2011 – 2012 Annual Monitoring Report

for Agnico-Eagle Mines Ltd.'s Meadowbank Gold Project

Nunavut Impact Review Board

Report Title:	The Nunavut Impact Review Board's 2011 – 2012 Annual Monitoring Report for the Meadowbank Gold Project (NIRB File No. 03MN107)
Project:	Meadowbank Gold Project
Project Location:	Kivalliq Region, Nunavut
Project Owner:	Agnico-Eagle Meadowbank PO Box 540 Baker Lake, NU X0C 0A0
Monitoring Officer:	Sophia Granchinho
Monitoring Period:	October 2011 – September 2012
Date Issued:	December 7, 2012
Cover photo:	1) 777 Caterpillar Haul Truck 2) Meadowbank Processing Plant 3) View of water intake at the Meadowbank Mine Site 4) Meadowbank Processing Plant

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1.0 INTRODUCTION

In December 2006, pursuant to Section 12.5.12 of the Nunavut Land Claims Agreement (NLCA), the Nunavut Impact Review Board (NIRB or Board) issued Project Certificate No. 004 for the Meadowbank Gold Project (the Project), allowing the Project to proceed in accordance with the Terms and Conditions issued therein. The NIRB is responsible for the monitoring of this Project as per Sections 12.7.1 and 12.7.2 of the NLCA, and the Project Certificate [004].

This report provides findings that resulted from monitoring of this Project that took place from October 2011 to September 2012.

1.1. PROJECT COMPONENTS

The Project involves the construction and operation of an open pit gold mine located in the Kivalliq Region of Nunavut, approximately 70 kilometres (km) north of the hamlet of Baker Lake on Inuit-owned surface lands. The original Project proponent and owner, Cumberland Resources Inc., estimated in 2006 that the Meadowbank project comprised of a total proven and probable gold reserves of 2.7 million ounces, and that total construction and operating expenditures would run at $304 million and $100 million per year, respectively (NIRB, 2006). The current Project owner, Agnico Eagle Mines Limited (AEM or Proponent), indicated in its December 2011 Reserves and Resources report that Meadowbank has proven and probable gold reserves of 2.2 million ounces; lower than the initial value predicted (AEM, 2011). In February 2012, AEM issued a press release announcing that it was taking a write-down of $644.9 million on the Meadowbank mine; due in part to a challenging operating year in 2011 including extreme weather conditions, a fire at the Meadowbank site in March 2011 and the discovery of lower gold grades than predicted (AEM, 2012a). AEM has announced that its Meadowbank ore reserves have been reduced as a result of it being unable to economically mine the lower grade ore which has also reduced the life of the mine by approximately 3 years (AEM, 2012a). AEM provided a revised mine plan to the Kivalliq Inuit Association and has predicted that its Meadowbank operations are now scheduled to be completed by 2017 instead of 2020 (AEM, 2012a).

In addition to mining infrastructure and activities, ancillary Project infrastructure 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 60 million litre (ML) fuel tank farm, associated interconnecting roads and a 110 km all weather private access road (access road) from the hamlet of Baker Lake to the Meadowbank mine site. Supplies are shipped from other locations within Canada via sealift to Baker Lake where they are offloaded at AEM's marshalling area and transported to the Meadowbank site via truck haul along the 110 km access road.

1.2. PROJECT HISTORY AND CURRENT STATUS

In early 2007, AEM acquired Cumberland Resources Ltd.'s assets which included the Meadowbank Gold Mine. Construction of the access road from the hamlet of Baker Lake to the

Meadowbank mine site was completed in 2008 and the road opened to mine-related transportation in March 2008.

AEM has obtained the necessary leases from the Government of Nunavut (GN), Department of Community and Government Services for storage and marshalling areas located on Commissioner's lands within the hamlet of Baker Lake, and has obtained those authorizations required and pertaining to the access road from Aboriginal Affairs and Northern Development Canada (AANDC; previously Indian and Northern Affairs Canada or INAC), production and commercial leases from the Kivalliq Inuit Association (KIA), licence to manufacture explosives under the *Explosives Act* from Natural Resources Canada, and authorizations for the harmful alteration, disruption and destruction (HADD) of fish habitat from Fisheries and Oceans Canada (DFO) as required

The required Type A Water Licence (2AM-MEA0815) was issued by the Nunavut Water Board (NWB) in June of 2008. This licence was amended in May 2010 to allow for an expansion to the Baker Lake fuel tank farm facility to include 2 additional 10 ML fuel tanks for a total of six 10 ML fuel tanks.

An expansion to the Meadowbank airstrip was screened by the NIRB and in September 2010 the NIRB issued a 12.4.4(a) recommendation to the Minister of INAC indicating that the proposed project could proceed subject to additional project specific terms and conditions, and that additionally the NIRB would expand its Part 7 NLCA monitoring program for the Meadowbank Project to apply to the airstrip expansion (NIRB File No. 10XN039). AEM has not yet applied for the required licenses and/or permits to proceed with this expansion.

On November 20, 2009 the NIRB formally amended the Meadowbank Gold Mine Project Certificate [No. 004] to include an amendment to Condition 32 pursuant to NLCA 12.8.2 and an approval by the Board to change the name of the holder of the Project Certificate [No. 004] from Cumberland Resources Ltd. to Agnico-Eagle Mines Ltd (NIRB, 2009).

The Meadowbank mine officially moved into the operations phase in 2010, with the first gold bar being poured on February 27, 2010. By the end of 2010, the Meadowbank mine had reportedly produced 265,659 ounces of gold from a total tonnage of 16,197,833 mined (waste and ore).

On July 14, 2011 the NIRB issued *Appendix D – Meadowbank Monitoring Program* to AEM in accordance with the Meadowbank Project Certificate [004] (NIRB, 2011). The Meadowbank monitoring program includes responsibilities for AEM, the NIRB, and several authorizing agencies and government departments.

Throughout the 2011 year, AEM completed the installation of instrumentation on the Bay Goose dike and the jet grouting program; completed construction of the Central dike coffer dam, the Secondary Crusher and the new kitchen; and completed earthworks on Saddle Dam 1, Saddle Dam 2 and the Storm water dike. The sulphur dioxide plant was commissioned in 2011 and by the end of the year, Meadowbank had reportedly produced 269,246 ounces of gold from a total tonnage of 24,356,757 mined (waste and ore).

2.0 MONITORING ACTIVITIES

2.1. REPORTING REQUIREMENTS

2.1.1. General Reporting Requirements

During the 2011 – 2012 monitoring period, the Proponent demonstrated a general compliance with reporting requirements imposed through commitments resulting from the NIRB's Review of the Project, including those contained in related reports, plans, and the NIRB's Project Certificate. The Proponent has provided the following items as required by the terms and conditions contained within Project Certificate [No. 004] and the Proponent's commitments for the current monitoring period of October 2011 through September 2012:

- AEM's 2011 Annual Report to the NIRB
- Closure and Reclamation Plan, development phase version 1 (2008)
- Core Receiving Environment Monitoring Program (CREMP), 2010 Plan Update
- Spill Contingency Plan, version 2 (2011)
- Hazardous Materials Management Plan, version 2 (2012)
- Emergency Response Plan, version 3 (2012)
- Wildlife Protection and Response Plan, version 2 (2012)
- Groundwater Monitoring Plan, version 3 (2012)
- Aquatic Effects Management Program Targeted Monitoring – Habitat Compensation Monitoring Plan (2008)
- Tailings Deposition Plan, 2011 Update
- Environmental Effects Monitoring (EEM) Cycle 1 (Phase 1): biological study design for Meadowbank Mine (2011)
- Aquatic Effects Monitoring Program: 2011 Meadowbank Mine Site Habitat Compensation Monitoring

The following reports have not been forwarded to the NIRB and remain outstanding:

- Core Receiving Environment Monitoring Program (CREMP), 2012 update (last version provided in 2010)
- All Weather Private Access Road, 2010 Water Quality Management Report (to include DFO's recommendations)
- Updated Access and Air Traffic Management Plan (last version provided in 2005)

2.1.2. Annual Report as per Project Certificate [No. 004] Appendix D

Appendix D of the Project Certificate is designed to provide direction to the Proponent, the NIRB's Monitoring Officer, Government departments and authorizing agencies with regard to the monitoring program established for the project pursuant to Section 12.7 of the Nunavut Land Claims Agreement (NLCA). Appendix D outlines the responsibilities of the Proponent to establish a monitoring program, of the NIRB's Monitoring Officer to support the production and interpretation of various monitoring reports, and further outlines the NIRB's requirements of various authorizing agencies in reporting their continued compliance monitoring activities on site. As outlined in Appendix D, the Proponent is required to submit an annual report that

provides an updated status of Project operations, an overview of the site and its operations during the reporting period, as well as a discussion of the observations made as a result of, or illustrated through, the monitoring program (NIRB, 2011). The NIRB received AEM's *Meadowbank Gold Project 2011 Annual Report* (2011 Annual Report) on August 20, 2012 (AEM, 2012b).

The NIRB subsequently distributed the 2011 Annual Report to the Meadowbank distribution list on August 27, 2012 and requested that parties provide comments with regard to compliance and effects monitoring as well as other areas of expertise or mandated responsibility. The NIRB received comments from the following parties regarding AEM's 2011 Annual Report:

- Aboriginal Affairs and Northern Development Canada
- Kivalliq Inuit Association

Comments received by parties identified specific areas that may require further attention and/or discussion, and are addressed throughout the remainder of this report and may lend to recommendations the Board sets forth for subsequent action, attention, or remedial activity by the Proponent.

2.2. COMPLIANCE MONITORING

Compliance monitoring involves an assessment undertaken by regulators and other agencies to establish whether or not a project is being carried out within the legislation, regulations, instruments, commitments and agreements as such are applicable to certain project activities, and further, is a requirement of the NIRB's Appendix D to the Meadowbank Project Certificate [No. 004].

2.2.1. Compliance with the NIRB Project Certificate

2.2.1.1. Compliance Achievements

a) Monitoring of Country Foods – Condition 67

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."

This condition requires that the Proponent develop a program which monitors contaminant levels in country foods and to submit this plan to the NIRB. In 2011, AEM completed a wildlife screening level risk assessment (WSLRA) and a preliminary quantitative risk assessment (PQRA). For the WSLRA, field data collected in 2011 was used to complete a risk assessment of wildlife, providing an updated assessment of risk to resident birds and mammals during the operation of the mine. Key findings and recommendations were provided in the 2011 Annual Report. It was noted in the report that overall the operation of the Meadowbank mine did not appear to be contributing excess risk from chemical contaminants to wildlife residing in the area.

The PQRA was completed to determine the risks to human health from contaminant exposure through the consumption of country foods during the operation of the mine. The assessment was based on the collection of soil, water and plant tissue samples from the mine site and reference sites in 2011. The report follows the format presented in the preconstruction screening level risk assessment and incorporates recommendations from Health Canada provided in 2010. A summary of the key findings and recommendation were presented in the 2011 Annual Report. It is noted that the author of the PQRA recommended further studies be conducted, specifically for chromium exposure to caribou and chromium concentration in lichen at both reference and mine site locations, though AEM has provided no indication as to when these further studies may be conducted.

2.2.1.2. AEM Response to the Board's 2011 Recommendations

The Board made a number of recommendations as a result of the 2010 – 2011 monitoring efforts, and the 2011 site visit. The following provides an overview of AEM's responses to the Board's recommendations as provided in correspondence dated January 9, 2012.

a) Groundwater monitoring wells – Condition 8

8. "…At the time samples are taken Cumberland shall also assess the condition of 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…"

The Board recommended in 2011 that AEM continue to replace the defective wells that have been encountered at site in order to establish a robust groundwater quality data monitoring program. AEM indicated in its response that two new wells were installed in 2011 and that a total of 3 groundwater wells were sampled for the 2011 program year. AEM also included the results of the 2011 monitoring program as part of its 2011 Annual Report to the NIRB. During the 2012 site visit, it was noted that only one well was functional for the 2012 monitoring program.

b) Spills and cleanup – Condition 26

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."

In 2011, the Board requested that AEM prepare a plan of action and adaptive management designed to prevent future spills from occurring along the access road, as well as to provide a description of the remaining follow up action that will be undertaken at the site of the fuel spill near kilometre 22 that occurred in October 2010. In its response, AEM indicated that several plans have been put into place to prevent future spill occurrences along the access road. Some of these measures included reposting speed limit signage along the access road; giving warnings to drivers caught speeding; requiring all staff to go through AEM's Meadowbank site orientation which includes road rules for driving on-site and on the access road; and conducting daily checks of the road. AEM has also put in place environmental emergency sea-cans which contain spill response equipment at each water crossing along the access road.

For the cleanup of the spill near kilometre 22, AEM indicated that it continues to monitor the site during the open water season to ensure that no contaminants enter the downstream water system. In 2012, AEM installed an oil-water separator to separate hydrocarbons from the water contained in the pits that were created during the excavation of the contaminated soil.

The Monitoring Officer notes from AEM's 2011 Annual Report that a total of 5 environmental spills occurred along the access road in 2011 with one spill reported to the GN spill hotline. Further, the Monitoring Officer notes from AEM's 2011 Annual Report that a total of 74 environmental spills occurred at the mine site in 2011 with 11 spills reported to the GN hotline. AEM reported that all spills were cleaned-up immediately.

Furthermore, it was noted during the 2012 site visit that there were some instances of wind-blown debris scattered around the site.

c) Dust and Air Monitoring – Condition 71

71. "Cumberland shall, in consultation with EC, install and fund an atmospheric monitoring station to focus on particulates of concern generated at the mine site. The results of air-quality monitoring are to be reported annually to NIRB."

This condition has been included as a recommendation by the Board in each of its annually issued recommendations to the Proponent since 2008. In 2011, the Board requested that AEM provide a description of the type and location of the atmospheric monitoring stations that were to be installed in 2011. AEM, in its response, indicated that it had installed four air monitoring stations in late October 2011 and that monitoring started in November 2011. The results from the dust monitoring study indicated exceedance of the maximum allowable concentrations of total fixed dust fall (0.53 mg/cm^2/30 days) at two of the four stations (DF-1 and DF-4) on December 17, 2011. Station DF-1 measured 0.605 mg/cm^2/30 days and station DF-4 measured 6.110 mg/cm^2/30 days. AEM suggested that these high values were due to the close proximity of the stations to the Vault Road and associated heavy traffic and suggested further consultation with Environment Canada (EC) to determine a more suitable and representative location for dust monitoring in 2012. It further suggested the implementation of a more rigorous on-site dust control watering procedure for mine site haul roads.

d) Suppression of surface dust – Condition 74

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

In 2011, it was noted by the Monitoring Officer during the site visit that no dust suppressant techniques were being applied to the access road from Baker Lake (gatehouse) to the Meadowbank site but that AEM did use calcium chloride and water as a dust suppressant at the mine site itself. The same issue was noted during the 2012 site visit. In the Board's 2011 recommendations to the Proponent, it requested that dust control for the access road be addressed by the Proponent. In its response to the Board's recommendation, AEM indicated that it would perform a dust control trial on the access road in the summer of 2012 with a variety of dust suppressants to be evaluated. However, it was noted during discussions held

as part of the 2012 site visit that no dust control trials were conducted in the summer of 2012 (see Appendix I for further details) and the Monitoring Officer also confirmed with AEM staff that no dust control measures had been applied to the access road during the 2011-2012 monitoring period. AEM has indicated during the site visit that on-going studies are being performed to determine the best options to deal with the dust created at the mine site and that plans are in place to conduct future dust monitoring studies along the access road to determine the best options to deal with the dust created along the road.

e) Security at the Baker Lake storage facility/marshalling area – Condition 81

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."

In 2011, the Board requested that AEM provide the NIRB with a summary of the security measures put in place at the Baker Lake storage facility/marshalling area during the sealift season and specifically indicate whether any surveillance or security would remain in place for the remainder of the year. The Board also requested that this information be provided in future annual reports. In its response to the 2011 Board recommendations, AEM indicated that a security camera was in operation 24 hours a day, 365 days of the year. During the sealift season, AEM indicated it has employees at the storage facility/marshalling area 24 hours a day to ensure the security of all the materials that have been unloaded and placed ashore. During other periods of the year, AEM indicated that a supervisor is employed at the site during the dayshift. The security and surveillance information that was requested to be included within AEM's 2011 Annual Report was not contained within the document as submitted.

2.2.1.3. Conditions Requiring Attention

The Monitoring Officer notes that AEM is not in full compliance with the following Terms and Conditions of the Meadowbank Project Certificate [No. 004]. These items are discussed further in the Memo and Recommendations provided under separate cover to the Board for its consideration.

a) All weather private access road – Condition 32(items e through g)

32(e) "Prior to opening of the road, and annually thereafter, advertise and hold at least one community meeting in the Hamlet of Baker Lake to explain to the community that the road is a private road with non-mine use of the road limited to approved, safe and controlled use by all-terrain-vehicles for the purpose of carrying out traditional Inuit activities."

32(f) "Place notices at least quarterly on the radio and television to explain to the community that the road is a private road with non-mine use of road limited to authorized, safe and controlled use by all-terrain-vehicles for the purpose of carrying out traditional Inuit activities."

32(g) "Record all authorized non-mine use of the road, and require all mine personnel using the road to monitor and report unauthorized non-mine use of the road, and

collect and report this data to NIRB one (1) year after the road is opened and annually thereafter; and h. Report all accidents or other safety incidents on the road, to the GN, KivIA [KIA], *and the Hamlet immediately, and to NIRB annually."*

The Monitoring Officer notes that AEM did not provide information regarding Condition 32(e), 32(f) and 32(g) within its 2011 Annual Report submitted to the Board. Information is required on the consultation that was conducted as per Condition 32(e) and the notices that were placed quarterly as per Condition 32(f) for the 2011 year. Further, Condition 32(g) directs the Proponent to record all authorized non-mine use of and report unauthorized non-mine use of the road, and collect and report this data to the NIRB. AEM only indicated in the 2011 Annual Report that no unauthorized ATV use of the road was reported. The Annual Report did not contain any information on the authorized non-mine use of the road as required. This information is important in order to determine the potential environmental and socio-economic impacts of the private road which is spoken to in Condition 33 *[…2. to facilitate monitoring of the environmental and socio-economic impacts of the private road and undertake adaptive management practices as required,...]*. The Annual Report did not provide a discussion on whether or not road usage has increased since the development of the access road, whether an increase in harvesting has been observed due to the use of the road and the potential socio-economic impacts of the public use of the access road. Monitoring of the usage of the access road and comparison to previous years would provide valuable information to determine whether or not the development of the access road has had impact on traditional activities in the area.

b) <u>On-site incinerators – Condition 72</u>

72. On-site incinerators shall comply with Canadian Council of Ministers of Environment and Canada-Wide Standards for dioxins and furan emissions, and Canada-wide Standards for mercury emissions, and Cumberland shall conduct annual stack testing to demonstrate that the on-site incinerators are operating in compliance with these standards. The results of stack testing shall be contained in an annual monitoring report submitted to GN, EC and NIRB's Monitoring Officer.

In its review of AEM's 2010 Annual Report, Environment Canada recommended that the incinerator temperatures in the secondary chamber be above 1000 ºC to ensure complete combustion and to minimize the formation and release of contaminants. The 2010 Incinerator Daily Report Logbook indicated that even though the secondary chamber was usually above the recommended 1000 ºC temperature, there were several occasions noted where the incinerator did not achieve sufficient temperatures for complete combustion. It was noted that there were 16 burn cycles where the secondary chamber was less than 900 ºC and 4 burn cycles where the secondary chamber was less than 600 ºC. EC requested that an explanation for these low temperatures and any corrective measures employed be provided in future annual reports. The 2011 Annual Report did not provide any information in response to this request.

No incinerator stack test was competed in 2011 as it had been previously determined by EC that annual testing was not necessary.

c) <u>Suppression of surface dust – Condition 74</u>

74. *"Cumberland shall employ environmentally protective techniques to suppress any surface dust."*

As noted in the previous section of this report and as was also reported in the 2012 Site Visit Report (Appendix I), dust suppressant techniques have not been applied to manage dust along the access road to date. However, AEM indicated that plans are in place to conduct future dust monitoring studies along the access road to determine the best options to deal with the dust created along the access road.

d) Spill at Baker Lake Marshalling Area – Condition 37 & 82 and Commitments 34, 35 & 38

Conditions:

37. *Cumberland will contract only Transport Canada certified shippers to carry cargo for the Project, and will require shippers transporting cargo through Chesterfield Inlet to carry the most up-to-date emergency response/spill handling equipment as recommended and accepted by the Government of Canada with the crew trained to deploy the equipment, including practice drills deploying spill equipment in remote locations within the Inlet.*
82. *Cumberland shall monitor the ingress/egress of ship cargo at Baker Lake and report any accidents or spills immediately to the regulatory agencies as required by law and to NIRB's Monitoring Officer annually.*

Commitments:

34. *The shipping company will have spill equipment on board with crew trained to deploy the equipment.*
35. *The Coast Guard will be notified as soon as a spill has occurred and, if required, will provide further spill support.*
38. *Cumberland will request that the shipping company contracted to carry fuel for the project carry out practice drills deploying their spill equipment in various locations within the inlet.*

On August 9, 2012 an accidental spill of approximately 200 litres of diesel fuel occurred in Baker Lake at AEM's marshalling facility. The fuel spill occurred during discharge operations by the barge vessel (MT Dorsch) at the Baker Lake Mine site marine manifold. The marine hose had been scuffed or rubbed worn on a rock at the beach, causing a puncture in the hose which led to a fuel leak. The crew of the vessel immediately started the cleanup of the area with assistance from AEM employees. AEM used additional material from the Canadian Coast Guard sea-can located in Baker Lake in order to properly clean up the spill as the ship did not contain sufficient material to complete the cleanup. The spill was reported to authorities including AANDC, EC, Transport Canada (TC) and the GN Spill Line. The Monitoring Officer was informed of this spill by the GN-Department of Environment on August 9, 2012.

On August 11, 2012 AEM held a community meeting to discuss the spill, to discuss AEM's cleanup response and the next steps that would follow after the spill. AEM indicated that it would be working with the shipping company (Woodward) to determine what might be done to prevent future spills and that it would be setting up some additional spill response

kits near the shore in order to prepare for any potential future spills. During the 2012 site visit, the NIRB Monitoring Officer noted that there were two environmental emergency sea-cans at the Baker Lake laydown facility which contained booms, absorbent pads and a boat.

On August 14, 2012 the Monitoring Officer contacted TC requesting information on the spill, including the legislation that would apply and the follow-up required by AEM or Woodward. In October, TC-Marine Safety department confirmed that it was still investigating the incident for possible contraventions of the *Canada Shipping Act, 2001*. TC further indicated that both the vessel and the Oil Handling Facility (OHF, owned by AEM) are responsible for the cleanup of the spill.

2.2.2. Compliance Monitoring by Authorizing Agencies

On August 27, 2012 the NIRB requested that authorizing agencies with a mandate or jurisdictional responsibility for the Meadowbank project provide comments and information with respect to compliance monitoring for the 2011 – 2012 reporting period as required in Part D of Appendix D to the Meadowbank Project Certificate (NIRB, 2011). Specifically, comments were requested regarding the following:

a) How the authorizing agency has incorporated the terms and conditions from the Project Certificate into their permits, certificates, licences or other government approvals, where applicable;
b) A summary of any inspections conducted during the 2011 reporting period, and the results of these inspections; and
c) A summary of AEM's compliance status with regard to authorizations that have been issued for the Project.

The following is a summary of the comments received from parties regarding compliance monitoring.

2.2.2.1. Aboriginal Affairs and Northern Development Canada (AANDC)

AANDC's Water Resource Officers conducted three inspections between 2011 and 2012 at the Meadowbank site for compliance with the Type A Water Licence as issued by the Nunavut Water Board (Licence No. 2AM-MEA0815). It was noted by AANDC that for the past 2 years AEM has exceeded the total allowable water usage limit of 700,000 m^3 per year as stipulated in the water licence. AANDC indicated after its inspection in July 2012 that AEM would be required to apply for an amendment to this licence to allow for an increase in water usage. AANDC noted the following minor issues remain outstanding following its site inspections conducted by its Water Resource Officers:

- The installation of secondary containment at the contaminated soil storage area;
- Cleanup of minor spills around the site;
- Continuous cleanup work and an ongoing monitoring program for a 40,000 litre spill which occurred on-site in January 2010;
- Removal of water in the containment berms found on-site; and,
- Relocation of contaminated soils into a temporary storage facility.

2.2.2.2. Kivalliq Inuit Association (KIA)

KIA conducted one inspection during 2011, which included quarry 5 and quarry 6 along the access road, as well as the reclaimed site of a major fuel spill on the access road. The following is a summary provided by KIA from its 2011 inspection:

1. Additional reclamation of water was required at the spill site;
2. Quarry 5 contained several types of non-combustible garbage that required proper disposal; and,
3. Quarry 6 contained several tonnes of fuel contaminated road material from the spill on the access road which required proper disposal.

AEM has six permits and/or agreements with KIA, and the KIA noted that AEM was in compliance with all of these during the 2011 year.

2.3. EFFECTS MONITORING

Effects monitoring can be described as an assessment of the measurable change to a particular environmental or socio-economic component, as compared to the potential effects that were predicted to result from a proposed development. In the case of Meadowbank, impact predictions and mitigation measures were outlined and developed throughout the environmental review of the Project, and were recorded and presented through the Proponent's Final Environmental Impact Statement (FEIS) and other related documents.

In addition to requesting comments on compliance monitoring on August 27, 2012, the NIRB requested that authorizing agencies provide comments and information with respect to effects monitoring as follows:

a) Whether the conclusions reached by AEM in the *2011 Annual Report* are valid;
b) Any areas of significance requiring further studies; and,
c) Changes to the monitoring program which may be required.

The following section provides a summary of the NIRB's review of the 2011 Annual Report and the comments received from parties.

2.3.1. NIRB's Review of AEM's 2011 Annual Report

Appendix D of the Project Certificate provides an outline of the requirements of what is expected within the Proponent's annual report for the Meadowbank Project. Particularly, the annual report should include a summary of the results from the post-environmental assessment monitoring program (PEAMP), including an analysis of the Project's impact to the environment with reference to the predictions and environmental and socio-economic indicators used throughout the FEIS and the Final Hearing. AEM provided a summary of the following within its 2011 Annual Report:

- Terrestrial Wildlife Impact Predictions
- Aquatic Impact Predictions

- Noise Monitoring
- Groundwater Monitoring Program
- Socio-Economic Monitoring

The following is a summary of the Monitoring Officer's review of AEM's 2011 Annual Report:

Terrestrial Wildlife Impact Predictions

AEM indicated in its 2011 Annual Report that no thresholds for bird abundance, richness and diversity were exceeded in 2011 for breeding birds. The same was observed for waterfowls in that the threshold level for breeding success of waterfowl in the area was not exceeded in 2011. AEM also indicated that the mortality thresholds for wildlife along the access road were not exceeded in 2011.

The Monitoring Officer notes that the 2011 Annual Report provided no indication as to whether or not the predicted impact thresholds for other wildlife had been exceeded or not when considering the results of raptor nest surveys, mine site ground surveys, the hunter harvest surveys and the caribou radio-collaring program.

Aquatic Impact Predictions

Section 7.2 of AEM's 2011 Annual Report states that the results of all aquatic monitoring programs conducted for the Meadowbank project in 2011, including a thorough analysis of the data, were provided in Appendix H to the report; however, Appendix H refers to 'Wildlife Monitoring'. Further, the Monitoring Officer notes that Appendix M is titled 'Aquatic Monitoring', but this Appendix specifically refers to the *Aquatic Effects Monitoring Program – Targeted Study: Dike Construction TSS Effects Assessment Study 2011*. There is no reference to any other aquatic effects monitoring conducted at the mine site or at the Baker Lake marshalling area, or the results from any other surface water quality and quantity monitoring, mine site water quality and quantity monitoring, fish population and fish habitat monitoring, and the Metal Mining Effluent Regulations/environmental effects monitoring (MMER/EEM) program. Without this information, it is difficult to ascertain whether or not impacts are being observed at the mine site or to determine if the data collected are in line with the predictions provided within the FEIS.

Groundwater Monitoring Program

AEM installed two new monitoring wells in 2011 as part of the groundwater monitoring program. The groundwater chemistry for the samples taken at well MW11-01 (Goose Island Pit) was found to have higher concentrations compared to samples taken from wells in previous years from the same area. AEM reported that salinity components were high; dissolved sulphate, hardness and turbidity were reported at increased concentrations; and several total metal (nickel, potassium, selenium, sodium) and dissolved metal (arsenic, mercury, potassium, selenium and sodium) values were also reported at increased levels. The most significant increase was in calcium concentrations which were reported at levels fifty times higher than previously measured. AEM suggested that the increased levels of several of these parameters may have been attributed to naturally present brackish water but may also be affected in part by some drilling brine remaining in the water. However, AEM also suggested that the portion of drilling brine remaining in the water of well MW11-01 should be low given the large volume of

water removed from the well during development. No discussion was provided by AEM on mitigation measures for the higher concentration levels recorded, nor whether any additional sampling would be conducted to monitor groundwater movement within the Goose Island Pit.

The Monitoring Officer notes that the increased hardness and elevated concentrations of nickel, arsenic and mercury may be related to the movement of groundwater through the formation within the Goose Island Pit; however, this should be confirmed through additional monitoring of the well to determine the source of the increased parameters.

The groundwater chemistry for the other two wells collected (MW11-02, Tailings Storage Facility and MW08-02, East of North Portage Pit) were similar to groundwater results taken in previous years. The only exception was observed at well MW08-02 where increased concentrations of manganese and magnesium were observed but all parameter concentrations met the Portage effluent quality criteria in the water licence. No discussion or explanation was provided on the observed increases in the parameters for this well.

Quality Assurance/Quality Control (QAQC)

Condition 23 directs the Proponent to conduct QAQC monitoring at locations within the receiving environment and that the monitoring be conducted by an independent contractor and furthermore, that the samples be analyzed by an independent and accredited laboratory. AEM provided a summary of the results of the analyses in the 2011 Annual Report and noted that several parameters at different sampling periods exceeded the confidence levels for the duplicate samples, however no further discussion was provided regarding the noted exceedances.

Socio-Economic Monitoring

AEM's 2011 Annual Report presented information on the workforce which was based on the total number of employees working at the site; total AEM workforce; total contractor workforce; percentage of Inuit beneficiary employees; total number of employees from the Kivalliq region; female versus male employees from the Kivalliq region; and skilled versus unskilled labour workforce at site. At the end of August 2011, AEM reported that it employed 778 people with 289 of these being Inuit beneficiaries and all from the Kivalliq region. This represents an increase of 57 Inuit employees as compared to AEM's December 2010 employment levels. The total number of contractor employees working at site by August 31, 2011 was 457 with 25 of these being Inuit beneficiaries. By the end of August 2011, 78 Inuit employees terminated their employment for a variety of reason with the most common reason being related to family issues.

AEM also provided a summary of its expenditures for part of the 2011 year (January to August) and for the whole project to date. From 2007 to 2011, AEM has invested a total of $1.53 billion in the Meadowbank Gold Project, with expenditures to Nunavut-based companies totalling $479 million.

AEM participated in numerous community-based activities throughout the Kivalliq region in 2011, including supporting the caribou radio-collaring program run by the GN, supporting the annual Baker Lake hunter and creel study, sponsoring a surface diamond driller training program in Arviat and contributing to the Kivalliq Mine Training Society.

AEM has also had a representative on the Kivalliq Socio-Economic Monitoring Committee. This committee has a mandate to monitor and report on industry's performance in hiring local labour, supporting local business and otherwise contributing to the growth and development of Kivalliq society. A report from the committee was provided to the NIRB on June 25, 2012.

Compliance with licences and authorizations

AEM's Annual Report noted that in 2011, it maintained compliance with all licences, agreements, permits, authorizations and leases required for the Project, with the exception of the NWB Water Licence (2AM-MEA0815): Water Usage and Dewatering Monitoring Program. In 2010 and 2011, AEM exceeded the total allowable annual water usage limit of 700,000 m^3 as stipulated in the water licence. AEM indicated in its 2011 Annual Report that an amendment to increase the volume of freshwater allowed would be requested. AEM indicated in correspondence to the NWB (dated September 21, 2012) that an action plan was put in place to minimize the use of freshwater at the mill which comprised the main use of water at the site. AEM indicated that it has investigated different options to increase the usage of reclaim water that would subsequently result in a decrease in the requirements of freshwater. On September 28, 2012 the NIRB was copied on correspondence from the NWB to AEM in regards to AEM's update of its freshwater usage at the Meadowbank mine site and NWB indicated that it agreed with AEM that improving the water management practices on-site resulting in a reduction of the freshwater usage would be a sound approach. However, the NWB reminded AEM that the terms and conditions of the Licence still apply and that it awaits an update from AEM on the results of the studies and the direction AEM will pursue once the results are available.

Cyanide Levels in Water Quality Results

In its review of AEM's 2010 Annual Report, EC noted that cyanide (CN) had been detected in the dewatering effluent, the receiving environment, and the in-lake control site, and that the CN levels reported by AEM were above the Canadian Council of Ministers of the Environment (CCME) guidelines of 0.005 mg/L free CN. EC suggested that AEM review this parameter in its next annual report to determine the source of high CN values. In its 2011 Annual Report, AEM indicated that CN was detected in old empty sampling bottles that had been stored for an extended period of time (> 8 months) and that further testing was ongoing and the results and interpretation would be provided in the 2012 Annual Report. No further discussion was provided by AEM on how it planned to prevent future CN contamination of sampling bottles or what procedures were to be put into place by AEM or the laboratory contracted in order to prevent contamination of these bottles.

Summary

The Monitoring Officer notes that certain information was difficult to locate within AEM's 2011 Annual Report, including the following:

1) *Section 6: Summary of Public Consultation.* Page 16 of the 2011 Annual Report refers to listing the meetings and purposes of the 2011 public consultation activities within the Annual Report. This information appears to be missing.
2) *Condition 19: Tailings Freezeback.* Page 35 of the 2011 Annual Report refers to Figure 4 which is noted to illustrate the results from the thermistor that was installed in 2010 on Saddle Dam 2. The results and figure appear to be missing from the report.

3) *Condition 32: All Weather Private Access Road.* Page 36 of the 2011 Annual Report discusses results based on the ***original*** Condition 32 issued December 2006 by the NIRB. Information is required based on the ***amended*** Condition 32 that was issued by the NIRB on November 20, 2009. Further, AEM did not provide information regarding Condition 32(e), 32(f) and 32(g) within its 2011 Annual Report submitted to the Board. Further details required by the Board pursuant to Condition 32 are discussed in Section 2.2.1.3.

4) *Condition 40: Gathering of Traditional Knowledge Information.* The requirement of Condition 40 is to report annually to the KIA and the NIRB on the Traditional Knowledge gathered. No information was provided in the 2011 Annual Report regarding whether any additional Traditional Knowledge was gathered from the residents of Chesterfield Inlet on marine mammals, cabins, hunting and other local activities in the Inlet in 2011 year.

2.3.2. Effects Monitoring by Authorizing Agencies

2.3.2.1. Aboriginal Affairs and Northern Development Canada

AANDC noted that it was unable to provide comments on the conclusions as presented in AEM's 2011 Annual Report.

Further, AANDC had difficulty in locating information within the 2011 Annual Report, including the results of the aquatic effects monitoring program; the summary of public consultation; the complete list of malfunctions and accidents from 2011; and the water quality data from 2011. AANDC requested that AEM provide direction to the documents referred to in the 2011 Annual Report as well as the water quality data as these could not easily be located.

AANDC suggested that for future annual monitoring reports, AEM provide an analysis of the water quality data including the following recommended criteria:

1. A report that includes weekly average, maximum and minimum water quality results as well as associated quality indicators.
2. Accreditation of the laboratory that conducted the water quality testing.
3. If the sample is taken from in-stream, provide a map indicating the sampling location in relation to discharge points.
4. Analyze the compliance status by comparing/plotting the testing results to criteria set out in CCME, MMER and the criteria set out in the water license.
5. Provide discussion on results (with relative percent difference if QAQC objectives are exceeded).
6. Discuss how the water quality varies with seasonal change (temperature and precipitation) as well as operational practice.

Socio-Economic Effects Monitoring

AANDC noted that it participates on the Kivalliq Socio-Economic Monitoring Committee and the Meadowbank socio-economic monitoring working group and further indicated that its comments related to socio-economic monitoring would be provided through other venues.

AANDC noted that it would be helpful for reviewers if future annual report appendices were provided as separate attachments including an individual Table of Contents, List of Tables and List of Figures for each appendix.

2.3.2.2. Kivalliq Inuit Association (KIA)

2011 Dust and Air Monitoring Report

In the 2011 Annual Report, AEM indicated that two of the four dust monitoring stations exceeded the maximum allowable concentrations of total fixed dust fall for December 2011 and suggested two solutions for the future monitoring programs: 1) consult with EC to find a more suitable dust and air monitoring locations for 2012, and 2) implement a more rigorous on-site dust control water procedure for mine site haul roads and to investigate the uses of other dust suppression products. The KIA commented that the current monitoring locations are well placed to continue doing their designed function and further noted that AEM's plan to consult with EC to relocate the monitoring stations may be interpreted as an attempt to ignore the dust fall issue. The KIA noted that the current locations of dust monitoring stations should be kept until additional data are collected in 2012. A longer record of 'total fixed dust fall' would help to determine the logic of relocating any of the dust monitoring stations.

2011 Groundwater Monitoring Report

The KIA noted that the groundwater chemistry at borehole MW11-01 in the Goose Island Pit was found to have higher concentrations of several parameters compared to samples taken from wells in previous years from the same area.

The KIA indicated that some of the elevated levels noted in borehole MW11-01 may be related to naturally occurring brackish water as suggested by AEM in their 2011 Annual Report. However, the KIA noted that other parameters were observed to be elevated at this borehole (arsenic and nickel) which may be related to the movement of groundwater through the sulphidized iron formation within the Goose Island Pit. Further, the KIA noted that AEM's conclusion of naturally occurring brackish water being the source of the majority of the elevated groundwater chemistry is not verified by the contaminants listed in the 2011 samples collected from the borehole and suggested that further studies be completed in 2012 to accurately determine the source of contamination before any conclusions can be drawn.

2.3.3. Areas Requiring Further Study or Changes to the Monitoring Program

2.3.3.1. Appendix D and the Annual Report

The 2011 Annual Report did not provide a full discussion and summary on the PEAMP for the Project, in accordance with commitments made within the FEIS, during the Final Hearing, as required throughout the Project Certificate and as outlined in Appendix D. Specifically, a discussion and summary should have been provided for the evaluation of the accuracy of impacts that were predicted in the EIS, a summary of conclusions made throughout the reporting period, an evaluation of the effectiveness of mitigation measures employed, and a description of any impacts or effects resulting from exceeded thresholds. This was not provided for the aquatic effects monitoring program, groundwater monitoring program, and fish and fish habitat monitoring program. Without these discussions and summaries, it is difficult to

ascertain whether or not impacts are being observed at the mine site and to determine whether any impacts or data are in line with the predictions provided within the FEIS.

2.3.3.2. Groundwater Monitoring Wells – Condition 8

The increased hardness and elevated concentrations of nickel, arsenic and mercury may be related to the movement of groundwater through the formation within the Goose Island Pit and further studies should be completed to determine the source of the increased parameters in the well.

2.3.3.3. Quality Assurance/Quality Control (QAQC) – Condition 23

Further studies should be conducted in order to determine why several parameters exceeded confidence levels for duplicate samples during the analyses of the 2011 results. Understanding why exceedances occurred through additional studies may help to ensure that these exceedances do not occur for future monitoring programs.

2.3.3.4. Wildlife Deterrents – Condition 25

During the 2012 site visit, AEM indicated that fewer wildlife sightings had been observed around the site since the installation of several deterrents by AEM. However, AEM noted that six pairs of falcons had nested at different quarry sites, one pair of falcons had nested at Portage pit and one pair of ravens had nested at the Baker Lake bulk fuel storage facility. This potentially indicates that the deterrents are not working at these sites and alternatives may be required.

2.3.3.5. Dust and Air Monitoring – Condition 71

Based on the information and results provided from the 2011 dust monitoring program and given the limited amount of data collected, it would seem appropriate that the monitoring stations be kept in place until more data is collected prior to the new locations are selected by AEM.

2.4. OTHER ACTIONABLE ITEMS

There were no additional items that necessitated action on behalf of the Proponent or the NIRB during the 2011 – 2012 monitoring period.

2.5. SITE VISIT

As an integrated part of the NIRB's continuous monitoring program of the Project, the NIRB's Monitoring Officer visited the Meadowbank site on September 12 and 13, 2012. The site visit included the Meadowbank site facility, the access road and the Baker Lake fuel tank farm and marshalling facilities. The following outlines the Monitoring Officer's findings as they relate to Project Certificate Terms and Conditions supported by the 2012 site visit:

Based on the observations made during this site visit, all facilities which are in operation and all sites currently under construction appear to be well managed and maintained with adequate environmental protection measures and procedures in place.

As with years past, the Proponent appears to be in compliance with a majority of the terms and conditions contained within the Meadowbank Project Certificate as applicable to the NIRB's 2012 Site Visit. However, there may be certain situations in which the Proponent has not yet fully met the requirements of the Meadowbank Project Certificate which may require further consideration and attention.

The Monitoring Officer notes that the development of the contaminated soil storage/pilot remediation site is ongoing and that a revised landfarm management plan may be required.

Regarding Condition 8, only one groundwater well appeared to have been operational during the 2012 site visit. The Monitoring Officer acknowledges that further re-evaluation of the groundwater well monitoring program is to be conducted by AEM.

Condition 25 requires that the Proponent employ legal deterrents to deter carnivores and/or raptors from the Meadowbank site. In 2012, AEM noted that six pairs of falcons had nested at different quarry sites, one pair of falcons had nested at Portage pit and one pair of ravens had nested at the Baker Lake bulk fuel storage facility, which may serve as an indication that the deterrents are not working at these sites.

Condition 26 requires that spills be cleaned up immediately and that the site be kept clean of debris. The Monitoring Officer was informed during the 2012 site visit that the spill at kilometre 22 was still undergoing treatment for hydrocarbons. AEM indicated that ongoing monitoring of this site would continue for an additional 2 years to ensure that no contaminated materials remain at the site. Furthermore, some instances of wind-blown debris scattered around the site were noted, possibly requiring management of waste piles or the development of additional on-site waste management practices.

Condition 27 requires that the Proponent use safe, environmentally protective methods for areas used to store fuel or hazardous materials. The Monitoring Officer noted that some staining was observed at the edge of the berm of the fuel tank farm containment facility.

AEM appeared to be following the requirements of amended Condition 32 as were able to be observed at the site, with the exception of not having the English and Inuktitut signs placed at every 10 km intervals along the access road as required by item (c).

The Proponent did not appear to have fully met the requirements of Condition 74, as dust suppression techniques, while applied at the Meadowbank site, had not been applied to the access road. However, AEM indicated that plans are in place to conduct future dust monitoring studies along the access road to determine the best options to deal with the dust created on the access road.

For a comprehensive review of the Monitoring Officer's site visit and observations, please refer to the NIRB's *2012 Meadowbank Site Visit Report* (Appendix I).

3.0 SUMMARY

The Meadowbank Gold mine began commercial production in March 2010 and is now in its third year of production. The Proponent appears to be in compliance with the majority of the terms and conditions contained within the Meadowbank Project Certificate [004], and is generally meeting the objectives of monitoring and mitigation plans and procedures put in place for the Project. However, certain outstanding issues require the Proponent's attention as discussed throughout this report. These items are addressed in the Board's recommendations provided to the Proponent under separate cover.

Pursuant to NLCA Sections 12.7.2 and 12.7.3, the NIRB will continue to work with AEM and other agencies in order to provide the required evaluation of monitoring efforts, results and compliance as outlined within this Board's project-specific monitoring program and in accordance with the requirements set out in the NIRB Project Certificate [No. 004].

Prepared by: Sophia Granchinho
Title: Technical Advisor/Monitoring Officer
Date: November 16, 2012

Signature: 

Reviewed by: Amanda Hanson
Title: Director, Technical Services

Date: November 13, 2012

Signature: 

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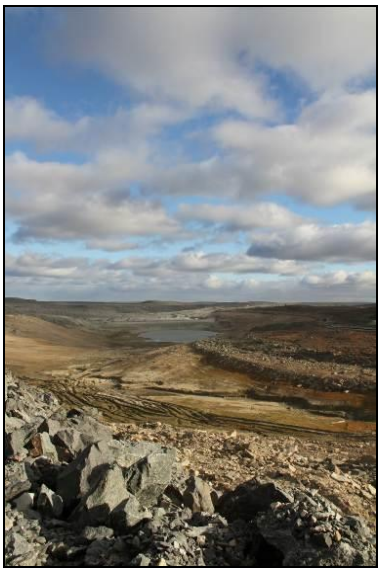
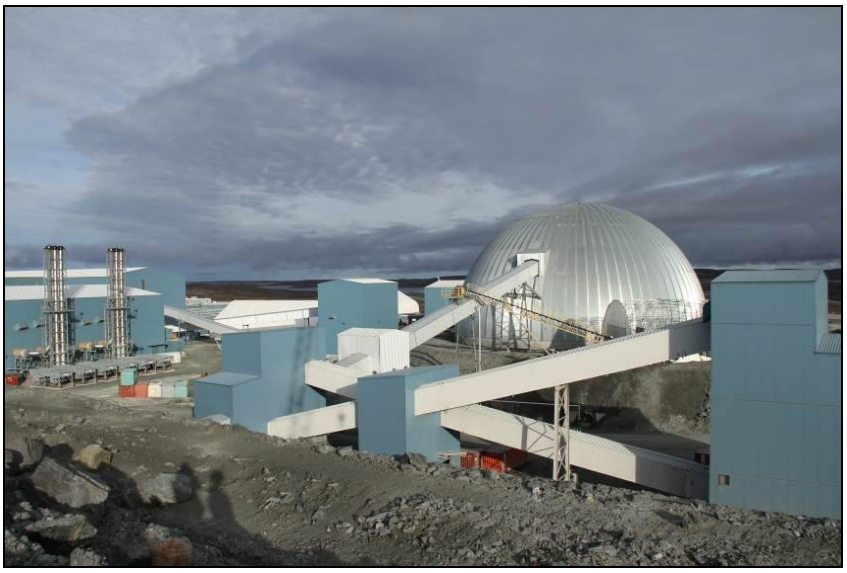
Appendix I:
The NIRB's 2012 Meadowbank Site Visit Report

2012 Site Visit Report

for the NIRB's Monitoring of
Agnico-Eagle Mines Ltd.'s Meadowbank Gold Project





Nunavut Impact Review Board

November 2012

Full Report Title:	2012 Site Visit Report for the Nunavut Impact Review Board's Monitoring of Agnico-Eagle Mines Ltd.'s Meadowbank Gold Project (NIRB File No. 03MN107)
Project:	Meadowbank Gold Project
Project Location:	Kivalliq Region, Nunavut
Project Owner:	Agnico-Eagle Meadowbank PO Box 540 Baker Lake, NU X0C 0A0
Proponent Contact:	Kevin Buck, Environment Superintendent
Telephone:	(819) 759-3555, ext. 6838
Visit conducted by:	Sophia Granchinho, Technical Advisor and Monitoring Officer
Telephone:	(866) 233-3033
Site visit dates:	September 12-13, 2012
Last site visit:	September 12-13, 2011
Report prepared by:	Sophia Granchinho, Monitoring Officer
Photos by:	Sophia Granchinho
Cover photos:	1) View of attenuation pond and central dike from stormwater dike 2) Processing plant

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LIST OF PHOTOGRAPHS

1 INTRODUCTION

The Nunavut Impact Review Board (NIRB or Board) was established through Article 12 of the Nunavut Land Claims Agreement (NLCA) and is responsible for post environmental assessment monitoring of a Project in accordance with Part 7 of Article 12 of the NLCA.

This report provides the findings that resulted from the site visit of the Meadowbank Gold Project that took place on September 12 and September 13, 2012 as part of the NIRB's monitoring program.

1.1 Objectives & Purpose of Site Visit

In December 2006, pursuant to Section 12.5.12 of the NLCA, the NIRB issued Project Certificate No. 004 for the Meadowbank Gold Project (the Project), allowing the Project to proceed in accordance with the Terms and Conditions issued therein. In November 2009, the NIRB formally amended the Project Certificate [No. 004] to include an amendment to Condition 32 pursuant to NLCA 12.8.2 and an approval to change the name of the holder of the Project Certificate [No. 004] from Cumberland Resources Ltd. to Agnico-Eagle Mines Ltd. (NIRB, 2009).

The Board is responsible for the monitoring of this Project as per Sections 12.7.1 and 12.7.2 of the NLCA. The objective of the NIRB's site visit was to determine whether, and to what extent, the land or resource use in question is being carried out within the predetermined terms and conditions of the NIRB's Meadowbank Gold Project Certificate [004] (Section 12.7.2(b) of the NLCA).

The observations resulting from this site visit shall, wherever possible, be incorporated into the measurement of the relevant effects of the project (Section 12.7.2(a), provide the information necessary for agencies to enforce terms and conditions of land or resource use approvals (Section 12.7.2(c)), and will further be used to assess the accuracy of the predictions contained in the project impact statements (Section 12.7.2(d)).

1.2 Introduction of the Meadowbank Project

The Project involves the construction and operation of an open pit gold mine located in the Kivalliq Region of Nunavut, approximately 70 kilometres (km) north of the hamlet of Baker Lake on Inuit-owned surface lands. The original Project proponent and owner, Cumberland Resources Inc., estimated in 2006 that the Meadowbank project comprised of a total proven and probable gold reserves of 2.7 million ounces, and that total construction and operating expenditures would run at $304 million and $100 million per year, respectively (NIRB, 2006). The current Project owner, Agnico Eagle Mines Limited (AEM or Proponent), indicated in its December 2011 Reserves and Resources report that Meadowbank has proven and probable gold reserves of 2.2 million ounces; lower than the initial value predicted (AEM, 2011). In February 2012, AEM issued a press release announcing that it was taking a write-down of $644.9 million on the Meadowbank mine; due in part to a challenging operating year in 2011 including extreme weather conditions, a fire at the Meadowbank site in March 2011 and the discovery of lower gold grades than predicted (AEM, 2012). AEM has announced that its Meadowbank ore

reserves have been reduced as a result of it being unable to economically mine the lower grade ore which has also reduced the life of the mine by approximately 3 years (AEM, 2012). AEM provided a revised mine plan to the Kivalliq Inuit Association and has predicted that its Meadowbank operations are now scheduled to be completed by 2017 instead of 2020 (AEM, 2012).

In addition to the mining infrastructure and activities, ancillary Project infrastructure 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 60 million litre (ML) fuel tank farm, associated interconnecting roads and a 110 km all-weather private access road (access road) from the hamlet of Baker Lake to the Meadowbank mine site. Supplies are shipped from other locations within Canada via sealift to Baker Lake where they are offloaded at AEM's marshalling area and transported to the Meadowbank site via truck haul along the 110 km access road.

1.3 Preparations for the Site Visit

The Monitoring Officer reviewed the following items to prepare for the site visit: Meadowbank Project Certificate [No. 004], 2011 Site Visit Report, AEM's 2011 Annual Report and follow-up correspondence from the NIRB's 2011 site visit.

2 SITE VISIT

The 2012 site visit was conducted on September 12 and 13, 2012 by Sophia Granchinho, NIRB Monitoring Officer. On Wednesday, September 12, 2012, the Monitoring Officer took the bus from the AEM office in Baker Lake to the Meadowbank mine site. Once at the site, the Monitoring Officer was met by Kevin Buck to discuss outstanding issues related to the Project Certificate conditions and related to the 2011 site visit. In the afternoon, Mr. Buck and Charlene Boutin-Racicot led a short tour of the site, which included the water treatment facility, pilot remediation site, tailings storage facility and waste rock piles.

In the morning of September 13, 2012, the Monitoring Officer visited the waste and hazardous materials storage area; incinerator; and the fuel storage area. Afterwards, the Monitoring Officer accompanied AEM employees, Robin Allard and Ms. Boutin-Racicot to one of the noise monitoring stations located near the Meadowbank exploration camp. Mid-morning, Ms. Boutin-Racicot gave the Monitoring officer a tour of the following facilities: camp; water intake (freshwater barge); air monitoring station; active mine areas including Portage pits and Bay-Goose basin. At the conclusion of the site visit, the Monitoring Officer met with Mr. Buck to discuss the site visit and further issues related to environmental compliance. Afterwards, Ms. Boutin-Racicot drove the Monitoring Officer back to the hamlet of Baker Lake via the access road and visited the following facilities: quarry 22, quarry 5, bridge at kilometre 22, the gatehouse and with the visit ending with a tour of the Baker Lake bulk fuel storage facility/marshalling area.

The site visit provided the Monitoring Officer with a tour of all major project components and further, provided an opportunity for the Monitoring Officer and AEM staff to discuss relevant issues related to the project.

2.1 General Observations

The following are general observations made during the site visit and do not pertain specifically to any particular terms or conditions of the Project Certificate:

a. While travelling along the access road to and from the Meadowbank site and the hamlet of Baker Lake, the Monitoring Officer noted some wildlife, including muskoxen, Ptarmigan, Sandhill cranes, Snow geese (and blue geese) and Northern Pintail. Very little wildlife was observed at site; Willow Ptarmigan was observed near the air monitoring station and a pair of loons flew over the Bay-Goose Dike (Photo 1).

Photo 1: Willow Ptarmigan observed around the Meadowbank site

b. During the bus ride from the hamlet of Baker Lake to the Meadowbank site on September 12, 2012, an all-terrain vehicle (ATV) travelling northbound was observed near kilometre 28, and another ATV was observed on the land near kilometre 76. When returning to the hamlet of Baker Lake from the Meadowbank site on September 13, 2012, one ATV travelling southbound was observed near kilometre 50. All public users of the access road had the required buggy whip installed on their ATV's and were observed to be wearing the safety vests loaned out by AEM (see Photo 2).

c. Mr. Buck mentioned that while AEM may not develop a landfarm, it was considering the development of a contaminated soil storage/pilot remediation site. The plan as explained would be to use on-site nutrients to initiate bioremediation in the hydrocarbon contaminates soils. The current site being used to conduct the initial study for the contaminated soil storage/pilot remediation program is located on the south side of the stormwater dike, upstream of the future south cell of the tailings storage facility (TSF). This location was selected to allow capture of any contaminated water that might leach out of the contaminated soils into the TSF (see Photo 3).

Photo 2: Public user of the access road using safety vest and buggy whip installed – near kilometre 50

Photo 3: Contaminated soil storage/pilot remediation site

d. The Monitoring Officer was informed that the contaminated soil previously stored in Quarry 5 had been moved to the contaminated soil storage/pilot remediation site. Photo 4 shows the conditions of Quarry 5 during the Monitoring Officer's 2011 site visit while Photo 5 shows the conditions of the Quarry 5 during the Monitoring Officer's 2012 site visit.

e. Mr. Buck indicated during site visit discussions that all contaminated soil from Quarry 6 had been removed by September 2010 and that no further contaminated soil would be stored at this quarry site.

Photo 4: Quarry 5 in 2011 containing contaminated soil from fuel spill at kilometre 22 along the access road

Photo 5: Quarry 5 in 2012

f. Quarry 22 remains in service as a temporary land farm and storage area for contaminated soils. AEM indicated that it plans to remove the contaminated soil to the pilot remediation site in the near future. Currently, Quarry 22 is not being used to store other material as had been the case in the past (see Photo 6).

Photo 6: Quarry 22 serving as storage for contaminated soil

g. The Monitoring Officer noted that the environmental emergency sea-cans containing booms, shovels, absorbent pads, and other miscellaneous spill response equipment were located at every bridge crossing. Further, two additional environmental emergency sea-cans, one containing spill response equipment and another containing a boat with motor were located at the Baker Lake laydown facility (see Photo 7 and Photo 8).

h. Active blasting and drilling were ongoing at the North, Central and South Portage pits, with daily geotechnical inspections being undertaken to ensure the safety of all employees and contractors working in the active mine area (see Photo 9).

i. Development of the Bay-Goose Dike and causeway was completed in 2010 with the instrumentation on the Bay-Goose Dike and the jet grouting program completed in 2011. Mining of the Bay-Goose basin started in May 2012. During the 2012 site visit, it was noted that the Bay-Goose basin was still being dewatered (Photo 10). Water from the Bay-Goose basin has been treated at the water treatment facility on an on-going basis prior to discharge into the environment (Photo 11).

Photo 7: Environmental emergency sea-can near kilometre 22

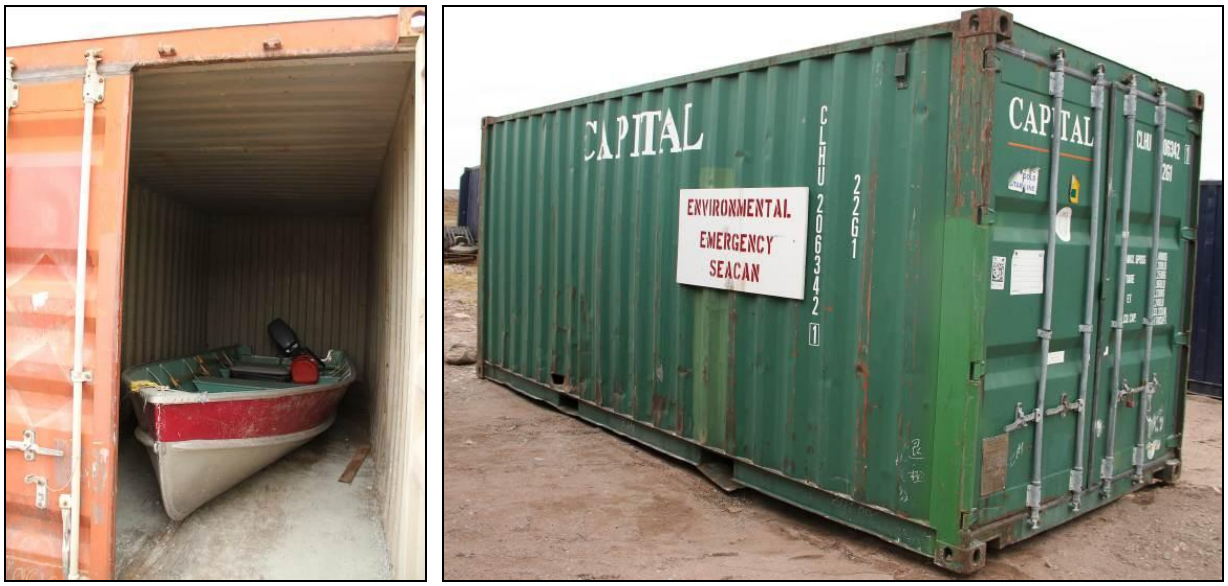

Photo 8: Environmental emergency sea-cans at the Baker Lake laydown facility

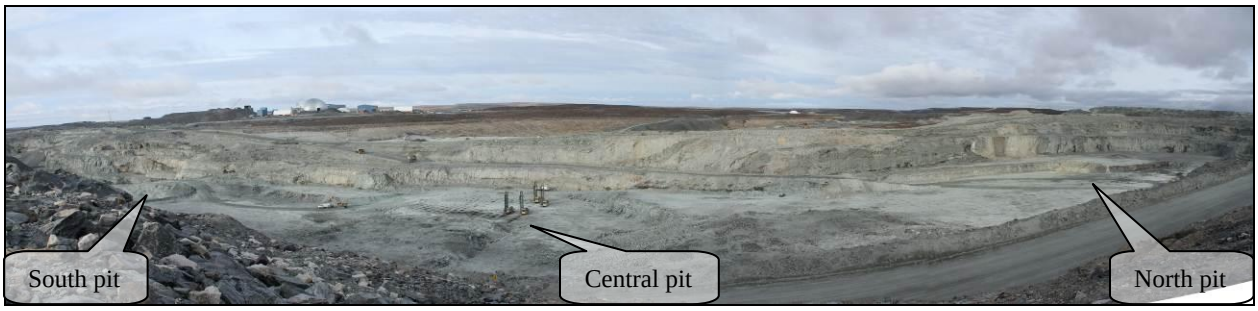

Photo 9: Portage Pit

Photo 10: Bay-Goose basin

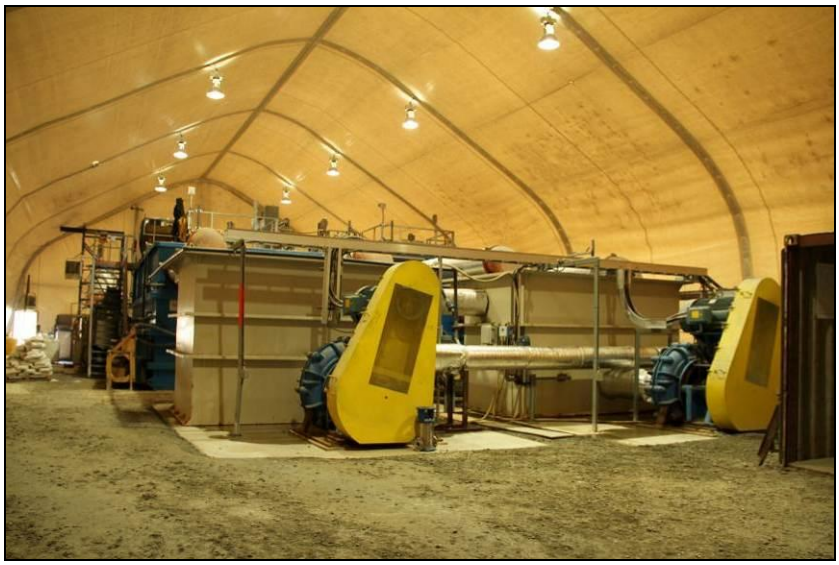

Photo 11: Water treatment facility

j. By the end of 2011, approximately 4.07 million tonnes of tailings had been placed in the TSF (Photo 12) since the start of the project. A structure known as the 'reclaim barge' is used to re-circulate water from the TSF back to the mill for reuse within the processing cycle (Photo 12). It was noted during the 2012 site visit that the TSF did not contain as much water as was observed during the 2011 site visit. The diversion ditch north of the TSF had been completed in the fall of 2011, preventing water from entering the TSF during the freshet season, a situation that had occurred in 2011 prior to the completion of the diversion ditch. As mentioned in the 2011 Site Visit Report, AEM noted that tailings with a dryer consistency to the tailings deposited within the TSF provide something of a "beach" in the TSF which helps to protect the dikes and to prevent ice formation (see Photo 13). There did not appear to be any apparent rips to the liners that were exposed within Saddle Dam #1 and Saddle Dam #2 (Photo 13).

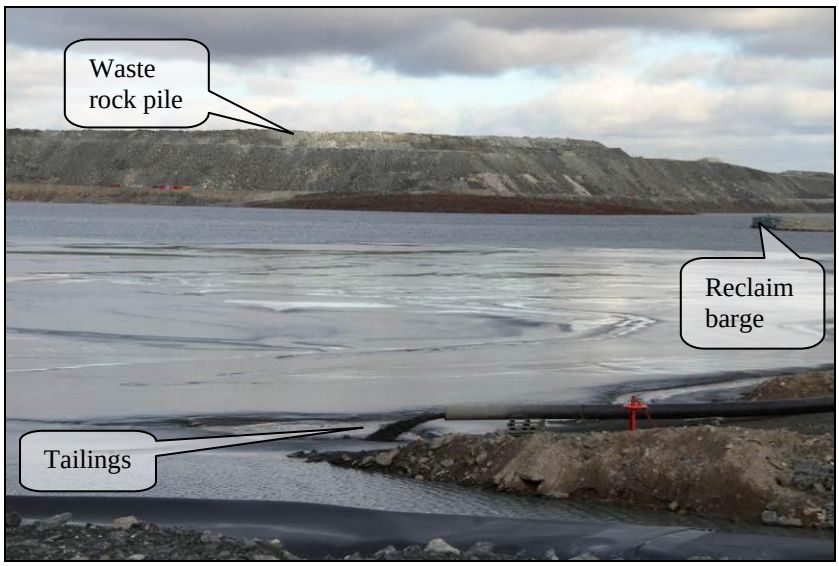

Photo 12: Tailings storage facility – north cell

Photo 13: "Beach" tailings with Saddle Dam #1 in the background

k. In March 2011, a fire at the Meadowbank mine destroyed the kitchen and dining facilities, certain camp offices and the security office. By the end of 2011 the construction of the new kitchen was completed, with the new facility becoming operational on December 17, 2011 (see Photo 14).

Photo 14: New kitchen facility

l. AEM purchased a heavy equipment training simulator in 2011 which is used to train site employees in the operation of a variety of heavy equipment (see Photo 15).

Photo 15: Heavy equipment training simulator on site

Sections 2.2 through 2.8 relate to those sections of the Meadowbank Project Certificate as indicated, with specific terms and conditions providing a basis for the noted observations.

2.2 Water Quality and Waste Management

Condition 8

> *"…At the time samples are taken Cumberland shall also assess the condition of 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…"*

At the time of the site visit, only one groundwater monitoring well appeared to be operational. AEM noted that the last operational groundwater monitoring well of those installed in 2003 became damaged from frost action in 2010. Three of the four defective wells were replaced in 2006 but were again damage by frost action. Two of the wells were again replaced in 2008 with a more robust design. In 2011, two monitoring wells were installed, one on Goose Island to replace one of the 2003 wells and one at the tailings storage facility to replace one of the 2007 wells. Only one of the wells replaced in 2008 was sampled in 2011 as the second well showed blockage and no samples could be taken. Mr. Buck indicated that during the 2012 sampling program, one well was damaged during movement of equipment on Goose Island and another was damaged during sampling, leaving only one functional well. AEM indicated that it plans to re-evaluate the groundwater monitoring program to determine how best to improve the effectiveness of the wells and the collection of groundwater samples. Photo 16 provides an example of development of a groundwater well near the Bay-Goose basin.

Photo 16: Drilling of groundwater well, near Bay-Goose basin (photo taken September 2011)

Condition 15

> *"Cumberland shall within two (2) years of commencing operations re-evaluate the characterization of mine waste materials, including the Vault area, for acid generating potential, metal leaching and non metal constituents to confirm FEIS predictions, and re-evaluate rock disposal practices by conducting systematic sampling of the waste rock and tailings in order to incorporate preventive and control measures in to the Waste Management Plan to enhance tailing management during operations and closure. The results of the re-evaluations shall be provided to the NWB and NIRB's Monitoring Officer."*

Mr. Buck indicated that AEM sampled every fourth blast hole and conducted an on-site analysis of the percentages of sulphur and carbon present in these samples. These results would then be used to differentiate between non-potentially acid generating (NPAG) and potentially acid generating (PAG) materials and to differentiate both of these from ore material. This information would then be used by mine surveyors and geologists to delineate the dig limits within the blasted rock and to guide the shovel and loader operators in directing where the rock is to be taken from. Most of the NPAG material has been used to construct the dikes, dams, roads, and pads at site, while the PAG rock is used at the TSF, stormwater dike, and rockfill road. Any remaining PAG rock material is sent to the Portage waste rock facility (Photo 17).

Condition 25

> *"Cumberland shall manage and control waste in a manner that reduces or eliminates the attraction to carnivores and/or raptors. Cumberland shall employ legal deterrents to carnivores and/or raptors at all landfill and waste storage areas…incorporated into the final Waste Management Plan."*

During the 2012 site visit, it was noted that AEM is segregating and storing all domestic, hazardous, and combustible wastes in marked sea-cans prior to these materials being incinerated or shipped to appropriate and approved off-site disposal facilities (Photo 18). Sea-cans filled

with waste are backhauled via truck haul to Baker Lake and are then moved via the annual sea lift to southern Canada.

Photo 17: Waste Rock Facility

Photo 18: Sea-cans used for waste segregation and storage area

The Meadowbank site dual chamber forced air incinerator remains in service for the combustion of all non-hazardous, combustible materials at the site (Photo 19). Approximately 1.7 tonnes of domestic garbage is incinerated per day; however, Mr. Buck indicated that there are plans in place to improve waste management by reducing the amount of domestic garbage produced at site. Some examples provided include replacing paper coffee cups with plastic coffee cups, using plastic lunch boxes and trays instead of paper bags, recycling wood products by finding a second use for it at site or taking it to Baker Lake where it could be used by community members. It was also noted during the site visit that open burning was being conducted of some of the non-hazardous wastes on site (Photo 20).

Photo 19: Dual chamber forced air incinerator at the Meadowbank site

Photo 20: Open burning of non-hazardous wastes

Mr. Buck indicated that fewer wildlife sightings had been observed around the site in 2012 since the installation of deterrent by AEM. However, Mr. Buck indicated that six active falcon nests had been observed within various quarry sites this year along the access road and one nest had been observed within the Portage pit. Efforts to deter the falcons from returning to the nest in the pit did not appear to work over the summer and AEM's environment department monitored the nest until the falcons left. Further, Mr. Buck indicated that a raven nest found at the Baker Lake bulk fuel storage facility was removed by the Conservation Officer from Bake Lake. Mr. Buck indicated that by the end of the summer season, it appeared that the adult falcon pair

nesting at the Portage pit had fledged one chick. Similarly, at the other nests within the quarry sites, it appeared that the adult pairs had fledged successfully.

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."*

During the 2012 visit to the Meadowbank site, the Monitoring Officer noted that all areas were kept in an impressively clean state, with no obvious spills. There were a few instances of wind-blown material observed around the Meadowbank site.

Mr. Buck indicated that cleanup of the spill that occurred near kilometre 22 of the access road in October 2010 was still ongoing in the summer of 2012 (Photo 21). The booms deployed in the watercourse nearby continue to be monitored weekly in the summer of 2012 to confirm that contaminated water have not entered the waterbody downstream of the booms. In addition, Mr. Buck indicated that approximately 550 litres of water was treated in the summer of 2012 and the site will continue to be monitored for the next 2 years to ensure that any contaminated water is cleaned up.

The Monitoring Officer noted no fuel contamination, staining of the water or hydrocarbon odours at the spill site (see Photo 22).

Photo 21: Bridge near kilometre 22

Photo 22: Booms and screens in place at bridge near kilometre 22

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."*

During the 2012 site visit, the Monitoring Officer observed that all of AEM's fuel and hazardous materials associated with the Meadowbank project appeared to be stored in a safe and environmentally protective manner (i.e. secondary containment at fuel storage areas and secure containment of hazardous materials; see Photo 23 and Photo 24).

Photo 23: Meadowbank on-site fuel tank farm

Photo 24: Baker Lake bulk fuel storage facility

The fuel transfer station on site and at the Baker Lake bulk fuel storage facility appeared to be well contained and properly set up for the re-fuelling of vehicles (Photo 25). No hydrocarbon odours were noted at either the Meadowbank fuel tank farm or the Baker Lake bulk fuel storage facility. No sheen was observed on the water within the Meadowbank fuel tank farm or the Baker Lake bulk fuel storage facility; however, some fuel staining was observed at the Meadowbank fuel tank farm (Photo 26).

Photo 25: Baker Lake fuel transfer station

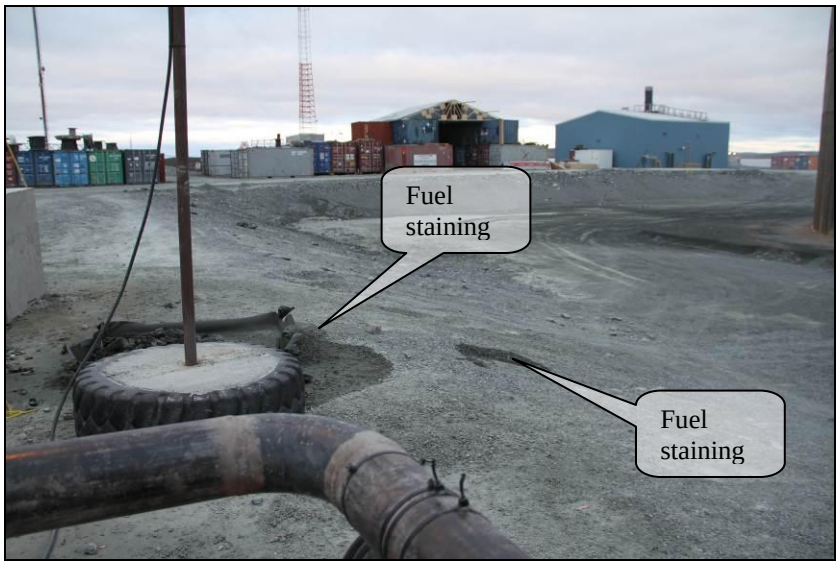

Photo 26: Staining observed at the Meadowbank on-site fuel tank farm

2.3 All-Weather Private Access Road (AWPAR)

Amended **Condition 32**

"AEM shall operate the all-weather road as a private access road, and implement all such measures necessary to limit non-mine use of the road to authorized, safe and controlled use by all-terrain vehicles for the purpose of carrying out traditional Inuit activities. The measures AEM shall undertake include, but are not limited to:

a. Maintaining a gate and manned gatehouse at kilometre 5 of the Private Access Road;

b. In consultation with the Hamlet of Baker Lake, the local HTO, and the KivIA, update the All-Weather Private Access Road Management Plan to set out the criteria and processes to authorize and ensure safe and controlled non-mine use of the road by all-terrain vehicles for the purpose of carrying out traditional Inuit activities, and measure to limit all other non-mine use of the road. The updated Plan is to be submitted to the GN, INAC, and KivIA for approval no later than one (1) month after the approval of revised Condition 32;

c. The posting of signs in English and Inuktitut at the gate, each major bridge crossing, and each 10 kilometres of road, stating that unauthorized public use of the road is prohibited;

d. The posting of signs in English and Inuktitut along the road route to identify when entering or leaving crown land;

e. Prior to opening of the road, and annually thereafter, advertise and hold at least one community meeting in the Hamlet of Baker Lake to explain to the community that the road is a private road with non-mine use of the road limited to approved, safe and controlled use by all-terrain vehicle for the purpose of carrying out traditional Inuit activities;

f. Place notices at least quarterly on the radio and television to explain to the community that the road is a private road with non-mine use of the road limited to authorized, safe and controlled use by all-terrain vehicles for the purpose of carrying out traditional Inuit activities;

g. Record all authorized non-mine use of the road, and require all mine personnel using the road to monitor and report unauthorized non-mine use of the road, and collect and report this data to NIRB one (1) year after the road is opened and annually thereafter; and

h. Report all accidents or other safety incidents on the road, to the GN, KivIA, and the Hamlet immediately and to NIRB annually."

AEM maintains one gatehouse at kilometre 5 of the access road, and another gatehouse close to the entrance to the mine site and camp at Meadowbank. Both gatehouses are manned by guards who monitor the safety and security of all personnel using the road. All traffic is required to check in (via radio or in person) with the employee at the gatehouse prior to proceeding past either gatehouse along the road (see Photo 27). The AEM employee manning the kilometre 5 gatehouse maintains a daily logbook of all persons travelling the access road for non-mine use. Members of the public travelling along the road are required to sign AEM's *All Weather Private Access Road Safety Rules & Procedures for Road Access* prior to being granted access to the road.

The Monitoring Officer reviewed the sign-in sheet at the gatehouse and noted that approximately 215 community members had signed in to use the road between September 1st and September 13th. The employee at the gatehouse also indicated that the road is most commonly used by community members on Saturdays.

Photo 27: Gatehouse at kilometre 5, near Baker Lake

As per Condition 32(b), AEM submitted a copy of its updated Transportation Management Plan to the NIRB on May 13, 2010. One of the features of the access road as described within the plan is the placement of refuge stations every 10 kilometres. The Monitoring Officer noted that these refuge stations (emergency sea-cans) were not located on the road and was informed by Mr. Buck that the sea-cans were removed because items within the stations were being stolen and that the refuge stations were not serving the original and intended purpose. The signs as required per Condition 32(c) were posted in both English and Inuktitut at the gatehouse (Photo 28) and at each major bridge crossing (on the side of the environmental emergency sea-cans).

However the signs were not located at 10 kilometre intervals along the road as these signs had been originally placed on the sides of the emergency sea-cans along the road. AEM indicated that the signs would be replaced as soon as possible.

Photo 28: Signs posted at gatehouse at kilometre 5

In regards to Condition 32(e), Mr. Buck indicated that AEM held meetings with the Community Liaison Committee quarterly and that these discussions include the public's authorized use of the road. However, Mr. Buck indicated that no community meeting was held in 2012 in the hamlet of Baker Lake to discuss the use of the access road. Further, AEM could not confirm whether any notices had been placed around town to explain the road use as per Condition 32(f).

2.4 Wildlife and Terrestrial

Condition 56

> *"Cumberland shall plan, construct, and operate the mine in such a way that caribou migration paths through the Project, including the narrows west of Helicopter Island are protected. Maps of caribou migration corridors shall be developed in consultation with Elders and local HTOs, including Chesterfield Inlet and placed in site offices and upgraded as new information on corridors becomes available. Information on caribou migration corridors shall be reported to the GN, KivIA and NIRB's Monitoring Officer annually."*

Condition 59

> *"Cumberland shall, in consultation with Elders and the HTOs, design and implement means of deterring caribou from the tailing ponds, such as temporary ribbon placement or Inukshuks, with such designs not to include the use of fencing."*

The Monitoring Officer noted that the updated maps from March 2011 outlining caribou migration corridors were posted in high traffic areas such as the bulletin board outside the check-in office. All employees must report to the check-in office upon arrival to site at the commencement of their two-week shift and again upon departure from site.

As indicated earlier in the report, the only wildlife observed around site during the 2012 site visit were Willow Ptarmigan near the air monitoring station. Mr. Buck noted that deterrents appear to keep birds away from the TSF with the exception of the falcons that had been nesting in the Portage pit during the summer of 2012.

2.5 Noise

Condition 62

"Cumberland shall develop and implement a noise abatement plan…will be developed in consultation with Elders, GN, HC, and EC and include:

a. The use of sound meters to monitor sound levels in and around the mine site, including workers' on-site living/sleeping quarters and any summer camps adjacent to the site, and in the local study area, with the locations and design of the sound meters selected in consultation with HC and EC. Sound meters are to be set up immediately upon issuance of the Project Certificate for the purpose of obtaining baseline data, and monitoring during and after operations;

b. …

c. Restrictions on blasting and drilling when migrating caribou, or sensitive local carnivores or birds may be affected;

d. …

e. …"

Five locations were monitored for noise during the 2011 and 2012 summer periods. Mine activities such as helicopter and other air traffic, the use of construction and operation heavy equipment and blasting were found to be the dominant mine noise sources (Photo 29).

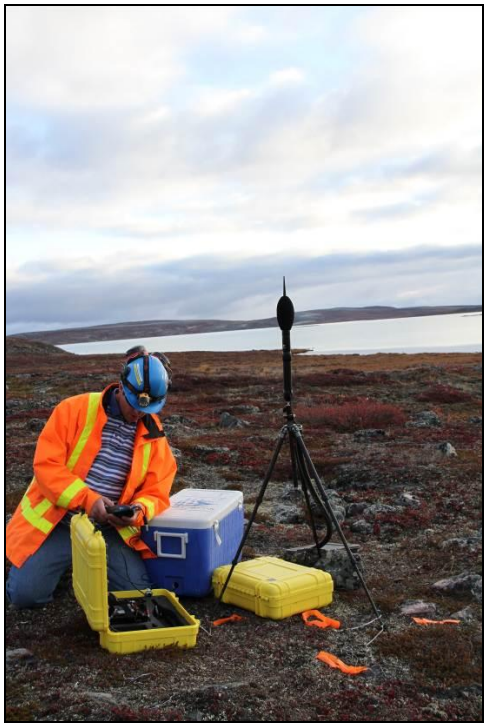

Photo 29: Noise monitoring station #5

2.6 Human Health

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."

The Monitoring Officer was informed that several programs are in place to incorporate Inuit societal values at the mine site. A country food kitchen that is available to prepare traditional foods has been provided, the kitchen serves traditional foods, and a soapstone carving area has been provided at site. Suggestions that are brought forward during the Community Liaison Committee meetings have also been incorporated. Further, AEM has hired an Inuit human resource person to be on site and has one in each community who is available to listen to any concerns related to working at the mine site.

2.7 Air Quality

Condition 71

"Cumberland shall, in consultation with EC, install and fund an atmospheric monitoring station to focus on particulates of concern generated at the mine site. The results of air-quality monitoring are to be reported annually to NIRB."

The air monitoring stations were installed by the end of October 2011 and monitoring started in November 2011 (see Photo 30). Partisol sampling station required heated shelter and electricity, they are planned to be installed in 2012.

Photo 30: Air monitoring stations

Condition 74

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

Calcium chloride and water are administered on the roads to suppress dust around the Meadowbank site and from the Baker Lake dock facility to the gatehouse. AEM is currently testing the use of a vegetable oil derivative on the airstrip as a dust control suppressant and plans to evaluate the feasibility of using it as an alternative or in addition to calcium chloride. The Monitoring Officer noted that no dust suppression was employed along the access road (Photo 31(a) and (b)).

Photo 31(a): Vehicles on Meadowbank All-Weather Private Access Road

Photo 31(b): Vehicles on Meadowbank All-Weather Private Access Road

Mr. Buck indicated that AEM plans to conduct dust monitoring along the access road in order to determine if there have been any impacts to vegetation from the dust. AEM indicated that currently, the use of dust suppressants is not planned along the access road.

2.8 Other

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."

During the visit to the Baker Lake bulk fuel storage facility/marshalling area, the Monitoring Officer noted that a security office was located at the shore with AEM employees on site. The Monitoring Officer also noted that a security officer was present after hours during the sealift period.

Further, the Monitoring Officer did note that these areas were kept impressively clean with sea-cans well organized during the 2012 site visit (see Photo 32 and Photo 33).

Photo 32: Bake Lake dock and laydown facility

Photo 33: Empty sea-cans awaiting transportation to the south via sealift

3 FINDINGS AND SUMMARY

Based on the observations made during this site visit, all facilities which are in operation and all sites currently under construction appear to be well managed and maintained with adequate environmental protection measures and procedures in place.

As with years past, the Proponent appears to be in compliance with a majority of the terms and conditions contained within the Meadowbank Project Certificate as applicable to the NIRB's 2012 Site Visit. However, there may be certain situations in which the Proponent has not yet fully met the requirements of the Meadowbank Project Certificate which may require further consideration and attention.

The Monitoring Officer notes that the development of the contaminated soil storage/pilot remediation site is ongoing and that a revised landfarm management plan may be required.

Regarding Condition 8, only one groundwater well appeared to have been operational during the 2012 site visit. The Monitoring Officer acknowledges that further re-evaluation of the groundwater well monitoring program is to be conducted by AEM.

Condition 25 requires that the Proponent employ legal deterrents to deter carnivores and/or raptors from the Meadowbank site. In 2012, AEM noted that six pairs of falcons had nested at different quarry sites, one pair of falcons had nested at Portage pit and one pair of ravens had nested at the Baker Lake bulk fuel storage facility, which may serve as an indication that the deterrents are not working at these sites.

Condition 26 requires that spills be cleaned up immediately and that the site be kept clean of debris. The Monitoring Officer was informed during the 2012 site visit that the spill at kilometre 22 was still undergoing treatment for hydrocarbons. AEM indicated that ongoing monitoring of this site would continue for an additional 2 years to ensure that no contaminated materials remain at the site. Furthermore, some instances of wind-blown debris scattered around the site were noted, possibly requiring management of waste piles or the development of additional on-site waste management practices.

Condition 27 requires that the Proponent use safe, environmentally protective methods for areas used to store fuel or hazardous materials. The Monitoring Officer noted that some staining was observed at the edge of the berm of the fuel tank farm containment facility.

AEM appeared to be following the requirements of amended Condition 32 as were able to be observed at the site, with the exception of not having the English and Inuktitut signs placed at every 10 km intervals along the access road as required by item (c).

The Proponent did not appear to have fully met the requirements of Condition 74, as dust suppression techniques, while applied at the Meadowbank site, had not been applied to the access road. However, AEM indicated that plans are in place to conduct future dust monitoring studies along the access road to determine the best options to deal with the dust created on the access road.

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