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**Water Licence 2BB-MEL0914  
Amendment Application for a Landfarm  
Supplementary Questionnaire  
for Advanced Exploration  
(Underground drilling, bulk sampling, etc.)**

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3. Indicate the status of the exploration activity on the date of application.  
(Check the appropriate space.)

*Surface and underground drilling will test gold deposits in 2013 – 2014 and also look for new deposits. The larger part of the drilling is to convert resources to minable reserves. The ramp or underground decline is being extended to allow drilling of deep ore deposits.*

Design	_____
Under construction	_____
In operation	<input checked="" type="checkbox"/> (Advanced exploration)
Suspended	_____
Care and Maintenance	_____
Abandoned	_____

4. If a change in the status of the exploration activity is expected, indicate the nature and anticipated date of such change.

*Agnico-Eagle Mines Limited (AEM) has submitted a draft Environmental Impact Statement to the Nunavut Impact Review Board for the Meliadine Gold Mine. AEM anticipates continuing to define mineral reserves and explore for new resources under the existing water licence following receipt of the Project Certificate from the NIRB.*

5. Indicate the present (or purposed) schedule for the exploration activity.

Hours per week	<i>168 hours per week</i>
Days per week	<i>7 days per week</i>
Weeks per year	<i>40 to 52 weeks. (Activities can be suspended at times in winter.)</i>

Number of employees	<i>120 - 250 persons on site depending on activities and time of year.</i>
Number of Inuit employees	<i>20 to 40</i>

6. Estimate the term (life) of the exploration activity.

*Diamond drilling is expected to continue for term of license. The licence expires July 31, 2014 and AEM will be seeking a renewal. AEM claims and concessions are quite extensive (see Appendix A, figure 1) and exploration of the full extent of these is anticipated to continue well into the future.*

7. How will the project affect the traditional uses on Inuit Owned Lands?

*The development of a landfarm is a progressive step in protecting Inuit lands. The landfarm will be within the unused, existing old fuel bladder containment area. This area has berms on all sides and an impermeable liner. It will be used to receive, hold and treat petroleum hydrocarbon contaminated soils during exploration and possibly during mine construction. Once the Meliadine Gold Mine is in operation, the landfarm will be closed and decommissioned.*

*Meliadine Lake is a popular destination for local hunters and fishers. A few cabins located on Meliadine Lake are within 3 kilometres of the exploration activities. AEM is not aware of any issues concerning the traditional enjoyment of the Meliadine Lake area.*

8. Have the Elders been consulted on effects to the traditional use on Inuit Owned Land? If so, list them. If not, why not?

*See the attached list of consultations carried out from 2010 to 2013 in Appendix B. Elders were present at public, HTO, and CLARC meetings where they outlined their knowledge of the area, expectations for the Meliadine Gold Mine and their concerns. Inuit elders who worked at the North Rankin Nickel mine visited the surface and underground exploration areas in 2008.*

9. Has the proponent consulted Inuit Organizations in the area? If so, list them.

*Please refer to the chronology of community consultations 2010 to 2013 in Appendix B. The Inuit associations consulted included the Kivalliq Inuit Association, Hunters and Trappers Organization, and the Community Land and Resource Committee.*

10. Has the proponent consulted surrounding communities on traditional water use areas? If so, list them. If not, why not?

*AEM has consulted Rankin Inlet, Chesterfield Inlet and Whale Cove, the latter two communities are on either side of Rankin Inlet. The advanced exploration project is 25 km north of Rankin Inlet. Both Chesterfield Inlet and Whale Cove are in different drainage basins and do not use water or fish resources from the Meliadine drainage basin.*

11. Attach a detailed map drawn to scale showing the relative locations (or proposed locations) of the exploration activity, sewage and solid waste facilities, and containment areas. The plan should include the water intake and pumphouse, fuel and chemical storage facilities. Ore and waste rock storage piles, piping distribution systems, and transportation access routes around the site. The map also should include elevation contours, water bodies and an indication of drainage patterns for the area.

*Refer to attached Appendix A, figures 1 to 5. Exploration activity is located at Tiriganiaq, F zone, Pump, Wesmeg and Discovery as shown on figure 5. This figure also shows the Phase 1 All-Weather Access Road, the various drainages it crosses, and borrow pits and quarries used in building the road.*

*Water intakes are located at Mel 1 and 2 on figure 2. The operations pad on figure 2 is where the underground decline is located while figure 3 provides more detail on the same. Figure 2, Mel 5 is to monitor water discharges from the fuel bladder containment area. Fuel storage is located immediately east of the fuel bladder containment area. Sewage treatment occurs at the camp and Mel 4 and MEL 7 monitors the quality of the treated discharge.*

12. If applicable, provide a brief history of property development which took place before the present company gained control of the site. Include shafts, adits, mills (give rated capacity, etc.) waste dumps, chemical storage areas, tailings disposal areas and effluent discharge locations. Make references to the detailed map.

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

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

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

*In 2007 and 2008, Comaplex conducted an underground exploration and bulk sample program on the Tiriganiaq deposit. In early 2009, Comaplex completed a preliminary assessment for the Meliadine property using independent mining consultant Micon International Ltd. This assessment indicated that the property had the potential to support a mining operation. On the basis of this information, Comaplex elected to advance the project to the feasibility level, and initiated the regulatory process to permit a mining operation on the property.*

*On July 6, 2010, AEM completed its purchase of Comaplex, making it a wholly owned subsidiary. The first drilling by AEM was carried out on the property's Wesmeg deposit. AEM also undertook more underground exploration with another 10,000 tonnes of ore extracted. AEM continued with Comaplex's earlier decision to pursue the development of a gold mine. An Environmental Impact Statement was prepared and submitted to the Nunavut Impact Review Board in 2013.*

*A single lane All Weather Access Road has been completed and it joins Rankin Inlet to the Meliadine site.*

13. Give a short description of the proposed or current freshwater intake facility, the type and operating capacity of the pumps used, and the intake screen size.

*AEM operated two water supply pumps, one on Meliadine Lake servicing the camp site (figure 1, MEL 1) and one on Pump Lake that provides water for activities in the vicinity of the portal for the underground exploration program (figure 2, MEL 2).*

*The pump at MEL-1 (figure 2) is electric and operates off the main camp power supply. An insulated pipe carries the water to storage tanks in the camp, which is then distributed throughout the camp via a pressurized system of plastic piping. The waste water flows from the kitchen, dry and washrooms to the Biodisk treatment system before exiting to a wetland for polishing.*

*The pump at MEL-2 is gasoline powered and connected to the Tiriganiaq – Wesmeg area with a flexible hose system. The pump at MEL-2 serves diamond drills during the spring when the smaller ponds are frozen. During summer months, it is more convenient to use nearby small ponds as a water source for the diamond drills.*

*The intake screen sizes on all pumps are less than 2 mm.*

13. At the rate of intended water usage for the exploration activity, explain water balance inputs and outputs in terms of estimated maximum draw down and recharge capability of the water source from fresh water will be drawn.

*The Meliadine Lake watershed covers 586 sq. km. Total water use for camp and diamond drilling is limited to 290 cubic metres per day as per 2BB-MEL0914, of which up to 25 cubic metres per day use is drawn from Meliadine Lake*

at MEL 1 for camp use (figure 2). RL&L Limited (now Golder Associates Ltd.) estimated the Meliadine Lake watershed to contain 63.66 million cubic meters of water below a 2 metre ice cover.

Lake A8 (MEL-2) discharges on average  $\leq 86 \text{ m}^3/\text{day}$  during the open water period. Conservatively, greater than 95 percent of the water used for drilling is returned to the drainage basin, very little water is lost. Flow from Pump Lake will not significantly change due to diamond drilling within the drainage basin.

14. Will any work be done that penetrates regions of permafrost?

The entire underground exploration program took place within the permafrost layer, which is thought to extend at least 400 meters below surface. Most (>90%) of the surface diamond drilling is within permafrost. Diamond drill holes penetrating deeper than 400 vertical metres sometimes encounter unfrozen rock. These drill holes immediately freeze following completion of the drill hole and extraction of the drill equipment. Artesian conditions have not been encountered after more than 1000 drill holes completed on the property.

The decline is presently being extended and will eventually reach 400 metres below surface. Exploration drilling has commenced from the underground to access deeper ore deposits.

16. If "YES" above, is the permafrost continuous or discontinuous?

The permafrost is continuous above approximately 400 metres vertical depth.

17. Were (or will) any old workings or water bodies (be) dewatered in order to conduct the exploration activity?

No encroachment on any water body is required for exploration activities. Some of the shallow ponds adjacent to the development area may be drilled through during early spring drilling when the ponds have either 1.5 to 2 metres of ice or are frozen to bottom. License 2BB-MEL00914 lists terms and conditions for such activities.

The use of the old fuel bladder farm as a landfarm will not encroach on any water body and will be located approximately 200 metres from the nearest waterbody and 500 metres downslope to Meliadine Lake (see figure 2)

18. If "YES" above, indicate the name of the water body, the total volume of water to be discharged and the chemical characteristics of the water.

Not applicable

Water body (if unnamed give Latitude/Longitude) \_\_\_\_\_

Total volume \_\_\_\_\_ cubic metres

Receiving Watercourse \_\_\_\_\_

Dewatering flow rate into above \_\_\_\_\_ cubic metres / sec

Chemical characteristics of discharge:

T/Pb	_____mg/L	Total Ammonia	_____mg/L
T/Cu	_____mg/L	Suspended solids	_____mg/L
T/Al	_____mg/L	Specific conductivity	_____uhmo/cm
T/HCN	_____mg/L	pH	_____
T/Hg	_____mg/L		

T/Zn \_\_\_\_\_mg/L  
T/Cd \_\_\_\_\_mg/L  
T/As \_\_\_\_\_mg/L  
T/Ni \_\_\_\_\_mg/L  
T/Mn \_\_\_\_\_mg/L

19. Was (or will) the above discharge (be) treated chemically? *Not applicable*
20. If “YES” above, describe the applied treatment.
21. Briefly describe what will be done with the camp sewage.

*Rotating biological disk sewage treatment plants (BIOdisks) are employed at the Meliadine camp. A single BIOdisk is rated for a maximum of 150 people and seeing the advanced exploration camp reaches 250 persons on occasion, two BIOdisk units were installed to meet sewage treatment needs.*

*Treated sewage is discharged to a wetland area located approximately 100 metres from Meliadine Lake. The wetland polishes the treated waste water before it reaches Meliadine Lake.*

## **SECTION 2 :**

### **GEOLOGY AND MINERALOGY**

22. Briefly describe the physical nature of the mineralization, including known dimensions and approximate shape.

*The underground exploration program and bulk sample at the Tiriganiaq Gold Deposit confirmed important aspects of the concentration and continuity of gold within two parallel zones in the Tiriganiaq gold deposit. The gold deposit occupies part of a tabular zone interpreted from diamond drilling to be approximately 1.5 km long and dipping north at about 60°. Gold bearing rocks have been intersected at more than 400 metres vertical depth. In 2010, the Wesmeg deposit was found 300 metres to the south of the Tiriganiaq deposit. This deposit parallels Tiriganiaq.*

*The F Zone deposit dips north with a strike length of approximately 1.5 kilometers. It is located approximately 3 kilometres southeast of the Tiriganiaq. Several potential open pits, 50 to 100 metres apart, have been defined. In order to excavate the westernmost pit at F Zone, a small bay of Lake A6 would be closed by a 250- metre long dike and subsequently dewatered.*

*The Pump gold deposit is about three kilometres south of the Tiriganiaq open pit. To date there has been insufficient drilling to fully define the extent of the resource envelope. However, drilling to date indicates that open pits are feasible for this deposit, and more drilling in the future will allow the sizes of the open pits to be better defined.*

*The Discovery deposit is located approximately 22.4 kilometres east-southeast of the proposed main site.*

*While the Tiriganiaq deposit is the best defined, the other deposits require further drilling to determine their extent. All deposits remain open along strike and at depth. Underground mining is planned for Tiriganiaq but cannot be discounted at any of the other deposits.*



23. Briefly describe the host rock in the general vicinity of the mineralization (from the surface to the mineralized zone.)

*The host rock for the mineralization is predominantly sediments (iron formation and greywacke) with some mineralization hosted by carbonate rich mafic volcanic rocks.*

24. Provide a geological description of the mineralized zone. (If possible, include the percentage of metals.)

*The mineralized gold-bearing areas consist predominately of multiple, parallel, north-dipping zones that average about 1 to 3 meters in width. They consist of quartz veins with mostly free gold accompanied by 1-5% pyrrhotite and arsenopyrite.*

Describe the geochemical tests which have been (or will be) performed on the ore, host rock, and waste rock to determine their relative acid generation and contaminant leaching potential. Outline methods used (or to be used) and provide test results in an attached report (ie. static tests, kinetic tests.)

*The ARD and metal leachate testing of all rock types at all deposits has been carried out. Information to date suggests the rocks are not acid generating but leach some metals at low concentrations. Full details are provided in the report, "SD 6-3 Geochemical Characterization of Waste Rock, Ore, Tailings and Overburden Meliadine Gold Project, Nunavut". This report can be found in volume 6 of the draft Environmental Impact Statement. The draft EIS can be found on the NIRB's ftp site: <ftp://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/11MN034-AEM%20MELIADINE/>*

26. Estimate the percentage of sulphide in the mineralization:

pyrite	
pyrrhotite	2
pyrite / pyrrhotite mixture	
arsenopyrite	5 - 15

### **SECTION 3:**

#### **THE CONTAINMENT AREAS**

42. What is the (Proposed) method of disposal of the mine water, mill or process plant tailings (ie. sump, subaqueous, surface tailings pond, settling pond) ?

*No tailings have been produced.*

*AEM monitors water draining off operations pad at downstream locations shown on figure 2 and 3. Data collected at these points are presented in the 2008 to 2012 Annual Reports and in the monthly reports submitted to the NWB. As expected, some nitrogen compound (ammonia) and metal concentration issues are present at times in waters in the primary containment pond (figure 2, P-1). The containment pond is tested in the spring before the water is*

*pumped downstream. AEM will continue to regularly monitor and report results to the NWB as per the present schedule. Further monitoring is carried out downstream of the primary containment pond at A54, A38, and Mel 2*

*MEL 5 on figure 2 previously measured the water quality of drainage from the bladder farm. (The landfarm will be located within the old bladder farm containment area).*

43. Attach detailed scale plan drawings of the proposed (or present) containment area. The drawings must include the following:

*Detailed plans are included in the Meliadine Gold Project's "Waste Rock and Ore Storage Plan – August 2010". Figures 3 provides details on the primary containment area while figure 4 provides overview of local drainage basins. The primary containment area is approximately 150 metres upstream of Lake A54.*

*The proposed landfarm is in an area immediately adjacent to the fuel storage area. Drainage is towards Meliadine Lake, approximately 0.5 km to the northeast. The location is shown on figure 2.*

- a) details of pond size and elevation;
  - b) details of all retaining structures (length, width, height, materials of construction, etc.);
  - c) details of the drainage basin;
  - d) details of all decant, siphon mechanisms etc., including water treatment plant facilities;
  - e) details with regard to the direction and route followed by the flow of wastes and / or waste water from the area; and
  - f) indicate of the distance to nearby major watercourses.
44. Justify your choice of location for the containment area design by rationalizing rejection of other options. Consider the following criteria in your comparisons: subsurface strata permeability, abandonment, recycling/reclaiming waters, and assessment of runoff into basins. Attach a brief summation.

*Authorized under Water Licence 2BB-MEL0914*

45. The average depth of the existing or proposed containment area is dependent on the volume of water encountered.

*As shown on figure 4, the volume of the Primary Containment area is 14,400 m<sup>3</sup>. The average depth is less than 0.5 metres.*

46. Indicate the total capacity for the existing or proposed containment area by using water balance and stage volume calculations and curves. (Attach a description of inputs and outputs along with volume calculations.)

*The Primary Containment Area covers 14.2 hectares and the annual yield is approximately 100 mm resulting in a capacity of 14,400 m<sup>3</sup>. See figure 3 for drainage area.*

47. Has any evaporation and/or precipitation data been collected at the site ? \_\_\_\_\_ if so, please include the data.

*Data on evaporation and precipitation is included in the Aquatic Synthesis Report, which can be found on the NWB ftp site.*

48. Will the present or proposed containment area contain the entire production from the mill or processing plant complex for the life of the project ?

*There is no mill or processing plant associated with the Primary Containment Area. It holds the water running off the waste rock pads as well as water that collects due to precipitation. The water is tested in the spring and if found acceptable, pumped downstream.*

49. Will the proposed tailings deposition area engulf or otherwise disturb any existing watercourse?

*Not applicable*

50. If “Yes”, attach all pertinent details (Name of watercourse, present average flow, direction of flow, proposed diversions, etc.)

51. Describe the proposed or present operation, maintenance and monitoring of the containment area.

*The Primary Containment Area holds the water running off the waste rock pads as well as water and snow that collects due to precipitation. The water is tested before being pumped downstream in the spring.*

## **SECTION 4:**

### **WATER TREATMENT**

52. If applicable, will the mine water, mill or process plant water be chemically treated before being discharged to the containment area? If so, explain the treatment process (Attach flow sheet if available).

*No treatment; ponds downstream of containment (figure 3: A54, A38) act as polishing ponds. Both ponds freeze to bottom during the winter. Lake A8 is the first major water body downstream that does not freeze to bottom. Water from Lake A8 is tested monthly during the open water season. It is also used as a water source for drilling.*

53. Will (treated) effluent be discharged directly to a natural water body or will polishing or settling ponds be employed? Describe location, control structures, and process of water retention and transfer. Attach any relevant design drawings.

*See #52 above.*

54. Name the first major watercourse the discharge flow enters after it leaves the area of company operations.

*The first major water body downstream is Lake A8. Refer to figure 3 for its location.*

## **SECTION 5:**

### **ENVIRONMENTAL MONITORING PROGRAM**

55. Has Traditional Knowledge in the area been considered? If so, how? If not, why not?

*Traditional and local knowledge studies were completed in 1999, 2011 and 2013.*

56. Has any baseline data been collected for the main water bodies in the area prior to development?

*Yes, baseline data has been collected from the 1998 to present.*

57. If “Yes”, include all data gathered on the physical, biotic and chemical characteristics at each sampling location. Identify sampling locations on a map.

*Baseline water conditions in the areas of the gold deposits are described in the draft Environmental Impact Statement reports:*

- *SD 7-1 Aquatics Baseline Synthesis Report, 1994 to 2009 - Meliadine Gold Project, Nunavut, and*
- *SD 7-2 2011 Aquatic Baseline Studies - Meliadine Gold Project, Nunavut.*

*The sampling locations are in many ponds and lakes within the proposed area of development. The locations are shown on maps within the above noted documents.*

*The reports can be found at the NIRB ftp site:*

<ftp://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/11MN034-AEM%20MELIADINE/2-REVIEW/>

58. Provide an inventory of hazardous materials on the property and storage locations.

- *Diesel Fuel - double walled envirotanks –in camp and at bulk fuel facility – (figure 3) with storage capacity of 1 670 000 litres.*
- *Jet A Helicopter Fuel - double- walled envirotanks located at the helipad with a storage capacity of 320,000 litres; and*
- *A small number of barrels of gasoline located within secondary containment at the main fuel storage area.*

59. Provide a conceptual abandonment and restoration plan for the site, detailing the costs to carry out the plan, and a proposal for a financial assurance which covers the costs to carry out the plan.

*An updated Meliadine Gold Project Reclamation and Closure Plan – November 2010 was forwarded to the NWB in late 2010. It can be found on the NWB’s ftp site.*

## **SECTION 6:**

### **ENVIRONMENTAL ASSESSMENT AND MONITORING**

60. Has this project ever undergone an initial environmental review? If yes, by whom and when.

*See NWB File 2BB-MEL0709, NIRB file 07EN044. The environmental screening was carried out by the Nunavut Impact Review Board for the advanced exploration project.*

*No initial environmental review was carried out for the landfarm alone.*

61. Has any baseline data collection and evaluation been undertaken with respect to the various biophysical components of the environment potentially affected by the project (eg. Wildlife, soils, air quality), ie. In addition to water treated information requested in this questionnaire?

Yes X No \_\_\_\_\_ Unknown \_\_\_\_\_

62. If “Yes” please attach copies of reports or cite titles, authors and dates.

*A complete list of reports are can be found in the draft Environmental Impact Statement prepared by AEM. These include:*

- *Volume 5.0 Atmospheric Environment and Impact Assessment*
- *Volume 6.0 Terrestrial Environment and Impact Assessment*
- *SD 6-2 2009 Terrestrial Vegetation and Wildlife Baseline Synthesis Report – Meliadine Gold Project, Nunavut*
- *Volume 7.0 Freshwater Environment and Impact Assessment*
- *SD 7-1 Aquatics Baseline Synthesis Report, 1994 to 2009 - Meliadine Gold Project, Nunavut,*
- *SD 7-2 2011 Aquatic Baseline Studies - Meliadine Gold Project, Nunavut,*

*The reports can be found at the NIRB ftp site:*

<ftp://ftp.nirb.ca/02-REVIEWS/ACTIVE%20REVIEWS/11MN034-AEM%20MELIADINE/2-REVIEW/>

63. If no, are such studies being planned?

*Not applicable.*

64. Has authorization been obtained or sought from the Department of Fisheries and Oceans for dewatering or using any waterbodies for containment of waste?

*No such action is contemplated within the context of the proposed landfarm as there will not be any dewatering or using waterbodies for the containment of waste.*

*The proposed landfarm will be located approximately 500 metres from Meliadine Lake.*

65. Has a socio-economic impact assessment or evaluation of this project been undertaken? (This would include a review of any public concerns, land, water and cultural uses of the area, implications of land claims, compensation, local employment opportunities, etc.)

Yes No X Unknown \_\_\_\_\_

*The establishment of a landfarm is not expected to have a socio-economic impact.*

66. If “Yes” please describe the proposal briefly.

67. If “No” is such a study being planned? Yes \_\_\_\_\_ No X

*AEM believes that a socio-economic assessment is not warranted for the use of the old fuel bladder storage area as a landfarm.*

68. Describe any cumulative impacts the project may create?

*No sustained industrial or commercial activity has been conducted on the Meliadine River drainage in the past; therefore, no environmental effects of past activities are evident. Some of the effects of diamond drilling conducted during the course of the historic exploration program can be observed on aerial photographs. These drill sites will re-vegetate and fade as observable effects of surface mineral exploration over the next 5 - 10 years.*

*The establishment of a landfarm in an existing facility, the old fuel bladder storage area, is not expected to have cumulative effects.*

*The draft Environmental Impact Statement addresses cumulative effects in a comprehensive and systematic manner for the proposed Meliadine Gold Mine.*

69. Does the project alter the quantity or quality or flow of waters through Inuit Owned Lands?

*No.*

70. If yes, has the applicant entered into an agreement with the Designated Inuit Organization to pay compensation for any loss or damage that may be caused by the alteration.

*Not applicable.*

71. If no compensation arrangement has been made, how will compensation be determined?

*Should the Meliadine Gold Mine proceed, a comprehensive Inuit Impact and Benefit Agreement as contemplated by Article 26 of the NLCA will be negotiated in the context of an application for mine development and operations on Inuit Owned Land.*

*Approval for the landfarm is being sought from the Kivalliq Inuit Association, as it will be on the commercial lease AEM holds with the KIA. No compensation requirement is anticipated as an existing facility will be used for the landfarm.*

## **Appendix A: Figures**

Figures have been sent separately due to file size limitations in Nunavut.

*Insert figure1*



*Insert figure 2*

*Insert figure 3*

*Insert figure 4*

*Insert figure 5*

**Appendix B: Public Engagement and Consultation with Communities, Inuit Organizations and Authorizing Agencies 2010 – 2013**

Date	Place	Parties Present and Subjects of Meeting
<b>2010</b>		
March 16	Kivalliq Chamber of Commerce	Annual symposium of the Kivalliq Chamber of Commerce where an update was provided and contacts made with businesses capable of providing goods and services to the Meliadine Project.
June 10	Chesterfield Inlet	Mark Balog and John Witteman from Comaplex sponsored a town hall meeting providing an update on the Project and the building of an All-weather Access Road. The road could link to the planned road to Chesterfield Inlet.
June 11	Rankin Inlet	Mark Balog and John Witteman from Comaplex sponsored a town hall meeting providing an update on the Project and the building of an All-weather Access Road. The meeting was particularly well attended and there were no objections to the routing to the All-weather Access Road. The spur road to Meliadine Lake was of particular interest.
August 9-31	Rankin Inlet	11 meetings were held in Rankin Inlet to familiarize local leaders with AEM and to update them about AEM's preliminary plans for the Meliadine Gold Project. Organizations that participated in these meetings included: the Kivalliq Inuit Association, Kivalliq Chamber of Commerce, Hunters and Trappers Organization, Mayor and Hamlet Council, Board of Directors of Sakku Investments Corp., M.L.A. Lorne Kusugak, Shawn Maley of the Government of Nunavut Community, and representatives of government services. AEM also participated in a meeting of the Kivalliq Socio-economic Monitoring Committee.
August 31	Rankin Inlet	Update on the Meadowbank mine and the Meliadine Project to the Kivalliq Socio-economic Monitoring Committee with an emphasis on socio-economic data collected by AEM and services provided by local businesses.
September 15	Rankin Inlet	AEM hosted a one-day visit to the Meadowbank gold mine by 40 community leaders and Elders from Rankin Inlet, including the mayor and council, hunters and trappers, community Elders (including a number who had worked underground at the North Rankin Nickel Mine in their younger days) and business leaders. The objective was to show the group the type of mining operation constructed and operated by AEM, and to let them see for themselves the number of Inuit already employed at Meadowbank.
October 18	Rankin Inlet	AEM hosted a dinner with invited community representatives and Elders at the Sinniktarvik Hotel in Rankin Inlet. The dinner was an informal event to allow community members to meet the

Date	Place	Parties Present and Subjects of Meeting
		management team from Agnico-Eagle Mines and ask about the current status of the Meliadine Project. A total of 28 Elders and community leaders attended.
Nov 22- 25	Rankin Inlet	AEM was a participant in the Kivalliq Trade Show highlighting its Meadowbank mine and upcoming Meliadine development.
<b>2011</b>		
January 6	Cambridge Bay	Eric Lamontagne, Denis Gourde and John Witteman met with Ryan Barry, Kelli Gillard, and one more staff member, NIRB, to describe the status of the Project and in particular the All-weather Access Road. AEM described what had been done in regards to gathering baseline information for the road, regulatory permits required and use of the road - having it open access.
February 7-9	Rankin Inlet	Larry Connell and John Witteman met with the Lands Division of KIA to discuss the road and other matters. A meeting with the HTO was cancelled due to a blizzard.
February 8	Community & Government Services, Rankin Inlet	Location of the tank farm for the mine, right-of-way lease for the AWAR on municipal land, HTO Traditional Knowledge of overflow in the spring at Meliadine bridge location.
March 1	Rankin Inlet	John Witteman, Bertho Caron and Selma Eccles of AEM attended a meeting with the HTO in Rankin Inlet. The HTO raised a number of concerns with the route of the road, bridge location over the Meliadine River, wildlife monitoring along the road, plans for the Itivia harbour area, fish concerns with the bridge.
March 22	Rankin Inlet	Annual symposium of the Kivalliq Chamber of Commerce where an update was provided and contacts made with businesses capable of providing goods and services to the Meliadine Project.
March 23	Rankin Inlet	Denis Gourde, Eric Lamontagne, Larry Connell, Selma Eccles, John Witteman met with the Hamlet Council to describe the AWAR and ongoing activities at the Meliadine site. The Hamlet council supports the All-weather Access Road and a letter of support can be expected. The underground program was explained and what is hoped to be gained from carrying out this work - getting needed information on the deep ore. The question of dust control was raised and lands available in town for development. The underground development was discussed.
March 23	Rankin Inlet	Denis Gourde, Eric Lamontagne, Larry Connell, Selma Eccles, John Witteman hosted a town hall meeting with the community to discuss the All-weather Access Road and the proposed mine. A PowerPoint presentation in English and Inuktitut was presented.

Date	Place	Parties Present and Subjects of Meeting
		The meeting was well attended with over 100 persons present. The road is widely supported by the community as it offers access to Meliadine Lake and also is expected to lead to more economic activity. The question of jobs and careers was frequently raised and what must be done to get jobs such as supervisors and managers. Education was emphasized by AEM as well as on-the-job training. Support was voiced for the road and the proposed mine.
March 29 - 30	Kittilä, Finland	Forty Nunavut leaders, largely from the Kivalliq region, visited AEM's Kittilä Gold Mine to observe an operating mine in an Arctic environment. Mining using open pit and underground are both employed, the same as proposed for the Meliadine Project. It also showed how local community members benefited from the mine and how those educated assumed supervisory and managerial positions in the mine.
March 31 - April 1	Sisimuit, Greenland	The Greenland School of Minerals and Petroleum in Sisimuit, Greenland was toured on the return trip from Finland. The Government of Greenland placed a priority education and while there are no operating mines in Greenland, there will be a trained work force should a mine open.
April 6	Aboriginal Affairs and Northern Development Canada, Iqaluit	Technical discussion on the RECLAIM model and unit costs. This model is used to determine the cost of reclaiming the Meliadine exploration camp.
April 7	Regulatory Agencies, Iqaluit	Update on the Meliadine Gold Project.
April 7	Iqaluit	Meeting with NIRB and NWB in Iqaluit during the Nunavut Mining Symposium. PowerPoint presentation was made on the proposed Meliadine AWAR and our application to amend our Type B water license to allow for construction of this road. Good exchange with NIRB and NWB pointing out omissions in what was presented.
May 6	Geovector, consultant to KIA (conference call)	AWAR – quarry locations and need to check for ground ice, geochemistry of the waste rock and potential quarries, snow drifting along road, design of culverts, lessons learned from Meadowbank.
June 6-8	Cambridge Bay	Presentation to NIRB, NWB, Regulatory Agencies in Iqaluit. Discussions on next steps in EA process, possible predevelopment



Date	Place	Parties Present and Subjects of Meeting
	Gjoa Haven Iqaluit	activities, class A water licence, AEM's use of municipal infrastructure, need to submit a land use permit for crown land to be crossed by the AWAR, quarries along road.
June 13	Fisheries and Oceans Canada, Edmonton	No Net Loss Plan for the Meliadine Gold Project, risk management framework used by DFO and its application to lakes/ponds impacted by the Project.
June 14	KIA, Mayor of Rankin Inlet	Possible predevelopment, Hamlet motion to approve AWAR, build only 1 lane at this time.
July 15	Rankin Inlet	Carey Sibbald of Stantec met with the HTO to discuss the use of marine area in Melvin Bay by the community. Information was sought on marine mammal use, fish caught in the bay but not as many today, Nunavut Health saying to not eat the mussels, cabins on Melvin Bay, concerns by HTO on increased use of the port area (Nunami-Stantec was contracted by AEM to do baseline work on the marine environment in Melvin Bay).
August 31	Regulatory agencies, Iqaluit	Information session on mini-EIS for the Phase 1 AWAR.
September 14	NIRB, conference call	Mini-EIS for the Phase 1 AWAR, Class B water licence for the Phase 1 AWAR, consultation with Lutsel K'e on caribouc
October 17 October 18 October 19 October 20 November 1 November 2	Rankin Inlet Chesterfield Inlet Baker Lake Arviat Coral Harbour Repulse Bay	Kivalliq community tour to meet with the Hamlet council in the afternoons and with the community in the evenings. This was an Extensive pre-EIS tour to inform Kivalliq Inuit and other stakeholders of the plans for developing the proposed Meliadine Gold Mine. VECs and VSECs were discussed with all communities mentioning caribou, and employment and training as all important components. The complete record of these consultations follows in Appendix C (Whale Cove was missed due to weather).
October 26	Baker Lake	Update on the Meadowbank mine and the Meliadine Project to the Kivalliq Socio-economic Monitoring Committee with an emphasis on socio-economic data collected by AEM and services provided by local businesses.
October 28	Rankin Inlet	KIA lands division met with the CLARC and transmitted the results of the meeting to AEM. CLARC is concerned with road management and noise and the effects on fish. CLARC wants to visit the site more often and see the construction, and the issue of spring overflow on the Meliadine River was raised; this was addressed by AEM by raising the height of the Meliadine bridge.

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		The CLARC support the building of the All-weather Access Road as it will cut down on the helicopter traffic.
October 31	Rankin Inlet	Larry Connell and John Witteman met with the HTO. A PowerPoint presentation was made on the All-weather Access Road and developments at the Meliadine site. The HTO wanted to discuss the alignment of the AWAR to the Meliadine site and the arrangement of AEM facilities at Itivia harbour. A more southerly route was proposed by the HTO but AEM indicated it was too long and had too many water crossings. The HTO want a role and contract in monitoring wildlife along the AWAR. The arrangement at Itivia harbour was raised but AEM did not have maps of the area. Discussion was deferred to the next meeting when AEM would bring maps of the harbour and surrounding area. Agreement was reached on a ski-doo trail along the east side of the laydown area.
November 4	NIRB & NWB, conference call	Phase 1 AWAR – next steps, information requests, amendment application to date with the NWB.
November 14-28	Kivalliq Communities	AEM was an observer at the NIRB's scoping meetings. AEM was called on occasionally to answer questions. After the presentation, AEM did interact with the community members attending the meeting.
November 17-18	Fisheries and Oceans Canada, Toronto	No Net Loss Plan for Meliadine Gold Project, methods used in calculating the loss of habitat.
December 15	Transport Canada, Edmonton	Navigable Waters Protection permit for the Meliadine River bridge, information session on the Meliadine Gold Project.
<b>2012</b>		
January 11-13	Rankin Inlet	A workshop with the KIA and NTI to discuss per-EIS concepts.
January 31	Rankin Inlet	AEM participated in the EIS guidelines workshop chaired by the NIRB. Federal and territorial government department were represented.
February 1	Rankin Inlet	Meeting with Fisheries and Oceans Canada and Environment Canada on the Multiple Accounts Analysis carried out on selecting a Tailings Storage Facility. The location was highlighted, the waste rock wrapping around the TSF and eventual cover at end of mine life with 2 m of waste rock. Discussed the WestBay groundwater

Date	Place	Parties Present and Subjects of Meeting
		well to obtain water samples, exploration using the decline.
February 29	Rankin Inlet	A public meeting with the community. The meeting covered the status of the Meliadine Project with emphasis on the planned construction of the Phase 1 AWAR between Rankin Inlet and the Meliadine Project site. Options for a bypass road around the hamlet were presented with support for keeping AEM traffic outside the community. Other topics touched on the fate of the existing Char River bridge, the formation of a Liaison Committee for Rankin Inlet, plans for the Itivia harbour area and employment opportunities in the building of the road.
March 14	Conference call	First meeting on the Wildlife Mitigation and Monitoring Plan with Government of Nunavut, Environment Canada, Fisheries and Oceans Canada, Golder Associates wildlife biologists and AEM.
April 16-19	Iqaluit	Participation to the Nunavut Mining Symposium.
April 18	Iqaluit	Presentation made to the NIRB and the NWB on the proposed Meliadine All-weather Access Road and update on the exploration project.
April 23	Rankin Inlet	Meetings with the CLARC and HTO. Discussions covered an update on the Phase 1 AWAR, blasting at the rock quarry on municipal land, alternatives for the hamlet bypass road, use of the Itivia harbour area by the community, wildlife problems with foxes at the Meliadine site, use of the Phase 1 road, bridges over the rivers.
May 7-9	Rankin Inlet	Inuit Impact and Benefit Agreement negotiation between KIA and AEM.
June 18	Rankin Inlet	A presentation was given to the Kivalliq Wildlife Board, which provided an update on wildlife management at Meliadine.
June 21	Rankin Inlet	A site visit was made by two representatives of the GN, Kivalliq Regional Wildlife Manager and the local conservation officer, and two representatives of the HTO, Chairman and vice-Chairman. The focus of the visit was wildlife management.
July 10-12	Rankin Inlet	Inuit Impact and Benefit Agreement negotiation between KIA and AEM.
August 15-17	Rankin Inlet	A site visit to the Meliadine Advanced Exploration Camp by Nicola Johnson and Elizabeth Patreau of Fisheries and Oceans Canada. The focus of the visit was the review of and feedback on the No-Net-Loss Plan and proposed monitoring plan.
August 16	Rankin Inlet	Site visit of the Phase 1 AWAR by two representatives of the Hunters and Trappers' Organization. Progress on the bridges and road was viewed.

Date	Place	Parties Present and Subjects of Meeting
August 23	Rankin Inlet	A Hunters and Trappers' Organization Board Meeting was attended to discuss wildlife management in Meliadine.
August 24	Rankin Inlet	Site visit of Meliadine Advanced Exploration Camp by the Hamlet Council, KIA and HTO.
September 5	Rankin Inlet	Site visit by AANDC and KIA. Discussions centered on AEM's future submission of the DEIS.
September 11	Rankin Inlet	Site visit of the Phase 1 AWAR by KIA and CLARC representatives. Progress on the bridges and road was viewed.
October 1 October 2 October 3 October 4	Rankin Inlet Chesterfield Inlet Whale Cove Arviat	Community public consultation to review VECs and VSECs for the Meliadine Project. All communities mentioning caribou, employment and training as very important components.
October 4	Arviat	A meeting with DOE - Wildlife Division, AEM and Golder on the sharing of caribou data that were collected between 1998 and 2012, and proposed wildlife mitigation measures once the mine is being constructed and operating
October 10	Igloodik	A meeting with DOE – Wildlife Division, AEM and Golder Associates to discuss the sharing of data for raptors and polar bears between 1998 and 2012, and proposed wildlife mitigation measures once the mine is being constructed and operating.
October 10	Rankin Inlet	A meeting with the HTO and KIA to discuss local names of landmarks along the Phase 1 All Weather Access Road construction area.
October 9-11	Rankin Inlet	Inuit Impact and Benefit Agreement negotiations between KIA and AEM.
October 17	Rankin Inlet	A meeting with DOE, KIA and HTO to discuss the wildlife management at Meliadine and along the Phase 1 All Weather Access Road (AWAR).
October 16-17	Rankin Inlet	Regional Socio-Economic Monitoring Committee meeting where AEM shared the socio-economic data collected with the Government of Nunavut and other members of the Committee.
October 24	Whale Cove	To gather traditional knowledge on fish harvesting activity in the Pistol Bay area (Possible habitat enhancement under NNL Plan
<b>2013</b>		
Feb 13	Rankin Inlet	Meeting with the HTO, CLARC, KIA and GeoVector (KIA's consultant) to present an update on the Meliadine Project
Feb 13	Rankin Inlet	Community Consultation where an update on the Meliadine Project was presented. No questions were asked by those attending.

<b>Date</b>	<b>Place</b>	<b>Parties Present and Subjects of Meeting</b>
Feb 14	Chesterfield Inlet	Consultations with the Hamlet Council and the community. An update on the Meliadine Project was presented and answers provided to the questions asked.
Feb 22	Winnipeg	Meeting with Transport Canada to present the Project, specifically as it related to Navigable Waters and the Canada Shipping Act.
October 16-17	Rankin Inlet	Regional Socio-Economic Monitoring Committee meeting where AEM shared the socio-economic data collected with the Government of Nunavut and other members of the cCommittee.
June 13	Rankin Inlet	Meeting with Community & Government Services and town staff on Phase 1 AWAR, Apache Pass and future of old bridge over the Char River