

Independent Environmental Monitoring Agency

P.O. Box 1192, Yellowknife, NT X1A 2N8 • Phone (867) 669-9141 • Fax (867) 669-9145 Website: www.monitoringagency.net • Email: <u>monitor1@yk.com</u>

October 5, 2007

Laura Tyler Manager-Environment, Community, Communications and Planning BHP Billiton Diamonds Inc. #1102 4920-52nd Street Yellowknife NT X1A 3T1

Dear Laura

The Agency has reviewed BHP Billiton's 2006 Annual Environmental Report and found it to be satisfactory for the purposes of the Environmental Agreement.

During our review we noticed several minor errors and made some observations that may help improve future Annual Reports. We pass these along for your consideration and use:

- Page 9, Table 4.0 includes the licence limits on use of water and the same feature should be added to other tables that relate to use of water and discharges to show the licence limits.
- Page 10 includes information on the fisheries authorizations which is a helpful addition in this year's report. However, there are many other licences, permits and authorizations held by the company (e.g. wildlife research licences, archaeological permits) and there should be some agreement as to what to include and report on in this section of the Annual Report.
- Page 10, Table 4.1, it seems odd that Thinner Lake was 4.8 m lower in June compared with May and July. Is this correct?
- Page 11, there is a confusing reference that the Beartooth Pit discharges to the LLCF are not reported in this Annual Report but are reported in the 0008 water licence annual report. We could not find this information.
- Page 12, Table 3.4, the listing of substance loadings to the LLCF does not include petroleum hydrocarbons. The Agency suggested in 2006 that this parameter be added. A paragraph was devoted to its discussion in the EIR

2006, but the Annual Report is silent on this issue. Indicative of stakeholder interest in this matter, it came up as a concern during the recent Closure Options Evaluation Workshop. The Annual Report should have mentioned the loading rate for hydrocarbons into the LLCF (10 kg/day) and related it to both the water license limits and the CCME guidelines for soils (as it presumably will constitute a component, however minor, of the exposed tailings in the upstream cells). While we do not believe hydrocarbons to be a problem, such reassurance would be a helpful addition to the annual report.

- Page 13, Table 4.4, shows significant discharge from the LLCF for the second half of 2006 including December. In the previous year there were no discharges past September. Is this correct?
- Page 14, there is some discrepancy between Panda pit and Panda surface sump volumes provided in the table versus the volumes presented in Figure 1.
- Page 19, for 1616-26 why only one sample instead of two?
- Page 20 reports a sudden flood of water from Blip Lake due to ice damming on a culvert. The sediment-laden water flowed into the PDC, thereby raising TSS values to over twice the license limits for water flowing into Kodiak Lake. While there is no evidence that this short-term event caused problems for grayling that would use the PDC, we understand BHPB plans to mitigate this in future by digging ice and snow out of culverts at Blip Lake in spring before freshet.
- Page 26, seventh point mentions a "pumping status" for Sik Sik Lake. Should this read "pumping station"?
- Page 28-29, the figure in the text for total material deposited in the waste rock piles does not match that in Table 4.12.
- Page 30, section o) makes no reference to the Long Lake water quality studies and modeling as found in the 2005 Annual Report. Why not?
- Page 31, ecological risk assessments for ammonia, molybdenum and chloride, sample replication, and the issue of effect size should all be briefly described.
- Page 34 provides an updated estimate of mine reclamation liability but there are no details presented beyond a single cost figure. A more detailed breakdown of costs would be much more helpful.
- Page 35 where there is a figure illustrating the mine plan including a timeline for each mine component. It would be helpful to add closure and reclamation

activities to the mine plan in future Annual Reports, especially after the Interim Closure and Reclamation Plan is approved.

- Pages 36, Beartooth Lake discharge is reported as 334,000 m<sup>3</sup> while Figure 1 shows this as discharge from Bearclaw Lake. On page 42 Bearclaw Lake discharge is listed as 340,000 m<sup>3</sup> but there appears to be some confusion between Bearclaw and Beartooth discharges.
- Page 41, licence 0008 Sa3 sampling at the outlet of Two Rock Sedimentation Pond should be clarified. For 0008 Be3, why the additional samples?
- Page 42, Beartooth waste rock deposited varies between what is reported in Figure 1 and Table 4.12 with what is presented in the text.
- Page 47, a list of the inspection dates with any general comments would have been helpful.
- Page 48-52, on studies and research does not reference publication of the results of the nitrate toxicity study on early life stages of fish.
- The Agency was pleased to see that follow-up actions on spills once is reported in Appendix E, and again forms part of the information presented as in Annual Reports prior to 2005. It would be helpful to briefly describe any lessons learned and how these will improve spill prevention and management.
- Appendix F, page 2 states that "Cladocerans...typically make up 1-5% of zooplankton numbers in EKATI lakes." This is correct only for control lakes. In Nema & Moose, almost all years prior to 2002 had cladocera making up between 8 & 65% of total zooplankton.
- Appendix O, on the Panda Diversion Channel (PDC) contains no mention of the results of recapture of fin-clipped graying that were marked as fry. We understand that BHPB is pursuing this issue with its consultants.

We would be please to discuss these comments with you if this would prove to be of any assistance.

Sincerely,

-ORIGINAL SIGNED BY-

Bill Ross Chairperson