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Our file *Notre référence*

*NU-03-0191*

September 2, 2008

Phyllis Beaulieu  
Manager of Licensing  
Nunavut Water Board  
P.O. Box 119  
Gjoa Haven, Nunavut X0B 1J0

Via email:

licensing@nunavutwaterboard.org

Dear Ms. Beaulieu:

**SUBJECT: Meadowbank Gold Mine Project, Nunavut - Water Quality Monitoring and Management Plan for Dike Construction and Dewatering Report**

Thank you for the opportunity to review and comment on the following reports dated July 2008: Water Quality Monitoring and Management Plan for Dike Construction and Dewatering at Meadowbank Mine; the Waste Rock and Water Management Plan; and the Water License #8BC-TEH0809 Monitoring Plan. Fisheries and Oceans Canada (DFO) has reviewed the above mentioned reports. DFO has no comments on the Waste Rock and Water Management Plan and the Water License #8BC-TEH0809 Monitoring Plan; however, provide the following comments on the Water Quality Monitoring and Management Plan for Dike Construction and Dewatering.

- In the Water Quality Monitoring and Management Plan for Dike Construction and Dewatering Report, section 5 describes the key means for minimizing sediment discharges from the dike construction zone as being the deployment of silt curtains to form a continuous barrier. This method of sediment control was tested during the construction of the East dike and resulted in sediment plumes outside the silt curtain. In order to further mitigate sedimentation into Second Portage Lake, Agnico-Eagle Mines Ltd. (AEM) indicated that a low permeability plastic membrane barrier was installed along the upstream face of the East Dike inside the turbidity barrier. DFO recommends that the sediment controls be increased for the construction of the other dikes (i.e. Bayzone and Goose Island dikes) to avoid sedimentation over high value habitat and that it be detailed in the monitoring plan.
- In Section 5, point 9 of the Standard Operating Procedures involves follow-up monitoring of the benthic community if significant sediment plumes are identified. The control/impact design will be used to compare the benthic communities; however, the references areas for this study is not clearly stated in the monitoring plan. It is noted that this plan does not cover the complementary monitoring of limnological parameters in Second Portage Lake and that it is described in the Fish-Out Program. However, the fish out program describes monitoring within the diked-off portion of Second Portage Lake and not the areas outside the dike. DFO recommends that the follow-up monitoring of the benthic community, indicating the methods and locations of the reference areas, be described within the monitoring plan.
- It is noted that the East dike construction monitoring locations were provided in Figure 1. With the future construction of the BayZone, Goose Island and Vault dikes, it is unclear as to whether the Water Quality Monitoring and Management Plan for Dike Construction and Dewatering will be continuously revised based on adaptive management as well as to include

the monitoring locations in a separate figure prior to their construction. DFO recommends that clarification be provided.

We trust that our comments are of assistance to the NWB. If you have questions relating to the comments provided, please contact me at (905) 639-0122 or by email at Amy.liu@dfo-mpo.gc.ca.

Regards,

A handwritten signature in black ink, appearing to read 'Amy Liu', with a stylized flourish at the end.

Amy Liu  
Habitat Management Biologist  
Fisheries & Oceans Canada  
Eastern Arctic Area

Copy: Keith Pelley, Area Director, Eastern Arctic Area