

Monitoring Officer: Amanda Hanson
Monitoring Period: March 1 – September 30, 2007

1.0 Introduction

The Nunavut Impact Review Board (NIRB) issued a Project Certificate (#004) for the Meadowbank Gold Project (Project) in December 2006, allowing the Project to proceed in accordance with the Terms and Conditions issued by the NIRB.

The Project involves the construction and operation by Agnico-Eagle Mines Limited (Agnico-Eagle) of an open pit gold mine located in the Kivalliq Region of Nunavut, approximately 70 km north of the Hamlet of Baker Lake on Inuit-owned surface lands. The Proponent estimates the total proven and probable reserves of \$2.7 million ounces, and total construction and operating expenditures of \$304 million and \$100 million per year, respectively (Final Hearing Report, 2006).

In addition to mining activities, further infrastructure associated with the Project is located approximately 2 km east of the Hamlet of Baker Lake, and consists of: barge unloading facilities, a laydown storage and marshalling area, a 40 ML fuel tank farm, an explosives storage area, and interconnecting roads. A 110 km all-weather private access road (AWPAR) will connect the mine site and the facilities near Baker Lake.

2.0 Summary of Monitoring Activities

As per the Project Certificate (#004) issued for the Meadowbank Gold Project (Part 5 Review, December 2006), the NIRB is responsible for the monitoring of this Project in accordance with Articles 12.7.1 and 12.7.2 of the Nunavut Land Claims Agreement (NLCA).

The objectives of the NIRB's monitoring program as stated in Article 12.7.2 (*b* and *c*) are therefore to determine whether and to what extent the land or resource use in question is being carried out within the predetermined terms and conditions, which may result in the necessary provision of information to agencies to enforce terms and conditions of land and resource use approvals.

2.1 Documents Received and Reviewed

In accordance with the Terms and Conditions and Proponent Commitments issued as part of the NIRB's Project Certificate, the following items were submitted to the NIRB by Agnico-Eagle and reviewed by the Monitoring Officer during the period of March 1 through September 30, 2007:

- Pursuant to Condition 54, the Terrestrial Ecosystem Management Plan (TEMP) which was due March 30, 2007 was received April 20 after an extension was granted;
- As per Condition 55, the 2006 Wildlife Summary Monitoring Report was received with the TEMP, April 20, 2007;

- In accordance with Condition 31, Agnico-Eagle submitted confirmation of the Golder Associates' Report No. 477 regarding the All Weather Private Access Road Stream Crossings to the NIRB on June 29, 2007;
- Pursuant to Conditions 63 and 64, the Meadowbank Socio-economic Monitoring Committee (SEMC) was established in late June and is comprised of representatives from Agnico-Eagle, the GN, and INAC. The SEMC submitted Draft Terms of Reference on July 16, 2007;
- Pursuant to Condition 39, Agnico-Eagle provided the NIRB with correspondence on August 10, 2007 detailing their visit in Chesterfield Inlet, the purpose of which was to discuss with residents, the shipping program for the Project;
- Pursuant to Condition 8, Agnico-Eagle provided the NIRB with Golder Associates' report on groundwater monitoring on August 17, 2007;
- In accordance with Condition 69, the NIRB received Agnico-Eagle's updated Archaeological Impact Assessment on September 10, 2007.

Condition 54

Cumberland shall provide an updated Terrestrial Ecosystem Management Plan, to the GN, EC and INAC, within three (3) months of the issuance of the Project Certificate including: (items A-H are not included here – please refer to Appendix C of the Project Certificate on the NIRB's ftp site for a detailed listing)

Condition 55

Cumberland shall provide the following analysis in the March 2007 Wildlife Summary Monitoring Report: (items A-F are not included here – please refer to Appendix C of the Project Certificate on the NIRB's ftp site for a detailed listing)

Agnico-Eagle submitted an updated Terrestrial Ecosystem Management Plan (TEMP) and 2006 Wildlife Summary Monitoring Report on April 20, 2007. These documents were sent out to the NIRB's distribution list and comments were received, which Agnico-Eagle then incorporated into the documents where applicable. Both the TEMP and 2006 Wildlife Monitoring Summary Report were finalized and can be accessed through the NIRB's ftp site at: http://ftp.nunavut.ca/nirb/NIRB_MONITORING/03MN107-MEADOWBANK_MONITORING/02-MONITORING%20AND%20MANAGEMENT%20PLANS/03-TERRESTRIAL%20ECOSYSTEM%20MANAGEMENT%20PLAN/.

Condition 63

Within six (6) months of the issuance of a Project Certificate, the GN and INAC shall form a Meadowbank Gold Mine Socio-Economic Monitoring Committee ("Meadowbank SEMC") to monitor the socio-economic impacts of the Project and the effectiveness of the Project's mitigation strategies. The monitoring shall supplement, not duplicate, the monitoring required pursuant to the IIBA negotiated for the Project, and on the request of Government or NPC, could assist in the coordination of data collection and tracking data trends in a comparable form to facilitate the analysis of cumulative effects. The terms of reference shall focus on the Project, include a plan for ongoing consultation with KivIA and affected local governments and a funding formula jointly submitted by

GN, INAC and Cumberland. The terms of reference shall be submitted to NIRB for review and subsequent direction within six (6) months of the issuance of a Project Certificate. Cumberland is entitled to be in the Meadowbank SEMC

Condition 64

Cumberland shall work with the GN and INAC to develop the terms of reference for a socio-economic monitoring program for the Meadowbank Project, including the carrying out of monitoring and research activities in a manner which will provide project specific data which will be useful in cumulative effects monitoring (upon request of Government or NPC) and consulting and cooperating with agencies undertaking such programs. Cumberland shall submit draft terms of reference for the socio-economic monitoring program to the Meadowbank SEMC for review and comment within six (6) months of the issuance of a Project Certificate, with a copy to NIRB's Monitoring Officer.

The formation of the SEMC occurred in late June 2007, and the NIRB received their Draft Terms of Reference on July 16, 2007. The Draft Terms of Reference submitted were to the NIRB's satisfaction when considering the requirements of Conditions 63 and 64.

Condition 39

Within three (3) months of contracting with a shipping company to transport cargo to the Project through Chesterfield Inlet and prior to the commencement of shipping, Cumberland shall advertise and hold a community information meeting in Chesterfield Inlet to fully discuss the shipping program for the Project. Thereafter, Cumberland shall annually advertise and hold a community information meeting in Chesterfield Inlet to report on the Project and to hear from Chesterfield Inlet residents and respond to concerns. A consultation report shall be submitted to NIRB's Monitoring Officer within one month of the meeting.

Agnico-Eagle submitted the required consultation report in correspondence on August 10, 2007 outlining the fulfillment of this condition during the community meeting in Chesterfield Inlet on July 11, 2007. The presentations given by Agnico-Eagle and the shipping company (Northern Transportation Company Limited) were also included in the submission. The report met with the NIRB's expectations based upon the recommendations of Condition 39.

Condition 8:

Cumberland shall, within 30 days of re-opening the camp, re-sample existing groundwater monitoring wells and combining the sampling data with existing rounds of groundwater sampling data, re-evaluate the salinity, major ion concentrations, and dissolved metal load of groundwater flowing to the mine pits and incorporate the results into the water quality monitoring and treatment program. At the time samples are taken, Cumberland shall also assess the condition of the existing groundwater monitoring wells and replace any defective wells. Cumberland shall continue to undertake semi-annual groundwater samples and re-evaluate the groundwater quality after each sample collection. Cumberland shall report the results of each re-evaluation to NIRB's

Monitoring Officer, INAC and EC, and incorporate the results of the additional data into the water license application to the NWB

In correspondence of August 17, 2007, Agnico-Eagle provided a summary of well replacements that occurred during the 2006 season in addition to the sampling activities completed during the 2007 season. The submission of the requested information met with the NIRB's expectations based upon the requirements of Condition 8.

Condition 69

Cumberland shall carry out the Project to minimize the impacts on archaeological sites, including conducting proper archaeological surveys of the Project area (including all-weather road and all quarry sites). Cumberland shall provide to the GN an updated baseline report for archaeological sites in the Project area

The NIRB received Agnico-Eagle's Archaeological Impact Assessment report prepared by FMA Heritage Resources Consultants on September 10, 2007. To date, the NIRB has not requested the status of this report from the GN.

2.2 Site Visit

In addition to those documents received and reviewed by the NIRB's Monitoring Officer, a Site Visit was undertaken August 21-22, 2007. The scope of the visit included the AWPAR, Baker Lake storage and marshalling area, and wildlife monitoring activities. In addition, the Monitoring Officer engaged in a thorough discussion with Agnico-Eagle representatives Louise Grondin and Martin Rioux regarding all of the Terms and Conditions contained within the Project Certificate.

2.2.1 Site Visit Observations

The following provides a summary of the Monitoring Officer's site visit observations as they relate to the Project Certificate Terms and Conditions:

Condition 32

Cumberland shall operate the all-weather road as a private access road, and implement measures to limit public access to the road, including:

- (e) Place notices on the radio and television to inform the residents of the Hamlet of Baker Lake that the road is restricted to mine use only.*

Commitment 16

Effectively communicate to community of Baker Lake the private nature of the road and inform residents of [Cumberland's] road-use restrictions.

During the tour of the road a couple traveling via ATV on the AWPAR was encountered. The Agnico-Eagle guide reminded them that the AWPAR was under construction, and that no unauthorized access was permitted.

Condition 74

Cumberland shall employ environmentally protective techniques to suppress any surface road dust.

Commitment 72

Incorporate the Government of Nunavut Dust Suppression Guidelines issued under the Environmental Protection Act to Cumberland Air Quality Management Plan.

According to Ms.Grondin, no dust suppression measures were being employed as part of the AWPAR construction, for either of the two sections being constructed (moving south from the Meadowbank camp, and moving north from Baker Lake).

Condition 81

Beginning with mobilization, and for the life of the Project, Cumberland shall provide full 24 hour security, including surveillance cameras and a security office at the Baker Lake storage facility/marshalling area, and take all necessary steps to ensure the safe and secure storage of any hazardous or explosive components within the Hamlet of Baker Lake boundaries.

No visible security measures had been implemented at Agnico-Eagle's marshalling and storage area at the time of the site visit. No signage was posted indicating Agnico-Eagle's ownership of the site, nor to indicate that it was under construction. No fencing or surveillance measures had been put into place.

While fencing was in place around the explosives storage area, there were two areas where the fencing was down. There were locking mechanisms on both gates to this storage area.

In addition, Mr. Rioux identified two ATV trails running through the future barge landing and laydown area which, when future fencing is in place, will no longer be accessible by public users.

Commitment 82

Discussion of aircraft over-flight height limits (610 m for point to point; 1000 m vertical and 1500 m horizontal for concentrations) and proposed efforts to monitor impacts of air traffic at mine site on wildlife.

Commitment 91

Elaboration of mitigation measures to reduce denning, roosting, and nesting sites for avian predators and Arctic foxes.

During conversation with employees at the site camp, the following remarks were made to the Monitoring Officer:

- *"The musk-ox, now that they're used to us flying over, they're not even scared of the chopper sound anymore"* (Helicopter pilot, August 21, 2007); and

- “there’s a family of foxes denning under the kitchen [structure]... they’ve been there a while now” (Geologist/Engineer, August 21, 2007).

Please refer to the attached Site Visit Report (Appendix B) for a comprehensive review of the Monitoring Officer’s observations.

2.2.2 Review of Project Certificate Terms and Conditions

The following list outlines those Project Certificate Terms and Conditions which merited consideration and discussion during the Monitoring Officer’s meeting with Ms. Grondin and Mr. Rioux:

Condition 33

Cumberland shall update the Access and Air Traffic Management Plan to: 1 - include an All-Weather Private Access Road Management Plan, including a right-of-way policy developed in consultation with the KivIA, GN, INAC and the Hamlet of Baker Lake, for the safe operation of the all-weather private access road; and 2 – to facilitate monitoring of the environmental and socio-economic impacts of the private road and undertake adaptive management practices as required, including responding to any concerns regarding the locked gates.

The updates recommended in Condition 33 remain an outstanding issue. Ms. Grondin requested that the Monitoring Officer provide clarification regarding the definition of the right-of-way to be included in the All-Weather Private Access Road Management Plan.

Condition 51

Cumberland shall engage the HTOs in the development, implementation and reporting of creel surveys within waterbodies affected by the Project to the GN, DFO and local HTO

At the time of the site visit, Agnico-Eagle acknowledged the outstanding status of creel surveys identified in Condition 51.

Condition 54

Cumberland shall provide an updated Terrestrial Ecosystem Management Plan, to the GN, EC and INAC, within three (3) months of the issuance of the Project Certificate including: (items A-H, with the exception of E, are not listed here. Please refer to the Project Certificate located on the NIRB’s ftp site for a more detailed description).

Wildlife monitoring activities have been ongoing since project initiation; with the intent of ensuring baseline information for Valued Ecosystem Components (VECs) is obtained and remains up to date. Ms. Grondin provided the Monitoring Officer documentation dated August 23, 2007 which indicated that ground surveys of the

AWPAR and mine site as well as aerial surveys were occurring, in addition to waterfowl nest surveys, raptor nest surveys, and breeding bird surveys.

Condition 54E

Details of a comprehensive hunter harvest survey to determine the effect on ungulate populations resulting from increased human access caused by the all-weather private access road, including establishing preconstruction baseline harvesting data, to be developed in consultation with local HTOs, the GN-DOE and the Nunavut Wildlife Management Board

The Monitoring Officer is currently awaiting a copy of the Meadowbank Harvest Study Calendar and related documentation from Agnico-Eagle's Vancouver office. According to the 2006 Wildlife Summary Monitoring Report, the program was to begin in January 2007, and Agnico-Eagle has committed to contacting and interviewing each participatory household on a monthly basis in addition to providing both a quarterly newsletter and an annual summary report. During the site visit, the Monitoring Officer was informed by Mr. Rioux that no consultations with individual households had occurred, and also that no newsletter(s) had been provided. The number of participatory households was also unknown.

Condition 67

Cumberland shall develop and implement a program to monitor contaminant levels in country foods in consultation with HC. A copy of the plan shall be submitted to NIRB's Monitoring Officer

In correspondence of August 17, 2007 from Agnico-Eagle to the NIRB's Monitoring Officer, the status of this condition is listed as completed in the TEMP. Upon discussion with Ms. Grondin and Mr. Rioux however, it was identified that this plan had not yet been developed or implemented.

Condition 68

Cumberland shall, in consultation with Elders, local HTOs and the Meadowbank Gold Mine SEMC, demonstrate that they are working toward incorporating Inuit societal values into mine operation policies

Agnico-Eagle identified this condition as being an outstanding issue to which they would direct future attention.

Condition 75

Cumberland shall provide a complete list of possible accidents and malfunctions for the Project. It must consider the all-weather road, shipping spills, cyanide and other hazardous material spills, and pitwall/dikes/dam failure, and include an assessment of the accident risk and mitigation developed in consultation with Elders and potentially affected communities.

Commitment 6

Compile a technical memo that addresses “Accidents and Malfunctions” resulting from catastrophic events.

As of the site visit, no list or memo in accordance with the above condition and commitment had been submitted to the NIRB, but discussion with Ms. Grondin indicated that a complete list of possible accidents had been forwarded with Agnico-Eagle’s Type A Water Licence Application to the NWB, and that the NIRB would be copied on all documents therein.

Upon reviewing the Emergency Response Plan, Spill Contingency Plan, and Hazardous Materials Management Plan, the Monitoring Officer found that each plan outlines “accident and malfunction” scenarios in detail, and these scenarios account for most “possible” accidents and malfunctions, with more specific details provided where dike failure, spills of hazardous materials, and human health are concerned. Following this review however, the complete list of accidents and malfunctions as outlined in Condition 75 was not evident to the Monitoring Officer. No reference was made to the consultation with Elders and/or potentially affected communities, nor to the risk assessment of each accident/malfunction.

3.0 Summary

As a result of the Monitoring Officer’s site visit, review of documents received, as well as the Project Certificate Terms and Conditions and Proponent Commitments, the following items have been identified as requiring attention by Agnico-Eagle:

- 1) As required by Condition 74 and Commitment 72, environmentally protective dust suppression techniques are to be employed to suppress all ground dust. According to Ms. Grondin, no dust suppression techniques were being undertaken as part of the AWPARG construction.
- 2) As per Commitment 91, Agnico-Eagle had committed to the elaboration of mitigation measures to reduce the denning of Arctic foxes. Comments made by employees at the site indicated that Arctic foxes have been denning underneath the kitchen structure.
- 3) As required by Condition 32(e) and Commitment 16, Agnico-Eagle had committed to effectively communicate the private nature of the AWPARG and place notices on the television and radio indicating this fact. No radio or television ads had been implemented as of the Monitoring Officer’s site visit. The users encountered during the visit indicate that the public were utilizing the AWPARG.
- 4) Where Condition 81 provides for the security of any areas used to store hazardous and explosive materials, the fencing around the explosives storage area was in need of repair and maintenance.

- 5) As required by Condition 75, the list of possible accidents and malfunctions had not been available at the time of the site visit. Mr. Rioux stated that no consultation had taken place with Elders regarding these accidents and malfunctions or the risks associated with them.
- 6) As per Condition 33, Agnico-Eagle is to update the Air Traffic Management Plan to include an AWPAP Management Plan as well as to facilitate monitoring of the environmental and socio-economic impacts of the AWPAP. These updates remain an outstanding issue.
- 7) In accordance with Condition 51, Agnico-Eagle, through consultation with HTOs, is required to develop, implement, and report on creel surveys. No surveys have yet been developed or implemented.
- 8) Where Condition 54 (e) requires Agnico-Eagle to provide details of a comprehensive hunter harvest study, no program information is available, as the program was not implemented at the date anticipated (January 2007).
- 9) Regarding Condition 67, Agnico-Eagle has not yet undertaken any consultation with Health Canada regarding the development and implementation of a program to monitor contaminant levels in country foods.
- 10) Where Condition 68 requires Agnico-Eagle to demonstrate their efforts to incorporate Inuit societal values into mine operations policies, it was acknowledged that no consultation with Elders, local HTOs or Meadowbank SEMC had yet begun.

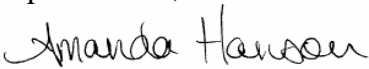
4.0 Recommendations

- (1) That Agnico-Eagle provide to the NIRB, a written plan of action by December 8, 2007 which addresses, but is not limited to the following:
 - (a) Provide a status update regarding the harvest study to the NIRB (Condition 54e).
 - (b) Provide a status update regarding the Socio-Economic Monitoring Committee, especially with respect to the meeting held September 3, 2007 as indicated by Louise Grondin.
 - (c) Provide the updated Air Traffic Management Plan, to include an AWPAP Management Plan and which facilitates the monitoring of the environmental and socio-economic impacts of the private road (Condition 33).
 - (d) Initiate contact with the HTOs with regard to the development, implementation and eventual reporting of creel surveys within waterbodies affected by the Project (Condition 51).
 - (e) Initiate contact with Health Canada and demonstrate a readiness to begin developing and implementing the program to monitor contaminant levels in country foods (Condition 67).


- (f) Submit documentation outlining their plan of action to consult with Elders, local HTOs, and the Meadowbank SEMC and which demonstrates that they are working toward incorporating Inuit societal values into mine operation policies (Condition 68).
- (g) Provide responses to all recommendations made in the Site Visit Report (Appendix A).

In addition to providing Agnico-Eagle Mines Limited with a copy of this report, the NIRB shall provide copies to: Indian and Northern Affairs Canada, the Kivalliq Inuit Association, the GN-DOE, Environment Canada, Health Canada, the HTO of Baker Lake, and the Nunavut Water Board. Further to this, the NIRB shall place the report on its public registry.

Prepared by: Amanda Hanson
Title: Monitoring Officer
Date: September 28, 2007

Signature: 

Reviewed by: Jeff Rusk
Title: A/Director, Technical Services
Date: October 3, 2007

Signature: 

NIRB File number: 03MN107

Introduction

The Nunavut Impact Review Board (NIRB) issued a Project Certificate (#004), pursuant to Sec 12.5.2, Article 12, Nunavut Land Claim Agreement, for the Meadowbank Gold Project (Project) in December 2006.

The project includes a gold mining operation approximately 70 km north of the Hamlet of Baker Lake, as well as related infrastructure consisting of barge unloading facilities, a laydown storage and marshalling area, a 40 ML fuel tank farm, an explosives storage area, and associated interconnecting roads located approximately 2 km east of Baker Lake. A 110 km all weather private access road (AWPAR) will connect the mine site and the facilities near Baker Lake.

Supplies are transported by barge to the laydown storage and marshalling facilities. When the mine is in operation, supplies will be transported to the site via the 110 km AWPAR.

At the time of the site visit, no mining activities had yet commenced. However, exploration and drilling are continuing and were allowed to proceed through a previous NIRB screening. The Meadowbank camp facilities, storage and marshalling area, and the AWPAR were under construction.

Objectives & Focus of Site Visit

As per the Project Certificate (#004) issued for the Meadowbank Gold Project, the NIRB is responsible for the monitoring of this Project in accordance with Articles 12.7.1 and 12.7.2 of the Nunavut Land Claims Agreement (NLCA).

The objectives of the NIRB's site visit were therefore to determine whether and to what extent the land or resource use in question is being carried out within the predetermined terms and conditions (NLCA Article 12.7.2 *b*).

Prior to the site visit, the following items were reviewed: Final Environmental Impact Statement, Final Hearing Report, Project Certificate (#004), the Terrestrial Ecosystem Management Plan (TEMP), and the 2006 Wildlife Monitoring Summary Report. Based on this review, the site visit focused upon the following:

1. All-Weather Private Access Road (Condition 75)
2. Baker Lake Storage and Marshalling Area (Conditions 26, 27, 50, and 81)
3. Wildlife Monitoring (Condition 57, the TEMP, and the 2006 Wildlife Monitoring Summary Report)

During the site visit, all of the terms and conditions of the Project Certificate were discussed with Louise Grondin, Agnico-Eagle's Vice President, Environment, and with Martin Rioux, Agnico-Eagle's Human Resources Superintendent for the Meadowbank Project.

The observations resulting from this site visit shall, where possible, be incorporated into the measurement of the relevant effects of the project, as per Article 12.7.2(a) of the NLCA.

Site Visit Observations

On Tuesday August 21, 2007 the Monitoring Officer met with Agnico-Eagle representatives Louise Grondin and Martin Rioux in Baker Lake and traveled to the Meadowbank Gold Mine site camp. The camp facilities, a 1.7 kilometre section of the AWPARG, and blasting site were observed. Tuesday evening the Baker Lake storage and marshalling area was observed. After this a meeting was held to discuss the Project Certificate Terms and Conditions.

On Wednesday August 22, 2007, Louise Grondin and the Monitoring Officer toured the 64.4 km length of the AWPARG constructed to date, as well as the associated construction camp and explosives storage facilities. The AWPARG construction camp was screened by the NIRB after the issuance of the Project Certificate (not included as part of the original project - NIRB File No. 06LN086) and was not included as part of the main focus of the site visit.

The following observations were made during the site visit.

1. All-Weather Private Access Road (AWPARG)

Condition 75

Cumberland shall provide a complete list of possible accidents and malfunctions for the Project. It must consider the all-weather road, shipping spills, cyanide and other hazardous material spills, and pitwall/dikes/dam failure, and include an assessment of the accident risk and mitigation developed in consultation with Elders and potentially affected communities.

As of the site visit, no list had been prepared but Ms. Grondin indicated that a final list had been submitted with Agnico-Eagle's Water Licence Application to the NWB, and that the NIRB would be copied on all documents therein.

During the meeting of August 21, Mr. Rioux stated that no consultation with Elders had yet been initiated with respect to the AWPARG as required by Condition 75.

Condition 32

Cumberland shall operate the all-weather road as a private access road, and implement measures to limit public access to the road, including:

- (e) Place notices on the radio and television to inform the residents of the Hamlet of Baker Lake that the road is restricted to mine use only.*

Commitment 16

Effectively communicate to community of Baker Lake the private nature of the road and inform residents of [Cumberland's] road-use restrictions.

During the tour of the road a couple traveling via ATV on the AWPARG was encountered. The Agnico-Eagle guide reminded them that the AWPARG was under construction, and that no unauthorized access was permitted. Signage posted at the entrance to the road indicated this fact (see Photo 1). It appeared that the couple had trouble understanding English, and no one present in the vehicle was able to converse in Inuktitut.



Photo 1: Signage indicating AWPARG under construction, no unauthorized access.

Condition 74

Cumberland shall employ environmentally protective techniques to suppress any surface road dust.

Commitment 72

Incorporate the Government of Nunavut Dust Suppression Guidelines issued under the Environmental Protection Act to Cumberland Air Quality Management Plan.

I was informed by Ms.Grondin that no dust suppression measures were being employed as part of the AWPARG construction, for either of the two sections being constructed (near the Meadowbank camp, and moving north from Baker Lake - see Photo 2).



Photo 2: Gravel truck moving along the AWPAP.

2. Baker Lake Marshalling and Storage Area

Condition 26

Cumberland shall ensure that spills, if any, are cleaned up immediately and that the site is kept clean of debris, including wind-blown debris.

At the time of the site visit, Agnico-Eagle's contractors had begun construction of the marshalling and storage area, with one fuel tank pad and the site office nearing completion.

The Monitoring Officer noticed construction debris haphazardly stored next to the site office, but in general, the site was well kept and not littered with windblown garbage or scattered materials. Larger materials not in use were stored in a neat and orderly manner.

Condition 27

Cumberland shall ensure that the areas used to store fuel or hazardous materials are contained using safe, environmentally protective methods based on practical, best engineering practices.

No secondary containment measures were observed at the diesel generator fuel tank located at the storage and marshalling area (see Photo 3).



Photo 3: Diesel generator inside shack, fuel tank to the right.

Condition 50

Cumberland shall, in consultation with the DFO, undertake to prevent the barge landing facility from infilling of fish habitat, including considering using geotextile material in a manner that is capable of maintaining bottom substrate for benthic invertebrates and fish.

At the time of the site visit, no construction of the barge landing facility or laydown storage area had commenced. However construction materials had begun to arrive. Agnico-Eagle had received two barge loads of materials at the Hamlet of Baker Lake's landing facility. Discussion with Ms. Grondin indicated that NTCL has proposed to alter the original design of the landing facility. Shawn Maley¹ of GN-C&GS provided confirmation that Agnico-Eagle had contacted DFO regarding the use of geotextile material. The Monitoring Officer will receive further information in this regard as it becomes available.

In addition, Ms. Grondin provided email correspondence (from the Hamlet of Baker Lake) authorizing Agnico-Eagle to utilize the community's barge landing facilities until such time as Agnico-Eagle completes construction of their own landing area.

¹ Shawn Maley was serving as the C&GS contact in John Dawe's absence from office. John Dawe is the contact referred to in the NIRB's Project Certificate regarding Condition 50. The C&GS department holds regulatory authority with respect to this Condition.

Condition 81

Beginning with mobilization, and for the life of the Project, Cumberland shall provide full 24 hour security, including surveillance cameras and a security office at the Baker Lake storage facility/marshalling area, and take all necessary steps to ensure the safe and secure storage of any hazardous or explosive components within the Hamlet of Baker Lake boundaries.

No visible security measures had been implemented at Agnico-Eagle's marshalling and storage area at the time of the site visit. No signage was posted indicating Agnico-Eagle's ownership of the site, nor to indicate that it was under construction. No fencing or surveillance measures had been put into place.

The explosives associated with the AWPAR construction were stacked and stored in a lot surrounded by a chain-link fence (see Photo 4). This lot was located upslope from the marshalling and storage area. The fencing was knocked down in two areas (see Photo 5). One of the two entrance gates was open at the time of the site visit, while the other was locked. Both gates had locking mechanisms present (See Photo 6).



Photo 4: The entrance to the explosives storage area, bags of ANFO stacked.



Photo 5: Downed chain-link fencing around explosives storage area.



Photo 6: Locked gate at explosives storage area.

Martin Rioux advised of two established ATV trails which run parallel to the shoreline and directly through the marshalling and storage area (see Photo 7). Ms. Grondin stated that when the area becomes fenced as per Condition 81 these trails would most likely be removed from public access.



Photo 7: Public access trails. Note one trail along the water's edge, and a second in the immediate foreground.

3. **Wildlife Monitoring**

Wildlife monitoring activities are occurring as per the Terrestrial Ecosystem Management Plan and the Wildlife Monitoring Summary Report.

Ms. Grondin provided the Monitoring Officer with several data reports indicating that wildlife monitoring has been ongoing. Please refer to Document 1 in Appendix B for an example and description of these data reports.

Condition 57

Cumberland shall participate in a caribou collaring program as directed by the GN-DOE.

In accordance with the 2006 Wildlife Monitoring Summary Report, Agnico-Eagle has committed to pay for the cost of GPS collars and break-away devices, the costs of annual data access costs, and for collar placement, to provide a helicopter and pilot with suitable experience and who is acceptable to the GN-DOE biologist. As part of the agreement, the GN-DOE has committed to source and obtain GPS collars, and provide a wildlife biologist to collar five caribou per year for three years.

No actual radio-collaring activity had commenced as of September 1, 2007. While the collaring equipment had been obtained by Agnico-Eagle, Ms Grondin advised that due to weather and other complications, no collaring was completed as of the date of the site visit. Both Ms. Grondin and the GN-DOE have indicated to the Monitoring Officer that a further attempt will be made in October 2007.

While visiting the Meadowbank Site Camp, the Monitoring Officer observed a Wildlife Log attached to the refrigerator in the dining area. The log was available for any and all employees to make notes of any wildlife sightings and/or encounters.

Commitment 82

Discussion of aircraft over-flight height limits (610 m for point to point; 1000 m vertical and 1500 m horizontal for concentrations) and proposed efforts to monitor impacts of air traffic at mine site on wildlife.

Commitment 91

Elaboration of mitigation measures to reduce denning, roosting, and nesting sites for avian predators and Arctic foxes.

During casual conversation with employees at the site camp, the following remarks were made to the Monitoring Officer:

- “The musk-ox, now that they’re used to us flying over, they’re not even scared of the chopper sound anymore” (Helicopter pilot, August 21, 2007); and
- “there’s a family of foxes denning under the kitchen [structure]... they’ve been there a while now” (Geologist/Engineer, August 21, 2007).

4. General Observations

Louise Grondin, Martin Rioux and the Monitoring Officer discussed the status of all Project Certificate Terms and Conditions and Proponent Commitments. From this discussion, the following items were identified as needing clarification and/or attention:

- 1) The Monitoring Officer noticed three cabins along the AWPART that were within 4 km of Baker Lake and could potentially be impacted by dust generated by traffic along the road (see Photo 8). As mentioned in Section 1, no dust suppression techniques are currently being employed (please refer to Commitment 72 and Condition 74, Appendix A);
- 2) Greywater at the Meadowbank camp was disposed of via gravity drainage through a hose into a marshy area located behind the geology tent. No treatment, constructed sump, collection area, or screen/grease trap were present (see Photo 9). While the NIRB has no authority to enforce the NWB License terms and conditions, it should be noted that Condition 3, Part E of the NWB License Number NWB2MEA0204 for the Project requires that Agnico-Eagle “construct a sump to contain all greywater discharged,” and that Condition 30 of the NIRB’s Screening Decision Report (03EN018) recommends that Agnico-Eagle “treat greywater and sewage according to the Terms and Conditions outlined in the NWB approval.”



Photo 8: A cabin located along the AWPAR, with meat drying at the left of the cabin.



Photo 9: Greywater disposal. Kitchen structure is the blue building at top of photo. Geology tent is to the right.

Summary

As a result of the site visit, the following items require improvement and attention by Agnico-Eagle:

- 1) As required by Condition 74 and Commitment 72, environmentally protective dust suppression techniques are to be employed to suppress all ground dust. According to Ms. Grondin, no dust suppression techniques were being undertaken as part of the AWPARG construction.
- 2) As per Commitment 91, Agnico-Eagle had committed to the elaboration of mitigation measures to reduce the denning of Arctic foxes. Comments made by employees at the site indicated that Arctic foxes have been denning underneath the kitchen structure.
- 3) As required by Condition 32(e) and Commitment 16, Agnico-Eagle had committed to effectively communicate the private nature of the AWPARG and place notices on the television and radio indicating this fact. As indicated by the public users encountered on the AWPARG, communication of the road-use restrictions has not been effective.
- 4) Where Condition 81 provides for the security of any areas used to store hazardous and explosive materials, the fencing around the explosives storage area was in need of repair and maintenance.
- 5) As required by Condition 75, the list of possible accidents and malfunctions had not been available at the time of the site visit. Mr. Rioux stated that no consultation had taken place with Elders regarding these accidents and malfunctions or the risks associated with them.

Recommendations

- 1) In accordance with recommendation 4.0(1) of the NIRB's 2007 Monitoring Report for the Meadowbank Gold Project, Agnico-Eagle include in their written plan of action to the NIRB, responses which address, but are not limited to the following:
 - (a) Outline a maintenance plan for fencing, gates, and locking mechanisms pertaining to areas used for the storage of hazardous and explosive materials (Condition 81). The plan should include a timetable for repairing the existing deficiencies noted during the site visit and what will be done in regard to the existing trails which traverse through the proposed marshalling area.
 - (b) Ensure that Agnico Eagle employs environmentally protective techniques to suppress any surface road dust generated by traffic along the AWPARG during construction activities as well as when the mine is in production (Condition 74).
 - (d) Develop a plan to consult with elders on all aspects of operation stated, namely the AWPARG, and forward this plan to the Monitoring Officer (Condition 75).
 - (e) Through consultation with the GN-DOE, develop a policy and protocol for the training of pilots involved with the Project in order to prevent harassment and worrying of wildlife (Commitment 82).

- (f) Consideration of the placement of notices on the television and radio informing the residents of Baker Lake of the private nature of the road *prior* to completion of the AWPAP (Condition 32*e*). Provide justification for this decision to the Monitoring Officer.
- (g) Through consultation with the GN-DOE, develop mitigation measures to reduce denning, roosting, and nesting sites for avian predators and Arctic foxes, and provide the Monitoring Officer with a summary of these measures (Commitment 91).
- (h) Consult with the Nunavut Water Board regarding the current method of greywater disposal at the Meadowbank camp, namely, whether gravity drainage to a marsh area without sump containment is acceptable for such disposal, and provide documentation to the NIRB's Monitoring Officer that the situation is in compliance with the current water license requirements (NIRB 03EN018, NWB2MEA0204).

Prepared by: Amanda Hanson
Title: Monitoring Officer
Date: October 2, 2007

Signature: 

Reviewed by: Kevin Buck
Title: Director, Technical Services
Date: October 2, 2007

Signature: 



APPENDIX A - Site Visit Report Project Certificate Terms, Conditions, & Commitments

Relevant Conditions for the NIRB Monitoring Officer's Site Visit – Meadowbank Gold Project

32. Cumberland shall operate the all-weather road as a private access road, and implement measures to limit public access to the road, including:
 - (e) Place notices on the radio and television to inform the residents of the Hamlet of Baker Lake that the road is restricted to mine use only.
54. Cumberland shall provide an updated Terrestrial Ecosystem Management Plan, to the GN, EC, and INAC, within three (3) months of the issuance of the Project Certificate including:
 - (e) Details of a comprehensive hunter harvest survey to determine the effect on ungulate populations resulting from increased human access caused by the all-weather private access road, including establishing preconstruction baseline harvesting data, to be developed in consultation with local HTOs, the GN-DOE and the Nunavut Wildlife Management Board.
74. Cumberland shall employ environmentally protective techniques to suppress any surface road dust.
75. Cumberland shall provide a complete list of possible accidents and malfunctions for the Project. It must consider the all-weather road, shipping spills, cyanide and other hazardous material spills, and pitwall/dikes/dam failure, and include an assessment of the accident risk and mitigation developed in consultation with Elders and potentially affected communities.

Relevant Commitments for the NIRB Monitoring Officer's Site Visit – Meadowbank Gold Project

16. Effectively communicate to community of Baker Lake the private nature of the road and inform residents of CRL road-use restrictions.

72. Incorporate the Government of Nunavut Dust Suppression Guidelines issued under the Environmental Protection Act to Cumberland Air Quality Management Plan.
82. Discussion of aircraft over-flight height limits (610m for point to point; 1000m vertical and 1500m horizontal for concentrations) and proposed efforts to monitor impacts of air traffic at mine site on wildlife.
91. Elaboration of mitigation measures to reduce denning, roosting, and nesting sites for avian predators and Arctic foxes.



APPENDIX B – Site Visit Report

Example of Wildlife Monitoring Survey – AWPARGround Survey, April 2007

Cumberland Resources Ltd. – All-Weather Private Access Road Surveys - 2007

Date (day/month/year) 02 April 02, 2007

Time Started 08:45 Time Ended 16:37

Page 1 of 1

Start Location (UTM) Meadowbank Camp End Location

Baker Lake Observer Names: DP, KM, VU

Temperature: -30°C Wind Speed (km/hr): 25/hr Wind Direction: NW Visibility
(circle): 100m 500m 1km >1km Precipitation: 0

Time	Species Name	Number, Sex and Age ¹	Habitat Type (ELC) ²	Behaviour ³	Direction of Travel ⁴	Distance from Road (m)	Direction from Road (N or S)	Location on Access Road (GPS Coordinates)			Comments
								Zone	Easting	Northing	
11:00	Caribou	3 M	HT					14	0634097	7175993	
11:05	Caribou	6 M/F	HT	ST		200m	E	14	0635324	7173888	
12:08	Caribou	8 M	HT	ST		500m	W	14	0640979	7153597	
12:27	Caribou	10 M	HT	ST		250m	W	14	0638142	7156477	
								14	0637173	77157018	End of road
12:43	Caribou	3 M	HT	FO		< 100m	W	14	0637793	7156073	
13:20	Caribou	11	HT	ST		300m	E	14	0643897	7143542	
13:45	Caribou	10	HT	FO		200m	E	15	0356068	7140614	1 ST Quarry
13:45	Caribou	18 M/F	HT	FO		250m	S	15	0356068	7140614	1 ST Quarry
14:01	Caribou	26 M 1 F	HT	FO		<100m	E and W	15	0355198	7189594	
14:08	Caribou	50 M (F)	HT	FO		<100m	E and W	15	0355433	7138448	
14:10	Caribou	11 M	HT	FO				15	0355828	7137858	
14:10	Raven	2						15	0355828	7137858	
14:14	Caribou	80 M (F)	HT	FO		300m	E and W	15	0356510	7137180	
14:23	Caribou	15 M (F)	HT	FO				15	0356018	7135679	

¹ Sex = M (male) or F (female); Age = C (calf, chick, cub or pup), Y (yearling), and A (adult)

² Habitat = WA (water), SE (sedge), BR (birch and riparian shrub), HT (heath tundra), LI (lichen), LR (lichen-rock), RC (ridge crest/esker/avens), RO (rock and boulder), and DI (disturbed)

³ Behaviour = RE (resting), FO (foraging), WK (walking), RU (running), ST (standing), MI (milling), CO (courting), FL (flying), and NE (nesting)

⁴ Direction of Travel = N (North), NE (Northeast), E (East), SE (Southeast), S (South), SW (Southwest), W (West), and NW (Northwest)

The above example outlines the parameters that were captured as part of the routine ground survey completed along the AWPAP.

The wildlife monitors mark the time of sighting, the species observed, its sex and age if known, the behaviour displayed at the time of sighting, distance from the AWPAP, and the UTM coordinates corresponding with the sighting.

The legend below the spreadsheet describes all abbreviations used throughout the example.