Environment Canada **Environnement Canada**

Environmental Protection Branch
Qimugjuk Building 969 P.O. Box 1870
Iqaluit, NU X0A 0H0
Tel: (867) 975-4639
Fax: (867) 975-4645

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Stephanie Briscoe
Executive Director
Nunavut Impact Review Board
P.O. Box 2379
Cambridge Bay, NU X0B 0C0
Tel: (867) 983-2593
Fax: (867) 983-2594 *Via Facsimile and Email*

Hugh Wilson
Manager, Environmental Affairs
Miramar Mining Corporation
300 – 889 Harbourside Drive
North Vancouver, B.C. V7P 3S1
Tel: (604) 985-2572
Fax: (604) 980-0731 *Via Facsimile and Email*

Dear Stephanie and Hugh:

RE: Doris North Gold Mine - Information Requests

Environment Canada (EC) is working through its technical review of the Doris North Gold Mine Final Environmental Impact Statement. As part of our review process, we have identified several areas where additional information is required in order to complete our review. In the spirit of open dialogue between all concerned parties, EC is providing the following information requests to the Nunavut Impact Review Board (NIRB) and Miramar Hope Bay Ltd. (MHBL) prior to the public hearings and requests that the NIRB direct MHBL to respond to these information deficiencies at their earliest convenience.

Issue: Air Monitoring Program

Proponent's Conclusions
In section 6.2 of the EIS, the Proponent states that it will monitor total suspended particulate matter ambient concentrations throughout the operational life of the project. However, frequency of measurements will be reduced from every 3 days to every 6 days.

The Proponent concludes that the "results of the air quality assessment do not indicate that any additional monitoring is required at the site" (Section 6.2 of the EIS).

Environment Canada' Conclusions
Collecting TSP samples every 6 days is insufficient for compliance monitoring. Environment Canada recommends the Proponent continue to collect TSP samples every 3 days.

After reviewing the air quality assessment, Environment Canada concludes that dust fall, PM10 and PM2.5 should be included in the air quality monitoring program. New air quality modeling using on-site meteorological data may be necessary to design the monitoring program.

Rationale
a) Dust fall collectors are relatively inexpensive to install and operate. The collectors can be used over large areas to monitor trends and effectiveness of dust suppression mitigation measures.

b) Air quality model predictions (Section 4.3 of EIS) for PM10 exceed the 24-hour ambient air quality standards in Newfoundland, Ontario and British Columbia. PM2.5 levels are predicted to exceed the 24-hour NWT ambient air quality standards.

c) By comparing the wind rose plots from the Doris North Project and the Boston Camp (Figure 3-6 of EIS), it is apparent that there are differences in the predominant wind direction. The comparison has only been completed for the summertime but if the differences between the sites are caused by local topography then the predominant winds in other seasons will likely also be different. The meteorology at Boston Camp may not be representative enough to use the modeling data, presented in the EIS, to design the monitoring program at the Doris North Project site. Please provide a wind rose analysis using the latest data available.

Recommendations
EC recommends the proponent develop and implement a monitoring program to assure that PM10 and PM2.5 do not exceed established ambient air quality standards. TSP and dust should also be measured to monitor trends over the lifetime of the mine and to evaluate the effectiveness of mitigation efforts. The proponent should develop a monitoring plan through consultation with Environment Canada air quality experts.

Information Requests
a) Please provide a new draft of the Doris North monitoring program incorporating the above recommendations.
b) Please provide a seasonal wind rose comparison between the Doris North Project and the Boston Camp using the most recent data available.

Issue: Solute Loadings to Tail Lake from Mine Water and Waste Rock Pile Runoff

Proponents Conclusion
In Supporting Document F8, Sections 2.2.3 and 2.2.7, Tables 2.7 and 2.11, in order to estimate the rate of solute release to the mine water for the predictive water quality modeling, MHBL assumes that 115, 000 tonnes of waste rock in the underground will contribute to solute release from day one. The same quantity of waste rock is assumed to contribute to solute release in runoff from the waste rock pile on the surface. Although the quantities of waste rock in the mine and the waste rock pile are the same for the

purpose of estimating solute release, the average annual loading associated with the mine water is considerably less than the runoff from the waste rock pile.

Information Request

(a) Could MHBL provide additional information on how loadings to Tail Lake from the mine water and the waste rock pile runoff were determined in the predictive water quality modeling?
(b) What mitigative measures will MHBL implement if mine water loadings are greater than predicted?

Issue: Spill Contingency Planning

Preamble

Miramar Hope Bay Ltd. (MHBL) presents their Environmental Management Plan in Section 8.0 of the Final Environmental Impact Statement, and further information is provided in Section 4.6 "Environmental Management and Mitigation Plan" of the Supplementary Information. MHBL comments that "The Environmental Management System as presented in the supporting document F6 is a "work in progress". The details on the overall "errors and omissions" indicated above will be addressed as the specific elements are finalized for submission during the permitting phase, or in the negotiations for leases with KIA, or GN-DSD on a wildlife mitigation and monitoring protocol".

If a release of fuel or other contaminant occurs after taking all reasonable care and precautions to prevent such a spill, MHBL must be prepared to provide an initial response capability. This requires that staff be trained and equipped for spill response by having the skills and the knowledge to asses the level of risk in terms of safety, property, and the environment and respond quickly and effectively.

Information Request

Environment Canada asks Miramar Hope Bay Ltd. to provide the following information:

a) Planning is critical for preparedness and response activities in the event that an emergency does occur. Describe how a "work in progress" approach achieves this objective?
b) A Spill Contingency Plan should be prepared and implemented prior to the transportation, storage or use of fuel or hazardous materials. Please provide for review, a Spill Contingency Plan which addresses the key elements of prevention, preparedness, response and recovery.

Environment Canada would like to thank Miramar Hope Bay Ltd. in advance for their timely reply to these information requests. We look forward to continuing with our technical review and working with MHBL through the Nunavut Impact Review Board process.

Sincerely,

Original signed by

Colette Meloche
Environmental Assessment Specialist

cc: (Mike Fournier, Northern Environmental Assessment Coordinator, Environment Canada, Yellowknife)
(Janice Traynor, Indian and Northern Affairs Canada)
(John Ramsey, Natural Resources Canada)
(Angala Puvananathan, Health Canada)
(Tanya Gordanier, Fisheries and Oceans Canada)
(Doug Soloway, Transport Canada)