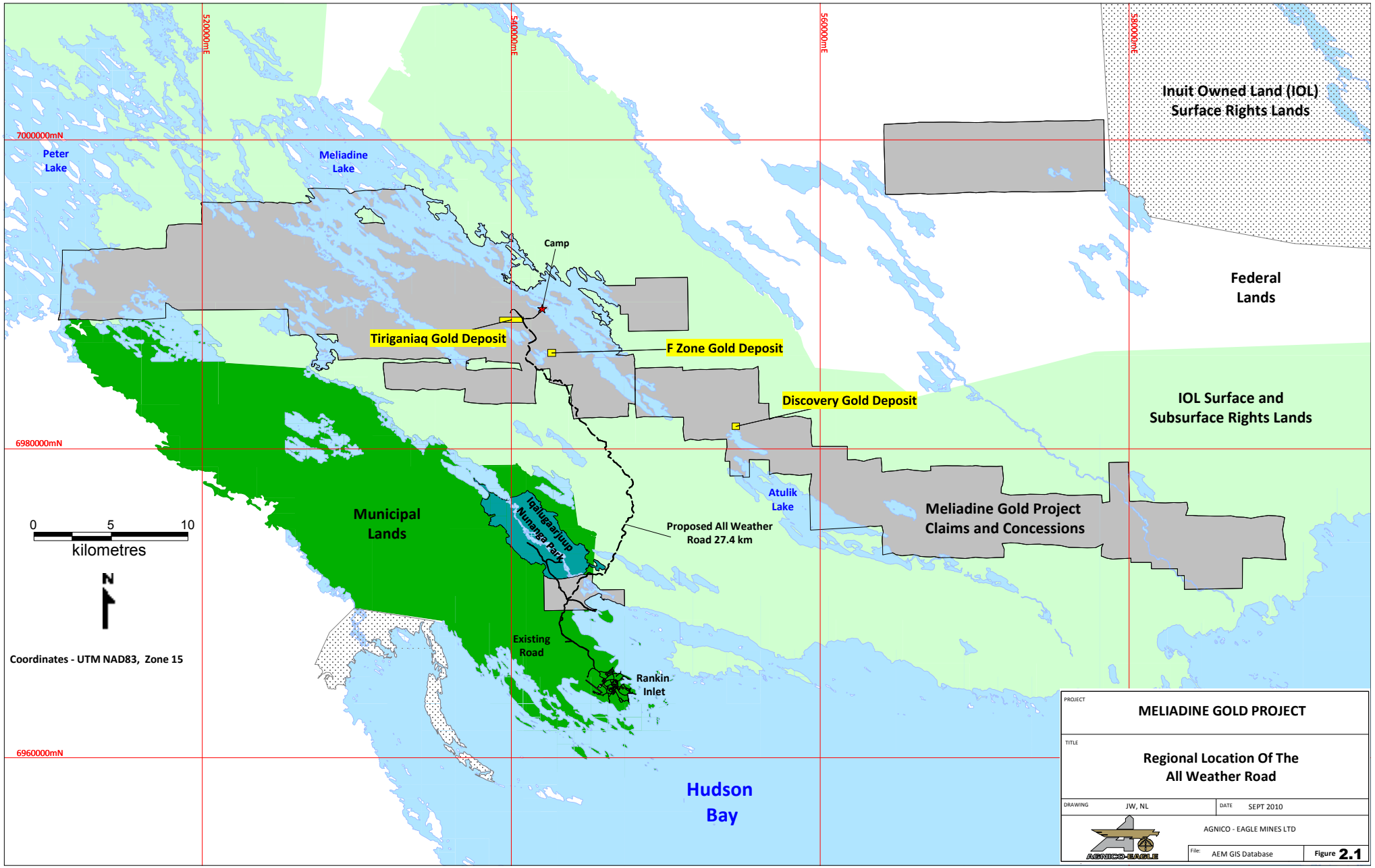
An underground exploration and bulk-sampling program was successfully completed on the Tiriganiaq gold deposit on the Meliadine property in 2007-2008. A portal to the underground was developed and a decline excavated 940 metres in length. The program accessed and bulk-sampled the upper portions of the deposit, these being within 120 metres of surface. The results of this program gave Comaplex Minerals the confidence to continue its plans, certain that an economic mine would be viable. Diamond drilling following the underground program delineated a number of very high-grade gold-bearing units in a part of the Tiriganiaq deposit called the Western Deeps, at depths of 200-400 metres below surface. This gold mineralization is critical to the potential of the Meliadine property to develop into an economic mine. An extension of the present decline down to the Western Deeps is required to confirm the surface drill results through more underground drilling and bulk-sampling, particularly at depths of up to 400 metres below the surface.

Current fuel-storage capacities on site are sufficient for the activities planned for the 2011 underground program. A total of two million litres of fuel will be used in 2011.[1] The underground program will require approximately 3.2 million litres each year for 2012 and 2013. An all-weather road is proposed to allow year-round fuel delivery from Rankin Inlet. Figure 2.1 shows an outline of the proposed road from Rankin Inlet to the site, and the claims and concessions held by AEM.

In addition to the road leading to the Meliadine site, a short section of road will be built to the edge of Meliadine Lake.[2] This road will provide ease of access for the residents of Rankin Inlet to recreational cottages and camps located around the lake as well as to areas of traditional use.

[1] Total fuel storage on site includes 1.0 million litres stored in bladders and 800,000 litres in steel envirotanks. The bermed bladder storage area is to be built in early 2011. All tanks will be topped up before the winter road closes to ensure there is sufficient fuel on site for the 2011 program.

[2] This section of road will also be used at a later date to get to the Discovery Gold Deposit. Additionally, it could ultimately serve as part of a future road between Rankin Inlet and Chesterfield Inlet.


520000mE
540000mE
560000mE
580000mE
7000000mN
6980000mN
6960000mN
Peter Lake
Meliadine Lake
Camp
Tiriganiaq Gold Deposit
F Zone Gold Deposit
Discovery Gold Deposit
Inuit Owned Land (IOL) Surface Rights Lands
Federal Lands
IOL Surface and Subsurface Rights Lands
Atulik Lake
Meliadine Gold Project Claims and Concessions
Proposed All Weather Road 27.4 km
Municipal Lands
Iqaluqaarjuup Nunanga Park
Existing Road
Rankin Inlet
Hudson Bay
0 5 10
kilometres
N
Coordinates - UTM NAD83, Zone 15
PROJECT
MELIADINE GOLD PROJECT
TITLE
Regional Location Of The All Weather Road
DRAWING JW, NL
DATE SEPT 2010
AGNICO - EAGLE MINES LTD
File: AEM GIS Database
Figure 2.1

2.2 Alternatives

Three alternatives exist in servicing the underground exploration and bulk-sampling program. They are:

1. Do nothing and continue to rely solely on winter roads to supply the underground program;
2. Build a larger tank farm on site to accommodate the fuel needs for the underground program in 2012 and 2013;
3. Build an all-weather road from Rankin Inlet to the Meliadine site to allow year-round delivery of fuel.

A winter-only access road for the proposed underground program was considered but was rejected. A winter road would impose time restrictions on the delivery of fuel and other bulk supplies to the site, making the underground program impractical for 2012 and 2013.

The second option is the easiest but has significant drawbacks. Additional on-site fuel storage could be built, but the tank farm would likely not be usable in a future mine scenario, since the final location of the mine infrastructure remains undecided at this point. A tank farm built for short-term use would need to be reclaimed should a permanent tank farm be established for the proposed mine. Additionally, six new fuel-storage tanks were recently added to the Rankin Inlet tank farm, with a cumulative storage capacity of 16,308,000 litres, effectively doubling that storage capacity. This exceeds the current fuel-storage requirements for Rankin Inlet, and has allowed AEM to rent storage space in the new tanks.[3]

The drawbacks of the first two options have led AEM to propose the construction of a 27.4-km-long all-weather road between Rankin Inlet and the Meliadine site, to allow year-round delivery of fuel and other supplies for the 2012 and 2013 seasons. The road would see continued use should a mine be developed, and will provide ease of access to residents of Rankin Inlet to areas of traditional use, and camps and cottages around Meliadine Lake. The road would become the preferable route for almost everyone who wants to get to Meliadine Lake, and would significantly reduce the use of numerous ATV trails that presently scar the tundra. Finally, the road could ultimately form part of the Government of Nunavut's road between Rankin Inlet and Chesterfield Inlet. Increased year-round economic activity can be expected in Rankin Inlet when the underground program has year-round access to fuel, supplies, infrastructure and services found there.

Future power generation for the proposed mine also enters into the analysis of alternatives for the road and the width of the right-of-way. The road alone would be 10 metres wide, but the addition of a power line right-of-way would increase the width of the road area to approximately 20 metres.

Currently, there are two options for supplying electrical power to the proposed mine. A power plant can be located either at the proposed mine site or in Rankin Inlet. In the typical design of an Arctic mine, the power plant is located on site, with fuel delivered to operate the generators.

[3] AEM would purchase its fuel from the Petroleum Products Division, an arm of Nunavut's Department of Community and Government Services.

However, the proximity of the proposed mine to Rankin Inlet is causing AEM to consider locating the power plant in Rankin Inlet. If the power plant were located in Rankin Inlet, electricity would be provided to the mine through a power line that would run along the all-weather road. This option has benefits for both the mine and Rankin Inlet. For the mine it would reduce the frequency of fuel delivery, the quantity of fuel stored on site, and the infrastructure at the mine site. For Rankin Inlet it would provide modern generators to replace aged ones that need to be replaced. The addition of new generators, similar to those installed for the mine, would provide the generating capacity needed to service a growing community. When the mine closes, the generators previously dedicated to it would become available for other uses. The location of the power plant for the mine will be determined by a mine feasibility study that is currently under way.

2.3 Scope

(a) Road Route

Figure 2.2 details the all-weather road, water crossings, and potential quarries needed to construct the road. The quarries would provide the necessary rock and granular material.

The selection of the route was based on a number of considerations, including the overall length of the road; the route's proximity to satellite ore bodies; a desire to minimize the number of stream crossings; the availability of quarries along the route; geomorphology; avoidance of archaeological sites, and the goal of remaining on the height of land to allow for drainage in the summer and for wind to clear snow in the winter.

The proposed road will start from the existing municipal road that provides access to the Iqaluqaarjuup Nunanga Territorial Park, just after it crosses the Char River. From there the road continues to the Meliadine River, east of the park. The road will not enter the park. After crossing the Meliadine River, the road will cross an area of low topography before climbing to the height of land and following an all-terrain vehicle trail to the Meliadine site. In addition, a short section of road will be built from the main all-weather road to the edge of Meliadine Lake. While the all-weather road will service the underground and Meliadine camp, the road to the lake will provide ease of access for the residents of Rankin Inlet to Meliadine Lake and other traditional areas.

(b) Single-span Bridges

A new 29.5-metre single-span bridge is to be built across the Char River. The existing bridge will be replaced because it is too narrow, its maximum load is only 50 tonnes, and its abutments are at risk of being undermined by the river. The new bridge will be immediately west of the current bridge, but its abutments will be set back further from the river and have substantially more armouring to protect them. Plate 2.1 shows the location of the bridge.

A 66.3-metre single-span bridge will be built across the Meliadine River. The height of the bridge above the water will be approximately 3 metres, which meets the requirements for navigable waters. The location of the Meliadine Bridge is shown in Figure 2.2 and Plate 2.2.

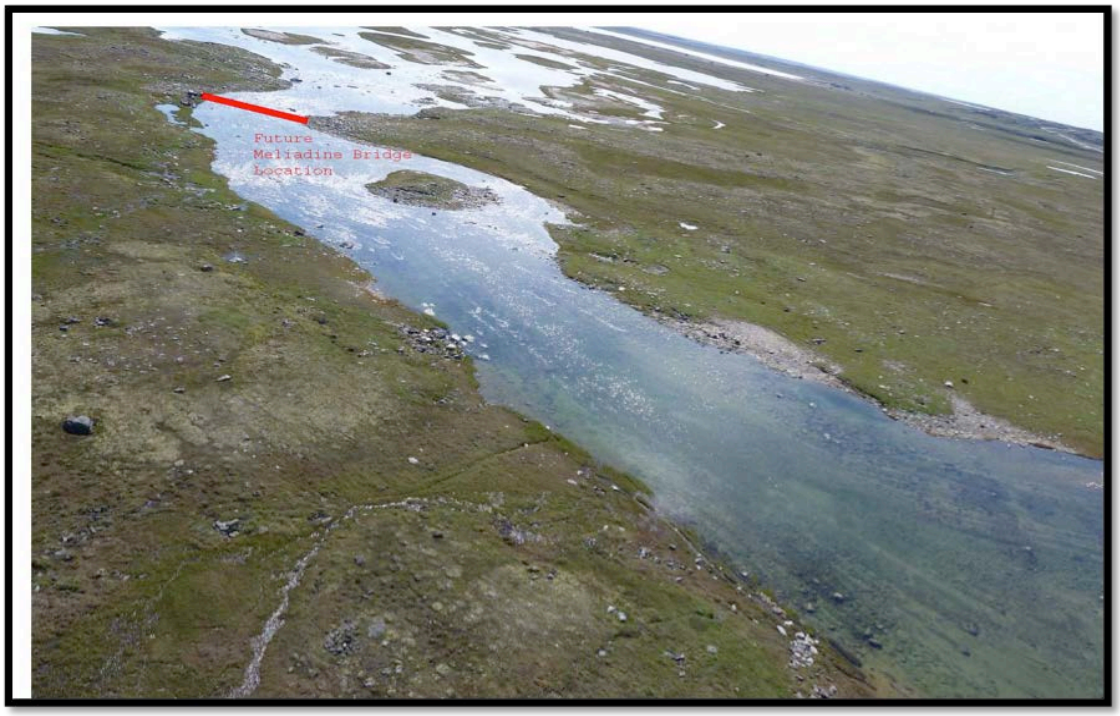
Both bridges would be designed to accommodate the maximum single loads that would need to be moved to the Project site. Nunavut's Department of Economic Development and Transportation will also be consulted about the long-term needs for a road between Rankin Inlet and Chesterfield Inlet.

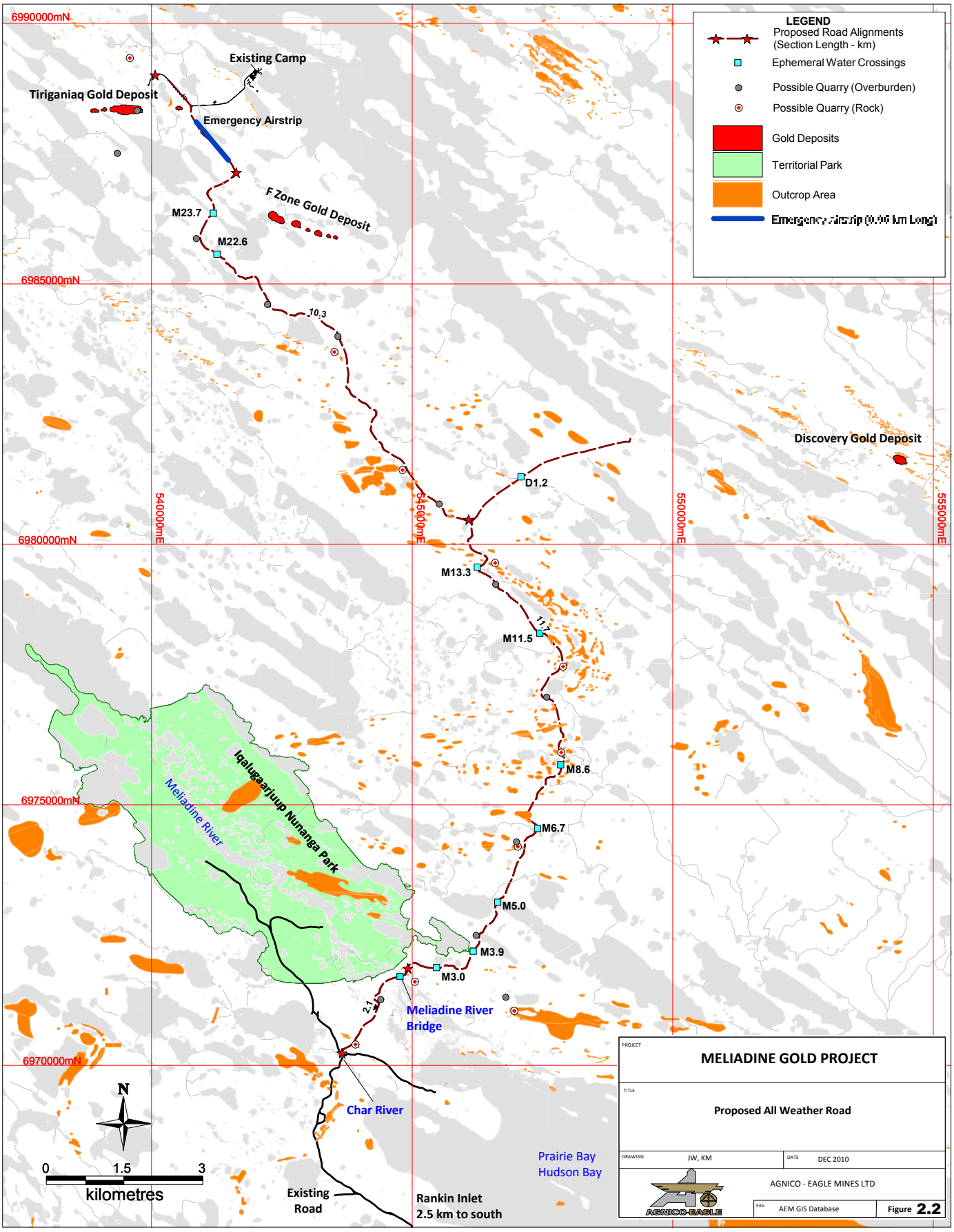
Crossing M5.0 will have a 23.5-metre single-span bridge. Figure 2.2 shows its location.

Plate 2.1 View of the Char River Bridge and Future Location of the New Bridge

The Meliadine and Char bridges will be single-span bridges with abutments and any ancillary facilities located above the ordinary high-water mark, thereby avoiding any impingement on the river and allowing construction under the current Type B Water Licence. Figure 2.3 provides plan and cross-section views of the proposed Meliadine River bridge.

Plate 2.2 Location of the Proposed Meliadine River Bridge




LEGEND
Proposed Road Alignments (Section Length - km)
Ephemeral Water Crossings
Possible Quarry (Overburden)
Possible Quarry (Rock)
Gold Deposits
Territorial Park
Outcrop Area
Emergency Airstrip (0.96 km Long)
6990000mN
6985000mN
6980000mN
6975000mN
6970000mN
540000mE
545000mE
550000mE
555000mE
Existing Camp
Tiriganiaq Gold Deposit
Emergency Airstrip
F Zone Gold Deposit
M23.7
M22.6
10.3
D1.2
Discovery Gold Deposit
M13.3
11.1
M11.5
M8.6
M6.7
M5.0
M3.9
M3.0
2.1
Meliadine River
Iqalugaarjuup Nunanga Park
Meliadine River Bridge
Char River
Prairie Bay
Hudson Bay
Existing Road
Rankin Inlet
2.5 km to south
N
0
1.5
3
kilometres
PROJECT
MELIADINE GOLD PROJECT
TITLE
Proposed All Weather Road
DRAWING
JW, KM
DATE
DEC 2010
AGNICO - EAGLE MINES LTD
File:
AEM GIS Database
Figure 2.2

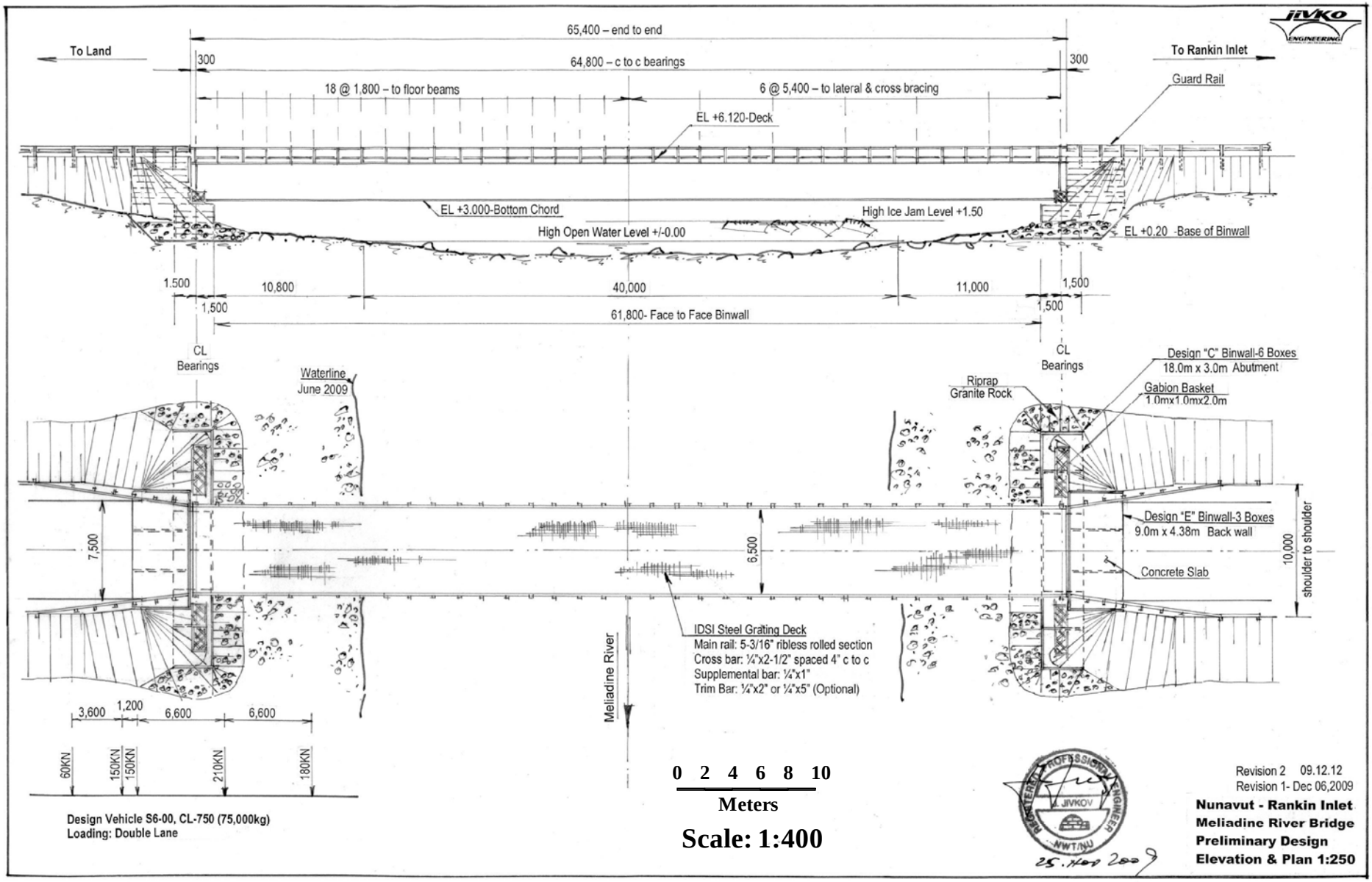


Figure 2-3: Proposed Meliadine River Bridge Design

(c) Crossings over Ephemeral Streams

Nine ephemeral streams will be crossed using culverts and one will be crossed with a bridge, all the while keeping in mind Arctic conditions and the necessity for fish migration. The choice of culverts rather than bridges was based on the results of hydraulic analyses, preliminary observations of the channel characteristics at each watercourse crossing, and economic considerations.

Plates 2.3 and 2.4 provide aerial views of typical ephemeral stream crossings, the first being M3.9 and the second, M5.0. The location of each can be found in Figure 2.2.

Plate 2.3 Water Crossing M3.9 Looking North

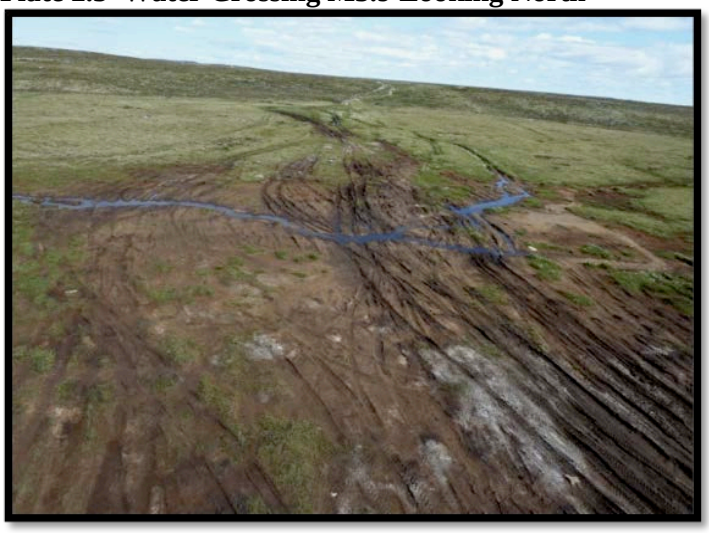


Plate 2.4 Water Crossing M5.0 Looking North

At Crossing M5.0 an 23.5-metre single-span bridge is proposed.

In a report by Golder Associates Ltd., "All Weather Access Road – Feasibility Level Design,"[4] the installation of the culverts is explained as follows:

> For non-navigable stream crossing locations, it was initially assumed that multiple full-rounded corrugated steel pipe culverts with nominal sizes of 0.7 m, 1.0 m, and 1.3 m (internal diameter) would be used to pass the design flow. It was further assumed that a minimum of two culverts placed in an "offset stacked" configuration would be used to enable flow conveyance before complete ice break-up within the watercourse. As part of the "offset stacked" configuration the lowest culvert will be embedded into the watercourse to provide low water fish passage. . . . For each fish bearing crossing, a hydraulic analysis was also conducted to confirm that estimated culvert flow velocities do not exceed 0.8 m/s during the 1:10 yr 3-day event

Figure 2.4 from the Golder report shows some possible configurations of the culverts.

A bridge is proposed at crossing M5.0. Figure 2.5 shows details of the bridge abutments, while Table 2.1 provides bridge-crossing details. Once the abutments have been constructed, a prefabricated bridge will be lowered into place.

Table 2.1 Details of M5.0 Bridge Crossing over Ephemeral Stream

River Crossing	Drainage Area (ha)	Peak Flow (m^3/s)	Span (m)	Base Width (m)	Width at top of water (m)	Bridge Height including 1 m Freeboard (m)
M5.0	1102	9.1	18	15.0	16.22	1.81

The span of the bridge will ensure that the natural channel of the stream remains unaffected and fish habitat is not disturbed. Repair of the fish habitat and the stream banks is being proposed as part of the Habitat Compensation Plan required by Fisheries and Oceans Canada.[5]

(d) Road Design

The thickness, or depth, of the road will vary from 1.0 m to 1.5 m, depending on whether the underlying soil is thaw-stable (1.0 m) or thaw-susceptible (1.5 m).

Two types of structural fill are proposed for construction. The first is 75 millimetres in particle size or smaller, and is known as Type 1 fill. This material will be used as a top dressing for the road and will form the running surface. The total quantity required is about 46,000 cubic metres for both the main road and spur road to Meliadine Lake. Type 2 fill is run-of-mine rock, and will form the base of the road. Approximately 500,000 to 700,000 cubic metres will be required. Table 2.2 provides the design criteria for the road and is adapted from the Golder report. Complete details are provided in the Golder Report. (Typical road profiles from the Golder report are shown in Figure 2.6.)

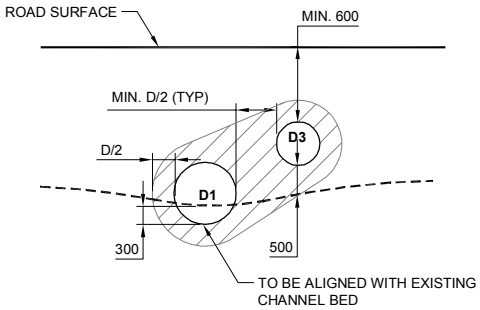
[4] This report can be found on the attached CD.
[5] The draft Habitat Compensation Plan can be found on the attached CD.

Table 2.2 Design Criteria for the All-Weather Road

Design Element	Criteria	Source / Comments
Widest Vehicle on Road □	B-Train (2.4 m wide)	▪ Comaplex
Longest Vehicle on Road	B-Train (25.0 m long)	▪ TAC 2007[1]
Maximum Design Speed	50 km/h	▪ Based on similar projects
Minimum Road Width (two-way road, not including the shoulders)	8.0 m road width (plus 2.0 m width per safety berm, where required)	▪ Meets or exceeds NWT 1995 and TAC 2007 ▪ Based on 2.4 m (96") vehicle width, 1.1 m tire height, NWT 1995[2] p. 35 and TAC 2007 p. 2.2.2.11
Road Alignment at Watercourse Crossings	Perpendicular to watercourse	▪ Based on similar projects ▪ Crossings will consist of 3 bridges and 9 will use culverts
Road Section Method (Cuts and Fills)	Fill (No cuts)	▪ Based on similar projects ▪ Selective use of quarry materials to minimize metal leaching
Minimum Stopping Distance	110 m	▪ Based on trucks with conventional braking systems, TAC 2007. 1.2.5.4 ▪ For comparison, 65 m for trucks with anti-lock braking systems
Super-elevation Minimum Radius of Curvature	None 165 m	▪ Based on similar projects ▪ Based on 50 km/h maximum design speed and 0.12 coefficient of friction between road surface and vehicle tire, TAC 2007 p. 2.1.2.7
Maximum Slope Gradient	8%	▪ ▪ TAC 2007 p. 2.1.3.2
Minimum Sag Curve "K" Value	12	▪ ▪ Based on stopping distance, TAC 2007 p. 2.1.3.8
Minimum Crest Curve "K" Value	9	▪ Based on stopping distance, TAC 2007 p. 2.1.3.5
Drainage culvert or French Drain Frequency (for planning purposes; actual number to be determined in the field)	Every 50 metres for low ground; may not apply on high ground	▪ Based on similar projects
Offset from Archaeological Sites	30 m	▪ Nunavut Archaeological and Paleontological Sites Regulations (2003)

[1] Transport Association of Canada Geometric Design Guide for Canadian Roads (TAC 2007)

[2] Nunavut/Northwest Territories Mine Health and Safety Act (NWT 1994) and Regulations (NWT 1995)



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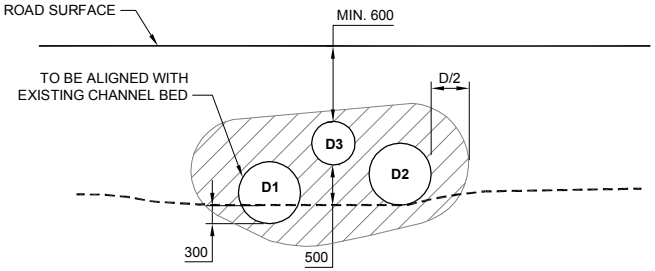

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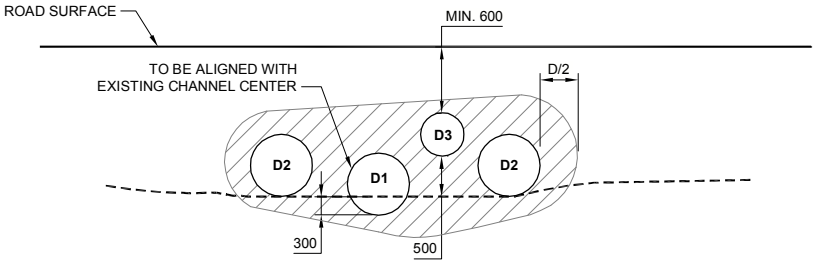

TYPICAL SECTION DESIGN C
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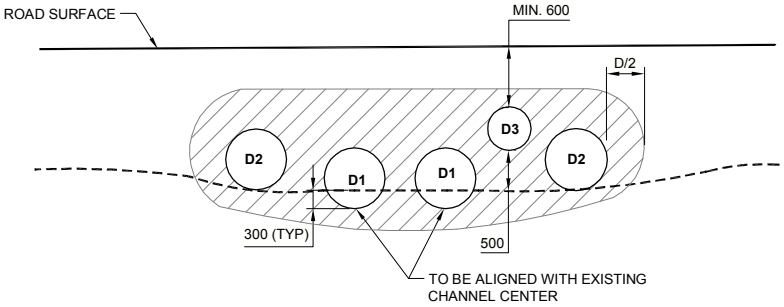


TYPICAL SECTION DESIGN D
NTS

LEGEND

- ROAD SURFACE
- EXISTING GROUND
- WELL COMPACTED TYPE 1 FILL 75mm MINUS

NOTES

1. ALL DIMENSIONS IN mm UNLESS OTHERWISE NOTED.

NOT FOR CONSTRUCTION

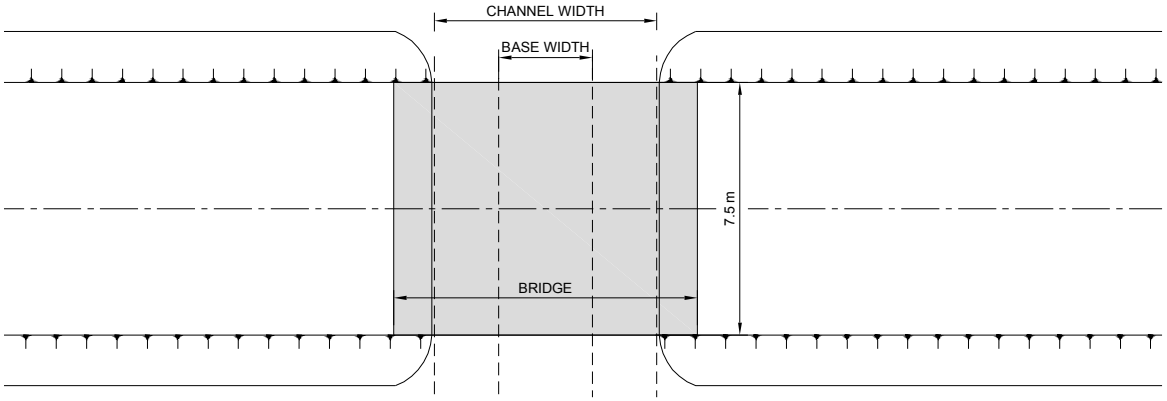
PROJECT: AGNICO-EAGLE MINES LIMITED
MELIADINE GOLD PROJECT
NUNAVUT

TITLE: **TYPICAL CULVERT DESIGN CROSS SECTIONS**

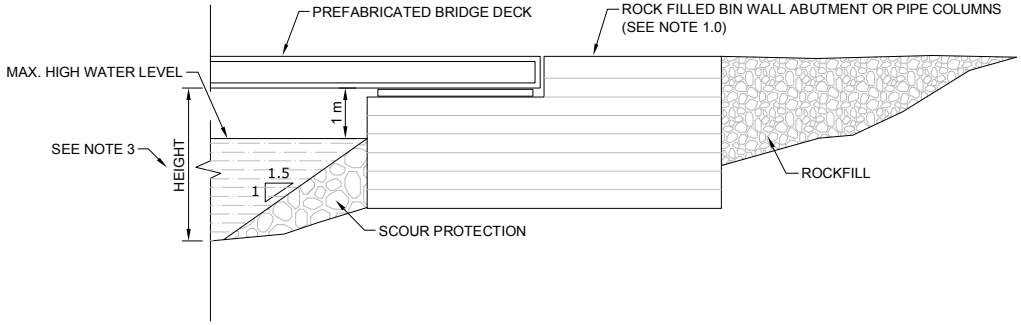
Golder Associates
Greater Vancouver Office, BC

PROJECT No. 09-1426-0015			PHASE No.		4700
DESIGN	MLP	10NOV10	SCALE	AS SHOWN	REV. 1
CADD	SRR	10NOV10			
CHECK	CJC	19JAN11			
REVIEW	JAH	19JAN11			

FIGURE **2.4**



TYPICAL PLAN
NTS



TYPICAL BIN WALL SECTION
NTS

NOTES

1. BIN WALL ABUTMENT FOR 30 m (100FT) SPANS, PIPE COLUMN ABUTMENT FOR 12 m SPAN (TO BE DESIGNED AT DETAIL DESIGN STAGE).
2. ROAD ALIGNMENT AND CROSSING LOCATIONS TO BE REVISED BASED ON FIELD CONSTRUCTION BETWEEN SETBACK POINTS.
3. FROM GROUND SURFACE BESIDE/AT CREEK TO UNDERSIDE OF BRIDGE DECK.

ESTIMATED EDGE OF ABUTMENTS (SEE NOTE 2)							
	Northing	Easting	Comments	Northing	Easting	Comments	Span (m)
M3.9	546122	6972194	Edge of North Abutment	546118	6972188	Edge of South Abutment	12
M5.0	546638	6973134	Edge of North Abutment	546632	6973120	Edge of South Abutment	30
M8.6	547869	6975818	Edge of North Abutment	547869	6975811	Edge of South Abutment	12
D1.2	546961	6981236	Edge of East Abutment	546957	6981258	Edge of West Abutment	12
D5.8	550609	6981865	Edge of East Abutment	550605	6981859	Edge of West Abutment	12
D6.7	551689	6981946	Edge of East Abutment	551683	6981943	Edge of West Abutment	12

NOT FOR CONSTRUCTION

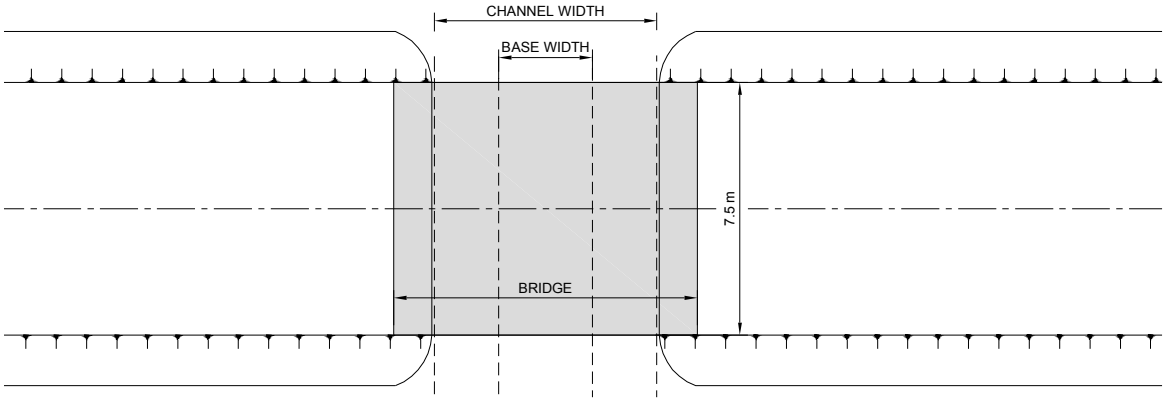
PROJECT
AGNICO-EAGLE MINES LIMITED
MELIADINE GOLD PROJECT
NUNAVUT

TITLE
TYPICAL BRIDGE ABUTMENT DESIGN

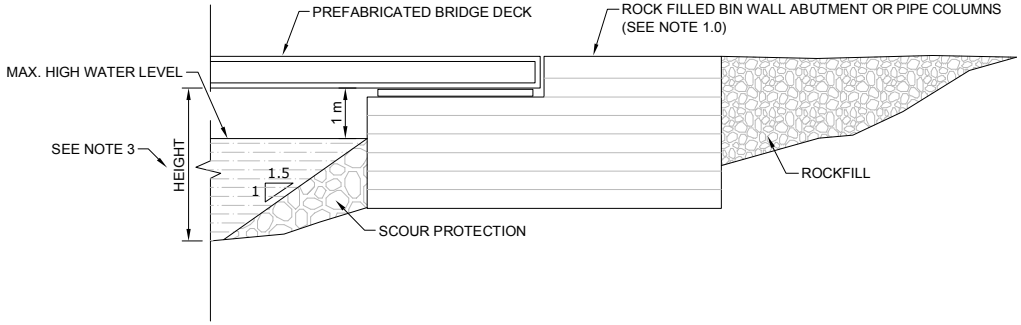
Golder Associates
Greater Vancouver Office, BC

PROJECT No. 09-1426-0015			PHASE No.		4700
DESIGN	MLP	10NOV10	SCALE	AS SHOWN	REV. 1
CADD	SRR	10NOV10			
CHECK	CJC	19JAN11			
REVIEW	JAH	19JAN11			

FIGURE 2.5



TYPICAL PLAN
NTS



TYPICAL BIN WALL SECTION
NTS

NOTES

1. BIN WALL ABUTMENT FOR 30 m (100FT) SPANS, PIPE COLUMN ABUTMENT FOR 12 m SPAN (TO BE DESIGNED AT DETAIL DESIGN STAGE).
2. ROAD ALIGNMENT AND CROSSING LOCATIONS TO BE REVISED BASED ON FIELD CONSTRUCTION BETWEEN SETBACK POINTS.
3. FROM GROUND SURFACE BESIDE/AT CREEK TO UNDERSIDE OF BRIDGE DECK.

ESTIMATED EDGE OF ABUTMENTS (SEE NOTE 2)							
	Northing	Easting	Comments	Northing	Easting	Comments	Span (m)
M3.9	546122	6972194	Edge of North Abutment	546118	6972188	Edge of South Abutment	12
M5.0	546638	6973134	Edge of North Abutment	546632	6973120	Edge of South Abutment	30
M8.6	547869	6975818	Edge of North Abutment	547869	6975811	Edge of South Abutment	12
D1.2	546961	6981236	Edge of East Abutment	546957	6981258	Edge of West Abutment	12
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D6.7	551689	6981946	Edge of East Abutment	551683	6981943	Edge of West Abutment	12

NOT FOR CONSTRUCTION

PROJECT
AGNICO-EAGLE MINES LIMITED
MELIADINE GOLD PROJECT
NUNAVUT

TITLE
TYPICAL BRIDGE ABUTMENT DESIGN

Golder Associates
Greater Vancouver Office, BC

PROJECT No. 09-1426-0015			PHASE No.		4700
DESIGN	MLP	10NOV10	SCALE	AS SHOWN	REV. 1
CADD	SRR	10NOV10			
CHECK	CJC	19JAN11			
REVIEW	JAH	19JAN11			

FIGURE **2.6**

General recommendations from Golder Associates for the construction and maintenance of the proposed all-weather road are presented below; AEM's responses, describing how each will be fulfilled, are in italics.

1. Construction should be scheduled during the winter season so that fill is placed on frozen ground.

   Construction is scheduled over the winter and is expected to begin in September 2011 and be completed within six months. One crew will build the road while a second will build the abutments and install the bridges. The quarry sites needed to build the road are shown in Figure 2.2. Fuel will be delivered to the stationary and mobile road-building equipment from Rankin Inlet and/or the Meliadine tank farm. Fuel may be stored at approved locations along the road and if so, will have secondary containment.

   Explosives for the quarries will be stored in magazines at the Meliadine site and at other approved locations. The magazines will be kept secure so that there cannot be any unauthorized entry.

2. Road fill material should be placed directly over the existing soil layer without cut, stripping or grubbing to avoid disturbing the fragile subgrade soils along the proposed all weather road alignment.

   Rock or granular material from the quarries will be placed directly on the frozen ground. There will not be any disturbance of the soil excepting where culverts are to be used for stream crossings, where one culvert will be seated 300 mm below grade. This is to facilitate fish migration.

3. Only thick drifted snow should be removed before the road fills are placed.

   Route selection was mindful of drifting snow. Care will be taken to not disturb the soil layer should snow removal prove necessary.

4. Continuous road inspection and maintenance work should be carried out during mine operation since seasonal freeze and thaw adjacent to the toe of the road embankment is expected and may lead to longitudinal cracking and thaw settlement especially for portions of the road founded on ice rich soil.

   The road will be inspected over the summer period and repaired should longitudinal cracking or thaw settlement be found. Crushed rock and/or granular material suitable for maintenance and winter sanding is to be stockpiled in select quarries along the road.

(e) Rock and Granular Material Quarries

The Kivalliq Inuit Association has issued AEM a permanent road right-of-way, KVRW10F04, and a quarry permit, KVCA10Q03, for potential granular material and rock quarries located on Inuit-owned land. The terms of each remain to be finalized. Additionally, there could be at least one quarry on municipal land between the Char and Meliadine rivers. Figure 2.2 shows the location of the proposed quarries; most are immediately adjacent to the road right-of-way.

Potential quarry and borrow sites along the road alignment were tested for acid rock drainage (ARD) and metal leaching before final selection. A total of 70 samples were collected from 17 potential rock quarries and 35 samples from 12 potential granular material quarries. These are spaced along the road. The sites chosen for use have no acid rock drainage, low metal leaching, and no archaeological sites. Most are located on ground higher than the surrounding topography, and they have little vegetation and sizable quantities of material for road building.

After their use, the quarries will be left wherever possible with gently sloping walls and positive drainage. With prudent initial design, the quarries should require little reclamation.

(f) Emergency Airstrip

In 2012, work will begin to extend the decline from its present 120 metres below surface to an ultimate depth of approximately 400 metres. Safety and an emergency response capability is paramount in undertaking this work, and AEM's 2012 and 2013 underground program and plans will accordingly be filed with the Nunavut/ Northwest Territories Workers' Safety and Compensation Commission.

One or more helicopters will be on site during this time to service the surface drills and for trips to Rankin Inlet in the absence of the road. They will also provide emergency evacuation to Rankin Inlet in the event of an accident.

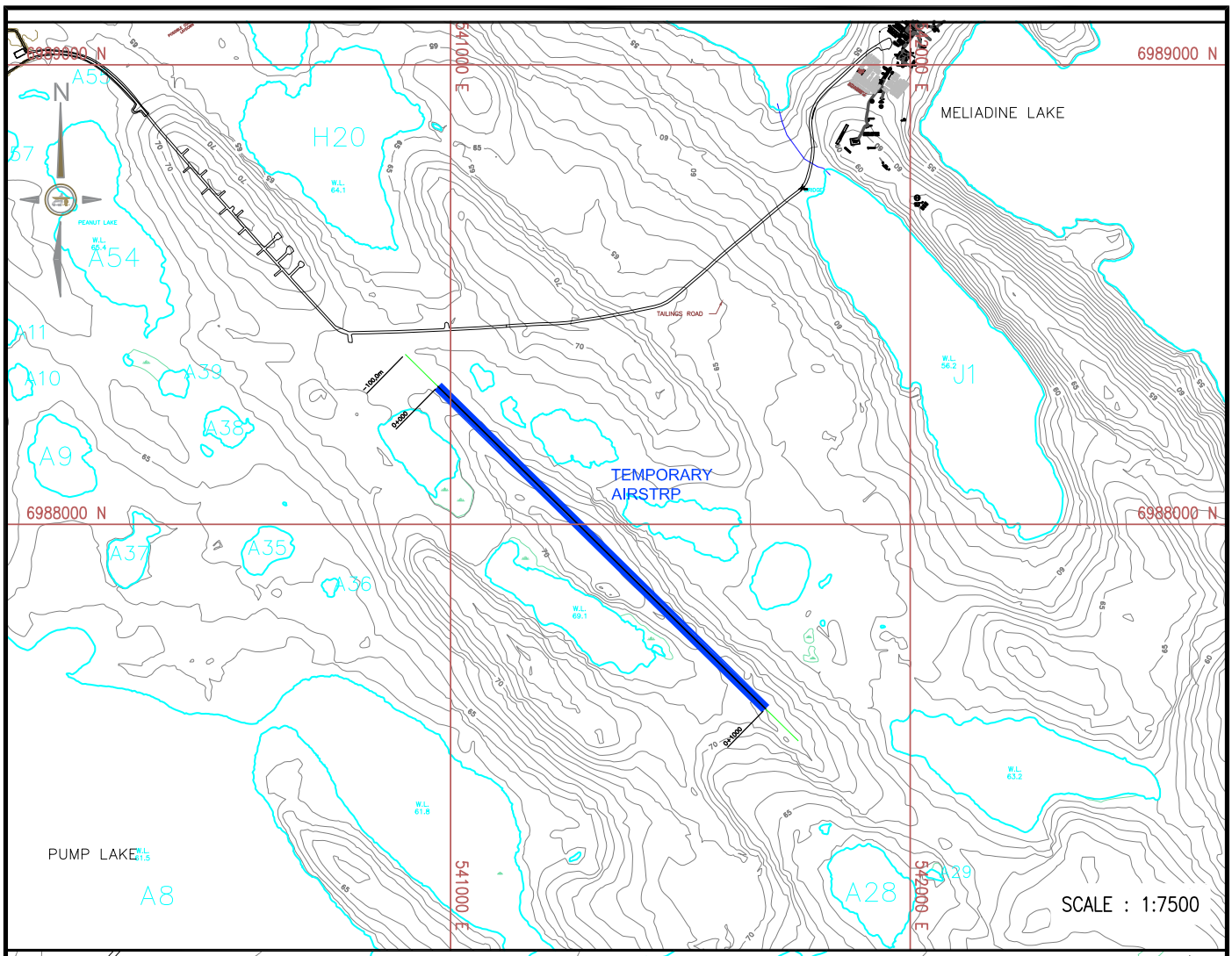
For short-term purposes during road construction in 2011, AEM proposes to build an emergency airstrip along the first kilometre of the all-weather road right-of-way. It is to be a private airstrip with no instruments or lights. It will be left to the pilot's discretion whether to land or not. As such the airstrip will not require a Nav Canada permit.

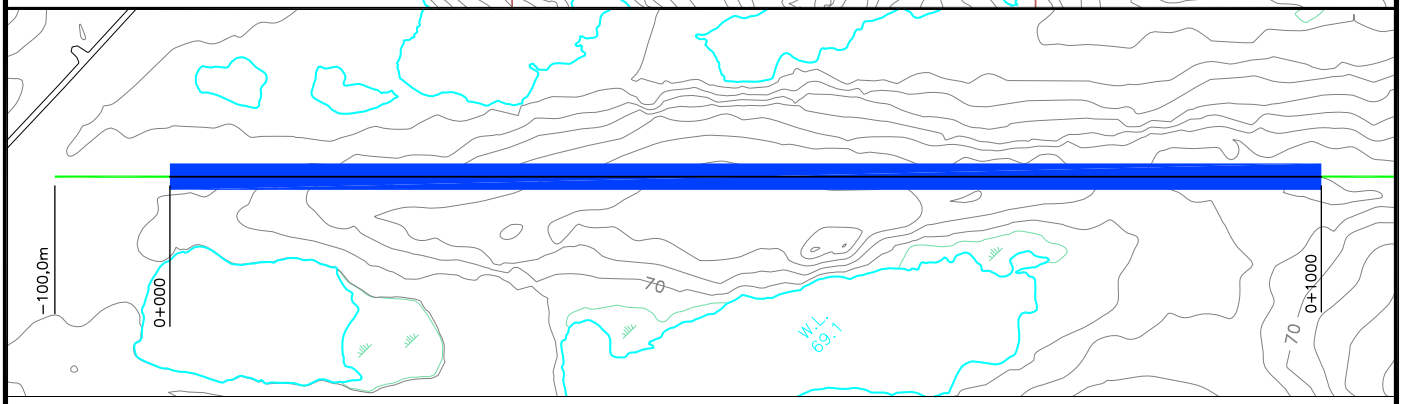
The procedures for building the airstrip are identical to that for building the road. It is to be built on an esker, using material from the same esker. The airstrip would be 23 metres wide, while the road would be only 10 metres. A plan view of the airstrip in relation to other Meliadine site facilities is shown in Figure 2.7.

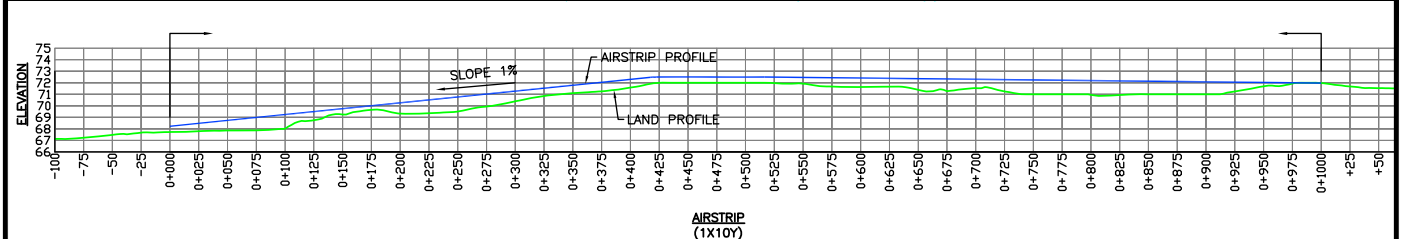
The presence of an airstrip will allow small fixed-wing aircraft such as a Twin Otter to land at the site and deliver underground equipment that is too large for a helicopter. It will also provide backup to the helicopters in the event of an emergency. Fixed-wing aircraft can carry a larger payload and more people,

thereby allowing rapid access to the site by emergency personnel and their equipment if necessary, something that is not possible in a timely manner using a helicopter.

Once the road is fully constructed, the airstrip will no longer be needed and will be decommissioned. Only 10 metres of its 23-metre width will be needed for the road, with the remaining 13 metres of surface available for a laydown area or some other purpose. If the area is not needed, it will be reclaimed.







DESSINÉ PAR / DRAWN BY	DATE	ÉCHELLE / SCALE	SERVICES TECHNIQUES	AGNICO–EAGLE – MELIADINE DIVISION
APPROUVÉ PAR / APPROVED BY	DATE	N/A	AGNICO-EAGLE	FIGURE **2.7** TEMPORARY AIRSTRIP

2.4 Schedule

As with many industrial activities in the north, the schedule for the construction of the proposed all-weather road is based on a balance of logistical and technical considerations, and on the timing of regulatory approvals. The road and bridges will take approximately six months to build. To allow the early construction of the bridge abutments, the first section of the road from near the Char River Bridge will begin in September 2011, so as to reach the Meliadine River before the onset of the severe cold. Similarly, the emergency airstrip would be built directly following the environmental screening. The rest of the road and installation of the bridges will occur over the winter of 2011-2012, to avoid permafrost degradation. If possible the road will be built from both ends simultaneously.

The efficient construction of the road, and its delivery of benefits to the community of Rankin Inlet, will depend on the timely issuance of permits. Instances have occurred in the past where a small delay in issuing a permit has delayed a project by a year because of missed shipping seasons (e.g. open-water periods in summer or ice roads in winter). A realistic schedule of construction provided in Table 2.3, combined with expected and timely regulatory approvals, is essential if the road is to be built in a timely manner, which would allow the second phase of the underground program to proceed.

Table 2.3 Important Milestones and Project Schedule

Activity	Date
Project Proposal filed with Nunavut Planning Commission & NIRB	Jan. 2011
Construction of Bermed Bladder Fuel Storage	Feb.2011
Initiation of extension of the Underground Exploration and Bulk Sample	May 2011
Environmental Review	Jan. 2011 - Apr. 2011
Permits, authorizations and other agreements	Jan. 2011 - Aug 2011
Inuit impact benefit agreement	Jan. 2011
Emergency Airstrip Construction	Jun 2011 - Aug. 2011
Construction of All-Season Road between Rankin Inlet and Mine Site	Sep. 2011 - May 2012
Installation of Small Bridges and Culverts at Ephemeral Road Crossings	Feb. 2012 - Apr. 2012
Construction of Char and Meliadine Rivers Abutments	Oct. 2011 - Feb. 2012
Placing Single-span Girders on the Abutments and Associated Iron Work	Feb. 2012 - Apr. 2012
Reclamation and Closing of All-Weather Road	2023 - 2026

2.5 Authorizations

(a) Applicable Acts, Regulations and Guidelines

The lead authorizing agencies for the all-weather road are the Nunavut Planning Commission (NPC) and the Nunavut Impact Review Board (NIRB). The NPC will determine whether the proposed road conforms with the Keewatin Regional Land Use Plan. If it is found to conform, the NIRB will screen the project proposal. At a minimum, a project screening is required, and if the NIRB finds that the road proposal may be processed without further review, it may add specific terms and conditions that to be followed in building, operating and reclaiming the road. Should the NIRB find significant public concern or

unacceptable environmental impacts in connection with the road proposal, it would require an environmental assessment.

Applicable acts, regulations and guidelines that govern the all-weather road can be found in Appendix 1.

(b) Current Licences, Permits, Agreements and Approvals

The larger part of the proposed road is to be located on lands owned by the Inuit. The surface and subsurface ownership of the land encompassing the road right-of-way was transferred to the Kivalliq Inuit Association when the Nunavut Land Claims Agreement came into effect. Land and environmental management in this area is generally governed by the provisions of the Nunavut Land Claims Agreement. Closer to Rankin Inlet, 2.3 kilometres of the road will be within the municipal boundary, which extends approximately 200 metres north of the Meliadine River. This land is held by the Department of Community and Government Services for the benefit of the Hamlet of Rankin Inlet.

Table 2.4 lists the current licences, authorizations and permits held by the Meliadine Gold Project.

Table 2.4 Current Licences and Permits – Meliadine Gold Project

Licence Number	Explanation	Issued By	NIRB File	Expiry	Remarks
KVL100B195	Meliadine Prospecting - Land Use	KIA		31-Oct-11	General land-use permit applying to exploration and drilling
KVL302C268	NTI Parcel Drilling	KIA		01-Jul-11	Drilling on RI-01 Inuit-owned land
KVCL102J168	Commercial Lease	KIA	07EN044	30-Jun-11	Commercial lease for exploration and underground activities
KVRW98F149	Meliadine Right-of-Way	KIA		30-Apr-11	Winter road across Prairie Bay & various lakes
KVRW07F02	Overland Right-of-Way	KIA	07AN063	26-Oct-11	Winter road along proposed all-weather road route
KVCA07Q08	Mainland Esker Quarry Permit	KIA		15-Sep-11	Tiriganiaq Esker quarry
KVL308C07	Mel E Exploration RI01	KIA		13-Jun-11	Renewed
N2010C0002	PB1, Geotech Drilling Permit	INAC	10EN006	11-Apr-12	Geotechnical drilling within 31 m of water
N2007C0041	CWM Claims Drilling	INAC	05EN006	13-Apr-11	Drilling on federal land
N2007Q0040	Mel Lake Islands - Quarrying	INAC	05EN006	13-Apr-12	Land-use permit for quarry on federal land
2010QP0129	Quarrying Meliadine Islands	INAC	08EN005	18-Nov-11	Re-enter quarries on Meliadine Islands for granular material
	WCB Program Authorization	WCB		31-Dec-11	Annual renewal
	Hamlet Disposal Authorization	Rankin Inlet		Aug 11	Annual renewal to use the Rankin Inlet landfill
2BB-MEL0914	Bulk Sampling -Water Licence	NWB	07EN044	31-Jul-14	Amendment for extension of the underground program granted
2BE-MEP0813	Exploration - Water Licence	NWB	08EN043	31-Oct-13	Assigned to Comaplex, camp reclaimed

(c) Required Licenses, Permits, Agreements and Approvals

Operating permits, authorizations and licences can be issued only after the NIRB has completed its review. As the Meliadine Gold Project is on Inuit land, a number of permits from the Kivalliq Inuit Association will be required to build the road. A list of anticipated permits, licences, agreements, authorizations and approvals for the all-weather road is presented in Table 2.5.

Table 2.5 Required Licences, Permits, Agreements and other Approvals

Authorization	Authority	Basis
Conformity determination with Keewatin Regional Land Use Plan	Nunavut Planning Commission	Allows project to proceed to screening
Project Screening or Project Certificate	Nunavut Impact Review Board	Allows project to proceed to authorizations to build and operate the road.
Type B Water Licence Amendment	Nunavut Water Board	Allows the use and disposal of water and waste in building the road, installing culverts and bridges
Inuit Impact Benefit Agreement	Kivalliq Inuit Association	Compensates for negative impacts of the all-weather road and ensures benefits flow to the Inuit
Right-of-way	Kivalliq Inuit Association	Allows right-of-way for all-weather road across Inuit lands
Right-of-way	Rankin Inlet and Community & Government Services	Allows right-of-way for all-weather road across municipal lands
Quarry Licence	Kivalliq Inuit Association	Various quarry sites along the right-of-way for building the road to the Meliadine site
Quarry Approval	Rankin Inlet and Community & Government Services	Granular materials and/or rock quarry for road construction
Fisheries Authorization	Department of Fisheries and Oceans	A habitat compensation plan is to be submitted to and approved by DFO.
Navigable Waters Permit	Transport Canada	The building of a bridge across the Meliadine River.
Explosive Manufacturing Licence (obtained by contractor)	Natural Resources Canada	Storage, manufacture and use of explosives at the mine site
Explosive Magazine Permit Renewal	Workers' Safety & Compensation Commission	Permits an explosive magazine on site and at other approved locations
Class 2 Permit for Heritage Sites (obtained by qualified professional archaeologist)	Department of Culture, Language, Elders, & Youth	Unavoidable impacts of all-weather road on heritage sites are to be mitigated

Section 3 Description of the Existing Environment, Environmental Impacts and Mitigation

3.1 Overview of Project Environmental, Socio-economic, and Traditional Knowledge Studies

The all-weather road will interact with the natural and human environment of the area in both time and space. The natural and human environment has been extensively studied since 1997 and an overview of this work is provided here. The years when studies were carried out are noted in Table 3.1. No substantial work was done on the property between 2002 and 2004.

Table 3.1 Environmental, Socio-economic and Traditional Knowledge Studies

Baseline Studies	1997	1998	1999	2000	2001	2005	2008	2009	2010
Aquatic Invertebrates & Algae	√	√							
Water Quality	√	√	√	√			√	√	
Sediment Quality		√		√					
Hydrology[1]	√	√	√	√			√	√	
Geochemistry - Acid Base Accounting[2]		√			√	√	√	√	√
Fisheries	√	√	√	√	√		√	√	
Wildlife	√	√	√	√			√	√	
Vegetation & Soil		√					√	√	
Climate[3]	√	√	√	√	√	√	√	√	
Traditional Knowledge	√		√						√
Heritage Resources		√					√		√
Socio-economic	√		√						√
Public Consultation	√	√	√	√			√	√	√

[1] Regional hydrology by Water Survey of Canada carried out from 1989 - 1995

[2] Geochemistry studies in 1998, 2001 and 2005 were not as extensive as studies in 2008, 2009 and 2010.

[3] Regional Climate by Environment Canada from 1981 to present

Valued Ecosystem Components (VECs) (terrain, climate, permafrost, air quality, noise, water quality, hydrology, fish habitat, caribou and raptors) and Valued Socio-economic Components (VSECs) (employment, business opportunities, traditional knowledge, and sites of heritage significance) were selected based on discussions at public meetings, the likelihood of impacts from building and operating the road, and the experience of the Meadowbank Gold Mine.

Some obvious VECs, such as water birds and predatory animals, were not included, as there is a low probability that these would be affected by the road. Similarly, some obvious VSECs, such as employment opportunities for women, community wellness, and health and educational status, are also not included. The collection of baseline socio-economic data for the Meliadine Gold Project is currently under way. This report will shed light on the socio-economic conditions and concerns in the local study area[6] as well as the Kivalliq region.

[6] The local study area is Whale Cove, Rankin Inlet and Chesterfield Inlet.

What follows is a description of the baseline data collected to date for many of the VECs and some VSECs, and the mitigation measures that are to be taken to eliminate or minimize any residual effects.

3.2 Physical Environment

Detailed baseline information about the physical environment can be found in the reports "Terrestrial Vegetation and Wildlife Baseline Synthesis Report" and the "Aquatic Synthesis Report." These can be found on the attached CD.

(a) Permafrost

Baseline Data

Permafrost underlies all the land and most of the shallow lakes along the proposed road. Alterations to the active soil layer and the permafrost will occur from the creation of quarries for granular material and rock, and from the building of the road. The active layer of soil in the area that undergoes the freeze-thaw cycle is between 1.0 and 2.0 metres thick, depending on the type of cover.

Impact and Mitigation

The construction of roads in the Arctic normally results in the permafrost moving up into the road structure, with the original underlying ground remaining frozen year-round. This has the positive effect of increasing the road's stability. It could also have a negative effect if water ponds against the road and the road serves as a dam, leading to a change from terrestrial vegetation to aquatic plants and sedges. To avoid negative impacts, AEM plans to locate the road along the height of land wherever possible, which should result in little water accumulation. Also, all water crossings will have bridges or culverts installed.

Granular construction material is to come largely from glaciofluvial deposits and weathered bedrock deposits located in well-drained areas. The removal of granular material causes a shift in the active layer of earth. These types of granular deposits have been selected because they are largely free of ground ice, thereby minimizing possible thaw settlement. The melting of ground ice can result in erosion, slumping of side slopes and an altered landscape that extends beyond the quarry. Should this happen, the area will be monitored and if necessary, stabilized, by covering the affected land with 1.0 to 1.5 metres of waste rock or other granular material. This mitigation effort will allow the permafrost to move up into the material covering the area, and stop any remaining ground ice from melting.

Rock quarries will also cause a change in the active layer of earth, but without the same consequences that are possible in granular-material quarries.

The mitigation measures proposed for dealing with changes in the permafrost should ensure that any residual effects are insignificant.

(b) Climate

Baseline Data

The climate of the Project area is characterized by short cool summers and long cold winters. Brisk wind is a common feature in all seasons of the year. Precipitation is roughly divided evenly, between rain during the short summer and fall (predominantly in late summer), and snow, which can fall in any month, but is most common between October and April. Surface waters are usually frozen by early October and remain frozen until early June. The land is usually snow-free by late June.

Mean wind speeds and direction were important considerations in positioning the proposed road. The road will be located on the height of land wherever possible, to allow it to be blown clear of snow in winter and to allow summer rains to drain away.

Impact and Mitigation

The road will not have any impact on climate.

(c) Air Quality and Noise

Baseline Data

Baseline data for air quality and noise have not been collected. Before various exploration programs, the area's air was subject only to emissions from Rankin Inlet and normal global atmospheric pollutants. The air quality is therefore considered pristine. The area is free of noise from large-vehicle traffic.

Impact and Mitigation

Dust from the road's construction and operation will likely have an impact on air quality. Air quality may at times suffer from elevated dust concentrations and may exceed Ambient Air Quality Objectives for PM_{10}, $PM_{2.5}$ and total suspended particulate matter. The amount of dust generated will depend on the dryness of the road surface, the number of vehicles and their speed, and the maintenance of the driving surface.

Dust can be mitigated by maintaining posted speed limits and by regular maintenance of the road surface. Close to camp and subject to approval, the road may be watered to keep dust under control. The use of salt to reduce dust is to be avoided, as it would serve as an animal attractant.

Noise from large vehicles can be expected. The observation of posted speed limits and proper vehicle maintenance will reduce the noise level.

(d) Terrain[7]

Baseline Data

The area has low relief, and is generally gently to moderately sloping, with short steep slopes occurring locally on some glaciofluvial, wave-washed and bedrock surfaces. The terrain is dominated by veneers and blankets of washed till. Marine sediments comprising both beach and deltaic deposits occur locally and can be extensive in some areas. Weathered (frost-shattered) bedrock (felsenmeer) and bedrock outcrops occur locally. There are limited areas of glaciofluvial materials, and shallow, discontinuous organic veneers occur in some poorly and very poorly drained areas. Periglacial processes are most evident in areas underlain by morainal deposits, and are typical of areas underlain by continuous permafrost; their surface expression is subdued in areas where there is a relatively thin cover of surficial materials over bedrock and in areas of well-drained granular sediments. Shallow, hand-dug soil pits excavated in July 2009 indicated thaw to depths generally less than half a metre on imperfectly to poorly drained, washed morainal surfaces. Thaw depths of a metre or more are present in well-drained, coarse-textured sediments.

Physical weathering (frost-wedging and frost-shattering) is evident on exposed bedrock surfaces and in areas of rubbly, weathered bedrock. Freezing and thaw-induced displacement of soil can be expected along the road alignment, although these displacements are more likely to occur in imperfectly to poorly drained materials underlain by fine-grained morainal sediments.

Impact and Mitigation

There will be no impact on the terrain from the construction, operation and reclamation of the proposed road. Poorly drained ground was avoided wherever possible in selecting the route alignment.

(e) Hydrology

Baseline Data

The Meliadine Lake watershed covers 796 km^2 where the bridge is to cross the Meliadine River. The Char River has a drainage area of 69 km^2. The watersheds of the ten ephemeral streams are much smaller and are tabulated in Table 3.2.

The sizing of the culverts and bridges was based on an estimated peak flow at each crossing. Due to a lack of site-specific hydrometric data for the study area, the peak flow for each crossing was estimated based on the 1:25 year 24-hour rainfall (52.3 mm); this was derived using rainfall data from Chesterfield Inlet (MSC Station Number 2300707), approximately 80 km north of the Project site. This 1:25 year rainfall event was selected for this analysis because of the proposed use of the road for ten to 15 years by the underground program and a proposed mine, and because of the general absence of additional public infrastructure in the vicinity of the road.

[7] The description of the terrain is extracted from the Golder report "Geomorphology and Soils – Meliadine Access Road, Meliadine Gold Project, Nunavut." The complete report is included on the attached CD.

Table 3.2 Locations and Hydraulic Characteristics of Water Crossings (NAT 83)

Location	Latitude	Longitude	Drainage Area (km^2)	Design[1] Discharge (m^3/s)	Bankfull Width (m)	Bankfull Depth (m)	Design Depth (m)
Char River	62° 51' 31.8"	93° 51' 27.9"	69	NA	NA	NA	NA
Meliadine River	62° 52' 21.8"	92° 07' 10.4"	796	81	60	1.2	1.58
M3.0	62° 52' 26.6"	92° 06' 16.6"	2.77	1.5	2.5	0.12	0.24
M3.9	62° 52' 36.2"	92° 05' 32.5"	1.82	4.7	2.5	0.1	0.62
M5.0	62° 53' 06.5"	92° 04' 58.5"	11.02	9.1	10	0.2	0.81
M6.7	62° 53' 50.4"	92° 04' 04.3"	0.82	3.1	1	0.05	0.24
M8.6	62° 54' 36.1"	92° 03' 25.3"	1.4	4	3.9	0.16	0.57
M11.5	62° 55' 53.8"	92° 03' 55.7"	1.38	1.2	1.5	0.26	0.41
M13.3	62° 56' 34.0"	92° 05' 16.6"	0.16	0.4	3.75	0.2	0.27
M22.6	62° 59' 51.2"	92° 11' 08.8"	0.97	0.5	0.9	0.13	0.21
M23.6	63° 00' 16.6"	92° 11' 12.2"	3.62	0.5	3.2	0.25	0.31
D1.2	62° 57' 38.9"	93° 11' 49.8"	3.29	5.0	NA	NA	NA

[1]1:25 year flood [2]M2.1 is the Meliadine River NA – Not Available

Impact and Mitigation

No impairment to hydrology is expected as a result of the road construction, operation and closing. There will be little water used in constructing and operating the road. Water may be used for dust control near the Meliadine site. When it is closed, culverts and bridges will be removed and the natural drainage re-established.

(f) Potential for Acid Generation / Metal Leaching[8]

Baseline Data

A geochemical characterization study was carried out by Golder Associates on potential rock and granular-material quarries to be used in road construction. These are found along the all-weather road right-of-way. The volume of rock and granular material needed to build the road should not exceed 750,000 cubic metres. The total area of rock outcrops along the road alignment is 177 hectares, while that covered by granular material is 48 hectares. It is estimated that two million cubic metres of rock and two million cubic metres of granular material are readily available along the road right-of-way. A total of 17 potential rock quarries and 12 potential granular-material quarries were sampled, with a total of 105 samples collected and subsequently tested to evaluate the chemical characteristics of the materials.

[8] This section of the report is largely extracted from the Golder report "Geochemical Assessment of Potential Road Construction Material, Meliadine Gold Project, Nunavut, December 2010." The complete report can be found on the attached CD.

Static testing methods were used to assess the chemical composition of the potential road-building material and its potential to generate acid rock drainage (ADR) and leach metals to the receiving environment upon exposure to ambient conditions. The results of the assessment were used to guide the selection of the material that is environmentally suitable for use as road fill, with particular emphasis on potential acid generation and metal leaching that could affect water quality in nearby watercourses.

All rock samples, save one, and all samples of surface granular material showed no potential to generate ADR. This is generally due to the low sulphide content of the samples and their reactive carbonate minerals, which offer an excess buffering capacity. As such, the construction materials that will be used to build the road do not require the development of a method to prevent their oxidation.

Water leach test results yielded parameter concentrations that meet the federal Metal Mining Effluent Regulations (MMER) in all samples from the potential rock and granular-material quarries tested. Leach test results also largely met the Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (CWQG) for most parameters, except arsenic, aluminum, copper and pH, which exceeded the guidelines for numerous samples of all rock types. Some other constituents slightly exceed the CWQG in a limited number of samples, but median concentrations are well below CWQG values for these elements. The reported concentrations of aluminum are likely to include a portion of colloidal (particulate) aluminum in the leachate sample. Colloidal particles are typically smaller than the 0.45µm filter pore size used to collect leach test water for analysis, and thus this solid-phase aluminum fraction can be erroneously reported as a dissolved-phase concentration.

Impact and Mitigation

The Golder geochemistry study concluded that arsenic and copper were of most concern in the Shake Flask Extraction (SFE) leachates from potential rock and granular-material quarries. The results of short-term leach tests do not necessarily imply that the same results will be experienced in natural drainage from the road. Rather, the leach tests underline the propensity of the rock and granular material to release arsenic and copper at concentrations that warrant caution in their use in building the road. This information has led to care in selecting quarries with low metal-leaching potential, to minimize potential negative environmental effects resulting from road construction. Two other ways to assist in reducing the potential for metal-leaching are to build the road along the height of land where little snow accumulates, and to slope the surface of the road so that it sheds water readily. A sloped surface will minimize both the volume of water contacting the underlying road material and the length of time that water is in contact with the road surface.

While field tests are planned for 2011 to determine the actual quality of leachate expected from waste rock at the Meliadine site, the only data currently available that indicate leachate quality are from water samples collected from the Primary Containment Area (PCA) located beside the underground decline. Waste rock brought to the surface was used to build waste-rock pads on which the ore from underground was placed. The PCA receives runoff and leachate from the waste-rock pads, the crushed ore and granular material used to build the road to the Meliadine camp. Water in the PCA also ponds against the waste-rock pad and the road. The results from testing this water are presented in Table 3.3.

In the samples from the PCA, concentrations of aluminum are consistently lower than those allowed by the CWQG; this suggests that aluminum was present in a colloidal form in the Shake Flask Extraction leachate, and as a result does not pose an environmental risk. Similarly, pH in the SFE tests was frequently above the CWQG upper limit of 9.0 mg/L; this is not the case in the PCA samples. While still indicative of alkaline water, the pH varies from 7.54 to 7.99 mg/L. This suggests that the pH measured in the leachate from SFE rock samples is likely higher than what can be expected in the environment.

Table 3.3 Water Quality in the Primary Containment Area at the Underground (mg/L)

	CWQG[1]	MMER[2]	Jul-09	Aug-09	Jun-10	Jul-10	Aug-10	Sep-10	median
pH	6.5 - 9.0	6.0 -9.5	7.98	7.99	7.98	7.54	7.59	7.66	7.82
Al	0.1		<0.040	<0.040	0.018	<0.002	0.006	<0.002	0.012
As	0.005	0.5	0.0139	0.0114	0.0067	0.0216	0.0023	0.0012	0.009
Cd	0.000017		<0.00020	<0.00020	<0.00005	<0.0008	<0.00008	0.00028	0.00020
Cu	0.002	0.3	0.0081	<0.0040	0.0013	0.011	0.0022	0.0043	0.0042
Cr	0.001		<0.0050	<0.0050	<0.0050	<0.0006	<0.0006		0.005
Fe	0.3		0.0093	0.051	0.064	<0.001	<0.01	1.3	0.031
Pb	0.007	0.2	0.00064	<0.0004	0.00015	<0.0003	0.0029	<0.0003	0.0004
Ni	0.15	0.5	0.0072	0.007	0.003	0.007	0.011	0.0368	0.007
Zn	0.03	0.5	0.018	<0.016	<0.0040	<0.001	0.004	0.015	0.0095

[1] CCME Guidelines for the Protection of Fresh Water Aquatic Life [2] Metal Mining Effluent Regulations

Cadmium is typically below detection in the PCA samples with only one result above detection.[9] The remaining data in Table 3.3 corroborates Golder's view that chromium,[10] iron, lead, nickel and zinc should not be a problem, while arsenic and copper need to be taken into consideration when selecting road-building material. Both As and Cu concentrations meet the mining effluent regulations, and are approximately twice the federal water quality guidelines.

Water quality was also monitored downstream of the PCA in Lake A54. The upstream drainage basin for this lake is surrounded by the waste-rock pad and a road constructed of waste rock and granular material. It also receives the drainage from the PCA. Table 3.4 shows the results from the analysis of water samples collected there over the past two years (2009 and 2010). While the median values of As and Cu are above the CWQG guidelines in the primary containment area, this is not the case in Lake A54, where their concentrations are below the guidelines. pH is well within CWQG guidelines and Al, Cd, Cr and Pb are normally below detection. Other trace metals such as Fe, Ni and Zn are commonly detected but concentrations remained below the CWQG guidelines.

[9] In the earlier five sampling periods, Cd was only detected in 4 of 70 samples collected at all sampling stations around the Meliadine site. In September 2010, 12 of 15 samples from around the Meliadine site had measurable Cd concentrations in the sub-parts-per-billion range, including the control lake.

[10] The Cr results for the September 2010 sample are considered suspect, as both the field blank and travel blank had concentrations exceeding the CWQG guidelines.

Table 3.4 Water Quality in Lake A54 downstream of the Primary Containment Area (mg/L)

	CWQG	MMER	Jun-09	Jul-09	Aug-09	Jun-10	Jul-10	Aug-10	Sep-10	median
pH	6.5 - 9.0	6.0 -9.5	7.84	7.87	7.7	7.97	8.24	7.72	7.72	7.84
Al	0.1		<0.040	<0.040	<0.040	0.044	<0.002	<0.002	<0.002	0.04400
As	0.005	0.5	0.0033	0.0034	0.0037	0.00323	0.0044	0.0017	0.0035	0.00340
Cd	0.000017		<0.00020	<0.00020	<0.00020	<0.000050	<0.00008	<0.00008	0.00012	0.00012
Cu	0.002	0.3	<0.0040	<0.0040	<0.0040	0.0014	0.0021	0.0015	0.002	0.00175
Cr	0.001		<0.0050	<0.0050	<0.0050	<0.0050	<0.0006	<0.0006		0.00500
Fe	0.3		0.081	0.02	<0.029	0.0107	<0.01	<0.01	0.71	0.05050
Pb	0.007	0.2	<0.00040	<0.00040	<0.00040	0.0002	<0.0003	<0.0003	0.0019	0.00105
Ni	0.15	0.5	0.0037	0.0032	0.0047	0.0033	0.0048	0.0064	0.0134	0.00470
Zn	0.03	0.5	0.03	<0.016	<0.016	<0.0040	<0.001	0.001	0.011	0.01100

The sampling downstream of the Primary Containment Area provides an indication of what can be expected in water bodies close to the all-weather road. Sampling upstream and downstream of water courses crossed by the road is proposed as part of a monitoring program to determine if any unacceptable residual effects are found in water bodies close to the road, and if mitigation measures need be taken.

Monitoring of the PCA and various water bodies in the immediate vicinity of the PCA will continue in 2011. Additionally, more field testing will be done in sampling drive points located in the waste-rock pads. Large-scale experiments using waste rock and ore exposed to the snow and rain will be carried out on site. All the data will serve to offer a better understanding of the potential metal leaching from waste rock and granular material.

The Golder report recommends that three quarries not be used, these being R1, R16 and T046 (Table 3.5). These quarries will not be used by AEM. Further, Golder recommends that quarries noted as *"limited"* may be used as a source of construction material, but the material should be used on high ground and away from surface water bodies. This recommendation will also be followed by AEM.

Appendix 2 provides more detail about the various quarries and how much material will be used from each. In addition to the material used to build the proposed road, 25,000 cubic metres of granular material and/or crushed rock will be stockpiled in select quarries for ongoing maintenance and winter sanding of the road. Eight thousand cubic metres will be stored at a quarry between kilometres 0 and 4 on the road, with another 8,000 m^3 in a quarry near kilometres 9 and 10, and the final 9,000 m^3 in a quarry near kilometres 15 and 16. Additional granular material or crushed rock for the maintenance of the last part of the road would come from the Meliadine site.

Table 3.5 Summary of Environmental Characteristics of Potential Road Construction Material[11]

Proposed Location	Material Type	Number of samples tested	Overall ARD Designation[1]	Median Final SFE pH	Average SFE Concentration > CWQG by ≥1 Order of Magnitude	Recommended for Construction?
Itivia	crushed aggregate	4	non PAG	9.9	-	yes
R1	meta-sedimentary	3	non PAG	9.2	As	**no**
R2	mafic volcanic	3	non PAG	9.7	-	yes
R5	granite	3	non PAG	8.5	-	yes
R7	mafic volcanic	5	non PAG	9.6	-	yes
R9	mafic volcanic	3	non PAG	9.5	Cu	***limited***
R11	granite	5	non PAG	9.2	-	yes
R14	mafic volcanic	5	non PAG	9.2	Cu	***limited***
R16	gabbro	9	non PAG	9.6	As, Cu	**no**
R17	mafic volcanic	3	non PAG	9.6	-	yes
R19	mafic volcanic	3	non PAG	9.6	-	yes
R82	mafic volcanic	3	non PAG	8.4	Cu	***limited***
R280	granite	3	non PAG	8.9	-	yes
R350	mafic volcanic	4	non PAG	9.4	Cu, Al[2]	***limited***
R359	mafic volcanic	3	non PAG	9.7	Al[2]	yes
T041	mafic volcanic	5	non PAG	9.6	Cu, Al[2]	***limited***
T043	mafic volcanic	5	non PAG	9.6	Cu, Al[2]	***limited***
T046	mafic volcanic	5	non PAG	9.6	As, Al[2]	**no**
B1A	glacial till	3	non PAG	6.7	-	yes
B3	glacial till	3	non PAG	8.7	As, Cu	***limited***
B5	glacial till	3	non PAG	7.2	Cu	***limited***
B6A	glacial till	3	non PAG	6.9	-	yes
B8	glacial till	3	non PAG	6.6	As	***limited***
B10	glacial till	3	non PAG	7.2	-	yes
B11A	glacial till	3	non PAG	6.8	-	yes
B12	glacial till	3	non PAG	6.7	-	yes
B13	glacial till	2	non PAG	5.5	-	yes
B15	glacial till	3	non PAG	7	-	yes
B18	glacial till	3	non PAG	7	-	yes
B19	glacial till	3	non PAG	5.9	Cu	***limited***
Island 1	glacial till	9	non PAG	6.9	Al[2], Cu, Fe[2]	***limited***
Island 2	glacial till	6	non PAG	6.4	Al[2], Cu, Fe[2], Zn	***limited***

[1]per borrow pit/ quarry [2] Average SFE aluminum & iron concentration > CWQG but it may be due to particulates and will likely precipitate in a settling pond

[11] This table is reproduced directly from the Golder geochemistry report. This report can be found on the attached CD.

3.3 Aquatic Environment

Complete details about the aquatic environment can be found in the document entitled "Aquatic Synthesis Report" on the CD attached to this report.

(a) Water Quality

Baseline Data

The Meliadine River watershed does not host commercial or industrial activities other than the advanced exploration under way at the Meliadine Gold Project. The water quality at the various water crossings and nearby lakes should therefore be close to pristine, factoring in normal global atmospheric pollutants and leaching of local till and rock. The parameters for analyses of water quality included trace metals, major anions and cations, nutrients, and a limited number of organic characteristics. Data from these analyses include water samples from spring and summer collections. While considerable data have been collected for the Meliadine River, the same cannot be said for the ephemeral streams. It is assumed that these streams reflect the water quality found in other small streams in the area that have been sampled in the past.

The Meliadine River has been monitored at various locations since 1997 and is generally well-oxygenated and characterized by low ionic strength, very soft water, low alkalinity and slightly alkaline pH. Major ions found in stream waters were bicarbonate, calcium, chloride, and sodium. Measured nutrient concentrations were typical of oligotrophic water bodies in Subarctic regions, with very low analytical results. For the most part, baseline water-quality parameters fell within the Canadian Water Quality Guidelines for the Protection of Freshwater Aquatic Life (CWQG), with the occasional exception of some parameters (i.e., cadmium, chromium, and phenol).

Impacts and Mitigation

Impacts on water quality will be mitigated by locating the proposed road on the height of land and developing quarries in areas that are higher than the surrounding topography wherever possible. Snow is unlikely to accumulate on the road and its surface has been designed to shed water. This will minimize the amount of water that contacts the road and shorten any contact time, which should improve the quality of the leachate while also reducing the quantity. Most quarries will have positive drainage with no ponding of water, thereby reducing the contact time with the substrate, which will likely improve the quality of the runoff.

It is expected that the local water quality will remain largely unchanged and the CWQG will not be exceeded in nearby receiving water bodies as a result of the road. Where quarries are found to drain water, a depression will be built near the exit to allow suspended solids to settle, so as to reduce total suspended solids. In order to document any residual effects resulting from the road, including deposits of dust in nearby water bodies, AEM will undertake water-monitoring. It will include water standing against the road and in quarries, as well as water upstream and downstream of select ephemeral-stream crossings.

(b) Fish and Fish Habitat[12]

Baseline Data

Ephemeral watercourses investigated along the proposed road corridor show limited potential for fish habitat, and were rated of poor to moderate quality. The habitat potential of the Meliadine River is quite diverse and of high quality, with greater potential to support multiple life stages of fish.

The aquatic habitat at the ephemeral stream crossings along both road corridors was highly variable, with some streams supporting spawning and rearing, while others were dry or contained poor fish habitat. Fish were captured or observed at ten of 14 sites assessed: Arctic grayling were registered at four sites, ninespine stickleback at ten sites, and slimy sculpin at one site. Fisheries investigations were not carried out on the Char River as an existing bridge is merely being replaced. (The new bridge will be a single span with the abutments above the ordinary high-water mark, and the armouring no different from that of the existing bridge.)

Within the all-weather road corridor, site M2.1 (Meliadine River) is of particular importance. The presence of deep runs and pool areas indicated high-quality habitat for various life stages of fish species known to inhabit the river. It is common for Arctic char to use the river to return to the sea to feed during the open-water season, only to return upstream to freshwater lakes for the winter. A fish fence was set up near the mouth of the Meliadine River in 1997, 1998 and 1999 to capture, measure and tag Arctic char returning from the ocean. A reward program offered $5 per floy tag and $25 per telemetry radio to provide local incentives for returning tags collected from fish harvested. This program was initiated in the fall of 1997 and was terminated at the end of December 2001. A total of 2,543 Arctic char were tagged; more than 850 tags were recovered from local fishers while 656 tagged fish were recaptured, either at the Meliadine fish fence or by net. The distribution of Arctic char as shown by telemetry data suggests that the species may spawn at numerous locations in Meliadine Lake. Telemetry data also show that the migration of Arctic char from Meliadine Lake to Hudson Bay is via the Meliadine River and Peter Lake/ Diana River.

Other noteworthy watercourses within the all-weather road corridor include site M23.7, where slimy sculpin were captured, and habitat quality for rearing and migration were rated as moderate to high. Sites M5.0, M11.5, and M22.6 also featured suitable rearing habitat for Arctic grayling. Although not confirmed by egg sampling, sites M5.0 and M11.5 are likely used by Arctic grayling to spawn, based on the availability of suitable habitat and/or the presence of juveniles in the catch. In contrast, sites M3.0, M3.9, M6.7, M8.6, M13.3 and D1.2 had relatively poor fish-habitat potential. This was evidenced by a lack of fish captures and only 14 observed fish (ninespine stickleback) at sites M3.0, M13.3 and D1.2. Shallow depths, dry channels (e.g., site M6.7), poor spawning substrates (detritus), and a lack of instream cover contributed to poor habitat ratings.

[12] This section of the report is adapted from the Golder report "Fish Habitat Loss and Compensation Plan for the All-Weather Road to the Meliadine Gold Project, December 2010." The complete report can be found on the attached CD.

Fish habitat studies focused on the physical and biological parameters of the ten ephemeral streams that the road will cross. Physical parameter studies documented the stream habitats that will be disturbed by the use of culverts at water crossings. A variety of channel types were encountered, including single, double, multiple, and braided, as well as areas of dispersed flow (i.e., without a well-defined stream channel). Generally, individual reaches consisted of more than one type of channel, with braided and dispersed channels the most common.

Most of the surveyed sites featured habitat suitable for ninespine stickleback, because of the predominance of fine substrates, detritus, and extensive instream and bank cover in the form of submerged grass vegetation. Aquatic habitat suitable for other small-bodied fish species that may inhabit shallow, ephemeral streams in the study area (e.g., slimy sculpin, Arctic grayling) was scarce, and limited to only three watercourses (sites M5.0, M11.5, and M23.7). These streams featured sections of coarse substrates (gravel, cobble, and boulder) and riffle habitats that were deemed suitable for Arctic grayling spawning and rearing. None of the surveyed streams provided overwintering habitat because they all freeze to bottom during winter.

Impact and Mitigation

Site M2.1 is the Meliadine River and is important fish habitat. The importance of Arctic char to the Inuit dictates that this species and its use of the Meliadine River be protected. The construction of a single-span bridge across the Meliadine River and efforts to keep all ancillary infrastructure above the ordinary high-water mark will ensure that the road will not have any impact on the river or char using the river. Site M5.0 will also have a single-span bridge. All road construction will take place over the winter.

The Char River will also be crossed using a single-span bridge to replace an existing one. Although the fish habitat and fish migration in this river are unknown, both will be protected by selecting a single span and installing it in the winter.

Streams that are crossed using culverts will have a culvert seated 300 mm below grade. This is to facilitate fish migration. There will be some disturbance of the stream sediment in placing the culvert, but as the work will be done in winter, little suspended sediment is expected at spring breakup.

There is little residual effect expected on fish and fish habitat from the proposed road construction. A Habitat Compensation Plan has been developed that proposes to improve fish habitat along the existing watercourses that are to be crossed by the road, since these have incurred significant damage from repeated crossings by all-terrain vehicles (ATVs). These improvements to fish habitat will compensate for those adversely affected by the road. AEM will also conform to various operational statements from the Department of Fisheries and Oceans. A letter confirming this can be found in Appendix 3.

3.4 Terrestrial Environment

Complete details on the terrestrial environment can be found in the document entitled "Terrestrial Vegetation and Wildlife Baseline Synthesis Report," found on the CD attached to this report.

(a) Vegetation

Baseline Data

Studies of vegetation in the exploration area were conducted initially in 1998 by Page Burt of Rankin Inlet. A comprehensive list of plant species was prepared, along with a description of habitats and a map showing their distribution. A similar effort was completed in 2008 and 2009 to describe the vegetation and habitats along the proposed road to the Discovery Gold Deposit, to the F Zone area and along the proposed alignment between Rankin Inlet and the Project. Figure 3.1 shows the distribution of various types of vegetation along the road routes and on the general Meliadine property.

The dominant factor shaping the distribution of habitat types seems to be the amount of moisture available, with wetter areas having more vegetation and the ridge tops the least. The greatest species diversity occurs in the transition zone between the wet meadows and well-drained communities on slopes. No plant species at risk of extinction were found along the road right-of-ways or elsewhere on the Meliadine site.

Impact and Mitigation

The road will cover approximately 30 hectares, the larger part being at the height of land where vegetation is sparse. As well, the various quarries used for construction materials will destroy any plant cover, through excavation and the movement of road-building equipment. Dust deposits resulting from the use of the road can lead to an early snowmelt and thus early flowering of some plant species. Most of the impact from dust will occur downwind of the prevailing wind direction.

No rare or regionally unique vascular plants or plant communities have been found within 250 metres of the road right-of-way on either side.

The progressive reclamation of the quarries will lead to plants re-establishing themselves on disturbed areas. When the road is closed, the area will be scarified, allowing a plant community to establish itself on the (former) road surface. In the long term, this would approximate esker habitat, which is common along the road right-of-way.

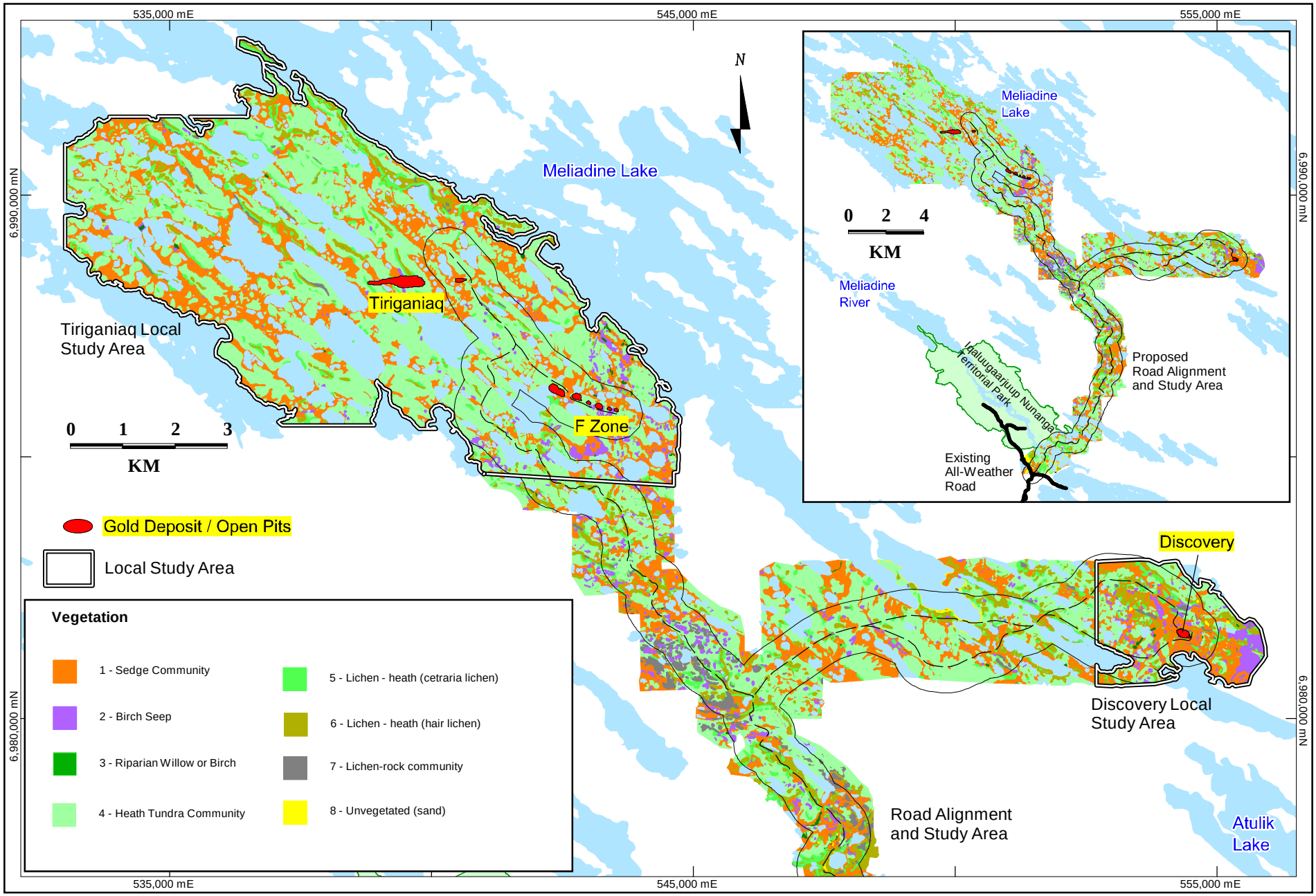


Figure 3.1: Vegetation Studies

(b) Wildlife[13]

Baseline Data

The proposed road and surrounding area lie within the ranges of 40 bird species and 17 mammal species. An inventory of the region's wildlife species was developed from existing information about the distribution of birds and mammals in Nunavut, from baseline studies, and from observations by Meliadine staff that are recorded in the camp wildlife log.

Studies of the caribou herds using the area were initiated in the fall of 1997 when WMC International, the operator of the Project at the time, collaborated with the Government of the Northwest Territories (now Nunavut) in the use of satellite telemetry collars on female caribou. Systematic wildlife studies in the Meliadine area were initiated in the spring of 1998. These studies continued through the summer of 2000. Annual reports were submitted for 1998, 1999 and 2000. Golder Associates continued the studies in 2008 and 2009.

Aerial surveys showed that the Project area is on the periphery of the ranges of two caribou herds. Telemetry data showed that some members of the Qaminirjuaq herd are regular but transient visitors to the area during their spring migration to their calving grounds, and in some years may be present occasionally from late October through March. It is at this time of year that most caribou are harvested by Rankin Inlet hunters. Telemetry data also showed that the caribou present in the fall of 1997 included females that travelled north of Chesterfield Inlet for calving in the spring of 1998, and so may belong to the herd(s) calving in the Lorillard River / Wager Bay area. There are no known caribou calving grounds in or near the general area that could be affected by building and operating the all-season road.

The Rankin Inlet area supports the highest density of breeding peregrine falcons in the arctic region. Raptor nest surveys were conducted over suitable habitat within 10 km of the Meliadine site as well as along the proposed road alignment to Rankin Inlet. It is recognized that, due to the proximity of the study area to Rankin Inlet, many raptor nests within the study area are subject to sources of disturbance other than the road (i.e., boats, snow machines, ATVs and cabins), which compromises the usefulness of monitoring nests as a tool for assessing the Project's impact. As such, only known nesting sites within a 10-km radius of the Meliadine site and the all-weather road were considered relevant to monitor, while other nests, observed beyond the 10-km radius, were recorded but considered control sites. Within 200 metres of the proposed all-weather road, a rough-legged hawk occupied a nest in 2009, and a peregrine falcon occupied another nest in 2008. Figure 3.2 shows these locations. Table 3.6 details the species observed and the time and year of each observation. It is worth noting that in 2009 a raptor tried to establish a nesting site on the Meliadine radio tower, which is located in the middle of the camp. It was not deterred by camp activity and only left after being discouraged by camp personnel.

[13] Complete details on wildlife can be found in the "Terrestrial Vegetation and Wildlife Baseline Synthesis Report" on the attached CD. This section was adapted from that report.

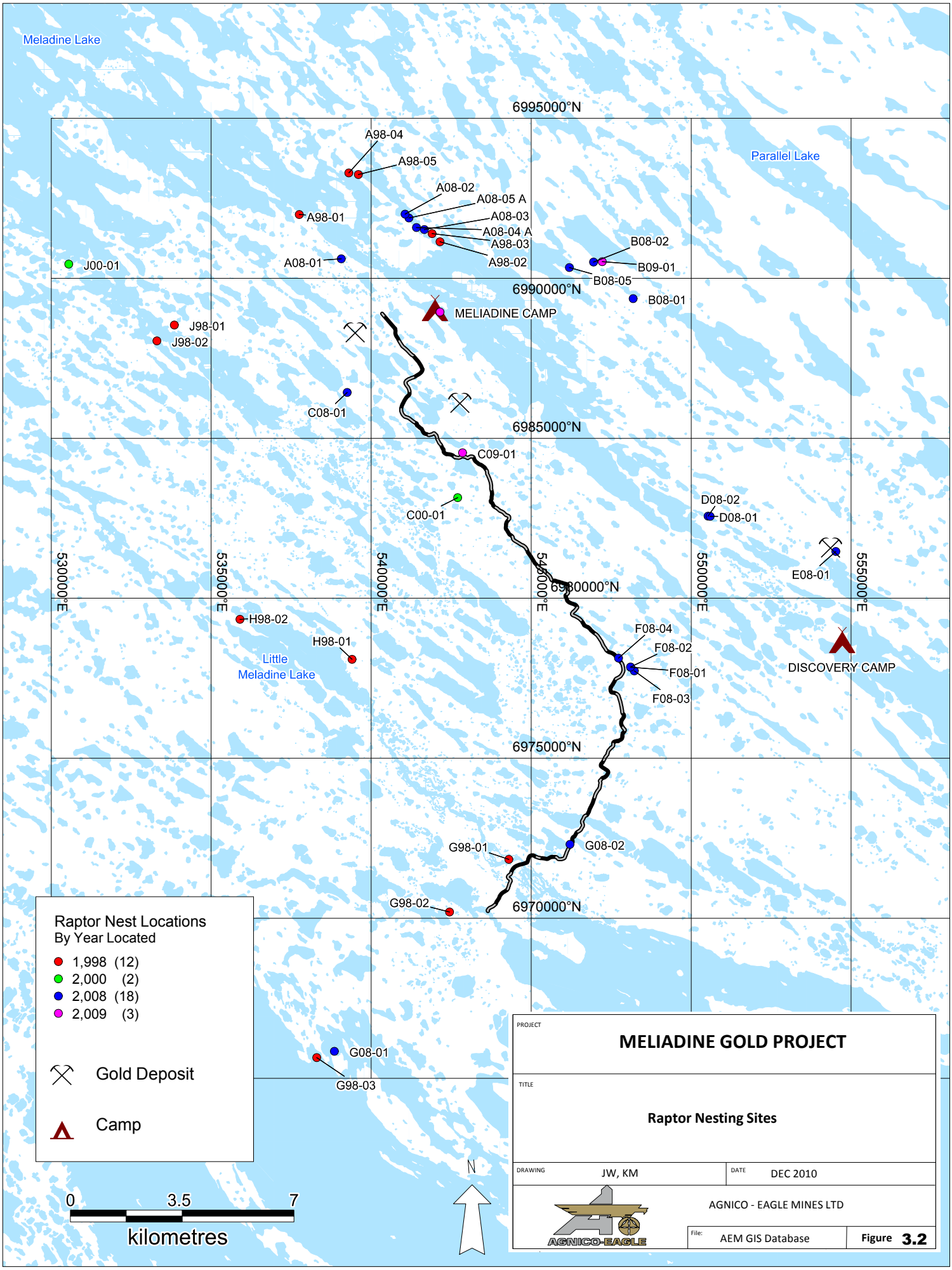

Meladine Lake
Parallel Lake
Little Meladine Lake
6995000°N
6990000°N
6985000°N
6980000°N
6975000°N
6970000°N
530000°E
535000°E
540000°E
545000°E
550000°E
555000°E
A98-04
A98-05
A08-02
A08-05 A
A98-01
A08-03
A08-04 A
A98-03
A98-02
A08-01
J00-01
B08-02
B09-01
B08-05
B08-01
MELIADINE CAMP
J98-01
J98-02
C08-01
C09-01
C00-01
D08-02
D08-01
E08-01
H98-02
H98-01
F08-04
F08-02
F08-01
F08-03
DISCOVERY CAMP
G98-01
G08-02
G98-02
G08-01
G98-03
Raptor Nest Locations
By Year Located
1,998 (12)
2,000 (2)
2,008 (18)
2,009 (3)
Gold Deposit
Camp
0
3.5
7
kilometres
N
PROJECT
MELIADINE GOLD PROJECT
TITLE
Raptor Nesting Sites
DRAWING
JW, KM
DATE
DEC 2010
AGNICO - EAGLE MINES LTD
File:
AEM GIS Database
Figure 3.2

Table 3.6 Raptor Survey Data

Species[1]	Nest Code	UTM Zone 15 NAD 83		1998	1999	2000	2008	2009
		Easting	Northing					
RLH	C09-01	542854	6984546	-[2]	-	-	-	Occupied
PF	F08-01	548111	6977843	-	-	-	Occupied	-
Unknown	G08-02	546212	6972309	-	-	-	Unoccupied	-
RLH	C00-01	542701	6983142	-	-	Unoccupied	-	-
PF	G98-01	544301	6971842	Occupied/ Unoccupied[3]	-	-	-	-

[1] Rough-legged hawk, peregrine falcon

[2] "-" indicates the nesting site was not located

[3] indicates nest was occupied early in the season (May/June) but unoccupied by July

Impacts and Mitigation

The importance of caribou to the cultural, social and economic well-being of Nunavummiut (people of Nunavut) is clearly known, and the protection of the caribou is foremost in all developments. Caribou do frequent the Rankin Inlet area occasionally, and the road will make it easier to hunt them should they be north of the hamlet. Restrictions on hunting along the road, if any, will be part of the consultation with local Inuit groups and the Government of Nunavut, and will form part of the operating plan for the road. A first draft of this plan is presented in Appendix 4.

To the east, in Quebec and Newfoundland-Labrador, the 2010 inventory of the George River Caribou Herd counted approximately 75,000 animals, down from about 375,000 in 2001. Similarly, to the west in the Northwest Territories, the Bathurst Caribou Herd has dropped in number, to approximately 32,000 in 2009, from 349,000 in 1996.

The "Draft Nunavut Caribou Strategy Framework Summary Document," produced in 2010 by the Nunavut Department of the Environment, notes that

> according to government surveys and the observations of hunters, each of the three largest caribou herds in Nunavut has decreased in size by 30 to 95% over the last 15 years. What amounted to a total [of] more than 1.1 million caribou in 1995 has decreased to less than 0.4 million today. Many other herds have similarly declined across Nunavut. . . . Inuit traditional knowledge and scientific evidence both indicate that caribou herds go through long cycles of abundance and scarcity in response to environmental factors. These are natural cycles that have occurred for millennia.

AEM feels the caribou strategy is a positive step and the company hopes that it leads to discussions about the long-term welfare of the caribou in Nunavut. What is being experienced today may be a period of

scarcity; it behooves all parties to participate in discussions about the strategy to ensure that Nunavut's caribou herds remain sustainable for current and future generations.

Observations at the Ekati Diamond Mine from 1996 to 2003 indicate that

> the caribou were not deterred by the mine. They frequently rested in its immediate vicinity, sometimes in large herds. As long as they were not harassed, they continued their normal activities. They commonly made their way onto the waste rock piles to get away from the flies and mosquitoes. Roads were closed to traffic when large numbers of caribou wandered into the mine area.[14]

Before the 1950s, caribou migration routes[15] used to cross at the Meliadine Lake narrows, or Naluit, as evidenced by the many trails converging on this point. When the caribou migration moved further west, it proved to be a time of starvation for the Inuit. This is supported by Inuit Qaujimajatuqangit. When one looks down into the migration trails, plant growth can be seen in the form of lichens and rooted plants. This supports the observation that it has been some time since these trails were heavily used by the caribou. One can only speculate on the reason for the shift in the migration pattern, but it is not thought to be due to hunting pressure.

Because of the large geographic range of the caribou herds, effective monitoring of their health and well-being is best conducted on a scale that matches the range of these animals. AEM and others in industry are working with the Government of Nunavut and other governments to monitor the migration patterns and behaviour of the herds using radio-collars. This program provides information about caribou that might pass through the Meliadine area, and may provide insight into the effect of the road on migration patterns.

The construction and operation of the proposed road will have four primary potential impacts on caribou. There may be a direct loss of habitat; animals may avoid foraging habitat near the road; herds may be deflected from normal migration routes, producing energetic costs, and collisions with vehicles may cause mortality.

Measures to mitigate these effects on the part of drivers will include observing the speed limits, giving animals the right-of-way and coming to a stop if necessary. If a consultation process determines that it is required, the road could be closed when large herds of caribou are present. With these measures in place, residual effects on caribou and other animals are expected to be of low significance. Biweekly surveys will be carried out along the road over the summer to gather information about the interaction of animals with the road and to quantify any residual effects. If unacceptable effects are noted, further refinements to the road operating procedures will be instituted following consultation.

Five raptor nests are located within 200 metres of the ATV trail that the all-weather road will follow. During the nesting season, human activity and road noise can cause some disturbance and displacement of nesting raptors. Road-building will occur during the winter, and returning raptors will likely avoid

[14] Personal observations of John Witteman, Environment Manager, Ekati Diamond Mine 1996-2003
[15] Informed thoughts by Page Burt, Rankin Inlet.

suitable nest sites near the road because of the ongoing activity. A log book of wildlife sightings and activities will be maintained for the road, and the company will undertake biweekly monitoring of raptor nesting sites in relation to the road. It is worth noting[16] that the Meadowbank Gold Mine road had a raptor nest established in a quarry in 2009, and that in 2010 three quarries had raptor nests. The man-made cliffs in the quarries along the Meadowbank road are providing nesting sites for raptors. The raptors seem undeterred by the traffic on the road.

[16] Stephane Robert, Environment Superintendent, Meadowbank Gold Mine, December 2010. Personal communication.

Section 4 Use of the Road

AEM will exercise no control over public access to the all-weather road. It will be an open-access road that individuals can use at their own risk. Responsible, safe use of the road by the public includes, but is not limited to: Observing posted speed limits; maintaining one's vehicle in good operating condition; carrying emergency supplies; wearing clothing suited for the time of year; wearing safety equipment such as a helmet when on an ATV; and being mindful of road conditions in the event of deteriorating weather conditions and during periods of road maintenance. The maintenance of the road, such as snow removal and improvements to the road surface, will be the responsibility of AEM or any company contracted by AEM to do so. Proposed "Access Road Operating Procedures" have been developed (see Appendix 4). This document outlines procedures to follow when using the road. The residents of Rankin Inlet, the Government of Nunavut, and Inuit organizations will be consulted before it is finalized.

As outlined in the proposed operating procedures, AEM will provide regular public education programs about road safety and operating procedures. Speed limits on the road will not exceed **50 km/hr**, which is the design basis for the road; the speed limit could be lower should conditions warrant. Speed limits will be posted in English and Inuktitut, road conditions will be broadcast on the community radio, and warning signs will be posted to advise the public of possible hazards such as maintenance, washouts or heavy equipment on the road ahead. Furthermore, AEM will work with the community and Inuit associations to develop and implement emergency-response provisions and resources. As a first step, AEM will provide helicopter support in the installation of a cellphone tower north of Rankin Inlet. This will give all users of the road cellphone access to town and the ability to call for assistance in the event of an emergency.

Traffic on the road is expected to be light for the first two years, with two fuel trucks per day to supply the underground and a small van or bus ferrying workers to and from Rankin Inlet once a day. There may be two trucks per day delivering camp supplies and materials for the underground and surface diamond-drilling programs. Other local contractors supplying services to the site can also be expected daily. Once the barges arrive in the late summer and fall, traffic will increase significantly as all materials will be transferred to the Meliadine site. Road maintenance vehicles can be expected at any time. Local residents, some using ATVs, will access areas near the road for traditional use, as well as Meliadine Lake for general recreation at their cottages and area camps.[17]

There could be a gate on the south end of the road near Rankin Inlet that would be unmanned and open in most instances. If installed, the gate will be closed only during periods of road maintenance; when weather conditions warrant; when large equipment is being transported from the port to site; and in other instances where safety concerns outweigh open access to the public. Notices of road closings will be broadcast on the community radio station, posted at AEM's office in Rankin Inlet, and sent in emails to community organizations and the hamlet office. A decision on a southern gate will follow consultation with interested parties.

[17] Both activities will contribute to the wellness of the individuals involved.

Another gate will be placed on the road near the Meliadine site. The road beyond this point will be restricted to AEM personnel, on-site contractors and Rankin Inlet companies contracted by AEM. There will be no public access to the Meliadine site without the written approval of the camp manager.

And because of safety concerns, there will not be any public access to the road while it is being constructed.

Section 5 Public Consultation

Meaningful public participation is necessary for successful consultation. Widespread advertising in local papers, on local radio, through posters and by invitation precedes any consultation meetings that are held. As a result, broad participation has been a common feature of all consultations carried out by AEM and the companies that preceded it Residents of Rankin Inlet have recently provided input about their expectations for the all-weather road, and during the past 12 years, offered their thoughts about the overall Meliadine Gold Project. In return, AEM and companies that preceded it have informed the general public; community organizations; Community Lands and Resource Committees; governments; local businesses; traditional land users and hunters and trappers organizations about activities that were being carried out in connection with the road and the Meliadine site.

Consultation continues to be a two-way exchange of ideas, with the company responding to the ideas raised by the public and *vice versa*. There has been widespread support for the access road from the community and Nunavut government, which have provided information about its routing and design. The almost-universal opinion expressed at consultation meetings was that there should be no restrictions on who can use the road. AEM has responded by proposing an open-access road that anyone can use at his or her own risk. Additionally, AEM agreed to build a spur road that would lead from the main road to Meliadine Lake, an idea that was supported at various consultation meetings. While getting to Meliadine Lake in the past meant travel by snowmobile or ATV over difficult terrain, the road will allow the residents of Rankin Inlet much easier access to the lake and other areas for recreation and traditional activities.

Since completing the purchase of Comaplex in early July 2010, AEM has held the following consultation sessions:

- From Aug. 9-31, 11 meetings were held in Rankin Inlet to familiarize local leaders with AEM and to update them about AEM's preliminary plans for the Meliadine Gold Project. Organizations that participated in these meetings included the Kivalliq Inuit Association; Kivalliq Chamber of Commerce; hunters and trappers organization; mayor and hamlet council; Board of Directors of Sakku Investments Corp.; M.L.A. Lorne Kusugak; Shawn Maley of the Government of Nunavut Community; and representatives of government services. AEM also participated in a meeting of the Kivalliq Socio-economic Monitoring Committee.

- On Sept. 15, 2010 AEM hosted a one-day visit to the Meadowbank Gold Mine by 40 community leaders and elders from Rankin Inlet, including the mayor and council, hunters and trappers, community elders (including a number who had worked underground at the North Rankin Nickel Mine in their younger days) and business leaders. The objective was to show the group the type of mining operation constructed and operated by AEM, and to let them see for themselves the number of Inuit already employed at Meadowbank. Comments from the elders included:

- *My nieces and nephews work at Meadowbank, it makes my mind at ease, when young people are hired by AEM;*

- *This is a very good expose of this tour, even the descriptions with the tour are very clear. AEM is a good example for other mines;*

- *Thank you to AEM for the tour, if this is similar to what is going to happen with Meliadine Project, AEM works will prosper even more, because they work with the communities; and*

- *When Inuit are hired, and the company works with communities, it makes everybody happy.*

- On Oct. 18, 2010 AEM hosted a dinner with invited community representatives and elders at the Sinniktarvik Hotel in Rankin Inlet. The dinner was an informal event to allow community members to meet the management team from Agnico-Eagle Mines and ask about the current status of the Meliadine Project. A total of 28 elders and community leaders attended.

Finally, AEM has opened an office in Rankin Inlet, thereby allowing individuals or groups to readily obtain information about the road and other aspects of the overall project. AEM remains available to discuss the road with any interested parties and will look for feedback about its operation once it is constructed.

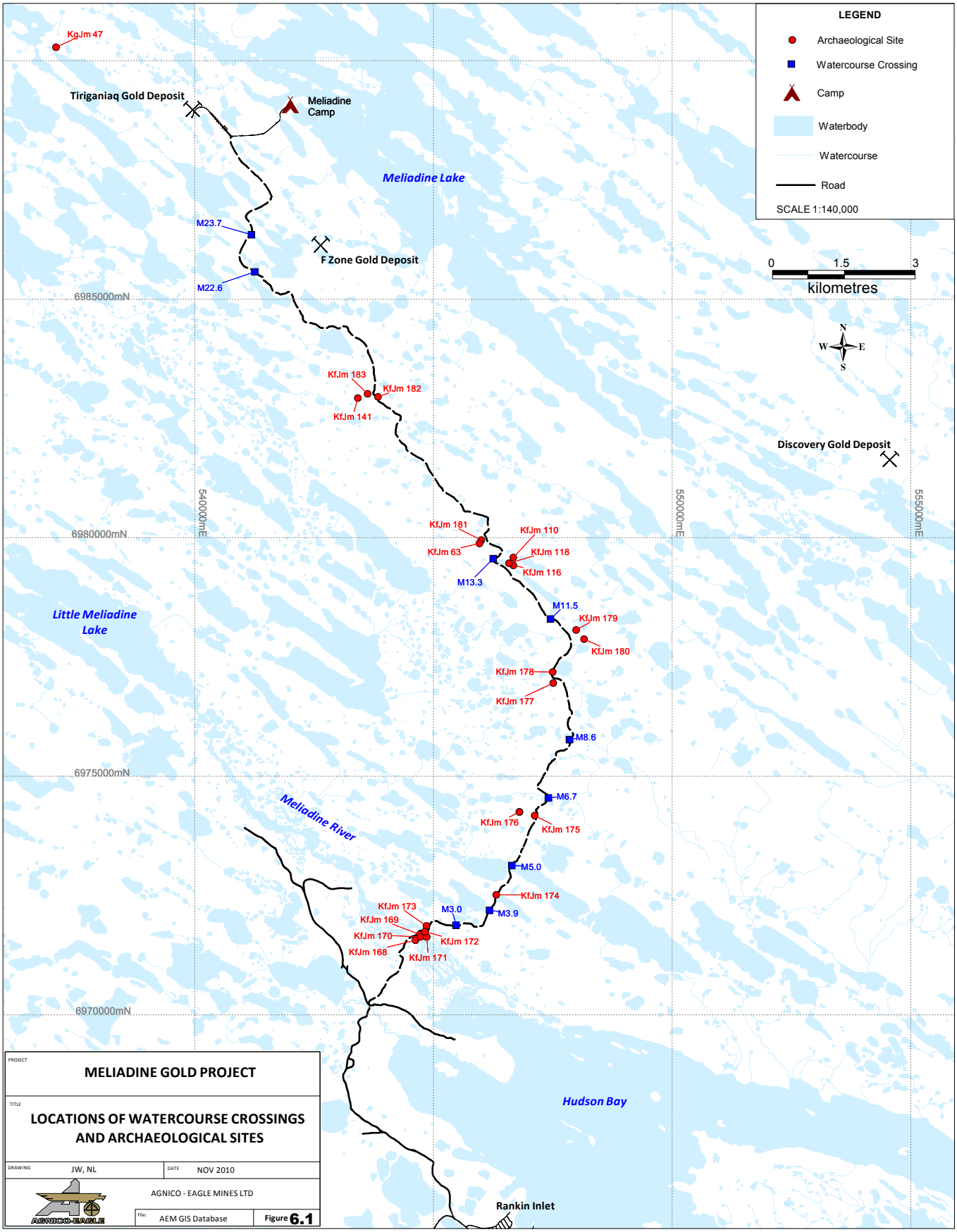
6.1 Archaeology / Heritage Sites Impact Assessment

Before the initial underground exploration and related surface disturbance at the Meliadine Gold Project, a survey was undertaken of heritage sites at risk in the area. Elisa Hart, a professional archaeologist, undertook this examination assisted by a local Inuit field assistant. This study was conducted with the assistance of both an elders' committee and Moses Aliyak, a noted elder recognized for his intimate knowledge of local heritage resources. Numerous sites were found in the area of the prospective underground portal that could be affected. Upon an examination and review of these sites by the elders' committee, it was determined that they represent recent land use and are not significant. The elders' committee advised the Kivalliq Inuit Association of its assessment.

The search for local heritage sites was enlarged in 2008 to include all prospective mine land-use areas not previously studied, including the proposed road alignment to Rankin Inlet. This work was completed and reported on by Golder Associates in early 2009[18] as an archaeological impact assessment. In reporting to the Nunavut Department of Culture, Language, Elders and Youth, Golder said "Comaplex has fulfilled the requirements of the current program in [its] attempts to identify the potential for impact to heritage resources through the construction of an all weather road."

In 2010, AEM proceeded with efforts to mitigate any negative impact on heritage sites at the Meliadine River crossing, since impacts cannot be avoided in constructing the bridge. The sites are shown in Figure 6.1. Two sites shown in the figure--KfJm174 and KfJm178--did not require mitigation as the right-of-way was adjusted to avoid them. A report on the mitigation work is pending and will be submitted to the Department of Culture, Language, Elders and Youth.

[18] The complete report entitled "Archaeological Impact Assessment of the Comaplex Meliadine West Gold Project, Rankin Inlet, Nunavut" can be found on the attached CD.


LEGEND
Archaeological Site
Watercourse Crossing
Camp
Waterbody
Watercourse
Road
SCALE 1:140,000
0
1.5
3
kilometres
N
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E
S
KgJm 47
Tiriganiaq Gold Deposit
Meliadine Camp
Meliadine Lake
M23.7
F Zone Gold Deposit
M22.6
6985000mN
KfJm 183
KfJm 182
KfJm 141
Discovery Gold Deposit
540000mE
550000mE
555000mE
KfJm 181
KfJm 110
KfJm 63
KfJm 118
KfJm 116
M13.3
6980000mN
Little Meliadine Lake
M11.5
KfJm 179
KfJm 180
KfJm 178
KfJm 177
M8.6
6975000mN
M6.7
Meliadine River
KfJm 176
KfJm 175
M5.0
KfJm 174
KfJm 173
M3.0
M3.9
KfJm 169
KfJm 170
KfJm 172
KfJm 168
KfJm 171
6970000mN
Hudson Bay
Rankin Inlet
PROJECT
MELIADINE GOLD PROJECT
TITLE
LOCATIONS OF WATERCOURSE CROSSINGS AND ARCHAEOLOGICAL SITES
DRAWING
JW, NL
DATE
NOV 2010
AGNICO - EAGLE MINES LTD
File:
AEM GIS Database
Figure 6.1

6.2 Inuit Qaujimajatuqangit (Traditional Knowledge)

Participation in traditional ways of life is high in Nunavut. Traditional ways of life provide food, clothing, and services that would otherwise have to be purchased. Traditional activities shape social relationships and are a source of individual identity and values, sustaining Inuit culture. Inuit Qaujimajatuqangit (traditional knowledge) is also a source of cash income, through the sale of products such as furs and art, and increasingly through tourism services that are rooted in the Inuit experience of the land.

The Meliadine Gold Project initiated a study of Inuit Qaujimajatuqangit for the Meliadine site in September 1997. The study was governed by a steering committee of Rankin Inlet and Chesterfield Inlet elders. The committee received input from the elders, some of whom lived in the area in the early days or before the establishment of Rankin Inlet in the 1950s. Maps of the area documented traditional names, good hunting areas and a shift in the caribou migration pattern to the west.

The study also provided insight into the traditional use of Meliadine Lake by the Inuit, the locations of historical caribou trails in the vicinity of the proposed mine, and concerns about the potential socio-economic impact of its development.

Another Inuit Qaujimajatuqangit project was initiated in January 2010 as part of the work plan for the draft Environmental Impact Statement. Results will be used to improve the design of environmental monitoring programs and operational features of the mine, as well as to identify valued environmental and socio-economic components. A report on this project is pending.

6.3 Regional Conservation and Land Use

Current and future land use in the region and related issues were reviewed by the Nunavut Planning Commission (NPC) in the preparation of the Keewatin Regional Land Use Plan in 2000 (NPC 1991, revised in 1997 and approved in 2000). The conservation interests of federal and territorial agencies were reviewed and are described below.

(a) Parks Canada

The Keewatin Regional Land Use Plan did not indicate any Parks Canada interests or intentions in the area of the Meliadine Gold Project.

(b) Territorial Parks

Iqalugaarjuup Nunanga Territorial Park was formally introduced as a territorial park in 1998, after being in the planning stage since 1990. The park lies entirely within the Municipality of Rankin Inlet. The proposed all-weather road to the proposed mine would not enter the park at any point; it would cross the Meliadine River downstream of the park.

(c) Canadian Wildlife Service (CWS)

Current site-specific conservation initiatives by the CWS concentrate on migratory bird habitat and do not include any lands in the general vicinity of Rankin Inlet or Meliadine Lake.

(d) Department of Fisheries and Oceans (DFO)

The Meliadine River and the bay at its mouth have been used for subsistence fishing by Rankin Inlet residents for many years. They are not designated as priority habitat by DFO in the Keewatin Regional Plan.

(e) Nunavut Department of Sustainable Development

Birds of prey are not included in the federal Migratory Birds Convention Act, so their protection and management, along with those of terrestrial mammals, fall under the Nunavut Wildlife Act. No conservation designation has been proposed under the Act for any species on lands associated with the Project.

6.4 Socio-economic Impacts

The place that will benefit the most from the positive impact of the proposed mine and road is Rankin Inlet. The hamlet is the community closest to the Meliadine site, and its residents will receive preference when it comes to the employment and business opportunities that will flow from building the road and later, from servicing the underground program, surface drilling and the camp.

The proposed road will be built over the winter. This is a “slack” period of low employment activity, as many industries such as tourism and mineral exploration are seasonal, resulting in limited winter employment opportunities. Two road-building crews will be required: one to install the abutments and bridges and the other to build the road. It is anticipated that a maximum of 70 people will be needed, with many employed by local contractors and others to be AEM employees. Construction will take approximately six months. Eight thousand person-days of work will be created over a six-month period. The construction of the road, followed by positive results from the underground program and continued surface drilling, may signal that a mine is forthcoming.

New business opportunities would occur directly should local contractors successfully bid to build the road and bridges. Indirect positive economic impacts would be seen at hotels, restaurants, hardware stores and cultural businesses. Contractors would likely require block bookings of hotel rooms in order to accommodate workers from outside Rankin Inlet. This would result in fewer hotel rooms being available over the six-month period, which could crowd out other economic activities that rely on the availability of hotel rooms. A significant increase in air traffic is unlikely, although airline companies may have to add more seats while reducing the space for air freight.

The construction period for the road would be short, but the completed road should lead to increased economic activity at the Meliadine site. Year-round underground exploration and bulk sampling can be

expected. Businesses in Rankin Inlet that service the underground program, surface drilling and camp would likely keep their workers employed year-round. Workers would be involved in activities such as the delivery of fuel, materials and other supplies, and expediting. The Meliadine camp would remain open year-round and provide continued employment to those normally laid off when the camp closes for the winter. Eventual long-term employment and business impacts can be expected to increase with the success of the underground program and surface drilling, a decision by AEM to build a mine, and regulatory approvals for the same.

The road is not expected to bring social change. Its impact on individual and community wellness cannot be predicted with any certainty. Nevertheless, the road would provide opportunities for residents of Rankin Inlet to undertake traditional activities both along the road and, in particular, on Meliadine Lake, which offers a wealth of opportunities for recreational fishing, boating and camping.

It is hoped that the additional social and economic activity resulting from the road's construction would motivate Nunavut-based individuals to advance their marketable skills by enrolling in the recently opened trade school in Rankin Inlet, or at other educational institutions. Long-term, well-paying jobs are best obtained by having skills that are needed in the mining industry.

All businesses and workers involved in the construction of the road would be required to provide safe, competitive, reliable, and cost-effective goods and services. Participation in the construction by people and businesses from the Kivalliq Region is very important to AEM. Project managers will expect the same standards of effort, conduct and commitment from all employees and contractors, regardless of where they may be based.

Section 7 Residual and Cumulative Effects

The cumulative environmental and socio-economic impact of the proposed all-weather road on the surrounding area have been considered in combination with other projects or activities that have been, or will be, carried out in the same area. The surrounding area extends as far north as the Meadowbank Gold Mine and as far south as Whale Cove. It was considered important to include the Meadowbank mine, which is 285 km northwest of the Meliadine site, since it is the only large operating industrial development in the Kivalliq region. Meadowbank has been included in the assessment of cumulative effects even though the two properties are not located in the same drainage basins, do not use the same road, and do not share a common local community—all indications that they are unlikely to result in any significant cumulative effects.

Diamond exploration activity by Shear Minerals Ltd. abuts the east end of the Meliadine properties, but its results to date do not suggest that a diamond mine will be established there. The proposed Kiggavik uranium mine is further to the northwest and is not expected to result in cumulative effects, except that there will be competition for employees. The proposed all-weather road does not, therefore, add to the environmental effects of any other industrial operations in the area; conversely, there is nothing to suggest that other industrial operations will become established in the vicinity of the road, either independently or as a result of its existence.

The only other road of any length in the region is the one between Baker Lake and the Meadowbank Gold Mine, which is similar to the proposed Meliadine road in design and use. The only significant difference between the two is that the Meliadine road would be an open-access road while access to the Meadowbank road requires a permit from the local hunters' and trappers' organization. However, the Meadowbank mine is 285 kilometres from the Meliadine road and potential cumulative effects of the two roads are considered minor. Any potential overlap is restricted to caribou and raptors, both of which can be wide-ranging.

The Meliadine all-weather road would be the first road that ventures beyond the municipal boundaries of Rankin Inlet. Nonetheless, numerous ATV trails scar the tundra in all directions around the town. These trails have negatively affected vegetation and fish habitat.[19] One of the more popular networks of trails leads to Meliadine Lake, where a significant number of residents of Rankin Inlet have recreational camps and cabins. People are expected to favour the proposed all-weather road when accessing Meliadine Lake, thereby reducing the negative effects on the tundra. With some assistance, vegetation will be able to re-establish itself on damaged areas, and fish habitat will be repaired in the streams. While minor negative residual effects are expected from the construction and operation of the road, these would be offset by a matched positive effect, in reducing ATV travel on the tundra, and repairing damaged areas.

If the Meliadine underground program and surface drilling prove successful, there will be additional impetus to develop a mine. This would have positive effects on employment, incomes and business

[19] Once construction of the Meliadine road is complete, one of options listed in the draft Fish Habitat Compensation Plan is the repair of damaged water crossings.

opportunities, in effect changing the broad regional socio-economic environment in the immediate area. The collection and assessment of socio-economic data will provide insights into the effects that can be expected, and the ways that positive effects can be enhanced and negative ones mitigated. Road use is expected to be light during the servicing of the underground program, but a large increase in traffic is expected if a mine is developed. The overall effect of the road in the context of an operating mine will be addressed in the forthcoming Environmental Impact Statement for the Meliadine Gold Project.

In summary, the construction, operation and eventual closing of the proposed road are not expected to have significant adverse cumulative effects on the ecosystem, or negative socio-economic effects on the residents of Rankin Inlet and the larger Kivalliq region.

The road as designed will eventually be part of the Manitoba-Nunavut road to Chesterfield Inlet. As such, the larger part of the road—approximately 17 kilometres—would not be reclaimed, and responsibility for it would assumed by the Government of Nunavut upon the closing of the Meliadine site.

Parts of the proposed all-weather road close to the Meliadine site that are not part of the road to Chesterfield Inlet would be reclaimed by removing culverts, re-establishing streams, and placing riprap to limit water-caused erosion. The road sections will be contoured to reduce their vertical profile and subsequently scarified to encourage native plant growth. In the end it is thought that this will simulate esker-like habitat.

8.1 Reclamation of the Road Quarries

A number of granular-material quarries and rock quarries will be established during the construction of the road from Rankin Inlet to the mine site. Potential quarry and borrow sites along the road alignment are being tested for acid rock drainage (ARD) and metal leaching before final selection. Only non-ARD rock will be selected for road-building. The quarries will have their side slopes stabilized and have positive drainage wherever possible to minimize the pooling of water.

With prudent initial design, the quarries should require little reclamation after the road is built, and when it is closed. Loose rock will be pulled to the floors of the quarries and the entrances blocked with large boulders.

The RECLAIM model was used to estimate the cost to scarify approximately 30 kilometres of road, remove ten bridges/culverts from ephemeral streams and block the road. The costs are shown in Table 8.1.

Table 8.1 RECLAIM Model Costs for Reclaiming the All-Weather Road

Activity	Unit Cost	Cost
Scarify 30 kilometres of road	$3,215/km	$96,450
Remove 10 water crossings	$4,000/crossing	$40,000
Block road with 100 m^3 of rock	$8.50/$m^3$	$850
Total		$137,300
3% Project Management		$4,119
3% Engineering		$4,119
10% Contingency		$13,730
Grand Total		$159,268

Section 9. References

Agnico Eagle Mines Ltd. 2010. Photographs and GPS Co-ordinates for Proposed Meliadine West All-Weather Access Road. (Provided by John Witteman, Agnico Eagle Mines Ltd., July 2010.)

Golder Associates Ltd. 2008. Archaeological Impact Assessment of the Comaplex Meliadine West Gold Project, Rankin Inlet, Nunavut. (Submitted to the Department of Culture, Language, Elders and Youth, Nunavut, Nunavut Permit No. 2008-003A. Golder Associates Ltd., Edmonton

Golder. 2009a. Draft report on Meliadine Gold Project Aquatic Baseline Synthesis Report. (Prepared for Comaplex Minerals Corp.) Golder Associates Ltd., Edmonton.

Golder. 2009b.Draft report on Terrestrial Vegetation and Wildlife Baseline Synthesis Report. (Prepared for Comaplex Minerals Corp.) Golder Associates Ltd., Edmonton.

Golder. 2010a. All Weather Access Road, Meliadine Gold Project, Feasibility Level Design. (Prepared for Agnico-Eagle Mines Ltd.) Golder Associates Ltd., Vancouver.

Golder. 2010b. Geomorphology and Soils – Meliadine Access Road, Meliadine Gold Project, Nunavut. (Prepared for Comaplex Minerals Corp.) Golder Associates Ltd., Vancouver.

Golder. 2010c. Static Test Results for Waste Rock and Tailings, Meliadine Gold Project, Nunavut, Canada. (Prepared for Comaplex Minerals Corp.) Golder Associates Ltd., Ottawa.

Golder. 2010d. Technical Memorandum on Proposed Channel Crossing Structures, Meliadine All Weather Road, Meliadine Gold Project, Nunavut. (Prepared for Comaplex Minerals Corp.) Golder Associates Ltd., Vancouver.

Golder. 2010e. Geochemical Assessment of Potential Road Construction Material, Meliadine Gold Project, Nunavut. (Prepared for Agnico-Eagle Mines Ltd.) Golder Associates Ltd., Ottawa.

Golder. 2010f. Fish Habitat Loss and Compensation Plan for the All-Weather Road to the Meliadine Gold Project. (Prepared for Agnico-Eagle Mines Ltd.) Golder Associates Ltd., Edmonton.

Nanuk Enterprises. 1999. Archaeological Impact Assessment of the Comaplex Meliadine West Gold Project, Rankin Inlet, Nunavut.

Nunavut Department of the Environment. 2010. Working Together for Caribou, Draft Nunavut Caribou Strategy Framework Summary Document.

Appendix 1. Applicable Acts, Regulations and Guidelines

Act	Regulation	Guideline
Federal		
Canadian Environmental Protection Act (1999 c.33)	*Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations*	*CCME - Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products*
		Notice with respect to substances in the National Pollutant Release Inventory
	Environmental Emergency Regulations	(threshold for hydrochloric acid 6.8 tonnes)
	Interprovincial Movement of Hazardous Waste and Hazardous Recyclable Material Regulations	
Canada Water Act (1985 c.11)		
Canada Wildlife Act (1985 w9)		
Species at Risk Act (2002 c.29)		(Eskimo Curlew – endangered)
Migratory Birds Convention Act (1994 c.22)	Migratory Birds Regulations (C.R.C., c. 1035)	
Fisheries Act (1985, c. F-14)	Metal Mining Effluent Regulations	The Policy for the Management of Fish Habitat
		Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters
		Freshwater Intake End-of-Pipe Fish Screen Guideline
		Standard Operating Procedure – Clear Span Bridges
Explosives Act (1985 c.E-17)	Ammonium Nitrate and Fuel Oil Order	
	Explosives Regulations	
Navigable Waters Protection Act (R.S. 1985 c. N-22)	Navigable Waters Works Regulations	
Transport of Dangerous Goods Act		
Territorial Lands Act	Northwest Territories and Nunavut Mining Regulations	
Nunavut Waters and Nunavut Surface Rights Tribunal Act (2002, c. 10)		
Nunavut Act (1993 c.28)		
Nunavut Land Claims Agreement Act (1993, c. 29)		
Territorial - Nunavut		

Environmental Protection Act	Spill Contingency Planning and Reporting Regulations	
		Guideline on Dust Suppression
	The removal of hazardous materials will require the registration with the Government of Nunavut, Department of Environment as a waste generator as well as carrier (if applicable) prior to transport	Guideline for the General Management of Hazardous Waste in Nunavut
		Guideline for Industrial Waste Discharges in Nunavut
		Guideline for Air Quality – Sulphur Dioxide and Suspended Particulates
		Guideline for the Management of Waste Antifreeze
		Guideline for the Management of Waste Batteries
		Guideline for the Management of Waste Paint
		Guideline for the Management of Waste Solvents
		Guideline for Industrial Projects on Commissioner's land
		Canada-Wide Standards for Particulate Matter (PM) and Ozone
		Canada-Wide Standards for Petroleum Hydrocarbons (PHC) In Soil
Historical Resources Act		
Wildlife Act	Wildlife General Regulations	
	Wildlife Licences And Permits Regulations	
	Wildlife Management Barren-Ground Caribou Areas Regulations	
	Wildlife Management Grizzly Bear Areas Regulations	
	Wildlife Management Zones Regulations	
	Wildlife Regions Regulations	
Territorial Parks Act	Territorial Parks Regulations	
Scientists Act	Scientists Act Administration Regulations	
Commissioner's Land Act	Commissioner's Airport Lands Regulations	
	Commissioner's Land Regulations	
Mine Health And Safety Act	Mine Health And Safety Regulations	
Workers' Compensation Act	Workers' Compensation General Regulations	

All-Terrain Vehicles Act	All-Terrain Vehicles Regulations
Apprenticeship, Trade And Occupations Certification Act	Apprenticeship, Trade And Occupations Certification Regulations
Electrical Protection Act	Electrical Protection Regulations
Explosives Use Act	Explosives Regulations
Fire Prevention Act	Fire Prevention Regulations
Hospital Insurance And Health And Social Services Administration Act	Territorial Hospital Insurance Services Regulations
Labour Standards Act	Various
Motor Vehicles Act	Large Vehicle Control Regulations
	Motor Vehicle Registration And Licence Plate Regulations
Petroleum Products Tax Act	Petroleum Products Tax Regulations
Public Health Act	Camp Sanitation Regulations
	General Sanitation Regulations
Public Highways Act	Highway Designation And Classification Regulations
Safety Act	General Safety Regulations
Transportation Of Dangerous Goods Act , 1990	Transportation Of Dangerous Goods Regulations, 1991
Nunavut Act	Nunavut Archaeological and Paleontological Sites Regulations

Appendix 2. Detailed Information on all Quarries

The detail on the maps in this appendix is extensive and an explanation is warranted as a legend alone cannot explain it all.

In 2007 Comaplex surveyed the potential road route and this was followed in 2010 by Golder when samples were collected for ARD and metal leaching testing.[20] Each used their own numbering convention and both are shown on the maps.[21] The table in this appendix shows the relationship between the two numbering conventions. The table also shows the quantity of material to be used from select quarries.

Solid colours represent areas close to the road that could be used for a quarry, while open colours are potential quarries that are not to be used.

Below is an explanation of the colours and symbols seen on the three maps.

Rock Quarries, Area in Hectares

Potential Esker Quarry , Area in Hectares

Low Displacement Hazard – good potential road material

Low Displacement Hazard – good potential but not to be used

A low displacement hazard quarry (DHQ) is a potential borrow area with well drained materials that are suitable for road construction. Refer to the geomorphology study carried out by Golder (See attached CD).

0m – 100m offset on either side of the road

100m – 200m offset on either side of the road

Raptor nest location, the fine print is the number found in Table 3.5

[20] Table 3.4 provides more detail on the testing. Further information is also available in the geochemistry report for the potential quarries found on the attached CD.

[21] As an example, Comaplex's rock quarry **RQ02** is the same as Golder's rock quarry **R19**. Comaplex's esker quarry **TQ12** is the same as Golder's **B5**.

All Weather Access Road
Quarries and Borrow Pits locations and Planned Quantities

(the assumed depth at all borrow sites is 3 metres)

Jan. 2011
Revision: 02

Possible Rock Quarries		Area (Ha)	Golder Geochem Classification (note 1)	Potential Volume (m3)	km Mark	Planned Borrow Quantities	Eskers Till/Gravel Borrow Pits		Area (Ha)	Golder Geochem Classification (note 1)	Potential Volume (m3)	km Mark	Planned Borrow Quantities	Eskers Till/Gravel Borrow Pits		Area (Ha)	Golder Geochem Classification (note 1)	Potential Volume (m3)	km Mark	Planned Borrow Quantities
location by Golder	location by Comaplex					cubic metres	location by Golder	location by Comaplex					cubic metres	location by Golder	See Note (2) below					cubic metres
	RQ 01	15.5		465,000	-1		B19	TQ 01	0.8	limited	24,000	1.2	10,000		DHQ 01	1.50		45,000	5.1	
R19	RQ 02	1.3	yes	39,000	0.3	30,000	B15	TQ 02	1.8	yes	54,000	3.7	20,000	B13	DHQ 02	0.70	yes	21,000	6.0	
R17	RQ 03	1.7	yes	51,000	2.1		B15	TQ 03	1.5		45,000	4			DHQ 03	2.00		60,000	6.2	
R14	RQ 04	2.6	limited	78,000	5.6	30,000	B13	TQ 04	2.1	yes	63,000	5.7	25,000		DHQ 04	0.30		9,000	6.7	
	RQ 05	8.4		252,000	5.6		B12	TQ 05	7.9	yes	237,000	8.7	40,000		DHQ 05	1.00		30,000	6.9	
	RQ 06	6.7		201,000	6.2		B11A	TQ 06	17.4	yes	522,000	11.2	40,000		DHQ 06	2.40		72,000	6.9	
R11	RQ 07	3.1	yes	93,000	7.3		B10	TQ 07	2	yes	60,000	13.6	50,000	B12	DHQ 07	1.16	yes	34,800	8.2	
	RQ 08	5.9		177,000	7.3		R350	TQ 08	3.1	limited	93,000	16.4	50,000	RQ 12	DHQ 08	0.00		0	9.0	
R11	RQ 09	7.6	yes	228,000	7.7	40,000	B8	TQ 09	4.2	limited	126,000	17.4			DHQ 09	0.40		12,000	9.3	
	RQ 10	7.2		216,000	8.2			TQ 10	1.8		54,000	18.1		R9	DHQ 10	0.60	limited	18,000	9.3	
	RQ 11	1.7		51,000	8.5		B6A	TQ 11	17.2	yes	516,000	18.8	50,000	R9	DHQ 11	0.40	limited	12,000	9.4	
	RQ 12	23.3		699,000	9.0		B5	TQ 12	18.8	limited	564,000	20.7	75,000	R9	DHQ 12	5.80	limited	174,000	9.7	
R9	RQ 13	28.3	limited	849,000	9.5		B5	TQ 13	9.6		288,000	21		R9	DHQ 13	3.50		105,000	9.7	
	RQ 14	4.4		132,000	9.9		B1A	TQ 14	24.2	limited	726,000	Mel Esker	50,000	B11A	DHQ 14	0.00	yes	0	10.4	
	RQ 15	14.2		426,000	12.2									RQ 15	DHQ 15	5.80		174,000	12.3	
	RQ 16	1.6		48,000	13.4									B10	DHQ 16	4.50	yes	135,000	13.5	100,000
	RQ 17	15		450,000	14.1										DHQ 17	11.84		355,200	14.2	
R5	RQ 18	26.1	yes	783,000	14.6	100,000								R350	DHQ 18	1.05		31,500	16.2	
R2	RQ 19	2.1	yes	63,000	17.0	40,000								R350	DHQ 19	0.18		5,250	16.4	
														R350	DHQ 20	0.20		6,000	16.5	
														B8	DHQ 21	3.50	limited	105,000	17.4	
														B6A	DHQ 22	0.00	yes	0	18.5	
														B5	DHQ 23	0.00	limited	0	20.8	
															DHQ 24	0.90		27,000	22.2	
		176.7		5,301,000	R =	240,000			112.4		3,372,000	B1 =	410,000			47.73		1,431,750	B2 =	100,000

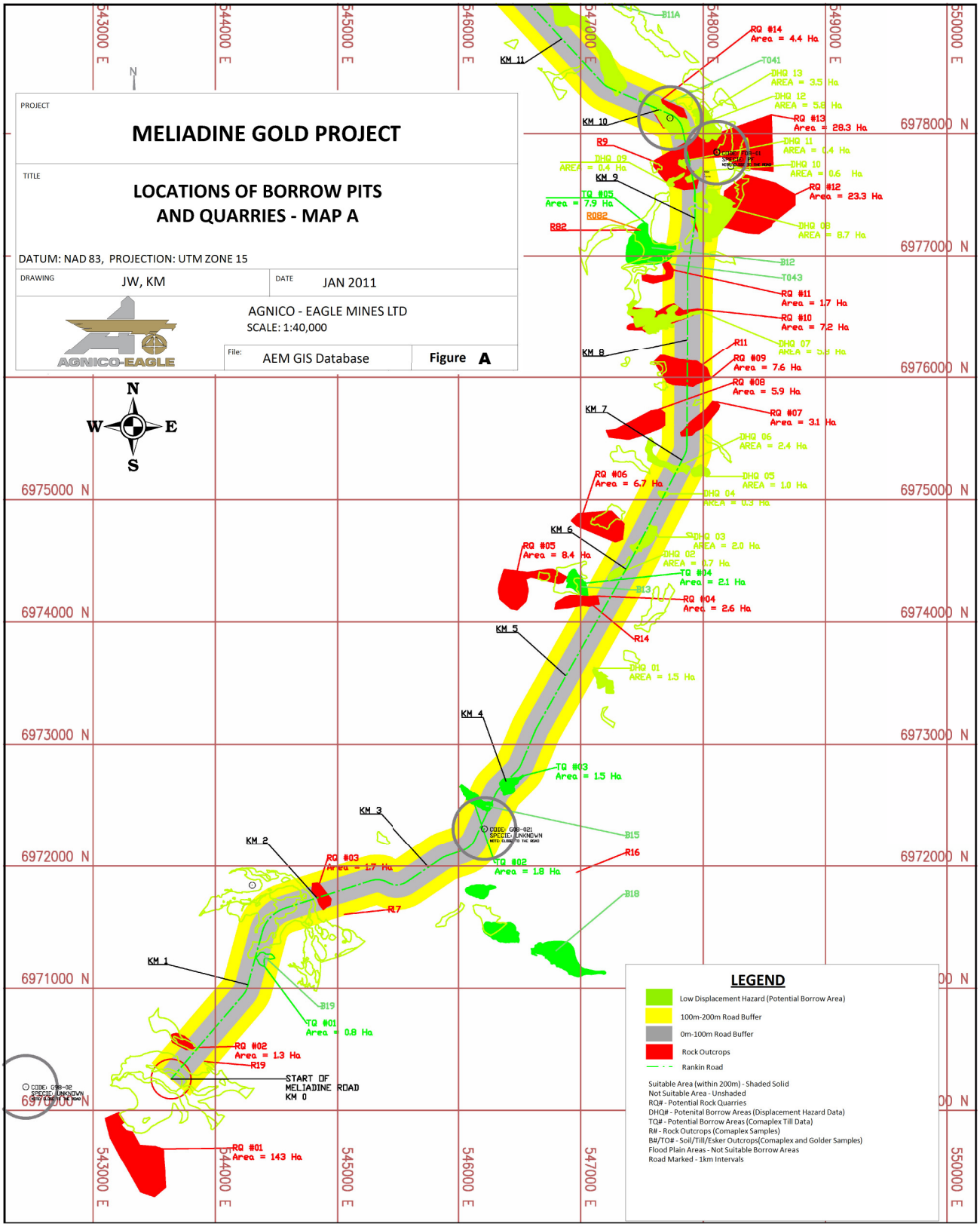
Note 1. Yes signifies unlimited use possible of material from this quarry
Limited signifies use be restricited in quantity and to higher elevations only
No signifies the quarry site should not be used because of elevated metal leaching
* For complete details see the attached Geochemistry Report on CD

Red signifies the material to be quarried is directly within the area where geochemistry samples were collected
Black signifies the material to be quarried is outside the area sampled but still within the same quarry.

R1, R16 and T046 ar not listed as these are not be quarried due to elevated leaching of trace metals in test results

Total Material for Road to Meliadine (R +B1+B2) = 750,000 m3 (This includes a 4 km spur road to the edge of Meliadine Lake)

Note (2) : Golder Low Displacement Hazard Data


PROJECT
MELIADINE GOLD PROJECT
TITLE
LOCATIONS OF BORROW PITS AND QUARRIES - MAP A
DATUM: NAD 83, PROJECTION: UTM ZONE 15
DRAWING JW, KM
DATE JAN 2011
AGNICO - EAGLE MINES LTD
SCALE: 1:40,000
File: AEM GIS Database
Figure A
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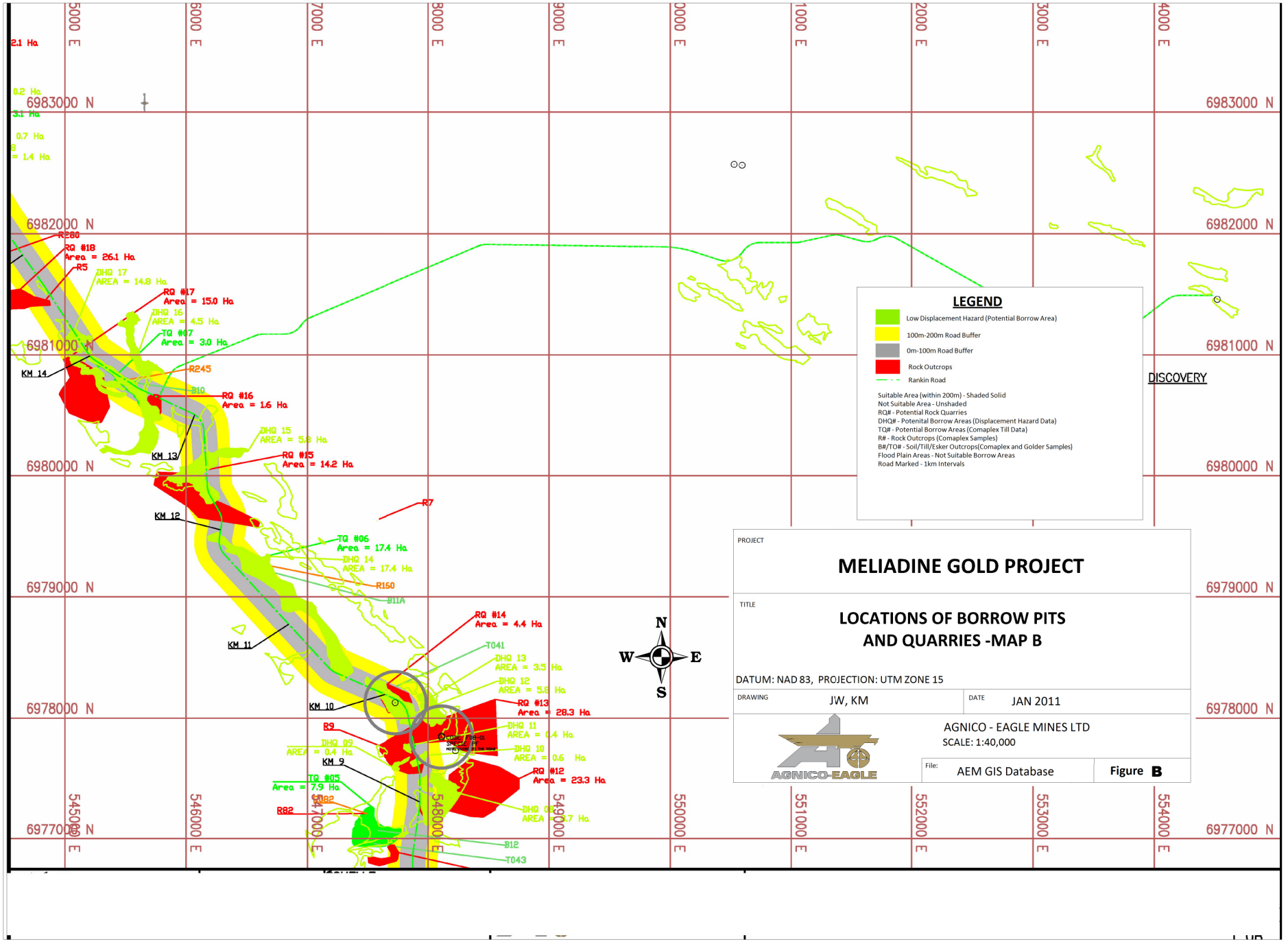
KM 11
KM 10
KM 9
KM 8
KM 7
KM 6
KM 5
KM 4
KM 3
KM 2
KM 1
RQ #14 Area = 4.4 Ha
RQ #13 Area = 28.3 Ha
RQ #12 Area = 23.3 Ha
RQ #11 Area = 1.7 Ha
RQ #10 Area = 7.2 Ha
RQ #09 Area = 7.6 Ha
RQ #08 Area = 5.9 Ha
RQ #07 Area = 3.1 Ha
RQ #06 Area = 6.7 Ha
RQ #05 Area = 8.4 Ha
RQ #04 Area = 2.6 Ha
RQ #03 Area = 1.7 Ha
RQ #02 Area = 1.3 Ha
RQ #01 Area = 143 Ha
TQ #05 Area = 7.9 Ha
TQ #04 Area = 2.1 Ha
TQ #03 Area = 1.5 Ha
TQ #02 Area = 1.8 Ha
TQ #01 Area = 0.8 Ha
DHQ 13 AREA = 3.5 Ha
DHQ 12 AREA = 5.8 Ha
DHQ 11 AREA = 0.4 Ha
DHQ 10 AREA = 0.6 Ha
DHQ 09 AREA = 0.4 Ha
DHQ 08 AREA = 8.7 Ha
DHQ 07 AREA = 3.8 Ha
DHQ 06 AREA = 2.4 Ha
DHQ 05 AREA = 1.0 Ha
DHQ 04 AREA = 0.3 Ha
DHQ 03 AREA = 2.0 Ha
DHQ 02 AREA = 0.7 Ha
DHQ 01 AREA = 1.5 Ha
R9
R082
R82
R11
R14
R7
R19
R16
B11A
B12
B13
B15
B18
B19
T041
T043
START OF MELIADINE ROAD KM 0
LEGEND
Low Displacement Hazard (Potential Borrow Area)
100m-200m Road Buffer
0m-100m Road Buffer
Rock Outcrops
Rankin Road
Suitable Area (within 200m) - Shaded Solid
Not Suitable Area - Unshaded
RQ# - Potential Rock Quarries
DHQ# - Potenital Borrow Areas (Displacement Hazard Data)
TQ# - Potential Borrow Areas (Comaplex Till Data)
R# - Rock Outcrops (Comaplex Samples)
B#/TO# - Soil/Till/Esker Outcrops(Comaplex and Golder Samples)
Flood Plain Areas - Not Suitable Borrow Areas
Road Marked - 1km Intervals


5000 E
6000 E
7000 E
8000 E
9000 E
0000 E
1000 E
2000 E
3000 E
4000 E
6983000 N
6982000 N
6981000 N
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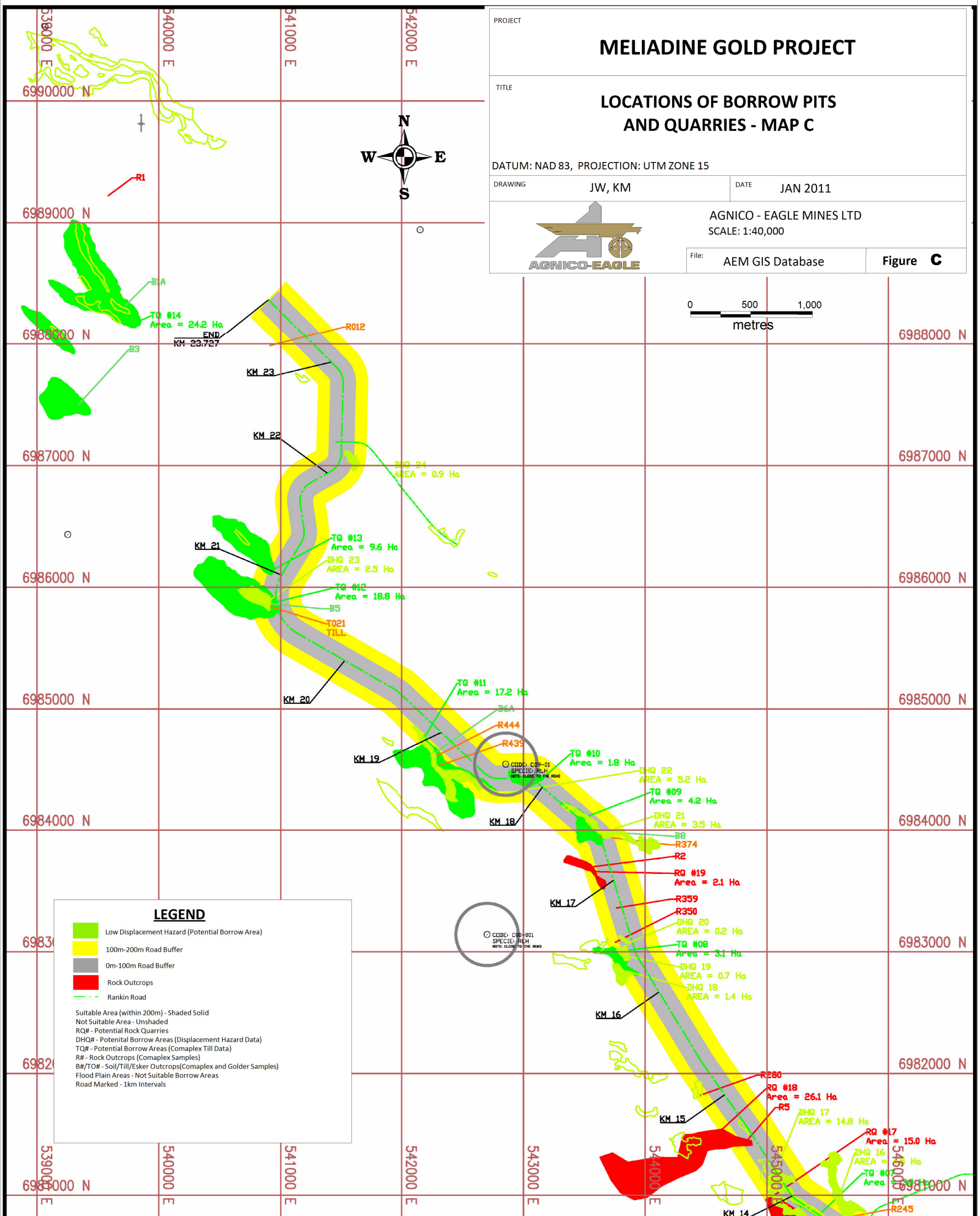
6979000 N
6978000 N
6977000 N
545000 E
546000 E
547000 E
548000 E
549000 E
550000 E
551000 E
552000 E
553000 E
554000 E
2.1 Ha
0.2 Ha
3.1 Ha
0.7 Ha
= 1.4 Ha
R280
RQ #18
Area = 26.1 Ha
R5
DHQ 17
AREA = 14.8 Ha
RQ #17
Area = 15.0 Ha
DHQ 16
AREA = 4.5 Ha
TQ #07
Area = 3.0 Ha
KM 14
R245
B10
RQ #16
Area = 1.6 Ha
DHQ 15
AREA = 5.8 Ha
KM 13
RQ #15
Area = 14.2 Ha
KM 12
R7
TQ #06
Area = 17.4 Ha
DHQ 14
AREA = 17.4 Ha
R150
B11A
KM 11
RQ #14
Area = 4.4 Ha
T041
DHQ 13
AREA = 3.5 Ha
DHQ 12
AREA = 5.8 Ha
KM 10
RQ #13
Area = 28.3 Ha
R9
DHQ 11
AREA = 0.4 Ha
DHQ 09
AREA = 0.4 Ha
DHQ 10
AREA = 0.6 Ha
KM 9
RQ #12
Area = 23.3 Ha
TQ #05
Area = 7.9 Ha
R82
DHQ 08
AREA = 2.7 Ha
B12
T043
DISCOVERY
N
W
E
S
LEGEND
Low Displacement Hazard (Potential Borrow Area)
100m-200m Road Buffer
0m-100m Road Buffer
Rock Outcrops
Rankin Road
Suitable Area (within 200m) - Shaded Solid
Not Suitable Area - Unshaded
RQ# - Potential Rock Quarries
DHQ# - Potential Borrow Areas (Displacement Hazard Data)
TQ# - Potential Borrow Areas (Comaplex Till Data)
R# - Rock Outcrops (Comaplex Samples)
B#/TO# - Soil/Till/Esker Outcrops(Comaplex and Golder Samples)
Flood Plain Areas - Not Suitable Borrow Areas
Road Marked - 1km Intervals
PROJECT
MELIADINE GOLD PROJECT
TITLE
LOCATIONS OF BORROW PITS
AND QUARRIES -MAP B
DATUM: NAD 83, PROJECTION: UTM ZONE 15
DRAWING
JW, KM
DATE
JAN 2011
AGNICO - EAGLE MINES LTD
SCALE: 1:40,000
AGNICO-EAGLE
File:
AEM GIS Database
Figure B


PROJECT
MELIADINE GOLD PROJECT
TITLE
LOCATIONS OF BORROW PITS AND QUARRIES - MAP C
DATUM: NAD 83, PROJECTION: UTM ZONE 15
DRAWING JW, KM
DATE JAN 2011
AGNICO - EAGLE MINES LTD
SCALE: 1:40,000
AGNICO-EAGLE
File: AEM GIS Database
Figure C
0 500 1,000
metres
N
W
E
S
LEGEND
Low Displacement Hazard (Potential Borrow Area)
100m-200m Road Buffer
0m-100m Road Buffer
Rock Outcrops
Rankin Road
Suitable Area (within 200m) - Shaded Solid
Not Suitable Area - Unshaded
RQ# - Potential Rock Quarries
DHQ# - Potential Borrow Areas (Displacement Hazard Data)
TQ# - Potential Borrow Areas (Complex Till Data)
R# - Rock Outcrops (Comaplex Samples)
B#/TO# - Soil/Till/Esker Outcrops(Comaplex and Golder Samples)
Flood Plain Areas - Not Suitable Borrow Areas
Road Marked - 1km Intervals
539000 E
540000 E
541000 E
542000 E
543000 E
544000 E
545000 E
546000 E
6990000 N
6989000 N
6988000 N
6987000 N
6986000 N
6985000 N
6984000 N
6983000 N
6982000 N
6981000 N
R1
B1A
TQ #14
Area = 24.2 Ha
END
KM 23.727
R012
B3
KM 23
KM 22
DHQ 24
AREA = 0.9 Ha
KM 21
TQ #13
Area = 9.6 Ha
DHQ 23
AREA = 2.5 Ha
TQ #12
Area = 18.8 Ha
B5
T021
TILL
KM 20
TQ #11
Area = 17.2 Ha
B6A
R444
R439
KM 19
TQ #10
Area = 1.8 Ha
DHQ 22
AREA = 5.2 Ha
TQ #09
Area = 4.2 Ha
KM 18
DHQ 21
AREA = 3.5 Ha
B8
R374
R2
RQ #19
Area = 2.1 Ha
KM 17
R359
R350
DHQ 20
AREA = 0.2 Ha
TQ #08
Area = 3.1 Ha
DHQ 19
AREA = 0.7 Ha
DHQ 18
AREA = 1.4 Ha
KM 16
R280
RQ #18
Area = 26.1 Ha
R5
KM 15
DHQ 17
AREA = 14.8 Ha
RQ #17
Area = 15.0 Ha
DHQ 16
TQ #07
R245
KM 14

Appendix 3. Signed Confirmation Letter to Fisheries and Oceans

23 December 2010

Derrick Moggy
Habitat Team Leader
Fisheries and Oceans Canada
15oo Paris Street, Unit 11
Sudbury, ON P0E 3B8

Nicola Johnson
Environmental Assessment Analyst
Env. Assessment for Major Projects
Fisheries and Oceans Canada
Suite 101, 5205 – 50th Ave
Yellowknife, NT X1A 2V7

Georgina Williston
Habitat Management Biologist, Eastern Arctic
Fisheries and Oceans Canada
P.O. Box 1000
Prescott, ON K0E 1T0

Eric Kan
Area Director, Eastern Arctic
Fisheries and Oceans Canada
P.O Box 358
Iqaluit, NU X0A 0H0

RE: **Meliadine Gold Project: Fisheries and Oceans: All Weather Road: Conformity with DFO - Operational Statements for Nunavut and Application for an Authorization for Works or Undertakings Affecting Fish Habitat: NIRB Part 2 Screening Form, Query 10**

Dear Mr. Moggy, Ms. Williston, Ms. Johnson and Mr. Kan,

Agnico-Eagle Mines Limited (AEM) is proposing to construct and operate an all weather road of approximately 30 km in length from Rankin Inlet to the Meliadine camp located near Meliadine Lake. This also includes a spur road to Meliadine Lake. Work on the all weather road will occasionally take place in and around fish habitat, which will cause us to follow the appropriate DFO Operational Statements for Nunavut.

The Operational Statements applicable to the all weather road include:

- Timing Windows,
- Clear Span Bridges,
- Ice Bridges and Snow Fills, and
- Temporary Stream Crossing.

AEM agrees to meet the conditions and incorporate the appropriate measures to protect fish and fish habitat as outlined in the above applicable Operational Statements.

In outlining the project to DFO on 22 September 2010, it was understood that an *Authorization for Works or Undertakings Affecting Fish Habitat* will be required for the road to remain in compliance with the Fisheries Act. We acknowledge an authorization is only possible following a screening or possibly an environmental review by the Nunavut Impact Review Board. Nonetheless, during the interim period and prior to NIRB's review being completed, we propose continue developing an acceptable Habitat Compensation Plan, which would allow DFO's authorization to be granted shortly following NIRB's review.

AEM and its consultants continue to develop options for a no-net-loss plan for the road and look forward to completing this plan so that it meets the objectives of the Management of Fish Habitat Policy.

Should you require further information or clarification on this letter, please do not hesitate in contacting John Witteman at 819 277 5444 or jwitteman@agnico-eagle.com.

Yours sincerely,

Eric M Lamontagne
Project Manager, Meliadine

Cc. Nunavut Impact Review Board
Nunavut Planning Commission
John Witteman, Environmental Consultant
Lasha Young, Golder Associates
Veronica Tattuinee, Kivalliq Inuit Association

Appendix 4. Proposed All-Weather Access Road Operating Procedure, Version 1, January 2011

EXECUTIVE SUMMARY

AEM is proposing to construct and operate an all weather road between Rankin Inlet and its Meliadine Gold Project[22]. The road will start from the existing municipal road that provides access to the Iqaluqaarjuup Nunanga Territorial Park at a location just after the existing road crosses the Char River. From there the new Meliadine Project access road will cross a clear span bridge to be built over the Meliadine River and then continue on to the Meliadine Gold Project site. The new road will be approximately 27.4 km long.

The proposed Meliadine Project access road is to be operated as an un-controlled access road, constructed on Inuit Owned Land leased by AEM from the Kivalliq Inuit Association[23]. AEM is responsible for the construction, maintenance and ongoing safe operation of the road until the end of the lease period. The road will see traffic consisting of tractor trailer units hauling supplies and materials to and from the Meliadine Project site, road maintenance vehicles maintaining the road surface and clearing snow, light vehicles (pickups and buses) transporting project personnel between the project site and Rankin Inlet, local contractors providing services to the project (pickups and equipment) and local residents of Rankin Inlet using the road for and traditional use purposes (hunting, etc) and general recreation (access to Meliadine Lake and area camps etc.). The road will generally be open to the public in an uncontrolled manner. A series of mitigation measures are proposed to ensure that all users of the road can do so in a safe manner. AEM proposes to install a gate and gatehouse at the northern end of the road where the road enters onto the active project site. This gate will be manned when the road is open to traffic. When the road is closed to traffic due to weather or road conditions then the gate will be closed.

AEM will collaborate with the Hamlet of Rankin Inlet, the Kivalliq Inuit Association, the Rankin Inlet Hunters and Trappers Organization (HTO) and the Government of Nunavut to establish, implement and revise as necessary the proposed mitigation measures designed to allow all residents of Rankin Inlet access to this road for non-project related use in a safe and appropriate fashion. AEM will not unduly withhold permission to use the road unless there is a safety concern relating to the road or vehicle operator.

[22] Construction of this road is subject to AEM receiving all of the required authorizations and permits from the NIRB, NWB, DFO, KIA, GN and TC

[23] The first 2.3 kilometres of the road will be on Commissioners Lands administered by the Hamlet of Rankin Inlet (up to the new bridge across the Meliadine River)

IMPLEMENTATION SCHEDULE

This Draft Operational Procedure will be finalized following consultation with the Hamlet of Rankin Inlet, the Kivalliq Inuit Association, the Rankin Inlet Hunters and Trappers Organization and the Government of Nunavut. It will form part of the submission to the Nunavut Impact Review Board, the Nunavut Planning Commission and other regulatory agencies in support of the application to construct and operate the road. The procedure will be implemented if and when permission is given covering construction and operation of the road.

DISTRIBUTION LIST

Kivalliq Inuit Association

Hamlet of Rankin Inlet

Rankin Inlet Hunter and Trapper's Organization

Government of Nunavut – Department of Economic Development & Transportation, Department of Community & Government Services and Department of Environment

DOCUMENT CONTROL

Version	Date (YMD)	Section	Page	Revision
V1	11/01/12			Version 1 for external consultation

Prepared and Approved By: _____

Larry Connell

TABLE OF CONTENTS

Road Operation

AEM is proposing to construct and operate an all weather road between Rankin Inlet and its Meliadine Gold Project[24]. The road will start from the existing municipal road that provides access to the Iqaluqaarjuup Nunanga Territorial Park at a location just after the existing road crosses the Char River. From there the new Meliadine Project access road will cross a clear span bridge to be built over the Meliadine River and then continue on to the Meliadine Gold Project site. The new road will be approximately 27.4 km long.

The proposed Meliadine Project access road is to be operated as an uncontrolled access road, constructed on Inuit Owned Land leased by AEM from the Kivalliq Inuit Association[25]. AEM is responsible for the construction, maintenance and ongoing safe operation of the road until the end of the lease period. The road will see traffic consisting of tractor trailer units hauling supplies and materials to and from the Meliadine Project site, road maintenance vehicles maintaining the road surface and clearing snow, light vehicles (pickups and buses) transporting project personnel between the project site and Rankin Inlet, local contractors providing services to the project (pickups and equipment) and local residents of Rankin Inlet using the road for traditional use purposes (hunting, etc) and general recreation (access to Meliadine Lake and area camps etc.). A series of mitigation measures are proposed to ensure that all users of the road can do so in a safe manner. AEM proposes to install a gate and gatehouse at the northern end of the road where the road enters onto the active project site. This gate will be manned when the road is open to traffic. When the road is closed to traffic due to weather or road conditions then the gate will be closed.

The road is to be designed for use by conventional tractor trailers which will transport supplies from a storage depot in Rankin Inlet to the Meliadine Gold Project site. The road will be used year round however the road can and will be periodically closed to traffic for varying reasons (bad weather, wildlife, heavy traffic, etc) to ensure ongoing safe operation and to prevent injury and accidents.

The key haulage equipment operating on the road will be supported by radio controls. All project vehicles using the road will be equipped with safety provisions and equipment so that major blizzards can be safely waited out at any point along the road,

The road will be maintained by AEM to ensure timely delivery of freight for project operations. Policing of the road will be conducted by AEM's security and road maintenance and haulage staff.

Haulage and Road Safety

All of the required fuel and supplies for the operation of the project will be transported to the site via the Meliadine access road. During the life of the project, the transportation of freight and road maintenance operations will be conducted by a combination of owner operated and contracted equipment. All drivers will either be employees of the company or a company hired contractor and must possess a valid driver's license from a Canadian province or territory, for the appropriate class of vehicle, in order for them to be allowed to operate vehicles on the access road.

[24] Construction of this road is subject to AEM receiving all of the required authorizations and permits from the NIRB, NWB, DFO, KIA, GN and TC

[25] The first one kilometre of the road will be on Commissioners Lands administered by the Hamlet of Rankin Inlet (up to the new bridge across the Meliadine River)

Road Access

The Meliadine Project road will be maintained and operated as an uncontrolled access road. The objective is to ensure an ongoing safe operation of this road under all conditions

A series of mitigation procedures are proposed to ensure that all users of the road can do so in a safe manner. AEM proposes to install a gate and gatehouse at the northern end of the road where the road enters onto the active project site. This gate will be manned when the road is open to traffic. When the road is closed to traffic due to weather or road conditions then the gate will be closed.

AEM will collaborate with the Hamlet of Rankin Inlet, the Kivalliq Inuit Association, the Rankin Inlet Hunters and Trappers Organization (HTO) and the Government of Nunavut to establish, implement and revise as necessary a series of mitigation measures to allow all residents of Rankin Inlet access to this road for non-project related use in a safe and appropriate fashion.

Under this procedure local residents would generally have unlimited access to the project road for non-project use up to the gatehouse at the northern end of the road. The project site itself would be closed to public access without prior permission.

AEM will not unduly withhold permission to use the road unless there is a safety concern relating to the road or vehicle operator.

This document provides a standard procedure for implementing the Meliadine Road safety procedures.

The following measures are proposed to manage safe public access to the road:

- Public education programs, periodic patrols of the road by project security personnel, posted signs reminding public of hazards in both English and Inuktitut will be used to control safe driving practises along the road;
- Posted speed limits, public education, periodic patrols of the road by Project security personnel to stop speeders will be techniques used to control speed used on the road by both public and AEM drivers;
- The following management procedures would be used to warn of potentially unsafe conditions on the road - Use of in vehicle radios by project vehicles to warn other project vehicles of public users on the road; could use a web site or community radio to put out a daily road condition bulletin to the community at large – Could also install and use a digital sign at the Rankin Inlet entrance of the road to notify all users of current road conditions and to post road closure warnings;
- Public education, periodic patrols of the road by project security personnel would be techniques used to limit or control drunk driving on the road or joy riding by youth;
- All project personnel using the road will be required to monitor and report any observed unauthorized or unsafe use of the road;

- The ability to limit access during bad winter weather or during periods of heavy project road use could be achieved by installing an unmanned gate at the southern end of the road that could be manually closed during bad winter weather along with appropriate signs in both languages. Could also use a web site or community radio to put out a daily road condition bulletin;

- The ability to limit access when large numbers of caribou are crossing the road could be achieved by installing an unmanned gate at the southern end of the road that could be manually closed during caribou migration on the road along with appropriate signs in both languages;
- The ability to limit safe shooting (hunting) in close proximity to the road could be achieved through public education – reminders on community radio on the dangers of shooting in close proximity to the road;
- AEM would meet with the involved regulatory agencies (specifically the Mines Inspector and Safety Inspectors from the GN) to ensure that the proposed mitigation measures are adequate to allow compliance with the Nunavut Mines Act and other Nunavut Health & Safety provisions that may apply on a mineral exploration road that is open to use by the public and to develop other mitigation measures with GN involvement if necessary;
- In cooperation with the KIA and HTO, AEM will establish a no shooting zone along the road to ensure that project workers and all other road travelers are not inadvertently exposed to risk of accidental shooting; and
- AEM would reserve the right to refuse future access to individuals who do not respect the rules on safety, speed and the no shooting zone when using the road.

Operational Parameters

In general, the operational parameters for the road are summarized below:

- Wildlife has the right of way;
- All vehicles are to be insured and licensed in accordance with licensing rules that apply on municipal and territorial roads in Nunavut;
- All drivers must be licensed and operate in accordance with the same rules that apply on municipal and territorial roads in Nunavut;
- Any driver suspected of being impaired will be denied access to the road;
- Hunting and fishing restrictions will be as per HTO's stipulations;
- All spills of any materials will be reported and cleaned up, as set out in the spill contingency plans. The haulage fleet will be required to have appropriate spill containment and clean-up equipment on hand or available on demand.

Proposed Wildlife Protection Protocol on the Meliadine Project Road

Wildlife is expected occasionally to be observed on or immediately along the side of the access road. Caribou and other wildlife will have the right-of-way at all times. All project personnel will be notified by dispatch radio if any wildlife is observed on the road.

The following protocol will be implemented on the road:

Speed Limits

- Vehicular traffic speeds on the access road must not exceed **50 km/hr**.
- Where small to moderate aggregations of caribou (i.e., 1-50 animals) are observed within 100 m of the road, travel speeds should be reduced to **30 km/hr**
- Where large aggregations of caribou (i.e., 50 or more) are observed within 100 m of the road, at the discretion of the road supervisor, vehicle movements **may be suspended** until animals have moved away from the road.

Animal Right-of-Way

- Caribou and all wildlife will be given **right-of-way** on the road. Vehicles must stop until caribou are off the road.
- Locations of **large aggregations of animals must be reported** to the road supervisor who will inform all potentially affected employees.

Wildlife incident reporting and investigation

All incidents between vehicles and wildlife must be reported to the Agnico-Eagle road supervisor whether they are:

- near-miss
- collision with injury to the wildlife, or
- accidental death

Each incident will be investigated by the road supervisor and the environment department and measures taken to avoid re-occurrence put in place. Disciplinary measures will be taken against any employee if the investigation concludes that the accident is the result of negligence.

In the case of accidental death of an animal, the AEM Meliadine Project Environmental Coordinator(s) will contact the **GN Conservation Officer** in Rankin Inlet**.** The carcass should be removed from the road and incinerated to avoid attracting scavengers such as Arctic Fox, Grizzly Bear and/or Wolverine.

Spill Contingency Plan

An AEM trained site-based emergency response and spill clean-up team will be available on site with appropriate equipment to respond to all spills. Spill response will be implemented by environmental staff who will advise, document, and report on initial response and clean-up actions.

Decommissioning And Reclamation

AEM is responsible for decommissioning of the Meliadine access road at the end of its project use unless the land owner (the Kivalliq Inuit Association) directs otherwise. Typically AEM would decommission the road once the Meliadine Project was closed and all site reclamation and remediation activity was completed. However it is understood that in this circumstance other uses of this road could be possible but this is an issue for the land owner.

Decommissioning of the all-weather access road will be accomplished by loosening compacted surfaces, flattening side slopes, and removing all culverts and other potential obstructions to drainages paths.

Appendix 5 NIRB Screening Part 1 Form English

PART 1 FORM
PROJECT PROPOSAL INFORMATION REQUIREMENTS

For more information about the Nunavut Impact Review Board (NIRB) please visit our web site http://nirb.nunavut.ca/ or to access NIRB documents, project screenings, and project reviews please visit the Nunavut Impact Review Board ftp site http://ftp.nunavut.ca/nirb.

IMPORTANT!
Please be advised that your application will not be processed until the Sections 1 - 9 are completed in their entirety, in both English and Inuktitut (+ Inuinnaqtun, if in the Kitikmeot).

SECTION 1: APPLICANT INFORMATION

1. Project Name **All Weather Road – Underground Exploration and Bulk Sample Program, Meliadine Gold Project**

2. Applicant's full name and mailing address:

Meliadine Gold Project
Agnico-Eagle Mines Ltd.
93, rue Arsenault bureau 202
Val d'Or, Québec, J0P0E9

Phone: 819 825 3744
Fax: 819 825 3770
Email: Eric.M.Lamontagne@agnico-eagle.com

3. Primary contact's full name and mailing address:

John Witteman
Agnico-Eagle Mines Ltd
601 – 2 Street
Canmore, AB T1W2K2

Phone: 819 277 5444
Email: john.witteman@agnico-eagle.com

SECTION 2: AUTHORIZATION NEEDED

1. Indicate all authorizations associated with the project proposal:

X	Regional Inuit Association (RIA)		Canadian Launch Safety (CLS)
X	Nunavut Water Board (NWB)		Environment Canada (EC)
X	Nunavut Planning Commission (NPC)		Government of Nunavut (GN)
	Indian and Northern Affairs Canada (INAC)		Department of National Defense (DND)
X	Department of Fisheries and Oceans (DFO)	X	Hamlet
X	Community Government & Services (CG&S)		Parks Canada (PC)
	Nunavut Research Institute (NRI)		Canadian Wildlife Service (CWS)
X	Department of Culture, Language, Elders, and Youth (CLEY)	X	Other (please specify): Transport Canada - NWPA

2. **List the <u>active</u> permits, licenses, or other authorizations related to the project proposal, and their expiry date(s):**

Refer to table 2.3 in the Project Description.

3. **List the <u>pending</u> permits, licenses, or other authorizations related to the project proposal:**

Refer to table 2.4 in the Project Description.

4. **Has this project or <u>any components of this project</u> been previously screened or reviewed by NIRB?**

X YES ☐ **NO**

If YES, indicate the previous project name and NIRB File No.

NIRB file 07EN044 Commercial lease for exploration and underground activities
NIRB file 10EN006 Geotechnical drilling next to the Meliadine River for the abutments

SECTION 3: PROJECT PROPOSAL DESCRIPTION

1. Indicate the type of project proposal (check all that apply)[1,2]:
(See Appendix A for Project Type Definitions)

1	All-Weather Road/Access Trail	X	**9**	Site Cleanup/Remediation	☐
2	Winter Road/ Winter Trail	☐	**10**	Oil and Natural Gas Exploration/Activities	☐
3	Mineral Exploration	☐	**11**	Marine Based Activities	☐
4	Advanced Mineral Exploration **See Note Below**	☐	**12**	Scientific/International Polar Year Research*	☐
5	Mine Development /Bulk Sampling	☐	**13**	Harvesting Activities*	☐
6	Pits and quarries	X	**14**	Tourism Activities*	☐
7	Offshore Infrastructure (port, break water, dock)	☐	**15**	Other[2]:	☐
8	Seismic Survey	☐			☐

Please note:

1. All project types listed above, except those marked with an asterisk (*), will also require the Proponent to submit a **Part 2 Project Specific Information Requirement (PSIR) Form**. The NIRB application process will not be considered complete without the Part 2 PSIR Form.
2. Please be advised that in order to complete the NIRB process, the NIRB may request additional information at any time during the process.
3. If "Other" is selected, contact NIRB for direction on whether a Part 2 PSIR Form is required.

Note: The advanced mineral exploration - underground extension was previously submitted and screened by NIRB, file 10EA018. The all weather road will be used to service the underground extension program.

The road nonetheless has multiple functions in providing ready access by the Inuit in Rankin Inlet to Meliadine Lake and other traditional areas. Ultimately part of the road could form part of the road joining Rankin Inlet and Chesterfield Inlet.

2. If Project Type 3, 4 or 5 was selected above, please indicate the mineral of interest that is being extracted. Include a brief description.

X	Gold
	Diamonds
	Uranium
	Other: _____

3a. If Project Type 13, 14 or 15 was selected above, complete the table and questions below.

Transportation Type	Quantity	Proposed Use	Length of Use
E.g. Helicopter	*1*	*Site to site pick ups and drop offs*	*6 days*

3b. Describe any docks, piers, air strips or related structures that are to be used in conjunction with the proposed project activities. **Please note**: *the building of new structures may require a Part 2 Form.*

There will not be any docks, piers, air strips or related structures associated with construction, operation and decommissioning of the road.

3c. If a temporary camp site is to be established, describe the proposed structures in detail and indicate the type and source of power for the camp site if applicable.

No temporary camps will be established for this Project. The established Meliadine camp on Meliadine Lake will be used, as will commercial lodging in Rankin Inlet.

4. Personnel

Total No. of personnel on site = (A)	70	Total No. of days on-site = (B)	121	**Total No. of Person days (A) × (B) = 8470**

5. Timing

Period of Construction:	*from*	**2011**	To	**2012**
Period of operation:	*from*	**2012**	To	**2026**
Proposed term of authorization:	*from*	**2011**	To	**2029**

The end date of the period of operation is highly dependent on the success of future exploration. If other economic ore bodies are found, the operational end date could extend beyond 2026.

6a. Region (check all that apply):

☐	North Baffin	☒	Kivalliq	☐	Kitikmeot	☐	Transboundary:
☐	South Baffin	☐	National Park				

6b. Describe the location of the proposed project activities in a regional context, noting the proximity to the nearest communities and any protected areas.

The regional context of the all weather road is shown on figure 2-1 found Project Description. The all weather road will start from an existing Rankin Inlet municipal road after it crosses the Char River. From there the road will cross a bridge to be built over the Meliadine River and then continue on to the Meliadine site. The road will be approximately 27.4 km long. This is shown in greater detail on figure 2-2. Besides servicing the extension of the underground exploration and bulk sampling program, the road will allow access to Meliadine Lake and other traditional areas by the Inuit of Rankin Inlet, and could ultimately serve as part of the road between Rankin Inlet and Chesterfield Inlet. The road will be approximately 70 km from Chesterfield Inlet.

6c. Discuss the history of the site if it has been used for any project activities in the past.

Refer to section 1.1 Brief Meliadine Gold Project History

6d. Indicate if there are any known archaeological/palaeontological historical sites in the area.

A number of archaeological sites were found along the road right-of-way and these were mitigated by a qualified archaeologist registered in Nunavut. These sites could or would be

disturbed in building the road. A report is presently being written and will be presented to CLEY for review and approval.

7. Land Status (check all that applies):

[ ]	Crown	[X]	Commissioners'	[X]	Municipal
[X]	Inuit Owned Surface Lands	[X]	Inuit Owned Sub-Surface Lands		

8a. Co-ordinates:

Min Lat (degree/minute)	62° 51' 32"	Min Long (degree/minute)	92° 01' 40"
Max Lat (degree/minute)	63° 01' 52"	Max Long (degree/minute)	92° 11' 40"

NTS Map Sheet No: 055N/01 & 055K/16
(Please ensure that maps of the project are attached (1:50,000 **if available**, 1:250, 000 **Mandatory**) available from Natural Resources Canada)

Figures 2-1 and 2-2 show the all weather road in a regional context and in more detail, respectively.

8b. If the project proposal includes a **camp**, please provide the coordinates of the camp location

Min Lat (degree/minute)	Not Applicable	Min Long (degree/minute)	
Max Lat (degree/minute)		Max Long (degree/minute)	

If different from above for the camp:
NTS Map Sheet No: Not Applicable
Please ensure that maps of the project are attached (1:50,000 **if available**, 1:250, 000 **Mandatory**) available from Natural Resources Canada

Please note that additional location information may be required in a subsequent Project Specific Information Requirement (PSIR) submission. This may take the form of a digital Geographic Information Systems (GIS) file.

SECTION 4: NON-TECHNICAL PROJECT PROPOSAL DESCRIPTION

Please include a non-technical description of the project proposal, no more than 500 words, in English and Inuktitut (+Inuinnaqtun, if in the Kitikmeot). The project description should outline the following:

- The project activities, their necessity and duration;
- Method of transportation;
- Any structures that will be erected (permanent/ temporary);
- Alternatives considered; and
- Long-term developments, the projected outcome of the development for the area and its timeline.

Non-Technical Project Summary

IMPORTANT: IF THE PROPOSED ACTIVITIES REQUIRE SUBMISSION OF A NIRB PART 2 PSIR FORM, PLEASE COMPLETE SECTION 8 ONLY, OTHERWISE CONTINUE ON WITH SECTION 5.

SECTION 5: MATERIAL USE

1. List equipment to be used (including drills, pumps, aircraft, vehicles, etc.):

Equipment type and number	Size – dimensions	Proposed use

2a. Detail fuel and hazardous material use:

Fuel	Number of Containers and Capacity of Containers	Total Amount of Fuel (in Litres)	Proposed Storage Methods
Diesel			
Gasoline			
Aviation fuel			
Propane			
Other			
Hazardous Materials and Chemicals		**Total Amount of Hazardous Materials and Chemicals (in Litres)**	

2b. Describe the proposed Spill Prevention Plan.

3a. Detail the anticipated daily water consumption rates

Daily amount (m^3)	Proposed water retrieval methods	Proposed water retrieval location

3b. Have you applied for a water License with the Nunavut Water Board?

☐ **YES** ☐ **NO**

If yes, what class of licence?

☐ **Class A Water Licence**

☐ **Class B Water Licence**

SECTION 6: WASTE DISPOSAL AND TREATMENT METHODS

1. **List the types of waste associated with the proposed project activities:**

Type of waste	Projected amount generated	Method of Disposal	Additional treatment procedures
Sewage (human waste)			
Greywater			
Combustible wastes			
Non-Combustible wastes			
Overburden (organic soil, waste material, tailings)			
Hazardous waste			
Other:			

2. **Describe the proposed Waste Management Plan.**

SECTION 7: COMMUNITY INVOLVEMENT & REGIONAL BENEFITS

1. **List the community representatives that have been contacted and provide the minutes of the meetings if available:**

Community	Name	Organization	Date Contacted

SECTION 8: GENERAL QUESTIONS

1. **Will you be disturbing any known archaeological sites?**

X YES
☐ NO

Mitigation work on the archaeological sites that will or could be affected was completed this September 2010 and a report is to be filed with CLEY.

SECTION 9: APPLICANT SIGNATURE

Please sign and date your application:

	Eric M. Lamontagne Meliadine Project Manager	2 February 2011
Signature	**Title**	**Date**

APPENDIX A
Project Type Definitions

Access Trail: A project proposal with the objective of providing vehicular access to an area of interest involving minimal alteration to the terrain.

Advanced Exploration: A project proposal with the objective of identifying size, grade, and physical characteristics of a mineral occurrence and to assess the economic and technical feasibility of developing the mineral deposit into a producing mine

All-Weather Road: A project proposal with the objective of road construction for use in all seasons.

Bulk Sampling: A project proposal with the objective of extracting of large samples of mineralized material involving hundreds to thousands of tonnes. Samples are selected as representative of the potential mineral deposit being sampled. May involve crushing/milling (on small-scale)

Harvesting activities: A project proposal with the objective of harvesting animals, marine mammals and/or fish from their natural habitats by means of hunting or trapping for traditional and commercial use.

Marine Based Activities: Any activity occurring in the marine environment, such as vessel use associated with land-based activities or disposal at sea.

*Please note that normal community re-supply or individual ship movements not associated with land-based project proposals shall not be screened by NIRB (Section 12.12.2 of NLCA).

Mine Development: A project proposal with the objective of extracting broken rock with mineralization of sufficient grade and tonnage to sustain commercial mining operations (ore). Mining a body of ore can be achieved by either open pit and/or underground development. Mine development may involve milling. Milling involves treatment of the extracted ore through a combination of mechanical and chemical processes to selectively recover the valuable mineral.

Mineral Exploration: A project proposal with the objective of exploring an area to find geological anomalies. It involves site reconnaissance (ground and/or air) to locate broad and fiscal mineral deposits.

Offshore Infrastructure: A project proposal with the objective of building off loading facilities constructed off the shoreline and connected to the mainland of the marine or freshwater environment. Examples include a jetty, dock, or port facility.

Oil and Gas Exploration/Activities: A project proposal that includes 1) exploration, such as seismic or geological mapping, 2) drilling of oil and gas wells, 3) construction and operation of a pipeline, a gas processing plant or any oil and gas facility within Nunavut.

Pits and Quarries: A project proposal with the objective of pitting, which involves the extraction of granular material (i.e. sands and gravels) and quarrying, which involves the removal of consolidated rock (i.e. bedrock, frozen soil).

Scientific Research: A project proposal with the objective of implementing a series of site activities comprised of observation of phenomena, measurement and collection of data necessary for scientific investigation in designated areas within a limited time period.

Seismic Survey: A project proposal with the objective of conducting a survey to map the depths and contours of rock strata by timing the reflections of sound waves released from the surface. Survey site locations may be offshore (not within 12 nautical miles of any coast), near shore, and extended onshore.

Site Cleanups: A project proposal with the objective of site cleanups (includes DEW line site cleanups), which focuses on the remediation of chemically contaminated soils, stabilization of landfills and dumps, demolition/disposal of infrastructure and debris and monitoring after cleanup is completed.

Tourism Activity: A project proposal with the objective of conducting travel predominantly for recreational, sport or leisure purposes within a designated area and limited time period.

Winter Road: A project proposal with the objective of building a road for winter use by leveling and compacting surface snow and ice. Winter road is removed at end of season.

Winter Trail: A project proposal with the objective of building a trail for winter use by a single pass of a tracked vehicle using a blade, if necessary.

Appendix 6 NIRB Screening Part 1 Form Inuktitut

ᐃᓚᖓᓃᑦᑐᖅ PART 1-ᒥ
ᑐᑭᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᓄᑦ ᑐᓴᒃᓴᐅᑏᑦ ᐱᔭᐅᔪᒪᔪᑦ

ᑐᓴᒃᑲᓂᕋᒃᓴᑦ ᐱᔭᐅᔪᓐᓇᖅᑐᑦ ᐱᔾᔪᑎᓖᑦ ᓄᓇᕗᑦ ᐊᕙᑎᓕᕆᔾᔩᑦ ᑲᑎᒪᔨᖏᓐᓂᒃ ᑕᑯᓗᒋᑦ ᐅᕝᕙ ᖃᕆᑕᐅᔭᒃᑯᑦ http://ftp.nirb.ca/ ᐅᕙᓗᕿᐊᖅ ᐊᑦᑐᑎᒋᓗᒋᑦ ᓄᓇᕗᑦ ᐊᕙᑎᓕᕆᔾᔩᑦ ᑲᑎᒪᔨᖏᑦᑕ ᐊᓪᓚᒃᓯᒪᔪᑦ, ᐱᓕᕆᐊᒃᓴᒨᖓᔪᓂᒃ ᕿᒥᕐᕈᕙᒃᑕᖏᑦ, ᐊᒻᒪᓗ ᐱᓕᕆᐊᒃᓴᐅᑉ ᑐᑭᐊ ᕿᒥᕐᕈᔭᐅᖃᑦᑕᕐᓂᖓ ᑕᑯᓗᒋᑦ ᓄᓇᕗᑦ ᐊᕙᑎᓕᕆᔾᔩᑦ ᑲᑎᒪᔨᖏᑦᑕ ᖃᕆᑕᐅᔭᒃᑯᑦ ᓴᕿᐅᒪᔪᑦ ᐅᕙᓂ http://ftp.nirb.ca/.

ᐅᔾᔨᕐᑐᖅᑕᐅᕙᖅᓯᒪᒋᐊᓖᑦ

ᖃᐅᔨᒪᓂᐊᕐᑯᑎᑦ ᑐᑭᖅᑑᑎᑎᑦ ᐱᕙᓪᓕᐊᔭᐅᔾᔭᓚᖓᕆᒻᒪᑕ ᐅᑯᑎᒎᓇ ᐊᑑᑎᓕᖅᑲᑎᓐᓇᒋᑦ ᐃᓚᖓᒨᖓᔪᑎᒍᑦ sections 1 - 9 ᐱᔭᕇᖅᑕᐅᖃᕆᐊᖃᕐᒪᑕ ᖃᓪᓗᓈᑎᑐᑦ ᐊᒻᒪᓗ ᐃᓄᒃᑎᑐᑦ (ᐃᓄᐃᓐᓇᖅᑐᑦ ᕿᑎᕐᒥᐅᓃᑉᐸᑕ).

ᐃᓚᖓ 1: ᑐᑭᖅᑑᑦ ᑐᓴᒃᓴᖅ

1. ᐱᓕᕆᐊᒃᓴᐅᑉ ᑕᐃᔾᔨᖓ — **ᐊᕐᑯᓯᐅᕈᒪᔪᑦ ᐊᑑᑎᖕᑐᓴᒥᑦ - ᐊᑦᑎᒃᑐᒥ ᐊᒪ ᐃᑰᑕᒫᓂᐊᖕᑐᑦ - ᑕᓯᖕᔪᐊᒥ ᐅᔾᕿᑖᓇᐊᑦ Gold Project**

2. ᑐᑭᕋᖅᑑᑉ ᐊᑎᖓ ᐊᒻᒪᓗ ᑐᕋᕈᑖ:
```
Meliadine Gold Project
Agnico-Eagle Mines Ltd.
2904 – 93 rue Arsenault
Val d’Or, Québec, J0P0E9

Phone: 819 825 3744
Fax: 819 825 3770
Email: denis.gourde@agnico-eagle.com
  Eric.M.Lamontagne@agnico-eagle.com
```

______________________________ ᐅᖃᓚᐅᑏᑦ: ______________
______________________________ ᓱᑲᔪᒃᑯᑦ: ______________
______________________________ ᖃᕆᑕᐅᔭᒃᑯᑦ ______________

3. ᖃᐅᔨᒋᐊᕐᕕᐅᓯᐊᒃᑲᓂᕈᓐᓇᖅᑐᖅ ᓯᕗᓪᓕᐅᑐᓂ ᐊᑎᖓ ᑐᕋᕈᑎᖓᓄ:

```
John Witteman
Agnico-Eagle Mines Ltd
601 – 2 Street
Canmore, AB  T1W2K2

Phone: 819 277 5444
Email: john.witteman@agnico-eagle.com
```

______________________________ ᐅᖃᓚᐅᑏᑦ: ______________
______________________________ ᓱᑲᔪᒃᑯᑦ: ______________
______________________________ ᖃᕆᑕᐅᔭᒃᑯᑦ ______________

ᐃᓚᖓ 2: ᑲᔪᓯᒃᑲᐃᔨᓄᑦ ᑲᔪᓯᒃᑲᖅᑕᐅᔭᕆᐊᓖᑦ

1. ᑕᒪᕐᒥᒃ ᓇᓗᓇᐃᖅᑕᐅᓇᕆᐊᓗᒋᑦ ᑲᔪᓯᑎᕐᓯᔩᑦ ᐊᒃᑐᐊᓂᓕᖕᓅᖓᔪᓂᒃ ᐱᓕᕆᐊᒃᓴᔪᒨᖓᔪᒥᒃ ᑐᑭᕋᒧᑦ:

X	ᐊᕕᒃᑐᖅᓯᒪᔪᑦ ᐃᓄᐃᑦ ᑲᑐᔾᔨᖃᑎᒌᑦ (RIA)		ᑲᓇᑕᒥ ᖁᖓᒧᐊᒃᑎᑕᐅᓂᐊᖅᑐᓄᑦ ᐋᓂᖅᑕᐃᓕᒪᔩᑦ (CLS)
X	ᓄᓇᕗᑦ ᐃᒪᓕᕆᔩᑦ ᑲᑎᒪᔨᖏᑦ (NWB)		ᑲᓇᑕᒥ ᐊᕙᑎᓕᕆᔨᒃᑯᑦ (EC)
X	ᓄᓇᕗᑦ ᐸᕐᓇᐃᔩᑦ ᑲᑎᒪᔨᖏᑦ (NPC)		ᓄᓇᕗᒥ ᒐᕙᒪᒃᑯᑦ (GN)
	ᐃᓄᓕᕆᔨᑐᖃᒃᑯᑦ (INAC)		ᑲᓇᑕᒥ ᐅᓇᑕᖅᑐᔨᓕᕆᔨᒃᑯᑦ (DND)

X	ᐃᖃᓗᓕᕆᔨᒃᑯᑦ ᐊᒻᒪᓗ ᐃᓚᖅᑎᐅᑕᕆᔨᒃᑯᑦ (DFO)	X	ᐄᐊᒻᒪᓕᒃᑯᑦ
X	ᓄᓇᕗᒻᒥ ᓴᖅᓯᓕᕆᔨᒃᑯᑦ ᐱᔨᑦᔪᖅᑎᖓᓕᓐᓄ (CG&S)		ᑲᓇᑕᒥ ᒥᖅᔭᐱᓕᕆᔨᒃᑯᑦ (PC)
	ᓄᓇᕗᒥ ᖃᐅᔨᓴᖅᑐᑕᕆᔨᒃᑯᑦ (NRI)		ᑲᓇᑕᒥ ᓂᖅᐴᑎᓕᕆᔨᖅ(CWS)
X	ᐃᓕᖅᔪᓕᕆᔨᒃᑯᑦ ᓴᖅᓯᒃᓂᒥ (CLEY)	X	ᐊᔪᖓᑦ (ᓇᓗᓇᐃᖅᓗᑎᑦ ᑭᒃᑯᓯᖓᓚᐅᑕ):

2. ᑎᑎᕐᓗᒋᑦ ᐊᑑᑎᔪᑦ ᐱᔪᓐᓇᐅᑏᑦ, ᓚᐃᓴᑦ, ᐊᓯᖏᓪᓘᓐᓃᑦ ᐊᑑᑕᐅᔪᓐᓇᖅᑐᓅᖓᔪᑦ ᑐᖅᓯᖅᑑᑎᑎᒍᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᑦ, ᐃᓱᓕᕝᕕᒃᓴᖏᓪᓗ ᐅᓪᓗᖓ:

ᑕᑯᒋᐊᕕᒋᓗᒍ table 2.3 ᑕᐃᑲᓂ ᖃᓄᐃᓕᐅᕈᒪᕕᒥ.

3. ᐊᖑᑦ ᑎᑎᕋᕐᓗᒋᑦ ᐱᔪᓐᓇᐅᑎᑖᕈᑎᒋᔭᕆᐊᖃᖅᑕᑎᑦ, ᓚᐃᓴᓐᓵᕈᑎᒋᔭᕆᐊᖃᖅᑕᑎᓪᓗ, ᐅᕝᕙᓘᓐᓃᑦ ᐊᓯᖏᓪᓘᓐᓃᑦ ᐊᑑᑕᐅᔪᓐᓇᖅᑐᓅᖓᔪᑦ ᐱᔾᔪᑎᖃᖅᑐᑦ ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᒍᑦ:

ᑕᑯᒋᐊᕕᒋᓗᒍ table 2.4 ᑕᐃᑲᓂ ᖃᓄᐃᓕᐅᕈᒪᕕᒥ.

3. 4. ᐅᓇ ᐱᓕᕆᐊᕆᔪᒪᔭᐃᑦ ᐅᕝᕙᓘᓐᓂᑦ <u>ᓇᐅᒃᑯᑐᐃᓐᓇᖅ ᓇᓕᐊᑐᐃᓐᓇᖏᑦ ᐱᓕᕆᐊᕆᔪᒪᔭᕕᑦ ᐃᓗᐊᓂᑦᑐᑦ</u> ᕿᒥᕐᕈᔭᐅᓯᒪᕙᕆᖅᓯᒪᕚᑦ ᐅᕝᕙᓘᓐᓃᑦ ᖃᐅᔨᒋᐊᕈᑕᐅᒋᐊᒃᑳᓂᕈᑕᐅᓯᒪᕙᓘᓐᓃᑦ ᓄᓇᕗᒻᒥ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔾᔫᓄᑦ ?

Xᐃᕐ □ ᐋᒃᑲ

ᐃᖑᒃᐸᑦ, ᑎᑎᕋᕈᒃ ᐱᓕᕆᐊᕆᔭᕕᑦ ᑕᐃᒎᓯᕙᓂᖓ ᐊᒻᒪᓗ NIRB-ᑯᑦ ᑎᑎᕐᑲᕐᑯᑎᖏᑦᑎᒍᑦ ᓈᓴᐅᑎᖓ

NIRB file 07EN044 ᐱᓇᓱᐊᓂᑯᑦ ᐊᑐᖅᑐᐊᕈᑦ ᓄᓇᒥ ᐃᑯᑕᕈᑎᒃᓴᖅ ᐊᑦᑎᒃᑐᒥ ᐱᓕᕆᓂᐊᖅᓗᓂ
NIRB file 10EN006 ᕿᓂᕆᐊᓯᒪᔪᑦ ᐃᑯᑕᖅᕕᐊᑦ ᓄᓇ ᑕᓯᖅᔪᐊᑉ ᑯᖓᑕ ᐊᕙᑖᓂᑦᑐᑦ

ᐃᓚᖓ 3: ᐱᓕᕆᐊᒃᓴᐅᔪᒪᔫᑉ ᑐᒃᓯᕌᑉ ᖃᓄᐃᑦᑑᓂᖓᓂᒃ ᐅᓂᒃᑳᖅ

1. **1.** ᓇᓗᓇᐃᕐᓗᒍ ᑐᒃᓯᖅᑐᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᖅ (ᐃᒪᐃᑦᑐᒥᒃ✓ ᓴᓂᕋᒍᑦ ᑎᑎᕐᓗᒋᑦ ᐊᑐᕐᓂᖃᖅᑐᓕᒫᑦ) ([1,2]):
(ᑕᑯᒥᐊᕐᓗᒍ ᐊᑕᔪᖅ A ᐱᓕᕆᐊᕆᔭᐅᔪᑦ ᖃᓄᐃᑦᑑᔪᑦ ᑐᑭᓕᖅᑐᖅᑕᐅᓯᒪᓂᖏᑦ)

1	ᓯᓚ ᖃᓄᐃᑐᐃᓇᑯᑦ ᐊᑯᑎᒃᓴᖅ	X	**9**	ᐃᓂᑐᖃᖓᓂᒃ ᐊᖅᑭᒃᓱᐃᓂᖅ/ ᓄᓇᒥᒃ ᐋᖅᑭᒃᓱᐃᓂᖅ	☐
2	ᐅᑭᐅᒥ ᐊᖁᑎᒃᓴᖅ/ᐅᑭᐅᒥ ᐃᓪᓕᓂᖅ	☐	**10**	ᐅᖅᓱᕐᔪᐊᖅᓱᐅᕐᓂᖅ ᓄᓇᒦᑦᑐᑐᖃᓂᓪᓗ ᒑᓵᓕᖅᓱᐅᕐᓂᖅ	☐
3	ᓴᕕᕋᔭᒃᓴᓱᐅᓂᖅ	☐	**11**	ᑕᕆᐅᑐᐃᓐᓇᕐᒥ ᐱᓕᕆᐊᕆᔭᐅᔪᑦ	☐
4	ᓴᕕᕋᔭᒃᓴᓱᐅᓂᖅ ᖃᓄᖅ ᓯᕕᑐᑎᒋᓂᐊᓂᖓ ᑕᑯᒥᐊᓗᒋᑦ ᑎᑎᕋᓯᒪᔪᑦ ᐊᑎᑦᑎᐊᖓᓂ	☐	**12**	ᖃᐅᔨᓴᕐᓂᖅ/ᐅᑭᐅᖅᑕᖅᑑᑉ ᖃᐅᔨᓴᕐᓂᐅᔪᑉ ᐊᕐᕌᒍᖓ ᖃᐅᔨᓴᕈᑕᐅᓂᖓ*	☐
5	ᐅᔭᕋᒃᓯᐅᕐᕕᓕᐅᕐᓂᖅ/ᐅᔭᕋᒃᑕᒐᐅᔪᓂᒃ ᐊᒥᓱᓂᒃ ᖃᐅᔨᓴᕐᓂᖅ	☐	**13**	ᐊᖑᓇᓱᐊᕐᓂᕐᒧᑦ ᐱᓕᕆᐊᕆᔾᔭᑦ *	☐
6	ᐊᑦᑎᑐᒥ ᐱᓕᕆᐊᓴᖅᔭᐊᑦᑎᑐᒦᑦ ᓄᓇᐅᑉ ᖃᖓᓄᑦ ᐊᒡᔭᑐᐃᓂᖅ	**X**	**14**	ᐳᓚᕋᖅᑐᓕᕆᓂᕐᒧᐊᓕᖓᔪᑦ *	☐
7	ᑕᕆᐅᒥ ᓴᓇᔭᐅᓯᒪᔪᑦ (ᐅᒥᐊᕐᑯᕕᒃ, ᒪᓪᓕᓗᐊᖅᑕᐃᓕᔾᔪᑦ, ᐃᒃᓴᕿᕕᒃ)	☐	**15**	ᐊᓯᖓ [2]:	☐
8	ᖃᖅᑕᑯᓂᒃ ᐊᑐᖅᓗᑎᒃ ᕿᓂᖅᓯᒪᓂᐊᖅᑐᑦ	☐			☐

<u>ᖃᐅᔨᒪᔭᐅᔭᕆᐊᖃᖅᑐᖅ:</u>

4. ᖃᓄᐃᑦᑐᐃᓐᓇᐃᑦ ᐱᓕᕆᐊᕆᔾᕐᑯᓛᓂ ᑎᑎᕋᖅᓯᒪᔪᐃᓐᓇᐃᑦ, ᑭᓯᐊᓂ (*)-ᒥᒃ ᓴᓂᕋᒍᑦ ᑎᑎᖅᓯᒪᔪᑦ, ᐱᓕᕆᐊᖃᕈᒪᔪᖅ ᖃᐃᕝᓯᔭᕆᐊᖃᕐᓂᐊᕐᒥᔪᖅᑕᐅᖅ **ᐃᓚᖓ 2-ᒦᑦᑐᒥᒃᑕᐅᖅ ᐱᓕᕆᐊᕆᔪᒪᓪᓚᕆᒃᑕᖓᓐᓄᑦ ᑐᓴᒃᓴᐅᑎᒃᓴᒃᑲᓐᓂᒃᓴᓂᒃ** Project Specific Information Requirement (PSIR) **ᑕᑕᑎᖅᓯᒪᔭᖓᓐᓂᒃ**. ᑖᓐᓇ NIRB-ᑯᓐᓄᑦ ᑐᒃᓯᖅᑑᑕᐅᓂᖓ ᐱᔭᕇᖅᓯᒪᔪᖅᑎᑐᑦ ᐃᓱᒪᖃᓯᐅᔾᔭᐅᔪᓐᓇᔾᔮᕆᑦᑐᑦ ᑖᓐᓇ ᐃᓚᖓ 2 PSIR ᑕᑕᑎᖅᑕᐅᓯᒪᔭᕇᙱᑐᐊᖅᐸᑦ.

5. ᖃᐅᔨᒪᔭᐅᕙᐊᕆᐊᖃᖅᑐᖅ ᐱᔭᕇᖅᑕᐅᔪᓐᓇᖁᓪᓗᒍ NIRB-ᑯᓐᓄᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᓪᓕᐊᓂᕆᔭᕆᐊᖃᖅᑕᖓ,tᑖᒃᑯᐊ NIRB-ᑯᑦ ᖃᖓᑐᐃᓐᓇᕙᐊᖅ ᑐᓴᒃᓴᐅᑎᒃᓴᒃᑲᓐᓂᕐᓂᒃ ᑐᒃᓲᑎᖃᕈᓐᓇᓚᖓᒋᐊᖏᓐᓂᒃ ᐱᓕᕆᐊᕆᔭᐅᕙᓪᓕᐊᓂᖓᓂᒃ.

6. “ᐊᓯᖏᑦ” ᓂᕈᐊᖅᑕᐅᒍᓂ, ᖃᐅᔨᒥᐊᕐᕕᒋᔭᕆᐊᖃᖅᑕᑎᑦ NIRB-ᑯᑦ ᖃᓄᖅ ᐱᓕᕆᐊᕆᔭᕆᐊᖃᕐᒪᖔᒋᑦ ᐃᓚᖓ 2 PSIR ᑕᑕᑎᖅᑕᐅᔭᕆᐊᖃᕐᓂᐊᕐᒪᖔᖅ.

Note: ᑕᒪᓐᓇ ᐃᑯᑕᕈᑎᒃᓴᖅ ᓯᕗᓂᐊᒍᑦ ᖃᐃᑕᐅᓯᒪᔪᖅ - ᐊᑦᑎᒃᑯᒥ ᐱᓕᕆᐊᖑᓂᐊᖅᑐᖅ ᓱᓇᐅᒪᖓᑦ ᑕᑯᐊᓂᒃᓯᒪᔾᑦ ᑕᑯᐊ NIRB, file 10EA018. ᑕᒪᓐᓇ ᐊᖁᑎᒃᓴᖅ ᐊᑐᑎᖃᓂᐊᖅᑐᖅ ᐊᑦᑎᒃᑐᒥ ᓴᓇᓕᖅᐸᑕ.

ᑕᒪᓐᓇ ᐊᖁᑎᒃᓴᖅ ᐊᑑᑎᒃᓴᖓ ᐊᒥᓱᒪᕆᐅᓂᐊᒃᒪᑦ ᐊᑐᐃᓐᓇᐅᓂᐊᖅᓗᓂ ᐃᓄᑐᐃᓐᓇᕐᓄᑦ ᑕᓯᔪᐊᓕᐊᓂᐊᖅᑐᓄᑦ ᐊᕙᑖᓄᖓᖁᔪᓄᓪᓗ. ᐱᐊᓂᒃᓯᒪᓕᖅᐸᑦ ᐊᖁᑦ ᐅᐃᒍᓯᒪᓂᐊᕆᐸᓗᓂ ᐊᖁᒧᑦ ᐃᓪᓗᓕᒐᔪᖑᐅᔪᒧᑦ ᑲᖁᖅᓚᓂᕐᒧᓪᓗ.

2. ᐱᓕᕆᐊᒃᓴᓄᑦ 3, 4 ᐅᑉᐱᓐᓂᑦ 5 ᖁᓚᕐᓂᑦᑐᓂᑦᑐᑦ ᓂᕈᐊᖅᑕᐅᓂᕈᑎᒃ, ᖃᓄᐃᑦᑐᓪᓚᕆᖕᒥᒃ ᐅᔾᔨᖅᑕᕈᒪᔭᕆᐊᕙᑦ ᑎᑎᕋᕐᓗᒍ. ᑎᑎᕋᐅᓯᕆᐊᕐᔪᒃᓗᒍ.

X	gold
	ᑕᐃᒪᓐ
	ᔪᕋᐃᓂᐊᒻ
	ᐊᓯᖏᑦ: ________________________________

3a. ᐱᓕᕆᐊᒃᓴᐅᒍᓂ 12, 13 ᐅᑉᐱᓐᓂᑦ 14 ᖁᓚᓂ ᓂᕈᐊᖅᑕᐅᓂᕈᑎᒃ, ᐊᑎᓯᐊᖕᒪᓐᓂᑦᑐᖅ ᐱᔭᕇᕐᓗᒡ ᐊᐱᖁᑕᐅᓯᒪᔪᓪᓗ ᑭᐅᓗᒋᑦ ᐊᑖᓂᑦᑐᕐ.

ᐃᖏᕐᕋᔪᑕᐅᓂᐊᖅᑐᖅ (ᑦ)	ᖃᑦᓯᑦ	ᖃᓄᖅ ᐊᑐᖅᑕᐅᓂᐊᕐᒪᖔᖅ	ᖃᓄᑎᒋ
ᐆᑦᑑᑎᒋᓗᒍ: ᖁᓚᒍᓕᒃ	*1*	*ᐱᓕᕆᐊᕆᕝᕕᐅᔪᓄᑦ (ᔪᓂᒃ) ᐊᒃᓴᖅᑑᑕᐅᖃᑦᑕᕐᓗᓂ*	*6 -ᓂᒃ ᐅᓪᓗᓂᒃ*

3b. ᐅᖃᐅᓯᕆᓗᒋᑦ ᑐᓚᒃᑕᕝᕙᖅᐸᑦ, ᐅᓯᐊᒃᑯᒃᑕᖃᖅᐸᑦ, ᒥᑦᑕᕝᕙᖅᐸᑦ, ᐅᑉᐱᓐᓂᑦ ᑐᒃᓯᖅᑑᑎᑎᒍᑦ ᐱᓕᕆᐊᕆᔪᒪᔪᕐᓄᑦ. ᐱᔾᔪᑎᖃᖅᑐᓂᒃ. **ᖃᐅᔨᒪᔭᐅᔭᕆᐊᖃᖅᑐᖅ**: ᓄᑖᑦ ᐊᖅᑭᒃᓱᖅᑕᐅᔭᕆᐊᓖᑦ ᐃᓚᖓ 2-ᖑᖅᑐᑦ ᑕᑕᑎᕋᖅᓴᑐᐃᓐᓇᕆᐊᖃᕐᓂᖏᓐᓂᒃ.

ᐃᒃᓴᕕᑕᖃᔾᔮᙱᑦᑐᖅ, ᑐᓚᒃᑕᕕᑕᖃᔾᔮᙱᑦᑐᖅ, ᒥᑦᑕᕕᑕᖃᔾᔮᙱᑦᑐᖅ, ᐅᑉᐱᓗᓐᓂᑦ ᓇᔪᑎᓇᔾᔮᙱᖅᑐᑦ ᑕᒪᒃᑯᐊ ᓇᔪᑎᓇᐊᖅᐸᑐᓂᒃ. ᐊᖁᑎᒃᓴᖅ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᖅ.

3c. ᑐᐱᕝᕕᒃᓴᖃᑲᐃᓐᓇᕆᐊᖃᕐᓂᕈᓂ, ᖃᓄᐃᑦᑐᓂᐊᕐᓂᖏᓐᓂᒃ ᐅᖃᐅᓯᐅᑦᓯᐊᕆᐊᓖᑦ ᖃᓄᐃᑦᑐᓂᒃᑯ ᐊᐅᓚᐅᑎᓂᒃ ᐊᑐᕐᓂᐊᕆᐊᕙᑦ ᑐᐱᕝᕕᒋᓂᐊᖅᑕᕐᓂ ᐅᖃᐅᓯᕆᑦᓯᐊᕐᒥᓗᒋᑦᑕᐅᖅ ᑕᐃᒪᐃᓐᓂᐊᕐᓂᕈᓂ.

ᓇᔪᑕᐅᓚᐅᐱᓚᓂᐊᑐᓂᒃ ᑐᐱᖕᕕᓴᓂᒃ ᐱᑕᖃᙱᑦᑐᖅ ᐊᖁᓯᐅᖅᑎᓗᒋᑦ. ᑐᔪᒥᔪᓐᓇᓂᐊᕐᒪᑦ ᑕᓯᖅᔪᐊᕐᒥ ᐅᐱᓗᓪᓂᑦ ᑐᔪᒥᕙᓂ ᑲᙵᖅᓛᓂᕐᒥ.

4. ᓴᓇᔩᑦ

ᖃᑦᓯᐅᑉᐸᑦ ᓴᓇᖃᑕᐅᔪᑦ = (A)	70	ᖃᓄᑎᒋᒻᒪᕆᒃ ᓴᓇᓂᐊᖅᐸᑦ = (B)	121	ᖃᓄᑎᒋᐅᓂᐊᕐᓂᖏᑦ ᑲᑎᓪᓗᒋᑦ (A) x (B) = **8470**

5. ᖃᖓᐅᑎᓪᓗᒍ

ᖃᖓᓪᓚᕆᒃ ᓴᓇᓂᐊᖅᐸᑦ	**2011**	ᒥᑦ	**2012**
ᓯᕗᑐᓂᐊ ᐊᐅᓚᓂᐊᓂᖓ:	**2012**		**2026**
	2011	ᒥᑦ	2029

ᕿᓄᖅ ᐊᐅᓛᖅᑎᒋᓂᐊᕐᓂᖓ ᐱᑕᖃᑦᑎᐊᖅᐸᑦ ᐊᑯᓂ ᐊᐅᓪᓚᕈᓐᓇᕐᒪᑦ. ᓇᓂᓯᑦᑎᐊᖅᐸᑕ ᕿᓂᖅᑕᒥᓂᒃ ᑕᒪᓐᓇ ᐊᐅᓚᕈᓐᓇᕐᓂᐊᖅᑐᖅ 2026 ᐅᖓᑖᓄᑦ.

6a. ᐊᕙᒃᑐᖅᓯᒪᐅᕐᓂᕐᒥ (ᑎᑎᕐᓗᒋᑦ ᑕᒪᐃᑕ ᐊᑐᕐᓂᖅᑲᕐᓂᐊᖅᑐᑦ):

- [ ] ᕿᑭᖅᑖᓘᑉ ᐅᐊᓐᓇᖓᓂ
- [X] ᑭᕙᓪᓕᖅᒥ
- [ ] ᕿᑎᕐᒥᐅᓂ
- [ ] ᓄᓇᑖᕐᕕᐅᔫᑉ ᑭᒡᓕᓕᖅᑐᖅᑕᐅᓯᒪᓂᐊᓂ: ____________
- [ ] ᕿᑭᖅᑖᓘᑉ ᓂᒋᐊᓂ
- [ ] ᒦᒍᐃᖅᓯᕙᖓᒥ

6b. ᐅᖃᐅᓯᕆᔭᐊᕐᓗᒍ ᓄᓇᐙᑦ ᓇᓕᐊᖕᓂ ᐊᕙᒃᑐᖅᓯᒪᐅᕐᓂᖓᓄᓐᓂᐊᕆᐊᖓᓐᓂᒃ ᑐᒃᓯᖅᑑᑎᑎᒍᑦ ᐱᓕᕆᐊᕆᔭᒪᔭᐃᕐ, ᓇᓕᐊᖕᓂᒡᓗ ᓄᓇᒋᔭᐅᔪᒥᑦ ᖃᓄᓂᖅᐹᖑᕙ ᓄᓇᒥ ᓴᐳᒻᒥᒃᔫᐊᕙᐅᔫᒥᖅᓴᕆᐊᖓᓂᒡᓗ.

ᑕᒪᓐᓇ ᐊᕐᑎᒃᓴᖅ ᖃᓄᖅ ᓄᓇᖑᐊᑎᒍᑦ ᐊᑑᑎᖃᓂᐊᓂᖓ ᓇᓗᓇᐃᔭᓯᒪᒪᑦ ᑕᐃᑲᓂ figure 2-1 ᐱᓕᕆᐊᓴᐅᑉ ᐃᓗᐊᓂ. ᑕᒪᓐᓇ ᐊᑯᑎᒃᓴᖅ ᓴᓇᔭᐅᒋᐊᓂᐊᖅᑐᖅ ᑲᖏᖅᓕᓂᐅᑉ ᐊᑯᑎᐊᑕ ᐃᓯᓕᕙᐊᓂᑦ ᐃᖃᖅᑐᒍ ᑯᓚᓖᖅ ᐃᓚᒐ CHAR RIVER ᐊᒪ ᐃᔾᕿᓕᐅᑉ ᑯᖕᒐ ᐃᑲᓯᒪᓗᒍ ᑕᐃᑲᖕᒐᑦ ᑲᔪᓯᓂᐊᖅᓗᓂ ᑕᓯᖅᔪᐊᒧᑦ. ᐊᑯᑎᒃᓴᖅ ᑕᑭᓂᖃᓂᐊᖅᑐᖅ ᐃᒻᒪᖄ 27.4 km. ᑕᒪᓐᓇ ᓄᓇᖑᐊᑎᒍᑦ ᐅᒃᑐᕿᖅᓯᒪᓂᐊ ᑕᑯᔪᓐᓇᖅᑕᓯ ᑕᐃᑲᓂ figure 2-2. ᐅᔭᕿᑕᕆᐊᓄᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᒐᓗᐊᖅ ᐊᑐᑎᖃᓂᐊᒥᔪᖅ ᐊᓯᖏᓐᓄᑦ ᑲᖏᖅᓕᓂᒥᐅᓄᑦ ᐊᒪᓗ ᐃᒻᒪᖄ ᐊᖁᑕᐅᔪᓐᓇᕆᐸᓗᓂ ᑲᖏᖅᓕᓂᕐᒥᑦ ᐃᒡᓗᓕᒐᔪᒧᑦ. ᐊᖁᓪᓕ ᓯᕙᑐᓂᐊ 70 km ᐃᒡᓗᓕᒐᔪᒧᑦ

6c. ᑎᑎᕋᐅᓯᕆᓗᒍ ᐱᓕᕆᐊᕆᕙᕆᔪᒪᔭᕙᑦ ᐃᓂᖓ ᐱᓕᕆᐊᕆᕙᐅᓚᐅᖅᓯᒪᔭᕆᐊᖓᓐᓂᒃ.

ᑕᑯᒋᐊᓚᐅᓗᒍ ᑕᐃᑲᓂ ᑕᒪᓐᓇ ᑕᓯᖅᔪᐊᑉ ᐊᕙᑖᓂ ᐃᑯᑕᖅᐸᓂᖅ ᐱᒋᐊᓚᐅᓂᖓ ᐃᑲᓂ section 1.1.

6d. ᓇᖕᒥᓂᖅ ᖃᐅᔨᒪᔭᖃᕆᐊᕙᑦ ᐃᓴᕐᓂᑕᖃᕐᕕᕕᓂᖅᑕᖃᐅᕆᐊᖓᓐᓂᒃ /ᑐᐱᕐᕕᕕᓂᖅᑕᖃᐅᕆᐊᖓᓂᒡᓗ ᐅᖃᐅᓯᕆᒍᒃ.

ᖃᒪᕕᓂᖅᑕᖃᐅᒪᑦ ᐃᑦᑕᓂᑕᖅ ᓇᔪᖅᑕᐅᕙᓚᐅᖅᑐᓂᑦ ᐊᑯᓯᐅᓕᖅᐸᑕ ᑕᒪᒃᑯᐊ ᐃᓚᖏᑦ ᐊᕙᓗᔭᐅᓂᐊᒃᒪᑕ ᑕᒪᒃᑯᐊᓗ ᓄᓇᕗᒥ ᐃᑦᑕᓂᑕᓕᕆᔨᐅᑉ ᓇᓂᒪᖔᑖ ᖃᐅᔨᒪᔭᖏᑦ. ᑕᒪᓐᓇᓗ ᑐᓴᕈᑎᒃᓴᑯᑦ ᑎᑎᕋᐅᓯᐅᓂᐊᒪᑦ ᓄᓇᕘᑦ ᒐᕙᒪᒃᑯᖏᓐᓄᑦ CLEY ᑎᑎᕋᕕᐊᓄᑦ ᑕᑯᔭᐅᓚᐅᓗᓂ ᐊᖏᖅᑕᐅᔭᕆᐊᖃᓂᐊᒪᑦ.

7. ᓄᓇᐅᒧᑦ ᐱᔾᔪᑎᖃᖅᑐᖅ (ᑕᒪᐃᑕ ᐊᑐᕐᓂᖅᑲᕐᓂᐊᖅᑐᑦ ᑎᑎᕐᓗᒋᑦ):

- [ ] ᑲᓇᑕᐅᑉ ᒐᕙᒪᖓᑦᑕ ᓄᓇᖁᑎᖓ
- [X] ᑲᒥᓯᓇᐅᑉ ᓄᓇᖁᑎᖓ
- [X] Hᐊᒪᓚᐅᑉ ᓄᓇᖁᑎᖓ
- [X] ᐃᓄᐃᑦ ᓇᖕᒥᓂᕆᔭᖓᓂ ᓄᓇᐅᑉ ᖄᖓᓃᑦᑐᑦ
- [X] ᐃᓄᐃᑦ ᓇᖕᒥᓂᕆᔭᖓᓂ ᓄᓇᐅᑉ ᐃᑭᐊᖓᓃᑦᑐᑦ

8a. ᓄᓇᙱᐊᖅᑎᒍᑦ ᓱᒃᑯᓯᓪᓚᕆᐊᖓᓐᓃᒻᒪᖔ:

Min ᐊᖓᑦ (degree/minute)	62° 51’ 32”	Min ᓴᓂᒧᑦ (degree/minute)	92° 01’ 40”
Max ᐊᖓᑦ (degree/minute)	63° 01’ 52”	Max ᓴᓂᒧᑦ (degree/minute)	92° 11’ 40”

NTS Map Sheet No: 055N/01 & 055K/16

(ᐱᓕᕆᐊᕆᓂᐊᖅᑕᕙᑦ ᓄᓇᙳᐊᑦ ᐃᓚᖏᓯᐅᑎᓂᐊᖅᐸᑎᑦ (1:50,000 **ᐊᑐᐃᓐᓇᐅᔪᖅᑕᖃᕐᓂᕈᓂ**, 1:250, 000 **ᐃᓚᖏᓯᐅᑎᓪᓚᕆᒋᐊᓖᑦ**)
ᑲᓇᑕᐅᑉ ᓄᓇᒥᐅᑕᓕᕆᔩᒃᑯᖏᓐᓂ ᐊᑐᐃᓐᓇᐅᔪᖅᑕᖃᖅᑐᖅ)

ᑕᐃᑲᓂ **Figures 2-1 and 2-2** ᓄᓇᙳᐊᑎᒍᑦ ᑕᖁᓴᐅᔪᖅ ᐊᑯᑎᒃᓴᖅ ᓇᓗᓇᐃᔭᓯᒪᑦᑎᐊᕈᒍ.

8b. ᑐᒃᓯᖅᑑᑎᑎᒍᑦ ᐱᓕᕆᐊᕆᔪᒪᔭᐃᑦ ᐃᒡᒍᑐᖃᕐᓂᐊᕈᓂᓘᓐᓃᑦ ᑐᐱᖅᑕᖃᐅᕐᓂᐊᕈᓂᓘᓐᓃᑦ,
ᓱᖁᔨᐊᓐᓃᓪᓚᕆᓐᓂᐊᕆᐊᒌᓐᓂᒃ ᓄᓇᙳᐊᖅᑎᒍᑦ ᐊᑐᐃᓐᓇᐅᑎᖁᓂᐊᖅᐳᑎᑦ

Min ᐊᖓᒧᑦ (degree/minute) N/A ______________ Min Long (degree/minute) ______________

Max ᐊᖓᒧᑦ (degree/minute) ______________ Max Long (degree/minute) ______________

ᖁᓛᓂᑦᑑᑉ ᐊᔾᔨᒋᙱᑉᐸᐅᒃ :
ᓄᓇᙱᐊᒥ ᐆᒥᙳ
ᓈᓴᐅᑎᖃᖅᑐᒦᑦᑐᑦ: N/A ______________
(ᐱᓕᕆᐊᕆᓂᐊᖅᑕᕙᑦ ᓄᓇᙳᐊᑦ ᐃᓚᖏᓯᐅᑎᓂᐊᖅᐸᑎᑦ (1:50,000 **ᐊᑐᐃᓐᓇᐅᔪᖅᑕᖃᕐᓂᕈᓂ**, 1:250, 000 **ᐃᓚᖏᓯᐅᑎᓪᓚᕆᒋᐊᓖᑦ**)
ᑲᓇᑕᐅᑉ ᓄᓇᒥᐅᑕᓕᕆᔩᒃᑯᖏᓐᓂ ᐊᑐᐃᓐᓇᐅᔪᖅᑕᖃᖅᑐᖅ)

ᖃᐅᔨᒪᔭᐅᓂᐊᖅᑯᖅ ᓱᒃᑯᓯᓪᓚᕆᙶᒥᐊᖏᓐᓂᒃ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᑦ ᑐᓴᒃᓴᐅᑎᒃᓴᒃᑲᓐᓂᕐᓂᒃ ᑐᒃᓯᖅᑐᕐᕕᐅᒃᑲᓐᑐᐃᓐᓇᕆᐊᖃᕐᓈᓂᒃ ᐱᓕᕆᐊᕆᔪᒪᓪᓚᕆᒃᑕᙳᓐᓄᑦ ᑐᓴᒃᓴᐅᑎᒃᓴᒃᑲᓐᓂᒃᓴᓂᒃ ᑐᒃᓯᖅᑑᑕᐅᔪᕕᓂᕐᓄᑦ (PSIR). ᖃᕆᑕᐅᔭᖅᑎᒍᑦ ᓄᓇᙳᐊᓕᕕᓂᕐᓃᙳᑐᐃᓐᓇᕆᐊᖃᖅᑐᖅ (GIS).

ᐃᓚᙳ 4: ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᒧᑦ ᖃᓄᐃᑦᑑᓂᐊᕐᓂᙳᓐᓄᑦ ᐅᖃᐅᓯᐅᓂᙳ

ᐃᓚᖏᓯᐅᑎᑐᒍ ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᒧᑦ ᖃᓄᐃᑦᑑᓂᐊᕐᓂᙳᓐᓄᑦ ᐅᖃᐅᓯᕆᔭᑎᑦ, ᑖᒃᑯᐊ ᑎᑎᕋᖅᑕᑎᑦ 500-ᓂᒃ ᐅᖃᐅᓯᑎᑦ ᑎᑎᖃᖃᕆᐊᖃᖅᑐᑦ ᖄᕆᐅᑎᓯᒪᔭᕆᐊᖃᙱᑦᑐᑦ, ᖃᓪᓗᓈᑏᑦᑐᓪᓘᓐᓃᑦ ᐃᓄᒃᑎᑐᓪᓘᓐᓃᑦ (+ᐃᓄᐃᓐᓇᖅᑎᑐᓪᓘᓐᓃᑦ, ᕿᑎᕐᒥᐅᓐᓃᓐᓂᐊᕐᓂᕈᓂ). ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔫᑉ ᐅᖃᐅᓯᐅᓂᙳ ᐅᑯᓂᙵ ᐃᓗᓕᖃᕆᐊᖃᖅᑐᖅ:

- ᐱᓕᕆᐊᒐᒃᓴᒧᑦ ᐱᓕᕆᐊᕆᔭᐅᓂᐊᖅᑐᑦ, ᐱᑕᖃᕆᐊᖃᕐᓂᕆᓪᓗ ᐊᒻᒪᓗ ᖃᓄᙱᒋᓗ ᐱᓕᕆᐊᕆᔭᐅᓂᐊᕆᐊᙳᓐᓂᒃ;
- ᐊᐅᓪᓚᖅᑕᐅᑎᐅᓂᐊᖅᑐᑦ ᐊᕙᒻᒧᒃᑕᕈᑕᐅᓂᐊᖅᑐᑦ;
- ᓱᓇᑐᐃᓐᓇᐃᑦ ᓇᐸᑉᐸᖅᑎᖅᑕᐅᓂᐊᖅᑐᑦ (ᓇᐸᑯᑖᖕᓂᐊᖅᑐᑦ/ ᐊᑐᖅᑕᐅᑲᐃᓐᓇᕐᓂᐊᖅᑐᓪᓘᓐᓃᑦ);
- ᐊᓯᙳᕆᑦ ᐊᑐᖅᑕᐅᙳᕈᓐᓇᖅᑐᑦ; ᐊᒻᒪᓗ
- ᓯᕗᓂᒃᓴᑯᑖᒧᑦ ᓴᓇᔭᐅᕙᓪᓕᐊᓂᖃᕐᓂᐊᖅᑐᑦ, ᓴᓇᔭᐅᓂᐊᕋᓱᒋᔭᐅᔪᓄᓪᓗ ᓱᓇᒧᑦ ᐊᑐᖅᑕᐅᓂᐊᕆᐊᖏᓐᓄᑦ ᐱᓕᕆᐊᕆᕙᐅᓂᐊᖅᑐᒥ ᐊᒻᒪᓗ ᖃᓄᑎᒋᓂᐅᓂᐊᕋᓱᒋᔭᐅᓂᖏᓪᓗ ᐊᑐᖅᑕᐅᓂᐊᕆᐊᖏᑦᑕ.

ᓇᓗᓇᐃᔭᐃᓂᖅ ᐅᔭᕋᖅᑕᕆᐊᑦ ᖃᓄᐃᓕᐅᓚᐅᓂᖏᑦ

ᐃᑲᓂ July 7th, 2010 ᐊᐅᔭᐅᔪᒥ ᑕᐸᑯᐊ ᐅᔭᕋᖅᑕᕆᐊᑦ Agnico-Eagle Mines Limited ᓄᓇᖃᑦ ᑐᕋᓐᑐᒥ ᓂᐅᕕᓚᐅᖅᓯᒪᒪᑕ Comaplex Mines Corp ᐱᑖᕆᓗᒃᑖᖅᓗᒍ. ᓂᐅᕕᐊᙳᖃᑎᓇᒍ ᑕᐸᑯᐊ Comaplex Mines Corp ᐸᕐᓇᐃᕙᓕᐊᓚᐅᒪᑕ ᐊᑎᑐᒥ ᐅᔭᕋᖅᑕᕆᐊᓴᒥᑦ.

2007 – 2008 ᐃᑳᕕᐊᓂ ᑕᐸᑯᐊ Comaplex Mines Corp ᐃᑯᑕᓚᐅᒪᑕ ᐊᑎᒃᑐᒥ ᑕᒪᒃᑯᐊᓗ ᐃᑰᑕᓂᑯᙱᑦ ᑲᑎᖅᓱᖅᑕᐅᓯᒪᒪᑕ ᐊᒪᓗ ᑕᐸᑯᐊ Agnico-Eagle Mines Limited ᑕᒪᓐᓇ ᐃᑰᑕᕈᓯᖅ ᑲᔪᓯᒪᓂᐊᒪᔫᒃ. ᑕᒪᓐᓇᓗ ᐃᑯᑕᕈᓯᐅᓂᐊᖅᑐᖅ ᖃᐅᔨᓐᓇᕈᑕᐅᓂᐊᒪᑦ ᖃᓄᖅ ᐃᑰᑕᕆᐊᖃᐸᓂᖅ ᑲᔪᓯᔪᑕᐅᓂᐊᕐᒪᙳᑦ ᑕᒪᓐᓇᓗ ᖃᐅᔨᓇᕈᑕᐅᓂᐊᕐᒪᑦ ᓄᓇᐅᑉ ᖃᙳᓂ ᐃᑯᑕᕈᑕᐅᓚᐅᖅᑐᖅ ᓇᓗᓇᐃᕈᑕᐅᓗᓂ ᐱᑕᖃᒪᙳᑦ ᕿᓂᖅᑕᙳᓂᑦ. ᑭᓯᐊᓂᓕ ᑕᒪᓐᓇ ᒪᓐᓇ ᐃᑯᑕᓂᐅᔫᖅ ᐱᔭᕆᐊᑐᓂᖅᓴᒪᕆᐅᒪᑦ ᓯᕗᓂᐊᒍᑦ ᐃᑯᑕᕈᑕᐅᓂᑯᒥᑦ. ᐃᒻᒪᖃᓗᓐᓂᑦ ᐱᙳᓱᐃᖅᑕᓯᒪᓂᐊᒪᑦ ᐅᔭᖅ ᓄᓇᐅᑉ ᖃᙳᓄᑦ ᐊᔾᔪᑕᐅᓂᐊᖅᑐᖅ ᐊᑎᒃᑐᒥᑦ, ᑕᐃᑯᐊᓗ ᐊᔾᔪᕈᑕᐅᓂᐊᖅᑐᑦ ᐊᖏᓂᖅᓴᐅᔫᑦ

ᐊᑐᖅᑕᐅᔭᕆᐊᖃᓂᐊᒪᑕ ᐊᒻᒪ 3.4 ᓈᓴᐅᑕᓂᒃ ᐅᖅᓱᐊᓗᒥᑦ ᐊᑐᕐᓂᖅᓴᐅᓂᐊᕐᒪᑕ. ᓯᕗᓂᐊᒍᓪᓕ ᐊᕐᖁᓯᐅᑉᐸᓪᓚᐅᒪᑕ ᑕᑉᐹ Comaplex Mines Corp ᐅᑭᐅᒃᑯᑦ ᐊᕐᖁᑎᕋᑉᐸᓪᓚᐅᒪᑕ ᑭᓯᐊᓂᓕ ᑕᒪᓐᓇ ᐊᑐᔾᔨᓇᑉᑎᒍ.

2011 ᐊᑐᓕᓴᖅᐸᑦ ᐅᖅᓱᐊᓗᖃᕆᓴᓂᒃ ᓇᑉᐸᖅᑎᕆᓂᐊᕐᒪᑕ ᖁᓕᓂᒃ ᓇᑲᓱᖑᐊᓂᑦ ᓇᑉᐸᖅᓯᕙᒪᒪᑕ ᑕᑉᑯᐊᓗ ᐊᑐᓂ ᐅᖅᓱᐊᓗᒥᑦ ᐃᒻᒥᓯᒪᔪᓇᓂᐊᖅᑐᑦ 114,000 litres ᐅᖅᓱᐊᓗᒥᑦ. ᑕᒪᓐᓇ ᐅᖅᓱᐊᓗᖃᕆᓴᖅ ᓇᑉᐸᖅᑕᐅᓂᐊᖅᑐᖅ ᐃᓚᒋᔭᐅᓂᐊᕐᒪᑦ ᒪᓐᓇ ᐅᖅᓱᐊᓗᖃᕆᐅᔪᒧᑦ, ᑕᒪᓐᓇᓗ 2011 ᐅᑭᐅᖑᓂ ᐱᓕᕆᐊᓴᐅᔪᖅ ᑲᔪᓯᔫᓇᓂᐊᕐᒪᑦ. ᑭᓯᐊᓂ ᐊᓪᕿᒍ 2012-2013 ᐃᓚᖓ ᐱᓕᕆᐊᓴᖅ ᐱᐊᓂᓯᒪᔭᖏᑦᑐᖅ ᑭᓯᐊᓂ ᐅᖅᓱᑕᕋᑦᑎᐊᐸᑦ. ᑕᐃᒪᓕ ᑖᑉᑯᐊ Agnico-Eagle Mines Limited ᐃᒪᓐᓇᐃᓕᐅᕈᒪᔪᑦ ᒪᕈᓕᖓᔫᒃ ᐃᒪᓐᓇᐃᓕᐅᕈᑎᒃᓵᒃ: ᐅᖅᓱᐊᓗᖃᕆᓴᓂᒃ ᓇᑉᐸᑎᓄᑲᓐᓂᖅᓗᑎᒃ ᐅᕙᓗᓐᓂᑦ ᐅᖅᓱᐊᓗᒃ ᐊᒡᔭᖅᑐᖅᑕᐅᓗᓂ ᑲᖏᖅᓕᓂᕐᒥᑦ. ᐊᕐᖁᓯᐅᓂᐊᓕᓚᐅᖅᑐᑦ ᑲᐃᖅᓕᓂᕐᒥᑦ ᑕᓯᖅᔪᐊᒧᑦ ᑕᒪᓐᓇ ᐅᖅᓱᐊᓗᒃ ᑲᖏᖅᓕᓂᕐᒥᑦ ᐊᒡᔭᖅᑐᖅᑕᐅᕙᓂᐊᕐᒪᑦ.

ᑕᒪᓐᓇ ᐊᕐᖁᓯᐅᖅᑕᐅᔪᒪᔪᖅ ᐅᐃᒍᓂᐊᕐᒪᑦ ᑲᖏᖅᓕᓂᒥᐅᑦ H2ᓚᖓᑦᑕ ᐊᕐᖁᑎᒋᕙᒃᑖᓄᑦ. ᐊᕐᖁᓯᐅᓇᐊᓂᐊᖅᑐᑦ ᐃᐳᕿᓕᐅᑉ ᑯᖓᓂᑦ ᐱᒋᐊᓗᑎᒃ ᒥᖑᐃᓯᕕᐊᓛᑉ ᑲᓇᖕᓇᓂᑦ. ᑕᒪᓐᓇ ᐊᕐᖁᑎᒃᓴᖅ ᒥᖑᐃᓯᕕᐅᑉ ᐃᓗᐊᓂᔫᖏᑦᑐᖅ. ᐃᑳᐱᓕᐅᓂᐊᖅᑐᑦ ᐃᐳᕿᓕᐅᑉ ᑯᖓᑕ ᐃᓚᖓᓂ. ᑰᑉ ᐊᑭᐊᓂ, ᐊᕐᖁᑎᒃᓴᖅ ᒪᔪᖃᖓᓂᐊᕐᒪᑦ ᒪᓕᓂᐊᓇᑉᓗᓂ ᐊᒃᓴᓗᐊᓕᑯᑦ ᐊᕐᖁᑕᐅᕙᑐᒥᑦ. ᐊᕐᖁᑎᒃᓴᐅᓂᐊᖅᑐᖅ ᐃᓚᖓ ᓇᐃᑦᑐᓂᐊᕐᒪᑦ ᑦᒃᐱᕐᖁᖓ ᑕᓯᖅᔪᐊᒧᑦ ᑮᓕᖃᕕᒋᓗᒍ. ᐊᕐᖁᑎᒃᓴᐅᓂᐊᖅᑐᖅ ᐃᓚᖓ ᐃᓄᑐᐃᓐᓇᕐᓄᑦ ᐊᑐᖅᑕᐅᔪᓐᓇᕐᓂᐊᖅᑐᖅ ᐊᒻᒪ ᐊᕙᑕᓄᑦ ᖃᓕᔪᑕᐅᕙᓂᐊᕐᒪᑦ. ᑕᐃᒪᑦᑕᐅᖅ ᑕᒪᓐᓇ ᐊᕐᖁᑎᓴᐅᓂᐊᖅᑐᖅ ᐱᐊᓂᒃᓯᒪᓕᖅᐸᑦ ᑎᑭᖃᔫᓇᕐᓂᐊᕐᒪᑦ ᐃᒡᓗᓕᓖᔪᒧᑦ.

ᑕᒪᓐᓇ ᐊᕐᖁᑎᒃᓴᐅᓂᐊᖅᑐᖅ ᑭᓇᒥᐊᖅ ᐊᑐᕈᓐᓇᓂᐊᖅᑐᖕ ᑭᓯᐊᓂᑦᑕᐅᖅ ᐅᔮᖅᑐᑦᑎᐊᖏᓐᓇᖅᓗᑎᒃ. ᑕᑉᐊᑦᑕᐅᖅ Agnico-Eagle Mines Limited ᖄᕐᖁᑎᒃᑯᒐᓗᐊᖅ ᐃᓄᑐᐃᓐᓇᕐᓂᒃ ᐃᓕᓐᓂᐊᕈᒪᔪᓂᒃ ᐃᓕᓐᓂᐊᑎᑦᑎᕙᓂᐊᖅᑐᑦ ᐊᕐᖁᒥ ᐅᔮᖅᑐᓇᐊᓕᓂᒃ. ᑕᒪᓐᓇ ᐊᕐᖁᑎᒃᓴᖅ ᓯᒥᒃᓯᒪᔫᖏᑦᑐᖅ ᕿᓯᐊᓂ ᑕᓯᖅᔪᐊᒧᑦ ᖃᓪᓕᒃᐸᑦ. ᑕᒪᓐᓇ ᑕᓯᖅᔪᐊᒥ ᐅᔭᕐᖅᑕᓇᐊᑦ ᓇᔪᖅᑕᖑᑦ ᐊᑐᖅᑕᐅᔭᖏᒪᑦ ᐃᓄᑐᐃᓐᓇᕐᓄᑦ ᑭᓯᐊᓂ ᓄᓇᑯᕈᑎᐊᓗᓄᑦ ᐅᖅᓱᐊᓗᒥᑦ ᐊᒡᔭᖅᑐᕈᑕᐅᔪᓄᑦ ᐅᕙᓗᓐᓂᑦ ᐱᕐᖁᑎᓂᒃ ᐊᒡᔭᑐᐃᔭᓄᑦ ᐊᒻᒪ ᐱᓕᕆᔭᖅᑐᖅᑐᓄᑦ.

IMPORTANT: IF THE PROPOSED ACTIVITIES REQUIRE SUBMISSION OF A NIRB PART 2 PSIR FORM, PLEASE COMPLETE SECTION 8 ONLY, OTHERWISE CONTINUE ON WITH SECTION 5.

ᐃᓚᖓ 5: ᐊᑐᖅᑕᐅᔪᒃᓴᑦ ᐊᑐᖅᑕᐅᓂᐊᕐᓂᖏᑦ

1. ᐱᕐᖁᑏᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᑦ ᑎᑎᕐᕿᓗᒋᑦ (ᐃᓚᖃᓯᐅᑎᓗᒋᑦ ᐃᑰᑕᕈᑏᑦ, ᐅᖅᓯᖅᑐᐃᑏᑦ, ᑎᖕᒥᓲᑦ, ᓄᓇᒃᑰᔪᑦ, ᐊᓯᕈᖁᔭᖏᓪᓗ.):

ᖃᓄᐃᑦᑐᖅ ᐱᕐᖁᑦ ᓈᓴᐅᑎᖓᓗ	ᐊᖏᓂᖓ – ᑕᑭᓂᖓ ᐳᖅᑐᓂ	ᓱᓇᒧᑦ

2a. ᐅᖅᓱᒃᓴᐃᑦ ᐊᑦᑕᓇᖅᑐᖅᑏᓪᓗ ᐊᑐᖅᑕᐅᓂᐅᓴᔫᑦ ᐅᖃᐅᓯᐅᕐᓯᐊᓇᐊᓖᑦ:

ᐅᖅᓱᒃᓴᑦ	ᐅᖅᓱᖃᐅᑏᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᑦ ᐃᒪᖃᖅᑎᒋᓂᖏᓪᓗ ᖃᑦᑕᐅᔭᐃᑦ	ᐅᖅᓱᒃᓴᐃᑦ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᑦ ᑲᑎᓪᓗᒋᑦ (ᑖᑕᐃᑦ ᐊᑐᕐᓗᒋᑦ)	ᖃᓄᖅ ᑐᖅᑯᖅᑕᐅᓯᒪᓂᐅᓴᕙᑦ
ᐅᖅᓱᕐᔪᐊᖅ			
ᒐᓴᓖᖅ			
ᑎᖕᒥᔪᖅᓯᐅᑏᑦ			
ᐳᓪᓚᓖᑦ			

ᐊᓯᖏᑦ			
ᐊᑦᑕᓇᖅᑐᖅᑕᓖᑦ ᐃᓚᐅᖅᓱᖅᓯᒪᔪᓪᓗ		ᑲᑎᓪᓗᒋᑦ ᐊᑦᑕᓇᖅᑐᖅᑕᓖᑦ ᐃᓚᐅᖅᓱᖅᓯᒪᔪᓪᓗ (ᓖᑕᐃᑦ ᐊᑐᕐᓗᒋᑦ)	

2b. ᑯᕕᔪᖅᑕᕐᑲᕐᓂᐊᕌᖅᑎᓪᓗᒍ ᖃᓄᖅ ᐸᕐᓇᐅᑎᖅᑲᕐᓂᐊᕆᐊᕙᑦ ᑯᕕᔪᖅᑕᕐᑲᕐᓂᖅᐸᑦ ᐅᖃᐅᓯᕆᕝᓯᐊᕈᒃ .

3a. ᖃᓄᑎᒋ ᐃᒪᕐᒥᒃ ᐊᑐᖅᑲᑦᑕᕐᓂᐊᕐᓯᒋᓐᒪᙵᖅᐱᑦ

ᐅᓪᓗ ᑕᒪᖅ ᐱᙳᓱᐊᖅᑎᕐᓗᒍ (m³)	ᓱᓇᒧᑦ ᖃᓄᕐᓗ ᐃᒥᖅᑕᒃᑲᕐᓂᐊᕆᐊᕙᑦ	ᓇᑭᑦ ᐃᒥᖅᑕᒃᑲᕐᓂᐊᕆᐊᕙᑦ

3b. ᐃᒥᖅᑕᕐᑲᕐᓂᐊᕐᓂᕐᒧᑦ ᓄᓇᕗᒥ ᐃᒪᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔩᓂᒃ ᓚᐃᓴᓐᑕᕐᓯᐊᖅᐱᑦ ?

☐ ᐄ ☐ ᐊᒃᑲ

ᐄ-ᖑᒍᓂᕈᓂ, ᖃᓄᐃᑦᑐᒃᑯᑦ ᓚᐃᓴᐣᓯᑎᒍᑦ ?

☐ Class A ᐃᒥᖅᑕᕐᓂᕐᒧᑦ ᓚᐃᓴᓐ

☐ Class B ᐃᒥᖅᑕᕐᓂᕐᒧᑦ ᓚᐃᓴᓐ

ᐃᓚᖓ 6: ᐊᒃᑕᑰᑦ ᐃᒋᐅᖃᖅᑕᐅᓂᐊᕐᓂᖏᓐᓄᑦ ᓴᐳᒻᒪᖅᓴᐃᓂᕐᒧᓪᓗ

1. ᑎᑎᕋᕐᓗᒋᑦ ᐊᒃᑕᖅᑕᐅᔪᒃᓴᑦ ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᓂᐅᓴᔪᒧᑦ ᓴᖏᐊᑎᑕᐅᓂᐊᕋᓱᒋᔭᐅᔪᑦ :

ᐊᒃᑕᑰᖅ	ᓴᖏᐊᓂᐊᕋᓱᒋᔭᐅᔪᑦ	ᖃᓄᖅ ᐃᒋᐅᖃᖅᑕᐅᓂᐊᖅᐸᑦ	ᓴᐳᒻᒪᖅᓴᐅᑕᐅᒃᑲᓂᕐᓂᐊᖅᑐᑦ
ᖁᖅᑕᑦ (ᐃᓄᖕᓂᙱᖅᑐᑦ)			
ᐅᐊᓴᕈᑎᕕᓃᑦ			
ᐃᑯᐊᓚᑕᐅᔪᓐᓇᖅᑐᑦ			
ᐃᑯᐊᓚᑕᐅᔪᓐᓇᖏᑦᑐᑦ			
ᓄᓇᒥᑦᑐᑦ (ᓄᓇ, ᐊᑐᖅᑕᐅᔪᓐᓇᕐᓂᐊᖏᑦᑐᑦ, ᓯᖃᓕᖅᑐᖅᑕᐅᓯᒪᓂᑯᐃᑦ)			
ᐊᑦᑕᓇᖅᑐᖅᑕᓖᑦ			
ᐊᓯᖏᑦ:			

2. ᐅᖃᐅᓯᕆᓗᒍ ᖃᓄᖅ ᐊᒃᑕᑰᑦ ᐃᒋᐅᖃᖅᑕᐅᖃᑦᑕᕐᓂᐊᕆᐊᖏᓐᓄᑦ.

ᐃᓚᖓ 7: ᓄᓇᓕᒋᔭᐅᔪᑦ ᐃᓚᐅᑎᑕᐅᓂᐊᕐᓂᖏᓐᓄᑦ & ᐊᕕᒃᑐᖅᓯᒪᐅᖅᑐᒧᓪᓗ ᐃᑲᔫᑕᐅᓂᐊᖅᑐᑦ

1. ᑎᑎᕋᕐᓗᒋᑦ ᓄᓇᓕᒋᔭᐅᔪᒥ ᑭᒡᒐᖅᑐᐃᔨᑦ ᖃᐅᔨᒃᑲᖅᑎᑕᐅᔪᕕᓃᑦ ᐊᒻᒪᓗ ᑲᑎᒪᔾᔪᑎᕕᓂᖅᑕᖃᕐᓂᕈᓂᓗ ᐊᑐᐃᓐᓇᐅᑎᓪᓗᒋᑦ:

ᓄᓇᓕᒋᔭᖅ	ᐊᑎᖓ	ᑲᑐᔾᔨᖃᑎᒌᑦ	ᐅᓪᓗᖓ ᖃᐅᔨᒃᑲᖅᑕᐅᓂᕕᓂᖓ

ᐃᓚᖓ8: ᑭᓱᑐᐃᓐᓇᕐᒧᑦ ᐊᐱᖅᑯᑏᑦ

1. ᖃᐅᔨᒪᔭᐅᔪᓂᒃ ᐃᖕᓂᑕᖃᕐᕕᕕᓂᕐᓂᒃ ᐊᒃᑐᐃᓂᐊᖅᐲᑦ ?

   ᙵ ᐄ
   ☐ ᐋᖕᒐ

ᑕᒪᓐᓇ ᖃᓄᖅ ᐊᒃᑐᐃᓂᐊᕐᓂᖓ ᖃᒪᕕᓂᑐᖃᓗᓂᑦ ᐊᒃᑐᐃᓂᐊᕐᓂᖓ ᐊᑐᐃᓇᔭᓂᖓᓗ ᑎᑎᕋᐅᓯᐅᕋᓂᓚᐅᖅᑐᖅ ᓄᓇᕗᑦ ᒐᕙᒪᑯᖏᑦᑕ ᐃᓕᑯᓯᓕᕆᔨᑯᓐᓄᑦ, CLEY ᐃᑲᓂ SEPTEMBER 2010.

ᐃᓚᖓ9: ᐊᑎᓕᐅᕈᓰᑦ

ᑐᒃᓯᖅᑏᑦ ᐊᑎᓕᐅᕐᓗᒍ ᐅᓪᓗᖓᓗ ᑎᑎᕐᓗᒍ :

	Eric M. Lamontagne Meliadine Project Manager	2 February 2011
ᐊᑎᓕᐅᕈᓰᑦ	ᑭᓱᓕᕆᔨᐅᓂᑦ	ᐅᓪᓗᒥ

ᐊᑕᕙᖅ A
ᐱᓕᕆᐊᕆᔭᐅᓂᐊᖅᑐᓄᑦ ᑐᑭᖓᑦ

ᐊᑐᕆᐊᒃᓴᓕᐅᕈᒪᓂᖅ: ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅ ᓄᓇᒃᑰᕚᓄᑦ ᐊᑐᕆᐊᖅᑕᖃᕈᓐᓇᕐᑯᓪᓗᒍ ᓄᓇ ᓱᓐᓂᓗᐊᖅᑕᐅᑦᑕᐃᓕᒪᓗᓂ.

ᓯᕗᒻᒧᒋᐊᖅᑕᐅᓯᒪᕙᖅ ᓴᕿᕋᔾᓴᖅᓯᐅᕈᒪᓂᖅ: ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅ ᓇᓗᓇᐃᖅᑕᐅᓇᓱᐊᕐᓗᓂ ᐊᖏᓂᖓ, ᐱᐅᓂᖓ, ᖃᓄᐃᑦᑑᓂᖓᓗ ᓴᕿᕋᔾᓴᖅᑕᖅᑑᑉ ᐊᒻᒪᓗ ᕿᓇᐅᔭᓕᐅᕈᑕᐅᕙᓐᓇᕐᔭᕆᐊᖓᓐᓂᒃᓗ ᐅᔭᖅᓯᐅᕙᓕᐅᖅᑕᐅᕙᓐᓇᕐᔭᕆᐊᖓᓂᒃᓗ ᓴᕿᕋᔾᓴᖅᑕᖅᑐᖅ.

ᖃᓄᐃᑦᑐᐃᓐᓇᒃᑯᑦ ᓯᓚᒃᑯᑦ ᐊᕐᑯᓯᐅᕈᒪᓂᖅ: ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅ ᐊᕐᕉᒍᓕᒫᖅ ᐊᑐᖅᑕᐅᕐᑦᑕᕈᓐᓇᕐᔭᖅᑐᒥᒃ ᖃᓄᐃᑦᑐᐃᓐᓇᒃᑯᑦ ᓯᓚᒃᑯᑦ ᐊᕐᑯᓯᐅᕝᕕᐅᕙᒪᓪᓗᓂ.

ᐅᔭᖅᑕᒐᐃᑦ ᖃᐅᔨᓴᒐᒃᓴᐅᕙᒪᓂᖏᑦ: ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅ ᐅᔭᕋᐅᔭᕐᓂᒃ ᐅᔭᖅᑕᕐᓂᖅ ᓴᕿᕋᔾᓴᖅᑕᖅᑲᓇᐊᖏᓐᓂᒃ ᖃᐅᔨᓴᒐᒃᓴᐅᓂᐊᖅᑐᓂᒃ ᑲᑎᑕᐅᒍᑎᒃ ᐅᕐᑯᒪᐃᑦᑑᑎᒻᒪᓇᐅᓕᕈᓐᓇᖅᑐᓂᒃ ᐋᔭᐃᕝᕕᐅᓗᓂ. (ᓯᖃᓕᖅᑐᖅᑕᐅᑐᐃᓐᓇᓇᐊᖃᖅᑐᑦ ᐅᔭᖅᓯᐅᕝᕕᒃᑕᖃᖏᒃᑲᓗᐊᓪᖅᑎᓪᓗᒍ)

ᐊᖑᓇᓱᐊᕈᒪᓂᖅ: ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅ ᐊᖑᓇᓱᐊᕐᓂᒃᑯᑦ, ᑕᕆᐅᒥᓗ ᓂᕐᔪᑎᓂᓪᓗᓐᓇᓃᑦ ᐊᒻᒪᓗ/ᐅᕝᕙᓘᓐᓇᓃᑦ ᐃᖃᓗᒃᓯᐅᕐᓂᕐᓘᓐᓇᓃᑦ ᑕᒪᐃᓐᓂᒃ ᐊᑐᓂ ᐱᑕᖃᖅᑐᓂᒃ ᐊᖑᓇᓱᐊᕐᓂᒃᑯᑦ ᒥᑭᒋᐊᖅᑕᕐᓂᒃᑯᑦ ᐃᓄᖕᓄᑦ ᓂᕆᔭᐅᓂᐊᖅᑐᓂᒃ ᐊᒻᒪᓗ ᓂᐅᕕᐊᒃᓴᐅᓂᐊᖅᑐᓂᓪᓗ.

ᑕᕆᐅᒥ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅᑕᖅᑕᕐᓂᖅ: ᑕᕆᐅᒥ ᐱᓕᕆᐊᕆᔭᐅᕙᓇᖅᑐᖅ, ᐆᒃᑑᑎᒋᓗᒍ ᐅᒥᐊᒃᑯᑦ ᓄᓇᓕᒎᓇᖅᑐᒃᑯᑦ ᑕᕆᐅᒥᓘᓐᓇᓃᑦ ᐱᓕᕆᐊᖅᑲᕈᓇᕐᓗᓂ.

*ᖃᐅᔨᒪᔭᐅᔭᕆᐊᖅᑲᖅᑐᖅ ᓄᓇᓕᒋᔭᐅᕙᓄᑦ ᓂᐅᕕᒃᓴᓂᒃ ᐊᒡᔭᖅᑐᐃᓂᖅ ᐅᕝᕙᓘᓐᓂᑦ ᐃᓕᒃᑰᖅᑐᑦ ᐅᒥᐊᑦ ᐅᒥᐊᕐᕙᐊᓪᓗ ᑲᓕᒫᓪᓗ ᓄᓇᒥᓗ ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᓄᑦ ᐱᔾᔪᑎᖃᖅᑎᖦᖢᑦ ᓄᓇᕗᒥ ᐊᕙᑎᓕᕆᓂᕐᒧᑦ ᑲᑎᒪᔨᓄᑦ ᕿᒥᕐᕈᔭᐅᖃᑦᑕᔾᔭᕆᓐᓂᖏᓐᓂᒃ (ᐃᓚᖓᑕ ᐃᓚᖓᓂᑦᑐᖅ 12.12.2 ᓄᓇᑖᕐᓂᕐᒧᑦ ᐊᖏᕈᑎᓂᑦᑐᖅ).

ᐅᔭᖅᓯᐅᕝᕕᓕᐅᕈᒪᓂᖅ: ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅ ᐅᔭᖅᑕᕐᓂᐊᕐᓗᓂ ᓯᕐᑯᑦᑎᖅᑕᐅᓯᒪᕙᓂᒃ ᓴᕿᕋᔾᓴᖅᑕᖅᑐᓂᒃ ᐱᐅᓂᖃᐅᖅᑐᓂᒃ ᐊᒥᓲᓂᒃᓗ ᕿᓇᐅᔭᓕᐅᕈᑕᐅᕙᓇᕐᓂᐊᖅᑐᓂᒃ ᐅᔭᖅᓯᐅᕝᕕᒃᑕᖃᖅᐸᑦ ᓂᐅᕕᖅᑕᐅᕙᓇᕐᓂᐊᖅᑐᓂᒃ (ᐅᐊᕐᓂᒃ). ᐅᐊᕐᑕᕈᓇᕋᔾᔪᑎᒃ ᓄᓇᐅᑉ ᖃᖓᓇᓂᒃ ᐊᒻᒪᓗ /ᐅᕝᕙᓗᓐᓃᑦ ᓄᓇᐅᑉ ᐃᑭᐊᖓᓂᓪᓘᓐᓃᑦ. ᐅᔭᖅᑕᖅᑎᓪᓗᒋᑦ ᓯᖃᓕᖅᑐᖅᑕᐅᕙᓪᓕᐊᑐᐃᓐᓇᕆᐊᖃᖅᑐᑦ. ᓯᖃᓕᖅᑐᐃᓂᖅ ᓴᓗᒻᒪᖅᓴᖅᑕᐅᕙᓪᓕᐊᕙᓇᕆᓪᓗᑎᒃ ᐊᐅᓚᐅᑎᖃᖅᑐᑎᒍᑦ ᐃᓚᐅᖅᓱᖅᓯᒪᕙᒧᓪᓘᓐᓃᑦ ᐊᑭᑐᕗᑏᔭᖅᑕᐅᓗᑎᒃ ᕿᓇᐅᔭᓕᐅᕈᑕᐅᕙᓇᖅᑐᐃᔭᕐᓗᕆᑦ.

ᓴᕿᕋᔾᓴᖅᓯᐅᕈᒪᓂᖅ: ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅ ᐅᔭᖅᑕᒐᐅᕙᓇᖅᑐᓂᒃ ᐊᔾᔨᖃᖏᑦᑐᓂᒃ ᕿᓈᔭᕝᕕᐅᓗᓂ. ᓴᕿᕋᔾᓴᕝᕕᐅᕙᒪᕙᖅ ᕿᓂᕝᕕᐅᕙᓇᖅᑐᖅ (ᓄᓇᒃᑯᑦ ᐊᒻᒪᓗ /ᑎᖕᒥᓲᒃᑯᓪᓘᓐᓃᑦ) ᓴᕿᕋᔾᓴᓂ ᕿᓇᐅᔭᓕᐅᕈᑕᐅᕙᓇᖅᑐᖅᓯᐅᕝᕕᐅᓗᓂ ᒃ.

ᑕᕆᐅᒥ ᓇᑉᐸᖅᑎᒐᐅᕙᒪᕙᑦ: ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅ ᓂᐅᕋᐃᔭᕝᕕᐅᕙᓇᖅᑐᓕᐅᕝᕕᐅᓗᓂ ᓯᓈᓂ ᑕᕿᐅᑉ ᐅᕝᕙᓘᓐᓃᑦ ᑕᓯᕐᒥᓘᓐᓃᑦ. ᐆᒃᑑᑎᒋᓗᒋᑦ ᓂᐅᕋᐃᕚᑦ ᐅᓯᓕᖅᑐᐃᕝᕚᑦ ᑐᓚᒃᑕᕝᕚᓪᓗ.

ᐅᖅᓱᕙᐊᖅᓯᐅᕐᓂᖅ ᒐᓴᓖᖅᓯᐅᕐᓂᖅ/ᐱᓕᕆᐊᕆᔭᐅᕙᒪᓂᖓᑦ: ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅ ᐃᓚᖃᒻᓯᓂ 1) ᓴᕿᕋᔾᓴᖅᓯᐅᕐᓂᖅ, ᓄᓇᒥ ᐃᑭᐊᖓᓂᓗ ᐃᒪᖅᑕᖅᑐᒥᓗ ᓄᓇᙴᐊᓕᐅᒪᓂᖅ, 2) ᐅᖅᓱᕙᐊᖅᓯᐅᕐᓂᖅ ᒐᓴᓖᖅᓯᐅᕐᓂᕐᓗ ᐃᑰᑕᒃᑯᑦ, 3) ᓱᓪᓗᑯᑖᓕᐅᕐᓂᖅ ᐊᑐᖅᑕᐅᓂᐊᖅᑐᒥᒃ, ᒐᓴᓕᒃᓴᓕᐅᕝᒃ ᐅᖅᓱᐊᓗᖃᐅᑎᖃᕝᕙᒃᓴᓕᐅᕐᓂᖅ ᒐᓴᓖᓇᕝᕙᒃᓴᓕᐅᕐᓂᕐᓗ ᓄᓇᕗᒥ.

ᐃᑎᖅᓴᐃᑦ ᑐᐊᐸᒃᑕᕝᕕᓪᓗ ᓯᐅᖃᖅᑕᕝᕕᓪᓗ ᓄᓇᑕᕝᕕᓪᓗ : ᑐᒃᓯᖅᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᕙᒪᕙᖅ ᐃᑎᖅᓴᓕᐅᒪᓂᐊᕐᓗᓂ, ᓯᐅᖃᐃᔭᖅᑕᐅᕝᕕᐅᓗᓂ ᑐᐊᐸᐃᔭᖅᑕᐅᕙᓪᓕᐊᓗᓂᓘᓐᓃᑦ ᐊᒻᒪᓗ ᑐᐊᐸᒃᑕᕐᓂᕐᓗ, ᓯᐅᖃᖅᑕᕐᓂᕐᓗ ᓄᓇᑕᕝᕕᐅᓂᐊᕐᓗᓂᓗ ᕿᒡᕙᐃᔭᖅᑕᐅᓗᓂ ᖃᐃᖅᑐᐃᔭᖅᑕᐅᓗᓂᓘᓐᓃᑦ ᓯᕐᒥᔭᖅᑕᐅᓗᓂᓘᓐᓃᑦ.

ᑭᓱᑐᐃᓐᓇᐃᑦ ᖃᐅᔨᓴᕈᑕᐅᔪᒪᓂᖏᑦ: ᑐᒃᓯᕐᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᖅ ᐊᔾᔨᐅᖏᑦᑐᓂᒃ ᐊᔾᔨᖃᖕᖏᑦᑐᓂᒃ ᖃᐅᔨᓴᖃᑦᑕᕐᓂᐊᕐᓗᓂ ᐱᓕᕆᐊᕆᑲᐅᔪᓂ ᖃᐅᔾᔭᐅᕙᓪᓕᐊᔪᓪᓗ ᑎᑎᕋᖅᑕᐅᓯᒪᔪᑦ ᑲᑎᖅᓱᖅᑕᐅᕙᓪᓕᐊᓗᑎᒃ ᐆᒃᑐᕋᐅᑎᓄᓪᓗ ᐆᒃᑐᖅᑕᐅᖃᑦᑕᕐᓗᑎᒃ ᑭᒡᓕᓕᖅᑐᖅᑕᐅᓯᒪᕙᖃᕐᓗᓂ ᖃᐅᔨᓴᖅᑕᐅᓂᐊᖅᑐᑦ.

ᓄᓇᒥ ᑕᕆᐅᒥᓘᓐᓃᑦ ᓄᓇᖖᒍᐊᓕᐅᕈᒪᓂᖅ: ᑐᒃᓯᕐᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᖅ ᕿᖖᒍᑎᖃᖅᑐᒧᑦ ᑕᐅᑐᒐᐅᖃᑦᑕᕐᓗᓂ ᖃᓄᑎᒋ ᓄᓇᐅᑉ ᐃᑭᐊᑐᐃᓐᓇᖓᓂ ᐅᔾᔭᐃᑦ ᖃᐃᖅᑐᐃᓪᓗ ᐃᓗᑐᓂᖃᖅᑎᒋᔭᕆᐊᖏᑦ ᖃᐅᔨᓴᐅᒻᒧᑦ ᖃᐅᔨᓴᖅᑕᐅᓪᓗᑎᒃ ᓯᕿᖑᔭᐅᑉ ᐃᖏᕋᔪᓛᖓᓐᓄᑦ ᓂᐱᓕᐅᑉ ᓂᐱᑐᓂᖓ ᐅᑎᕐᓂᕆᓲᖓ ᒪᓕᒃᓗᒍ ᓄᓇᐅᑉ ᖄᖓᓐᓃᖕᖑᖅᑐᖅ. ᑕᕿᐅᒥ ᖃᐅᔨᓭᑐᐃᓐᓇᕆᐊᖅᑲᓱᖑᖕᒥᔪᑦᑕᐅᖅ (13 ᒪᐃᓕᑦ ᐃᓗᐊᓂᒋᐊᖃᖕᖏᑦᑐᖅ ᓇᒥᑐᐃᓐᓇᖅ ᓯᒃᔭᒥᑦ), ᓯᒃᔭᖅᐸᓯᐅᑉ ᖃᓂᒌᔭᓂᒃ, ᓄᓈᓚᕆᖕᒥᒃᓗ.

ᐱᓕᕆᐊᕆᕝᕙᐅᔪᑦ ᓴᓗᒪᖅᓴᖅᑕᐅᔪᒪᓂᖏᑦ: ᑐᒃᓯᕐᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᖅ ᐱᓕᕆᐊᕆᕝᕙᐅᔪᓂᒃ ᓴᓗᒪᖅᓴᐃᓂᖅ (ᑎᐅᓚᐃᕐᑲᕐᕖᑦ ᐃᓚᖃᓯᐅᑎᓗᒋᑦ), ᐃᓚᐅᖅᓱᖅᓯᒪᐃᔭᕐᕙᐅᓗᑎᒃ ᓄᓇᑕᖅᑕᐅᕙᓪᓕᐊᔪᑦ, ᓄᓇᑕᕐᕕᐅᓗᑎᒡᓗ ᓇᑖᓂᒃ ᒪᓂᒃᓴᖅᑕᐅᔦᐊᕐᓗᑎᒡᓗ ᐊᒻᒪᓗ ᐊᒃᑕᕖᑦ, ᐃᒡᓗᕖᓂᑦ ᐊᕐᑯᓯᐊᕖᓃᑦ ᒥᙯᕖᓃᓪᓗ ᐃᑐᑦᑎᖅᑕᐅᓗᑎᒡᓗ/ᐃᒋᐅᕐᑲᖅᑕᐅᓗᑎᒡᓗ ᐊᒃᑕᑯᓪᓗ ᓄᓇᒥ ᑲᑕᒐᖅᑕᐅᓂᕕᕖᓂᑦ ᐊᒻᒪᓗ ᓇᐅᑦᓯᖅᑐᖅᑕᐅᔭᖅᑐᖃᑦᑕᕐᓗᓂᓗ ᓴᓗᒪᖅᓴᖅᑕᐅᓯᒪᔭᓅᖅᓯᒪᓕᕈᓂ.

ᐳᓚᕋᖅᑐᓕᕆᓂᖅ: ᑐᒃᓯᕐᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᖅ ᐳᓚᕋᖅᑐᓕᕆᓂᖅ ᒥᖖᒍᐃᖅᓴᕆᐊᖅᑐᖅᓯᒪᔪᓄᑦ ᓄᓇᓕᒋᔭᐅᔪᓂᒃ ᑕᑯᔭᖅᑐᖅᓯᒪᔪᓄᑦ ᓄᖃᖓᕝᕙᐅᒋᐊᖅᑐᖅᓯᒪᑲᐃᓐᓇᕈᓐᓴᖅᑐᓄᓪᓗ ᐊᑐᖅᑕᐅᓂᐊᕐᓗᓂ ᐊᕐᕋᒎᑉ ᐃᓚᐃᓐᓇᑐᐃᓐᓇᖑᓐᓂ.

ᐅᑭᐅᒃᑯᑦ ᐊᖅᑯᓯᐅᕈᒪᓂᖅ: ᑐᒃᓯᕐᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᖅ ᐅᑭᐅᒃᑯᑦ ᐊᑐᖅᑕᐅᔪᓐᓇᕋᔭᖅᑐᒥᒃ ᐊᖅᑯᓯᐅᕐᓂᖅ ᒪᓂᒃᓴᖅᑕᐅᓗᓂ ᑲᑎᖅᓱᖅᑕᐅᓗᓂᓗ ᐊᐳᑦ ᓄᓇᐅᑉ ᖃᖓᓂᖅᑐᖅ ᓯᑯᓗ. ᐃᑐᑦᑎᖅᑕᐅᓇᔭᖅᑐᖅ ᐅᐱᙵᓕᖅᑎᓪᓗᒍ ᐊᑐᖅᑕᐅᔭᕈᓂᕈᓂ.

ᐅᑭᐅᒃᑯᑦ ᐊᑐᒐᐅᔪᓐᓇᖅᑐᒥᒃ ᐊᑐᓇᐊᒃᓴᓕᐅᕈᒪᓂᖅ: ᑐᒃᓯᕐᑑᑎᒃᑯᑦ ᐱᓕᕆᐊᕆᔭᐅᔪᒪᔪᖅ ᐊᑐᓇᐊᒃᓴᓕᐅᕐᓗᓂ ᐅᑭᐅᒃᑯᑦ ᐊᑐᖅᑕᐅᖃᑦᑕᕈᓐᓇᕋᔭᖅᑐᒥᒃ ᐊᑕᐅᓰᓐᓇᕐᒧᑦ ᐊᒃᓴᓗᐊᖃᖅᑐᒧᑦ ᐊᑐᓇᐊᖑᔪᓐᓇᖅᑐᒥᒃ ᐳᐊᕐᓇᑎᖃᖅᑐᒧᑦ, ᑕᐃᒪᐃᒋᐊᖃᕐᓂᕈᓂ.

Appendix 7 NIRB Screening Part 2 Form

SCREENING PART 2 FORM
PROJECT SPECIFIC INFORMATION REQUIREMENTS (PSIR)

SUBMISSIONS

The Proponent must submit all information pertaining to the Project as a whole. The information requirements below are designed for the purpose of environmental assessment and are not limited to the scope of a single permit or license application.

IMPORTANT: Please be advised of the following:

1. NIRB does not accept references to an ftp or web sites as a submission.

2. The Proponent must provide NIRB with 1 (one) electronic copy and 1 (one) hardcopy of the required information in English.

3. All maps should be shapefiles, be legible, and should include grids, be of appropriate scale, indicate the scale, include latitude and longitude references, NTS Maps numbers, title, legend and a north arrow. To the extent possible, avoid hand-drawn demarcations and faxed maps; and,

4. Please complete all required information in each section below. If the required information is not applicable to the project proposal, please indicate this in the response with "n/a". If the request has been provided in a different section or report, please note the section or report where the response can be found.

GENERAL PROJECT INFORMATION REQUIREMENTS

Project Coordinates and Maps

1. The preferred method for submitting project coordinates information is through the use of a Geographic Information System (GIS) compatible digital file. Although an ESRI ArcView 3.x shape file (in decimal degrees) is the preferred interchange format, the NIRB has the capacity to receive over 100 GIS and CAD related formats, including MapInfo and AutoCAD, provided proper format and projection metadata is also submitted. The NIRB requires coordinates for the project proposal which reflect the entire project area as defined by:

   - Area/sites of investigation;
   - Boundaries of the foreseen land use permit/right-of-way area(s) to be applied for;

     The road will be located on municipal land (commissioner's land), and Inuit Owned Land administered by the Kivalliq Inuit Association. This is shown on figure 2-1 and 2-2 of the Project Description. Shape files for all the figures can be found on the CD attached to the Project Description report.

   - Location of any proposed infrastructure or activity(s); and,

The Char, Meliadine and M5.0 bridges will be located where the road crosses the rivers/stream and is shown on figure 2-2 from the Project Description.

- Boundaries of the mineral claim block(s) where proposed activities will be undertaken.

  Figure 2-1 shows the boundaries of the mineral claims and concessions in relation to the all weather road.

2. Map of the project site within a regional context indicating the distance to the closest communities.

   Refer to figure 2- 1 in the Project Description. The road starts at a municipal road approximately five km north of the main Rankin Inlet town site. The road will be approximately 27.4 km long, ending at the Meliadine site. There is a spur road leading to Meliadine Lake as well. This road will allow residents of Rankin Inlet ready access to the lake and areas of traditional use. The road will be approximately 80 km from Chesterfield Inlet.

3. Map of any camp site including locations of camp facilities.

   The camp has been in operation for over 20 years. It is presently being enlarged to accommodate the workers for the underground extension program and will hold up to 172 workers.

4. Map of the project site indicating existing and/or proposed infrastructure, proximity to water bodies and proximity to wildlife and wildlife habitat.

   Figure 2-2 in the Project Description shows the Meliadine River and the 10 ephemeral streams crossings.

Project General Information

5. Discuss the need and purpose of the proposed project.

   Refer to section 2.1 of the Project Description

6. Discuss alternatives to the project and alternative methods of carrying out the project, including the no-go alternative. Provide justification for the chosen option(s).

   Refer to section 2.5 in the Project Description

7. Provide a schedule for all project activities.

   Refer to table 2-2 in the Project Description

8. List the acts, regulations and guidelines that apply to project activities.

   Refer to appendix 1 in the Project Description

9. List the approvals, permits and licenses required to conduct the project.

Refer to table 2-4 in the Project Description

DFO Operational Statement (OS) Conformity

10. Indicate whether any of the following Department of Fisheries and Oceans (DFO) Operational Statement (OS) activities apply to the project proposal:
    - Bridge Maintenance

      Although not applicable to building the road and bridges, their subsequent maintenance will follow the operational statement.

    - Clear Span Bridge

      Single span bridges will also be built to cross the Char, Meliadine and M5.0 water crossings with the abutments and any ancillary facilities all located above the ordinary high water mark. The height of the bridge above the water will meet the requirements for navigable waters in the case of the Meliadine and M5.0 bridges.

      Meetings were held with the Department of Economic Development and Transportation with a view to their long-term needs for the proposed road between Rankin Inlet and Chesterfield Inlet.

    - Culvert Maintenance

      The road will cross 9 ephemeral streams using culverts. As is the practice in arctic environments, the culverts will be stacked as shown in figure 2-4.

    - Ice Bridge

      An ice bridge may be built to install the bridge girders when there is no flow in the Meliadine River. This would occur in winter.

    - Routine Maintenance Dredging

      n/a

    - Installation of Moorings

      n/a

    Please see DFO's OS for specific definitions of these activities available from DFO's web-site at http://www.dfo-mpo.gc.ca/regions/central/habitat/os-eo/index-eng.htm
11. If any of the DFO's OS apply to the project proposal, does the Proponent agree to meet the conditions and incorporate the measures to protect fish and fish habitat as outlined in the applicable OS? If yes, provide a signed statement of confirmation.

    The signed statement of confirmation can be found in appendix 2 to the Project Description

Transportation

12. Describe how the project site will be accessed and how supplies will be brought to site. Provide a map showing access route(s).

    Presently, two approved winter roads are used to deliver supplies to the Meliadine camp. These two routes were approved by the KIA under permits KVRW98F149 and KVRW07F02.

    The proposed all weather road is shown on figure 2-2 in the Project Description.

13. If a previous airstrip is being used, provide a description of the type of airstrip (ice-strip/all-weather), including its location. Describe dust management procedures (if applicable) and provide a map showing location of airstrip.

    An ice runway was used in the distant past but for all ongoing purposes, the airport in Rankin Inlet will be used. Having the road will allow road delivery of supplies coming in by air and barge, and will allow the ferrying of workers to and from the Rankin Inlet airport.

14. If an airstrip is being constructed, provide the following information: **Refer to section 2.3(e) for information on the emergency airstrip. This airstrip will be temporary.**
    a. Discuss design considerations for permafrost
    b. Discuss construction techniques
    c. Describe the construction materials, type and sources, and the acid rock drainage (ARD) and metal leaching (ML) characteristics (if rock material is required for airstrip bed).
    d. Describe dust management procedures.
    e. Provide a map showing location of proposed airstrip.

15. Describe expected flight altitudes, frequency of flights and anticipated flight routes.

    Flight frequencies would be 1 to 3 per day for 6 months. Most flights would originate from Rankin Inlet, 25 km to the south and would maintain an altitude set by the local authority in the Rankin Inlet control tower. The airstrip will be closed once the road is open to traffic.

Camp Site

16. Describe all existing and proposed camp structures and infrastructure

    The existing camp was established in 1997 and has operated continuously since with brief periods of winter shut down. Additional units are being added to the camp in early 2011 to accommodate the increase in workers.

    In large part, it is a Weatherhaven design along with some stick-built structures and Atco type trailers. Presently it will accommodate 60 persons but in 2011 this will increase to 172. The sewage treatment plant is sized for 150 people and a new RBC sewage treatment plant is being added. The volume of water allowed for the

camp under the Water Licence is 25 m^3/day and this is sufficient, even with the increased number of workers.

17. Describe the type of camp:
    a. Mobile **Some new units being installed in 2011 are trailers placed on gravel pads.**

    b. Temporary

       The continued surface exploration and the underground program will operate out of the camp. It is temporary in nature and can easily be dissembled and removed to Rankin Inlet.

    c. Seasonal **n/a**
    d. Permanent **n/a**
    e. Other

       Some hotel accommodation in Rankin Inlet may be block booked during the construction of the road.

18. Describe the maximum number of personnel expected on site, including the timing for those personnel involved with the project.

    The Meliadine camp will have a maximum of 140 persons at any one time. Approximately 25 will devoted to road building with the remainder working in the underground or doing surface exploration.

Equipment

19. Provide a list of equipment required for the project and discuss the uses for the equipment.

    The project will involve standard road building equipment mostly supplied by local contractors. This will include dump trucks, loaders, dozers, drills, explosives trucks, fuel - service trucks, pickups and vans.

20. If possible, provide digital photos of equipment.

    Not available

Water

21. Describe the location of water source(s), the water intake methods, and all methods employed to prevent fish entrapment. Provide a map showing the water intake locations.

    The road and bridges will be built during the winter of 2011 and 2012. No water will be used. The workers will be staying in the established Meliadine camp and/or commercial lodging in Rankin Inlet.

22. Describe the estimated rate of water consumption (m^3/day).

    n/a

23. Describe how waste water will be managed. If relevant, provide detail regarding location of sumps, including capacity of sumps and monitoring.

    n/a

24. If applicable, discuss how surface water and underground water will be managed and monitored.

    The road will be built in winter starting in Sept 2011 and is expected to be completed some six months later. Single span bridges are to be installed over the Meliadine and Char Rivers, and stream M5.0. Stacked culverts will be used to cross the other nine ephemeral streams found along the road right-of-way.

Waste Water (Grey water, Sewage, Other)

25. Describe the quantities, treatment, storage, transportation, and disposal methods for the following (where relevant):

    Workers will either be staying in the established Meliadine camp and in commercial lodging in Rankin Inlet.

    - Sewage

      At the Meliadine Camp, sewage will be directed to the BIOdisk Rotating Biological Contactor Sewage Plant.

    - Camp grey water

      At the Meliadine Camp, grey water will be directed to the BIOdisk Rotating Biological Contactor Sewage Plant.

    - Combustible solid waste

      All combustible solid waste will be taken to the Rankin Inlet landfill for the work crew building the road from Rankin Inlet to the Meliadine site. Agnico-Eagle has an agreement with the Hamlet allowing use of the landfill. For the work crew building the road from the Meliadine site to Rankin Inlet, the combustible waste will be directed to the incinerator located at the Meliadine camp.

    - Non-combustible solid waste, including bulky items/scrap metal

      All non-combustible, non-hazardous solid waste will be removed to the Rankin Inlet landfill.

    - Hazardous waste or oil

All hazardous waste will be kept secure and packed according to the TDGA for transport to a southern waste management facility for treatment and/or disposal. This waste would be sent south during the shipping season. Waste Oil is delivered to a contractor in Rankin Inlet who uses it for heating.

- Contaminated soils/snow

  All contaminated snow will be placed in empty 205 litre drums and stored on a lined, bermed area at the Meliadine site until the melted snow can be treated in an oil-water separator. The recovered oil will be stored in 205 litre barrels while the water will be used within the operations.

  Contaminated soil will be returned to the Meliadine camp and also stored in 205 litre drums and later moved into mined out stopes in the underground. For the interim, the drums will be stored in a lined, bermed area.

- Empty barrels/ fuel drums

  Empty barrels / fuel drums will be returned to the supplier for reuse. Barrels that cannot be reused will be cleaned, crushed and placed in the Rankin Inlet landfill.

- Any other waste produced

  A waste management has been prepared for the Water Board for licence 2BB-MEL0914 and it describes how all wastes are to be handled. It is included on the attached CD.

26. If the project proposal includes a landfill or landfarm, indicate the locations on a map, provide the conceptual design parameters, and discuss waste management and contact-water management procedures.

    n/a

Fuel

27. Describe the types of fuel, quantities (number of containers, type of containers and capacity of containers), method of storage and containment. Indicate the location on a map where fuel is to be stored, and method of transportation of fuel to project site.

    Fuel is stored on site and at each location is as follows:

    - **3 double walled, 50,000 litre tanks holding diesel for the generators and heating located next to the camp;**
    - **3 double walled, 50,000 litre tanks holding jet A for the helicopters located at the helipad, next to the camp;**
    - **11 double walled, 50,000 litre tanks holding diesel located at the tank farm;**
    - **2 – 13,600 litre double walled tanks holding diesel located at the portal services pad;**

- **A lined, bermed area at the tank farm that is to hold 10 – 113,500 litre bladders. This is to be built early in 2011 and subsequently filled for use before the winter road closed in May 2011; and**
- **Approximately 15 – 205 litre barrels of gasoline located on a bermed, lined area at the tank farm.**

Propane is used for camp cooking.

28. Describe any secondary containment measures to be employed, including the type of material or system used. If no secondary containment is to be employed, please provide justification.

    The 50,000 and 13,600 double walled tanks found on site are on gravel pads. All other fuel areas are bermed and lined with a 60 mil HDPE liner. The HPDE liner was placed between geotextile liners to protect it from any sharp rocks. Esker aggregate was used to build the base and walls of the retaining area.

29. Describe the method of fuel transfer and the method of refuelling.

    Presently, the fuel is delivered from Rankin Inlet over the winter roads in 12,000 litre, double walled Envirotanks mounted on sleds. The fuel transfer is carried out by connecting a hose to the delivery tanks using a MaxiDry coupler and pumping the fuel into the storage tanks.

    Refuelling in camp is described in Appendix F - Operating Procedure for Bulk Fuel Oil Pumping Stations (Diesel), Fuel Management and Spill Contingency Plan. The spill plan can be found on the attached CD.

30. Describe spill control measures in place.

    The delivery sled has a spill kit associated with it and other spill kits are available at the different fuel storage locations. As noted in the Fuel Management and Spill Contingency Plan, spill controls include:
    - **The Proponent must ensure that secondary containment measures are used when transferring fuel and any hazardous materials from vehicles to storage facilities;**
    - **The Proponent shall ensure that the transportation contractor for the winter road (M&T Services Ltd.) has an appropriate spill kit to address a spill of fuel from the largest-sized Envirotank (12,000L); and**
    - **The Proponent shall ensure that the transportation contractor for the winter road (M&T Services Ltd.) has an appropriate spill contingency plan to address the possibility of any spills along the winter road.**

The Fuel Management and Spill Contingency Plan is included on the attached CD.

Please refer to Environment Canada's fuel storage tank system regulations (*Storage Tank System for Petroleum and Allied Petroleum Products*) website at http://www.ec.gc.ca/st-rs/ for details on fuel storage requirements.

Chemicals and Hazardous Materials*

**included but not limited to oils, greases, drill mud, antifreeze, calcium or sodium chloride salt, lead acid batteries and cleaners*

All reagents and materials used on site will be stored and handled in compliance with manufacturers' and WHMIS specifications.

31. Describe the types, quantities (number of containers, the type of container and capacity of containers), method of storage and containment. Indicate the location on a map where material is to be stored, and method of transportation of materials to project site.

    All chemical and hazardous materials will be transported to the site by surface means in accordance with the applicable Transport Canada regulations. This would initially be over one of two approved winter roads, and once completed, over the all weather road. A staging point will be maintained at Rankin Inlet in the form of a fenced, locked compound. Materials will be unloaded, moved and loaded by forklift. Employees engaged in handling these materials will be fully instructed in WHMIS and safe handling procedures. At the Meliadine site, these materials will be stored in a secure area with weather sensitive materials being stored under cover. All materials will be kept in their original containers until actual use.

32. Describe any secondary containment measures to be employed, including the type of material or system used.

    Fuel is stored in bermed areas having a 60 mil HPDE liner or in double walled tanks. Salt, CaCl is stored in sea cans or in sprung structure having a 60 mil HPDE liner.

    All reagents and materials used on site will be stored and handled in compliance with manufacturers' and WHMIS specifications. Transfers will take place from suppliers' containers as close to the end-use point as possible (in a secondary containment environment if appropriate).

33. Describe the method of chemical transfer.

    All reagents and materials used on site will be stored and handled in compliance with manufacturers' and WHMIS specifications. Transfers will take place from suppliers' containers as close to the end-use point as possible (in a secondary containment environment if appropriate).

34. Describe spill control measures in place.

    A detailed spill plan was developed for the Meliadine site and filed with the NWB in August 2010. It is included on the attached CD.

    All fuels and other products requiring secondary containment will be stored in lined, bermed area.

Spill kits are located where inadvertent spills may occur such as at refuelling locations and machinery maintenance areas.

Workforce and Human Resources/Socio-Economic Impacts

35. Discuss opportunities for training and employment of local Inuit beneficiaries.

    The Kivalliq Inuit Association has requested that an IIBA be negotiated for the building of the road. This is expected, in part, to address training and employment opportunities for local Inuit beneficiaries.

    Inuit firms will be bidding on the contract to build the road.

36. Discuss workforce mobilization and schedule, including the duration of work and rotation length, and the transportation of workers to site.

    Local contractors could be hired to build the road and assist in building the bridges. Approximately 50 workers will build the road and 20 will build the bridges.

    Construction will begin in September 2011 and continue up to 6 months. All construction will occur in winter. Rotation length will be in compliance with Labour Standards Act and the Mine Health and Safety Act.

    The workers working on building the road from the Rankin Inlet to Meliadine will use a van and/or pickups to report to work and will stay in commercial lodging in Rankin Inlet or at the Meliadine camp. The same hold true for the workers working on the bridges.

    Workers building the road starting at the Meliadine site will be transported by helicopter to the camp, stay in the camp and be driven to work in a van and pickups.

37. Discuss, where relevant, any specific hiring policies for Inuit beneficiaries.

    As Inuit firms are bidding on the contracts to build the road and bridges, it is fully expected that local Inuit workers will be hired.

    The KIA and AEM are negotiating an Inuit Impact Benefits Agreement for the building of the road. This Agreement will set targets for hiring Inuit beneficiaries.

Public Involvement/ Traditional Knowledge

38. Indicate which communities, groups, or organizations would be affected by this project proposal.

    The Hamlet of Rankin Inlet will be directly affected by the development as it will mean greater economic activity with more business and employment opportunities for the residents. It will also provide easy access to traditional use area, and to camps and cottages found around Meliadine Lake.

The main groups and organizations affected by the development of the road will be the Kivalliq Inuit Association and the Rankin Inlet HTO.

39. Describe any consultation with interested Parties which has occurred regarding the development of the project proposal.

AEM met with the Hamlet of Rankin Inlet council, the HTO, the Kivalliq Inuit Association, the Government of Nunavut and the Rankin Inlet Chamber of Commerce (August 9th thru the 11th of 2010) shortly after acquiring the Project from Comaplex Minerals. The purpose of this engagement was to update the various groups on AEM's plans for the ongoing exploration and pre-development work on the Meliadine Gold Project with emphasis on the plans for the remainder of 2010 and 2011. AEM presented its vision for the Meliadine Project and sought feedback from the respective groups. In mid September AEM arranged for the Rankin Inlet Hamlet Council, the Rankin Inlet HTO, local business leaders and a group of community elders (arranged through the Kivalliq Inuit Association) to travel to the Meadowbank Mine to allow them to see the type of facility that AEM envisioned building for the Meliadine Project. The objective was to show the various groups the kind of infrastructure proposed for construction at the Meliadine Project.

40. Provide a summary of public involvement measures, a summary of concerns expressed, and strategies employed to address any concerns.

Consultation on the road alone was not possible as all participants were also interested in the potential development of a mine. To date there has been wide spread excitement about the road, and the potential development of the Meliadine Gold Project and the potential economic benefits that the community sees possible resulting from the Project Development. The community has not yet engaged on project specific details as these will only become common knowledge to the community through the consultation process that will occur following completion of the Project Description. Key issues of concern raised to date include:

- **Proposed Access Road – there is wide spread local opinion that the proposed access road needs to be open to the public to allow them improved access to the Meliadine River and the area around Meliadine Lake for recreational and traditional purposes. There are already numerous local cabins existing in this area and people accessing these areas using existing ATV trails. AEM has agreed that the road will be open to the public and will build a spur road to Meliadine Lake – see figure 2-2 in the Project Description;**

- **Adequacy of Local Infrastructure – Rankin Inlet is concerned that accelerated growth of development within the Hamlet will overstretch existing infrastructure capacity such as water, sewage treatment, etc. AEM acknowledges this concern and has pledged to work with the Hamlet Council to minimize the potential for such impacts;**

- **Potential for expansion of Port Capacity in Rankin Inlet – The Hamlet and AEM have identified that the Meliadine Project development will open opportunities to improve or expand current port facilities in Rankin Inlet to the benefit of both the Project and the Hamlet. The hamlet has agreed to take the lead on exploring such an initiative with the participation of AEM, the GN and Federal Government.**

41. Describe how traditional knowledge was obtained, and how it has been integrated into the project.

    A traditional study was carried out in 1998 with emphasis on historical caribou routes, hunting areas, and traditional names of land marks. In 2010, the traditional knowledge for the local study area (Whale Cove, Rankin Inlet and Chesterfield Inlet) was updated and it included reference to the road linking the Meliadine site to Rankin Inlet.

    Routing of the road was in part determined by following the ATV trail, which also followed a traditional route used by the Inuit before the time of ATVs and skidoos.

42. Discuss future consultation plans.

    AEM will continue its engagement with local stakeholders both within Rankin Inlet, Chesterfield Inlet and Whale Cove on the proposed all weather road and also on the possible future development of a mine. This engagement process will include ongoing periodic meeting with the key stakeholder groups such as the Hamlets, the local HTO's, the Kivalliq Inuit Association, the GN, and local business community. It will also include public meetings and forums. The Project Description for the all weather road provides a first comprehensive vision of the proposed project and will become a key tool for public engagement.

    AEM has opened an office in Rankin Inlet allowing the public to request information during normal working hours.

PROJECT SPECIFIC INFORMATION

The following table identifies the project types identified in Section 3 of the NIRB, Part 1 Form. Please complete all relevant sections.

It is the proponent's responsibility to review all sections in addition to the required sections to ensure a complete application form.

Table 2: Project Type and Information Required

Project Type	Type of Project Proposal	Information Request
1	All-Weather Road/Access Trail	Section A-1 and Section A-2
2	Winter Road/Winter Trail	Section A-1 and Section A-3
3	Mineral Exploration	Section B-1 through Section B-4
4	Advanced Mineral Exploration	Section B-1 through Section B-8
5	Mine Development/Bulk Sampling	Section B-1 through Section B-12
6	Pits and Quarries	Section C
7	Offshore Infrastructure(port, break water, dock)	Section D
8	Seismic Survey	Section E
9	Site Cleanup/Remediation	Section F
10	Oil and Natural Gas Exploration/Activities	Section B-3 and Section G
11	Marine Based Activities	Section H
12	Municipal and Industrial Development	Section I

Section A: Roads/Trails

A.1 Project Information

1. Describe any field investigations and the results of field investigations used in selecting the proposed route (e.g. geotechnical, snow pack)

   Refer to sections 2.2 and 2.3 in the Project Description, and the geomorphology and road feasibility reports on the attached CD.

2. Provide a conceptual plan of the road, including example road cross-sections and water crossings.

   Refer to section 2.3, and figures 2-3 to 2-7 in the Project Description

3. Discuss the type and volume of traffic using the road/trail (i.e. type of vehicles and cargo and number of trips annually).

   It is expected traffic will be light for the first two years with two fuel trucks per day to supply the underground program and a small van ferrying workers to and from the airport once a day. There will be 2 to 3 trucks a day delivering general supplies to the camp and materials for the underground program and surface diamond drilling. Once the barges arrive in the late summer and fall, traffic will increase significantly with all materials transferred to the Meliadine site. The number of private vehicles per day cannot be estimated as the road will be open to all. These will overwhelmingly go to the landing at Meliadine Lake and will use the spur road. A gate will stop public traffic from entering the Meliadine site.

4. Discuss public access to the road.

   The road will be an open access road except close to the Meliadine site where a gate will be placed across the road. Only AEM employees, it contractors and those with written permission will be allowed beyond the gate.

5. Describe maintenance procedures.

   Maintenance will include regular grading of the surface and repair of longitudinal cracking or thaw settlement. Crushed rock and screened esker material suitable for maintenance is to be stockpiled in select quarries along the road and will be used as necessary. A snow plough will keep the road clear in winter

A.2 All-Weather Road/Access Trail

6. Discuss road design considerations for permafrost.

   Refer to the Project Description sections 2.3 and 3.2(a) and the Golder Report" "All Weather Access Road – Feasibility Level Design", November 2010 found on the attached CD.

7. Describe the construction materials (type and sources for materials), and the acid rock drainage (ARD) and metal leaching characteristics of the construction materials.

   Refer to section 2.3 of the Project Description. Section 2.3(d) and 3.2(f) addresses ARD and metal leaching. Also refer to the report, "Geochemical Assessment of Potential Road Construction Material" on the attached CD for detailed information.

8. Discuss construction techniques, including timing for construction activities.

   The road will likely be built from its two ends simultaneously. Each crew at each end of the road will have its own trucks, dozers, loaders, drills, fuel truck, explosive truck and various pickups and vans. Simplistically, the method of construction will be blast or dig, load, haul, and dump. A dozer will move the road building materials into place.

   A separate crew will build the three bridges. Firstly, they will build the abutments and place armouring around the abutments to protect them from erosion. A crane will lift the steel girders and other steel works into place for the Char and Meliadine bridges. The bridge at M5.0 will be prefabricated and lifted into place.

9. Indicate on a map the locations of designated refuelling areas, water crossings, culverts, and quarries/borrow sources.

   Refer to figure 2-2 for the location of the water crossings and quarries. Fuel trucks will deliver fuel to all the equipment working on the road. The fuel will be obtained from the Rankin Inlet tank farm or the Meliadine tank farm.

10. Identify the proposed traffic speed and measures employed to ensure public safety.

The road is being built for a maximum speed of 50 km/hr and this will be posted in English and Inuktitut.

No control will be exercised by AEM over public access to the all weather road. The road will be an open access road where individuals will use it at their own risk. A road operating plan is included in appendix 4 of the Project Description outlining safety measures that individuals should take in using the road.

11. Describe dust management procedures.

    Refer to section 3.2(c) in the Project Description.

A-3 Winter Road/Trail

12. Describe the surface preparation, including the use of snow berms or compaction, and any flooding. If flooding is to be used, provide the location of the water source on a map. **n/a**
13. Describe the operating time period.**n/a**
14. Identify the proposed traffic speed and measures employed to ensure public safety. **n/a**
15. Discuss whether the selected route traverses any fish-bearing water bodies. **n/a**

Section B: Mineral Exploration /Advanced Exploration /Development

There will not be any mineral exploration / advanced exploration associated with the road construction project.

There will be drilling and blasting at quarries along the road route.

B-1. Project Information

~~1.~~ Describe the type of mineral resource under exploration. **n/a**

B-2 Exploration Activity n/a

2. Indicate the type of exploration activity: **n/a**
   - Bulk Sampling (underground or other)
   - Stripping (mining shallow bedded mineral deposits in which the overlying material is stripped off, the mineral removed and the overburden replaced)
   - Trenching
   - Pitting
   - Delineation drilling
   - Preliminary Delineation drilling
   - Exploration drilling
   - Geophysical work (indicate ground and/or air)
   - Other
3. Describe the exploration activities associated with this project: **n/a**
   - Satellite remote sensing
   - Aircraft remote sensing
   - Soil sampling
   - Sediment sampling
   - On land drilling (indicate drill type)

- On ice drilling (indicate drill type)
- Water based drilling (indicate drill type)
- Overburden removal
- Explosives transportation and storage
- Work within navigable waters
- On site sample processing
- Off site sample processing
- Waste rock storage
- Ore storage
- Tailings disposal
- Portal and underground ramp construction
- Landfilling
- Landfarming
- Other

B-3. Geosciences

4. Indicate the geophysical operation type: **n/a**
    a. Seismic (please complete Section E)
    b. Magnetic
    c. Gravimetric
    d. Electromagnetic
    e. Other (specify)
5. Indicate the geological operation type: **n/a**
    a. Geological Mapping
    b. Aerial Photography
    c. Geotechnical Survey
    d. Ground Penetrating Survey
    e. Other (specify)
6. Indicate on a map the boundary subject to air and/or ground geophysical work. **n/a**
7. Provide flight altitudes and locations where flight altitudes will be below 610m. **n/a**

B-4 Drilling (This refers to drilling at the quarries for the road construction only.)

8. Provide the number of drill holes and depths (provide estimates and maximums where possible).

    A blast pattern will be laid out in the quarry for good fragmentation of the rock. The depth of drilling will be approximately 3 metres. The number of drill holes and depths is dependent on the quantity of rock needed for the road. This will be decided in the field. Esker material that does not require blasting will be used wherever possible for the road. Rock will serve as a backup.

9. Discuss any drill additives to be used.

    The holes will be drilled without water and no drill additives.

10. Describe method for dealing with drill cuttings.

Drill cuttings will collect on the surface around the drill holes. The holes will be filled with explosives, discharged and the rock, along with drill cuttings, loaded for immediate use in building the road.

The abutments of the bridges are likely to be built on piles and these will be drilled into the bed rock located 8 – 12 metres below surface. The drill cuttings at this location will be collected and moved a minimum of 30 metres from water and placed on the right-of-way of the road.

11. Describe method for dealing with drill water. **n/a**

12. Describe how drill equipment will be mobilized.

    The drill equipment will be mobilized to the quarries either by sled or flatbed truck.

13. Describe how drill holes will be abandoned. **n/a**

14. If project proposal involves uranium exploration drilling, discuss the potential for radiation exposure and radiation protection measures. Please refer to the *Canadian Guidelines for Naturally Occurring Radioactive Materials* for more information. **n/a**

B-5. Stripping/ Trenching/ Pit Excavation

15. Discuss methods employed. (i.e. mechanical, manual, hydraulic, blasting, other)

    Esker will likely be sourced by ripping it with a dozer. In some instances esker quarries may be blasted. A loader will load the trucks.

    Rock will be blasted from potential quarries located along the road.

16. Describe expected dimensions of excavation(s) including depth(s).

    Refer to appendix 2 in the Project Description for the exact dimensions of the quarries and the quantities of material to be extracted from each.

    The exact dimensions of the quarries will only be known after final engineering but are expected to be small as a limited amount of material is needed to build the road. Their depth will be approximately 3 metres.

17. Indicate the locations on a map.

    Figure 2-2 shows the location of all the potential quarries.

18. Discuss the expected volume material to be removed.

    The total volume of rock and till to be removed for road building should not exceed 750,000 m^3.

19. Discuss methods used to determine acid rock drainage (ARD) and metal leaching potential and results.

    Refer to section 3.2(f) in the Project Description and also the report "Geochemical Assessment of Potential Road Construction Material". It can be found on the attached CD.

B-6 Underground Activities

20. Describe underground access. **n/a**
21. Describe underground workings and provide a conceptual plan. **n/a**
22. Show location of underground workings on a map. **n/a**
23. Describe ventilation system. **n/a**
24. Describe the method for dealing with ground ice, groundwater and mine water when encountered. **n/a**
25. Provide a Mine Rescue Plan. **n/a**

B-7. Waste Rock Storage and Tailings Disposal n/a

26. Indicate on a map the location and conceptual design of waste rock storage piles and tailings disposal facility. **n/a**
27. Discuss the anticipated volumes of waste rock and tailings. **n/a**
28. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results. **n/a**

B-8. Stockpiles n/a

29. Indicate on a map the location and conceptual design of all stockpiles. **Crushed rock and/or esker for road maintenance will be stored in select quarries along the road right-of-way. 8000 m^3 will be stored between km 0 and 4, 9000 m^3 between km 8 and 9, and another 9000 m^3 between km 14 and 17.**

30. Describe the types of material to be stockpiled. (i.e. ore, overburden) **see above**

31. Describe the anticipated volumes of each type of material to be stockpiled. **A total of 25,000 m^3 of material for road maintenance will be stored in all the quarries combined.**

32. Describe any containment measures for stockpiled materials as well as treatment measures for runoff from the stockpile. **Stockpiled material will have a low potential to leach trace metals, and will be far removed from water bodies. A depression at the exit to the quarry will allow the settling of suspended soilds.**

33. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results. **All potential quarries are non ARD. Also, refer to section 3.2(f) in the Project Description and the report, "Geochemical Assessment of Potential Road Construction Material" found on the attached CD**

B-9. Mine Development Activities

34. Indicate the type(s) of mine development activity(s): **n/a**

- Underground
- Open Pit
- Strip Mining
- Other

35. Describe mine activities. **n/a**
    - Mining development plan and methods
    - Site access
    - Site infrastructure (e.g. airstrip, accommodations, offshore infrastructures, mill facilities, fuel storage facilities, site service roads)
    - Milling process
    - Water source(s) for domestic and industrial uses, required volumes, distribution and management.
    - Solid waste, wastewater and sewage management
    - Water treatment systems
    - Hazardous waste management
    - Ore stockpile management
    - Tailings containment and management
    - Waste rock management
    - Site surface water management
    - Mine water management
    - Pitting and quarrying activities (please complete Section C)
    - Explosive use, supply and storage (including on site manufacturing if required)
    - Power generation, fuel requirements and storage
    - Continuing exploration
    - Other
36. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage. **n/a**

B-10 Geology and Mineralogy n/a

37. Describe the physical nature of the ore body, including known dimensions and approximate shape.
38. Describe the geology/ mineralogy of the ore deposit
39. Describe the host rock in the general vicinity of the ore body.
40. Discuss the predicted rate of production.
41. Describe mine rock geochemical test programs which have been or will be performed on the ore, host rock, waste rock and tailings to determine acid generation and contaminant leaching potential. Outline methods and provide results if possible.

B-11.Mine n/a

42. Discuss the expected life of the mine.
43. Describe mine equipment to be used.
44. Does the project proposal involve lake and/or pit dewatering? If so, describe the activity as well as the construction of water retention facilities if necessary.
45. Discuss the possibility of operational changes occurring during the mine life with consideration for timing. (e.g. open pit to underground)
46. If project proposal involves uranium mining, consider the potential for radiation exposure and radiation protection measures. Particular attention should be paid to *The Nuclear Safety and Control Act*.

B-12. Mill n/a

47. If a mill will be operating on the property in conjunction with mining, indicate whether mine-water may be directed to the mill for reuse.
48. Describe the proposed capacity of the mill.
49. Describe the physical and chemical characteristics of mill waste as best as possible.
50. Will or does the mill handle custom lots of ore from other properties or mine sites?

Section C. Pits and Quarries

1. Describe all activities included in this project.
   - Pitting **n/a**
   - Quarrying

     Esker and rock quarries will be developed close to the road right-of-way. These are shown on figure 2-2. Most potential quarries are topographical highs and can readily be accessed for material. While the aggregate will be ripped using a dozer in most cases, the rock quarries will require blasting.

   - Overburden removal

     The esker and rock quarries do not have appreciable overburden.

   - Road use and/or construction (please complete Section A)

     See section A above.

   - Explosives transportation and storage

     Explosives transportation and storage will be carried out in accordance with applicable regulations under the Mine Health and Safety Act. Explosives will be stored in magazines at the Meliadine site and other approved locations as set out by the Workers' Safety & Compensation Commission.

   - Work within navigable waters

     All the work will be done over the winter. Some work may be carried out on the ice of the Meliadine and Char Rivers to install the steel girders for the bridges. The ice will be cleaned once the girders are in place.

   - Blasting

     Blasting will be carried out in accordance with applicable regulations under the Mine Health and Safety Act.

   - Stockpiling

     Rock and aggregate will be used directly after blasting for road building over the 6 month building period.

However, stockpiles of crush and esker will be stored in select quarries for future road maintenance. In general, longitudinal cracks and substrate thawing will occur during the summer and spring seasons. Maintenance will ensure that the minimum road fill thickness is maintained to preserve the subgrade soil in a frozen state and so that the surface remains drivable.

Crushed rock and/or esker set aside for maintenance purposes will approximate 25,000 m^3.

- Crushing

  Approximately 40,000 m^3 of esker and rock will be screened and/or crushed for the top layers of the road.

- Washing

  The rock and esker will not be washed.

- Other **n/a**

2. Describe any field investigations and the results of field investigations used in determining new extraction sites.

   Geomorphology was carried out along the right-of-way for the road. Occurrences of geomorphic and periglacial processes and surficial materials were mapped to identify potential site conditions, soil displacement hazards and possible aggregate sources to be considered during engineering design and construction. Occurrences of less than desirable soil conditions caused the road route to be altered to avoid these. The complete report "Geomorphology and Soils – Meliadine Access Road" can be found on the attached CD.

   Potential quarries for both aggregate and crushed rock were sampled over the summer of 2010. The samples collected underwent static testing for ARD and leaching of trace metals. The methods used and the results are presented in the report by Golder Associates, "Geochemical Assessment of Potential Road Construction Material". Only quarries having no ARD and low metal leaching are to be used for road building. This report can be found on the attached CD.

3. Identify any carving stone deposits.

   No stone suitable for carving has been identified during the course of exploration at Meliadine so far.

4. Provide a conceptual design including footprint.

   Figure 2-2 and appendix 2 shows the location of the quarries. Each quarry will have different footprint based on its surface expression and the quantity of rock and/or esker needed to construct sections of road.

5. Describe the type and volume of material to be extracted.

The total quantity of material needed for the road should not exceed 750,000 m^3. Type 1 material, which is minus 75 mm, will total 40,000 m^3 while type 2 material, which is minus 300 mm, will total approximately 500,000 to 700,000 m^3.

Type 1 fill consists of crushed or screened gravel particles of hard, durable rock having a specific size gradation.

Type 2 Fill consist of select native granular mineral soil, imported granular borrow and/or quarried rock fill materials excavated from cut areas or local borrow areas and meets the gradation specification.

More detail is provided in the Golder report, "All Weather Access Road Meliadine Gold Project Feasibility Level Design", November 2010 on the attached CD.

6. Describe the depth of overburden.

   Exposed outcrops having no overburden will be used for rock needed for road construction. Eskers will provide aggregate for road building and these do not have significant overburden.

7. Describe any existing and potential for thermokarst development and any thermokarst prevention measures.

   Fine grained, poorly drained, ice rich, frost susceptible soil conditions as noted by geomorphological mapping were avoided where possible due to the susceptibility to thaw settlement. Where these soils could not be avoided, the depth of the road base was increased to 1.5 m to ensure no melting of the soils occurs over the summer period. Further details can be found in the Golder report, "Geomorphology and Soils, Meliadine Access Road, Meliadine Gold Project, Nunavut, 2010" on the attached CD.

8. Describe any existing or potential for flooding and any flood control measures.

   All quarries are positive topographic features. The road as well follows the height of land. The quarries will be used for a short period of time over the winter of 2011 – 2012 at which time no water is expected. As little as possible excavation will be carried out below the surrounding topography. The floor of the quarries will in most part have positive drainage so that water does not accumulate.

9. Describe any existing or potential for erosion and any erosion control measures.

   The road traverses gently to moderately sloping hillsides and ridges of low relief. Steeply sloping areas are present locally, but the road corridor avoids these areas. In a similar manner, the potential quarries are topographical high points and are gently sloping. The potential for erosion is low as the quarrying will further reduce the relief.

   The road will be inspected every two weeks during the summer period. As necessary a small depression at the mouth of the quarries will allow the settling of suspended solids. Should it prove necessary, silt fences will be installed to capture any sediments arising from erosion.

10. Describe any existing or potential for sedimentation and any sedimentation control measures.

    Sedimentation is usually associated with water movement over or through disturbed soils, or runoff from stock piles or road surfaces. There will be no stock piles remaining after construction of the road except for some esker and crush for maintenance purposes in select quarries. At water crossings, the road fill armouring culverts and the bridges will be large cobbles or boulders to minimize the possibly of erosion and sedimentation.

11. Describe any existing or potential for slumping and any slump control measures.

    Relief along the road is low; there is no natural slumping and road construction should not cause slumping. Esker quarries will have gently sloping sides so as to minimize any slumping.

    The road will be inspected every two weeks over the summer period. If slumping is noted it will be mitigated. Refer to section 3.2(a) in the Project Description for mitigation measures.

12. Describe the moisture content of the ground.

    Most soils are generally saturated and frozen. Thermistors have shown that the active layer may extend to depths of 2.5 metres, but generally is in the range of 1-1.5 meters.

    Fairly extensive areas of mineral soils will be crossed by the road and these are composed of imperfectly to poorly drained material.

13. Describe any evidence of ice lenses.

    The road alignment is located wherever possible along well-drained ridge and upper slope areas, which are underlain by gravelly beach deposits, gravelly washed till surfaces, or angular fragments. These normally have few ice lenses in these areas.

    For imperfectly to poorly drained, the probability of ice lenses increases and road construction will ensure no melting of the underlying natural soil. This will minimize problems that might occur should any ice lenses melt.

14. If blasting, describe methods employed.

    All explosive handling, transport, storage, manufacture and use will be subject to federal approval under the Explosives Act, and subject to Nunavut Mine Health and Safety Act requirements.

15. Describe the explosive type(s), hazard class, volumes, uses, location of storage (show on map), and method of storage.

The explosives and blasting accessories will be staged through a secure magazine. At the Meliadine site, they are stored in a number of magazines located along the road to the portal. Elsewhere along the proposed road, they will be stored in yet undetermined, approved sites.

The explosives will be cartridged slurries (Hazard Classes 1.1D and 1.5D), detonating cord, and detonators. All explosive handling, transport, storage, manufacture and use will be subject to federal approval under the Explosives Act, and subject to Nunavut Mine Health and Safety Act requirements.

16. Discuss methods used to determine acid rock drainage (ARD) and metal leaching (ML) potential and results.

    AEM contracted Golder Associates to carry out static testing and metal leaching on all potential quarries. Refer to sections 2.3 (d) and 3.2(f) in the Project Description. The complete report, "Geochemical Assessment of Potential Road Construction Material" can be found on the attached CD.

17. Discuss safety measures for the workforce and the public.

    The public will not be allowed on the road while it is being constructed. The workforce will be required to follow the applicable labour standards, meet the requirements of the Mine Health and Safety Act, and abide by AEM's safety policy.

Section D. Offshore Infrastructure

There will not be any offshore infrastructure associated with constructing and operating the road.

D-1 Facility

1. Describe any field investigations and the results of field investigations used in selecting the site (i.e. aerial surveys, bathymetric surveys, tidal processes, shoreline erosion processes, geotechnical foundation conditions)
2. Provide a conceptual plan, profile description and drawing(s) indicating shoreline, facility footprint, tidal variations, required vessel draft, keel offset, deck height freeboard
3. Discuss how anticipated loads on the seabed foundation and on the offloading platform will be incorporated into the design.
4. Describe how vessels will manoeuvre around the facility. (e.g. pull alongside or in front)
5. Discuss the anticipated life of the facility.

D-2 Facility Construction

6. Describe the types of material used for construction (i.e. granular or rock, steel piling or sheet piling, concrete). If material is granular, consider acid rock drainage potential, metal leaching potential, percentage of fines, size.
7. Describe dredging activities.
8. Indicate source of granular or rock material used in construction.
9. List quantities of the various types of material used in construction.
10. Describe construction method(s).
11. Indicate whether a site engineer will be on-site to inspect construction.

12. If proposed construction method involves dumping of fill into water, discuss measures for mitigating the release of suspended solids.

D-3 Facility Operation

13. Describe maintenance activities associated with the facility (e.g. dredging, maintenance to account for potential settlement of facility,)
14. Discuss whether the public will have access to the facility(s) and describe public safety measures.
15. Describe cargo and container handling, transfer and storage facilities.
16. Indicate whether fuel will be transferred from barges at this site and describe the method of that fuel transfer.
17. Discuss frequency of use.

D-4. Vessel Use in Offshore Infrastructure

18. Please complete Section H

Section E. Seismic Survey

There will not be any seismic survey carried out in constructing and operating the road.

E-1. Offshore Seismic Survey

1. Indicate whether the survey is 2D or 3D at each site
2. Describe the type of equipment used, including:
   - Type and number of vessels including length, beam, draft, motors, accommodation capacity, operational speeds when towing and when not towing
   - Sound source (type and number of airguns)
   - Type and number of hydrophones
   - Number, length, and spacing of cables/ streamers
3. On a map, indicate the grid, number of lines and total distance covered at each site.
4. Indicate the discharge volume of the airguns, the depth of airgun discharge, and the frequency and duration of airgun operation at each site.
5. Discuss the potential for dielectric oil to be released from the streamer array, and describe proposed mitigation measures.
6. Indicate whether additional seismic operations are required for start-up of operations, equipment testing, repeat coverage of areas.
7. Indicate whether air gun procedures will include a “ramping up” period and, if so, the proposed rate of ramping up.
8. Indicate whether the measures described in the *Statement of Canadian Practice for Mitigation of Noise in the Marine Environment* will be adhered to for this project.

E-2. Nearshore/Onshore Seismic Survey

9. For each site, indicate whether nearshore and onshore surveys will be conducted during the ice season or once the ice has melted
10. Describe how nearshore and onshore areas will be accessed.
11. Describe the survey methods to be used (e.g. explosive charge, vibration, air or water gun, other)
12. Describe equipment to be used
13. If applicable, indicate number, depth and spacing of shot holes

14. Describe explosive wastes including characteristics, quantities, treatment, storage, handling, transportation and disposal methods.

E-3. Vessel Use in Seismic Survey

15. Please complete Section H

Section F. Site Cleanup/Remediation

1. Describe the location, content, and condition of any existing landfills and dumps (indicate locations on a map).

   Under an agreement with the Hamlet of Rankin Inlet, all non-hazardous, non-combustible waste generated at the Meliadine camp and during road construction can be transferred to the municipal landfill in Rankin Inlet.

2. Identify salvageable equipment, infrastructure and/or supplies.

   There will not be any salvageable equipment, infrastructure and/or supplies arising from the building of the road over the 6 month period.

3. Provide a list of all contaminants to be cleaned up, anticipated volumes and a map delineating contaminated areas. This includes buildings, equipment, scrap metal and debris, and barrels as well as soil, water (surface and groundwater) and sediment.

   There should not be any contaminants arising from the construction of the road. Inadvertent spills of hydrocarbon compounds are possible and these will be cleaned up with the contaminated snow and/or soil removed to the Meliadine camp for treatment or storage.

4. Describe the degree of pollution/contamination, and list the contaminants and toxicity.

   There will be no accumulation of pollution/contamination associated with the road building.

5. Describe technologies used for clean-up and/or disposal of contaminated materials. Include a list of all the physical, chemical and biological cleanup/ remediation methods, operational procedures, and the dosage/frequency of reagents and bacterial medium.

   The clean-up and/or disposal of contaminated materials, most likely hydrocarbons, will be carried out using road building equipment or hand tools. The material will be removed to the Meliadine site for storage and treatment.

6. Identify and describe all materials to be disposed of off site, including the proposed off site facilities, method of transport and containment measures. **n/a**
7. Discuss the viability of landfarming, given site specific climate and geographic conditions. **n/a**
8. Describe the explosive types, hazard classes, volumes, uses, location of storage (indicate on a map), and method of storage (if applicable).

The explosives and blasting accessories will be staged through a secure magazine. At the Meliadine site, they are stored in a number of magazines located along the road to the portal as shown in figure 2-2 in the Project Description. Elsewhere along the proposed road, they will be stored in yet undetermined, approved sites.

The explosives will be cartridged slurries (Hazard Classes 1.1D and 1.5D), detonating cord, and detonators. All explosive handling, transport, storage, manufacture and use will be subject to federal approval under the Explosives Act, and subject to Nunavut Mine Health and Safety Act requirements.

9. If blasting, describe the methods employed.

   All explosive handling, transport, storage, manufacture and use will be subject to federal approval under the Explosives Act, and subject to Nunavut Mine Health and Safety Act requirements.

   The blast holes will be vertical and shallow with a pattern to fragment the rock as required for road building.

10. Describe all methods of erosion control, dust suppression, and contouring and re-vegetation of lands.

    The underlying natural soil will remain frozen and this will eliminate any erosion of the road's subsurface.

    The walls of esker quarries will be gently sloped to minimize any erosion and suitable for plants to re-colonize the disturbed area.

11. Describe **all** activities included in this project.
    - Excavation (please complete Section B-5) **Please refer to Section B-5**
    - Road use and/or construction (please complete Section A) **Please refer to Section A**
    - Airstrip use and/or construction **Refer to section 2.3(e) in the Project Description**
    - Camp use and/or construction **The Meliadine camp may be used to house contractors building the road and bridges.**
    - Stockpiling of contaminated material **n/a**
    - Pit and/or quarry (please complete Section C) **Please refer to Section C**
    - Work within navigable waters (please complete Section H) **n/a**
    - Barrel crushing **n/a**
    - Building Demolition **n/a**
    - Other

Section G. Oil and Natural Gas Exploration/Activities n/a

G-1. Well Authorization

1. Identify the location(s) of the well centre(s) by latitude and longitude. Attach a map drawn to scale showing locations of existing and proposed wells.
2. Indicate if the site contains any known former well sites.
3. Include the following information for each well:
    a. Well name
    b. Surface location
    c. Proposed bottomhole location
    d. Ground elevation (in metres)
    e. Spacing area (in units)
    f. Identify the well type:
        i. Production
        ii. Injection
        iii. Disposal
        iv. Observation
        v. Storage
        vi. Experimental
        vii. Other (specify)
    g. Identify the well classification:
        i. Exploratory wildcat
        ii. Exploratory outpost
        iii. Development
    h. Drilling operation (deviation):
        i. Vertical
        ii. Directional
        iii. Horizontal
        iv. Slant
    i. Objective Zones (copy chart style below)

Objective Formation	Fluid (oil/gas/water)	Depth (mTVD)	Core (Y/N)

    j. Proposed Total Depth in mTDV and mMD.
    k. Formation of Total Depth
    l. Sour well? (yes or no)
        i. If Yes: Maximum H_2S concentration in mol/kmol
            Emergency planning zone radius in km
    m. Blowout Prevention (Well Class I – VI)
    n. Deviation Surveys
        i. Will be run at intervals less than 150m? (yes or no)
    o. Wireline logs
        i. Will run logs in hole for surface casing? (yes or no)
        ii. Will run a minimum of 2 porosity measuring logs? (yes or no)

G-2. On-Land Exploration

4. Indicate if the site contains any known:

a. Waste Dumps
b. Fuel and Chemical Storage Areas
c. Sump Areas
d. Waste Water Discharge Locations

5. Attach maps drawn to scale showing locations of existing and proposed items identified in (2) above, as well as all proposed:
    a. Sumps
    b. Water sources
    c. Fuel and chemical storage facilities
    d. Drilling mud storage areas
    e. Transportation routes
6. If utilizing *fresh water*, estimate maximum drawdown and recharge capability of the river or lake from which water will be drawn.
7. Indicate if permafrost is expected to be encountered under:
    a. Camp Facilities
    b. Well Site
    c. Access Routes
    d. Sumps
    e. Other: _____
8. Indicate any potential for encountering artesian aquifers or lost circulation within the surface hole (to casing depth).
9. Will drilling wastes contain detrimental substances (including, but not limited to, oil-based or invert mud and high salinity fluids)? If yes, indicate the substances and estimated volumes.
10. Indicate methods for disposal of drilling wastes:
    a. Sump
    b. Down Hole (requires NEB approval)
    c. On-Site Treatment (provide plan)
    d. Off-Site (give location and method of disposal)
11. If a sump is being used, attach the following information:
    a. scale drawings and design of sumps
    b. capacity in cubic metres
    c. berm erosion protection
    d. soil permeability and type
    e. recycling/reclaiming waters
    f. surface drainage controls
    g. abandonment procedures
12. Attach the proposed or existing contingency plan which describes the course of action, mitigative measures and equipment available for use in the event of system failures and spills of hazardous materials.
13. Attach an outline of planned abandonment and restoration procedures.

G-3. Off-Shore Exploration

14. Will drilling wastes contain detrimental substances (including, but not limited to, oil-based or invert mud and high salinity fluids)? If yes, indicate the substances and estimated volumes.
15. Attach the proposed or existing contingency plan which describes the course of action, mitigative measures and equipment available for use in the event of system failures and spills of hazardous materials.
16. Attach an outline of planned abandonment and restoration procedures.

17. Please complete Section H

G-4 Rig

18. Type of Rig. Draw works, make and model
19. Derrick/Mast make and model
20. H.P. available to draw-works

Section H. Marine Based Activities n/a

H-1. Vessel Use

1. Describe the purpose of vessel operations.
2. List classes and sizes of vessels to be used.
3. Indicate crew size.
4. Indicate operating schedule.
5. Provide a description of route to be traveled (include map).
6. Indicate whether the vessel will call at any ports. If so, where and why?
7. Describe wastes produced or carried onboard including the quantities, storage, treatment, handling and disposal methods for the following:
    a. Ballast water
    b. Bilge water
    c. Deck drainage
    d. Grey and black water
    e. Solid waste
    f. Waste oil
    g. Hazardous or toxic waste
8. List all applicable regulations concerning management of wastes and discharges of materials into the marine environment
9. Provide detailed Waste Management, Emergency Response and Spill Contingency Plans
10. Does the vessel(s) possess an Arctic Pollution Prevention Certificate? If yes, indicate the date of issue and the name of the classification society.
11. Describe the source of fresh water and potable water
12. Indicate whether ice-breaking will be required, and if so, approximately where and when? Discuss any possible impacts to caribou migration, Inuit harvesting or travel routes, and outline proposed mitigation measures.
13. Indicate whether the operation will be conducted within the Outer Land Fast Ice Zone of the East Baffin Coast. For more information on the Outer Land Fast Ice Zone, please see the Nunavut Land Claims Agreement (NLCA), Articles 1 and 16.
14. Indicate whether Fisheries or Environmental Observers will be onboard during the proposed project activities. If yes, describe their function and responsibilities.
15. Describe all proposed measures for reducing impacts to marine habitat and marine wildlife (including mammals, birds, reptiles, fish, and invertebrates).

H-2. Disposal at Sea

1. Provide confirmation you have applied for a *Disposal at Sea* permit with Environment Canada
2. Provide a justification for the disposal at sea
3. Describe the substance to be disposed of, including chemical and physical properties

4. Indicate the location where the disposal is to take place
5. Describe the frequency of disposals (disposals per day/week or month)
6. Describe the route to be followed during disposal and indicate on a map.
7. Indicate any previous disposal methods and locations
8. Provide an assessment of the potential effects of the disposal substance on living marine resources
9. Provide an assessment of the potential of the disposal substance, once disposed of at sea, to cause long-term physical effects.
10. Describe all mitigation measures to be employed to minimize the environmental, health, navigational and aesthetic impacts during loading, transport and disposal.

Section I. Municipal and Industrial Development

1. Describe the business type, including public, private, limited, unlimited or other.
2. Describe the activity (e.g. development of quarry, development of hydroelectric facility, bulk fuel storage, power generation with nuclear fuels or hydro, tannery operations, meat processing and packing, etc.).

   A new quarry will be developed within the municipal boundaries of Rankin Inlet. The location is shown on figure 2-2 in the Project Description. Section A above describes the process in selecting the potential quarries.

3. Describe the production process or service provision procedures.
4. Describe the raw materials used in this activity, the storage and transportation methods. If hazardous materials are included in raw materials, products or by-products; include safety regulations methodology. **n/a**
5. Provide detailed information about the structure and/or building in which the activity will be conducted. **n/a**
6. List the PPE (personal protective equipment) and tools to be used to protect personal health and safety.

   Personal Protective Equipment includes but is not limited to safety glasses, safety vest or reflective clothing, hard hat, safety boots and heavy duty work gloves. Specific tasks may require additional, special-purpose equipment, such as face masks or safety lanyards and harnesses.

7. Describe the firefighting equipment that are or will be installed. **n/a**
8. Describe the noise sources, noise level in work area, technical measurements that will be adopted to abate the noise levels and regulatory requirements for noise abatement and noise levels.

   Noise will result from vehicles and equipment building the road, and also explosions. When the road is in operation, the noise will come from vehicles using the road. Refer to section 3.2(c) in the Project Description.

9. Describe the type of gaseous emission that will be produced during this activity. Include the allowable thresholds and mitigation measures. **n/a**
10. Describe odours that the activity might release and include corresponding allowable threshold. Describe mitigation measures if thresholds are exceeded. **n/a**

11. Describe radiation sources that might be emitted during the activity. Include type and source and include mitigation measures. Also describe preventative measures for human exposure (i.e. PPE). **n/a**
12. Discuss the employee safety and environment protection training program.

    The road will be built by contractors who will have the responsibility for their employees' safety training. At a minimum, the contractors will have to abide by AEM's safety policy and Nunavut's Labour Standards Act and regulations.

    The road will be built over 6 months in the winter. All activities will occur within the road right-of-way or the quarries. Contractors will abide by AEM's Spill Plan and have spill kits at the work site. Spills will be cleaned up should they occur.
13. If the activity involves a bulk fuel storage facility, include drawings showing the bulk fuel storage facility location in proximity to natural water courses, high water marks, etc. **n/a**
14. If the activity involves the development of a new quarry or expansion of an existing quarry, complete Section C.

Section 12. DESCRIPTION OF THE EXISTING ENVIRONMENT

The existing environment is described in the Aquatic Synthesis Report and the Terrestrial Baseline Synthesis Report. These can be found on the CD in the sleeve on the back cover. The collection of socioeconomic baseline information is complete with the report pending. The local study area is Whale Cove to the south and Chesterfield Inlet to the north. The regional study area is the Kivalliq region.

Describe the existing environment, including physical, biological and socioeconomic aspects. Where appropriate, identify local study areas (LSA) and regional study areas (RSA).

Please note that the detail provided in the description of the existing environment should be appropriate for the type of project proposal and its scope.

The following is intended as a guide only.

Physical Environment

Please note that a description of the physical environment is intended to cover all components of a project, including roads/trails, marine routes, etc. that are in existence at present time.

- Proximity to protected areas, including:
  i. designated environmental areas, including parks;
  ii. heritage sites;
  iii. sensitive areas, including all sensitive marine habitat areas;
  iv. recreational areas;
  v. sport and commercial fishing areas;
  vi. breeding, spawning and nursery areas;
  vii. known migration routes of terrestrial and marine species;
  viii. marine resources;
  ix. areas of natural beauty, cultural or historical history;
  x. protected wildlife areas; and

xi. other protected areas.

- Eskers and other unique landscapes (e.g. sand hills, marshes, wetlands, floodplains).
- Evidence of ground, slope or rock instability, seismicity.
- Evidence of thermokarsts.
- Evidence of ice lenses.
- Surface and bedrock geology.
- Topography.
- Permafrost (e.g. stability, depth, thickness, continuity, taliks).
- Sediment and soil quality.
- Hydrology/ limnology (e.g. watershed boundaries, lakes, streams, sediment geochemistry, surface water flow, groundwater flow, flood zones).
- Tidal processes and bathymetry in the project area (if applicable).
- Water quality and quantity.
- Air quality.
- Climate conditions and predicted future climate trends.
- Noise levels.
- Other physical Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

Biological Environment

- Vegetation (terrestrial as well as freshwater and marine where applicable).
- Wildlife, including habitat and migration patterns.
- Birds, including habitat and migration patterns.
- Species of concern as identified by federal or territorial agencies, including any wildlife species listed under the *Species at Risk Act (SARA)*, its critical habitat or the residences of individuals of the species.
- Aquatic (freshwater and marine) species, including habitat and migration/spawning patterns.
- Other biological Valued Ecosystem Components (VEC) as determined through community consultation and/or literature review.

Socioeconomic Environment

- Proximity to communities.
- Archaeological and culturally significant sites (e.g. pingos, soap stone quarries) in the project (Local Study Area) and adjacent area (Regional Study Area).
- Palaeontological component of surface and bedrock geology.
- Land and resource use in the area, including subsistence harvesting, tourism, trapping and guiding operations.
- Local and regional traffic patterns.
- Human Health, broadly defined as a complete state of wellbeing (including physical, social, psychological, and spiritual aspects).
- Other Valued Socioeconomic Components (VSEC) as determined through community consultation and/or literature review.

Section 13. IDENTIFICATION OF IMPACTS AND PROPOSED MITIGATION MEASURES

1. Please complete the attached Table 1 – Identification of Environmental Impacts, taking into consideration the components/activities and project phase(s) identified in Section 4 of this document. Identify impacts in Table 1 as either positive (P), negative and mitigable (M), negative and non- mitigable (N), or unknown (U).
2. Discuss the impacts identified in the above table.
3. Discuss potential socioeconomic impacts, including human health.
4. Discuss potential for transboundary effects related to the project.
5. Identify any potentially adverse effects of the project proposal on species listed under the *Species at Risk Act (SARA)* and their critical habitats or residences, what measures will be taken to avoid or lessen those effects and how the effects will be monitored.
6. Discuss proposed measures to mitigate all identified negative impacts.

Section 14.CUMULATIVE EFFECTS

Discuss how the effects of this project interact with the effects of relevant past, present and reasonably foreseeable projects in a regional context.

Section 15. SUPPORTING DOCUMENTS

Where relevant, provide the following supporting documents:

- Abandonment and Decommissioning Plan

  The "MGP Reclamation and Closure Plan – August 2010" is attached on the enclosed CD.

- Existing site photos with descriptions

  Photos of each crossing is provided in the attached document, "NWPA navigability request" found on the CD. A picture of water crossing D1.2 is not included.

- Emergency Response Plan

  No Emergency Response Plan has been developed for the road.

- Comprehensive Spill Prevention/Plan (must consider hazardous waste and fuel handling, storage, disposal, spill prevention measures, staff training and emergency contacts)

  The "MGP Spill Plan – August 2010" is attached on the enclosed CD.

- Waste Management Plan/Program

The "MGP Waste Management Plan – August 2010" is attached on the enclosed CD.

- Monitoring and Management Plans (e.g. water quality, air pollution, noise control and wildlife protection etc.)

  The "MGP Water Management Plan – August 2010" is attached on the enclosed CD.

- If project activities are located within Caribou Protection Areas or Schedule 1 Species at Risk known locations, please provide a Wildlife Mitigation and Monitoring Plan **n/a**

In addition, for Project Type 9 (Site Cleanup/Remediation), please provide the following additional supporting documents:

- Remediation Plan including cleanup criteria and how the criteria were derived. **n/a**
- Human Health Risk Assessment of the contaminants at the site. **n/a**

Appendix 8 NIRB Table 1 – Identification of Environmental Impacts

All Weather Access Road
ENVIRONMENTAL IMPACTS & MITIGATIONS MATRIX
Project Description.

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
CONSTRUCTION	**Road from Rankin Inlet to site**	Disturbance of permafrost.	M	Build road base high enough to allow active layer to move into the road base.	None.
		Disruption of drainage patterns.	M	Drainage patterns retained using culverts & bridges. Maintain culverts/bridges during operation of the road.	None.
		Water contamination.	M	Construct road while ground frozen and on height of land. Use low metal leaching quarries	Low levels of metal leaching may be measured in the immediate vicinity of the road.
		Generation of greenhouse gases.	N	Ensure vehicle engines properly maintained. No idling when not in use.	Adds to Canada's emissions of greenhouse gases.
		Routing along eskers.	M	Follow existing ATV trails.	Road along esker crests.
		Surface and bedrock geology	M	Quarries built at intervals along the route	Positive drainage from quarry & low wall angles
		Disruption of tundra soils.	M	Road edges will revegetate naturally, build road during winter.	Only running surface bare of vegetation.
		Generation of dust	M	Control vehicle speeds. Maintain the road	Dust deposited on vegetation close to road
		Construction noise.	M	Temporary. Remote from community. Maintain equipment properly.	None.
		Burial of vegetation.	N	Follow existing ATV trails, crests of eskers and rock outcrops where vegetation is sparse.	Road edges will revegetate naturally. Only running surface bare of vegetation.
		Intrusion into wildlife habitat.	M	Wildlife to have right-of-way. Control vehicle speeds	Long-term effect after mine closure depends on intensity of road use.
		Intrusion into bird habitat.	M	Low vehicle speeds to reduce bird collisions	Long-term effect after mine closure depends on intensity of road use.
		Intrusion into fish habitat.	M	Road is routed along high ground. Culverts/bridges to allow continued fish passage.	None.
		Employment.	P	Preferential hiring, on the job training	Increased skills base.
		Community wellness.	P	Ease of access to traditional fishing and hunting areas	Continuation of traditional pursuits
		Community infrastructure.	P		Part of road from Manitoba to Baker Lake road.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.
		Traditional land use.	P		Improved access to land.

P - positive effect; N – negative effect, non-mitigable; M- negative effect, mitigable; U – Unknown

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
CONSTRUCTION	**Quarry Development**	Wildlife habitat.	M	Granular quarries will have low angle slopes.	Temporary loss of quarry area as terrestrial habitat.
		Bird habitat.	M	Granular quarries will have low angle slopes.	Temporary loss of quarry area as terrestrial habitat. May serve as raptor nesting sites
		Fish habitat.	M	Habitat compensation for the loss of fish habitat due to culverts	Habitat improvement at water crossings, repair ATV trails
		Archaeological & cultural historic sites	M	Sites will be mitigated before construction of the road.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Traditional land use.	N	Temporary loss during life of mine	None.
OPERATIONs (Effects in addition to effects of development.)	**Road operation**	Dust impinging on water bodies & vegetation close to the road	M	Dust suppression, road maintenance and controlled road speeds.	Will continue as long as road is used.
		Generation of greenhouse gases.	N	Ensuring vehicle engines properly maintained	Adds to Canada's emissions of greenhouse gases.
		Vehicle noise.	M	Will be heard near the road	None.
		Wildlife disturbance/mortality.	M	Wildlife to have right of way. Controlled vehicle speeds. Continuous use will discourage denning in road itself.	None.
		Bird disturbance/mortality.	M	Birds to have right of way. Controlled vehicle speeds. Continuous use will discourage nesting in road itself.	None.
		Employment.	P	Preferential hiring, training, apprenticeships,	Increased skills base.
		Community wellness.	P		Increased skills base. Long-term effects of life-of-mine tax revenue.
		Human/social health.	M	Training & enforcement of safe working practices will mitigate workplace hazards.	Increased skills base & earning power.
		Traditional land use.	P		Improved access to land.
		Vegetation	M	Dust suppression	
		Generation of greenhouse gases.	N	Ensure incinerator properly maintained.	Adds to Canada's emissions of greenhouse gases.

P - positive effect; N – negative effect, non-mitigable; M- negative effect, mitigable; U – Unknown

Phase	Activity	Potential Effects	Type	Proposed Mitigation	Residual Effects
Reclamation (Effects are of the work itself. Results of the work are residual effects.)		Wildlife habitat restored.	P		Re-establishment of wildlife along the road following reclamation
		Bird habitat restored.	P		Re-establishment of bird along the road following reclamation
		Employment.	P	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Increase skills base transferable to other industries and communities.
		Community wellness.	N	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Loss of local employment & tax revenues.
		Human/social health.	M	Employment during reclamation work. Training and enforcement of safe work practices will mitigate workplace hazards.	Loss of local employment but enhanced skills base and earning power.
		Traditional land use.	N		Traditional land use fully restored along the road but ease of access lost to traditional areas.
		Dust generation.	N	Temporary during reclamation work.	None.

P - positive effect; N – negative effect, non-mitigable; M- negative effect, mitigable; U – Unknown

Appendix 9 Environmental Impacts and Mitigation Matrix

TABLE 1 - IDENTIFICATION OF ENVIRONMENTAL IMPACTS

		ENVIRONMENTAL COMPONENTS	PHYSICAL	designated environmental areas (ie. Parks, Wildlife Protected 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	Other VEC	Other VEC	other VEC:	BIOLOGICAL	vegetation	wildlife, including habitat and migration patterns, caribou	birds, including habitat and migration patterns, raptors	aquatic species, incl. habitat and migration/spawning	wildlife protected areas	other VEC:	other VEC:	other VEC:	SOCIO-ECONOMIC	archaeological and cultural historic sites	employment	community wellness	community infrastructure	human health	other VSEC
PROJECT ACTIVITIES																																		
CONSTRUCTION	Quarry Use				M	M		M		N		M		M	M					M		M							M	P				
	Quarry ARD & Metal Leaching							M															M											
	Single Span bridges						P																P							P				
	Culverts crossing 9 streams					M	M																M							P				
	Mitigation of Archaeological sites																												M	P				
	Crushing of rock & dust							M						N						N														
																														P				
	Winter construction				P	P			P						M					N	U									P				
OPERATION	Dust													M						M											U		U	
	Use of road by Rankin Inlet residents																																	
	Traditional use																														P	P	P	
	Cottage on Meliadine Lake																														P	P	P	
	Work at site																														P	P	P	
	Fuel delivery to underground																													P	P	P	P	
	Delivery of supplies																													P	P	P	P	
	All weather road				M	P	M	M		N					M						M	M	N								P	P	P	
DECOMMISSIONING	Closure of quarries				P	P								P																				
	Removal of culverts						P	P															P											
	Scarifying the road																			P	P	P								P	N	N	N	
	Removal of bridges																													P	N	N	N	
																														P	N	N	N	

Note: Please indicate in the matrix cell whether the interaction causes an impact and whether the impact is
P = Positive N = Negative and non-mitigatable M = Negative and mitigatable U = Unknown If no impact is expected please leave the cell blank