**Environmental Protection Operations** Prairie and Northern Twin Atria #2, Room 200 4999 - 98 Avenue Edmonton, Alberta T6B 2X3

September 15, 2006

File: 7834-3-37/C263-9

**Bruce Donald** Reclamation Manager, Environment and Corporate Affairs Teck Cominco Mining Partnership & Teck Cominco Metals Ltd. Bag 2000 Kimberley, BC V1A 3E1

Dear: Mr. Donald,

# RE: Polaris Mine Environmental Effects Monitoring (EEM) Interpretative Report Review

The Recognized Closed Mine report submission entitled 'Environmental Effects Monitoring (EEM) Teck Cominco Polaris Mine, Nunavut, Interpretative Report' was received December 15, 2005, as per the Metal Mining Effluent Regulations (MMER) of the Fisheries Act. It has been reviewed by a Technical Advisory Panel (TAP) consisting of representatives from Environment Canada, Fisheries and Oceans Canada, Indian and Northern Affairs Canada, and the Nunavut Water Board. The Final EEM Interpretative Report meets EEM Program requirements. Please see the appended review comments.

If you have any questions concerning the evaluation of your EEM Interpretative Report, please contact Jenny Ferone at (780) 951-8750.

Yours truly,

Shauna Sigurdson **Regional Director** 

**MMER Authorization Officer** 

Nunavut Water Board

Public Registry

## **Enclosure**

CC:

Jenny Ferone Barry Briscoe Ken Russell Stephen Harbicht Anne Wilson

Chris Baron Robert Jenkins Philippe diPizzo

Environment Canada, Edmonton Environment Canada, Winnipeg Environment Canada, Yellowknife Environment Canada, Yellowknife Environment Canada, Yellowknife Fisheries and Oceans, Winnipeg Indian and Northern Affairs, Yellowknife Nunavut Water Board, Gjoa Haven





## Technical Advisory Panel (TAP) Review Comments on 'Environmental Effects Monitoring (EEM) Teck Cominco Polaris Mine, Nunavut, Interpretative Report'

#### **General Comments**

- 1. Given that weather and safety concerns prohibited the completion of EEM fieldwork for this study in 2004, the TAP appreciates the inclusion and analysis of other relevant monitoring data for Garrow Lake, Garrow Creek, and Garrow Bay in this Final Interpretative Report. The report includes a comprehensive collection of EEM study design documents, EEM reconnaissance sampling data for Garrow Bay (2003), MMER effluent and water quality monitoring data (2003-2005), as well as the results from the 2003 'Investigation of the Limnology and Ecology of Garrow Lake'.
- 2. Please note that Polaris Mine MMER effluent, water quality, and sublethal toxicity data have been previously submitted to Environment Canada in annual reports, and have been reviewed in detail by Environment Canada on an annual basis. Although the TAP appreciates that these data were included in the Final EEM Report, the annual Environment Canada review of these data is not repeated in this Interpretative Report review.

## Quality Assurance/Quality Control (QA/QC) Data

3. Section 2.4.3. The report states that metal concentrations in blank samples comprised of on-site distilled water were higher than expected for zinc, copper, and lead. This is believed to be associated with on-site distilled water historically stored in metal containers. Due to the potential for sample contamination, the mine should not use distilled water stored within metal containers for the processing of any water samples.

### **Future Effluent Characteristics and Effects**

4. Section 3.2. The report states that Teck Cominco commissioned AXYS (2001) to determine whether lowering mixolimnion depth to 7 m risked turnover and mixing of the lake. It was concluded that no mixing of the mixolimnion and monimolimnion appears possible. TAP members would appreciate a copy of the AXYS (2001) report for information purposes, if this is available.