Notes from the Inter-Agency Coordinating Team May 17th, 2002 Meeting

Participants:

John Witteman BHP Billiton (BHPB) Chris Hanks BHP Billiton (BHPB)

Latisha Heilman MVLWB

Tamara Hamilton DIAND Environment Conservation

Buddy Williams DIAND Operations
Anne Wilson Environment Canada

Marc Lange DFO Lionel Marcinkoski RWED

Zabey Nevitt Independent Environmental Monitoring Agency (Agency)
Robin Staples Independent Environmental Monitoring Agency (Agency)

Meeting began at 1:15pm

Round Table Updates:

John distributed the 2001 annual report for BHPB's environmental agreement and water licence to IACT participants and then gave an update on recent activities at the mine site. The following points were noted:

Wildlife:

- A caribou was observed being hunted and killed by wolves on the Misery road. This event was documented and a report sent to RWED officials. The caribou carcass was moved by helicopter to a place on the tundra approximately 5–10 km away from the road.
- Another wildlife survey was completed in conjunction with Diavik. The entire survey area is being flown in one day. John committed to sending maps of the survey area to the Agency.
- The falcon, wolf and grizzly bear monitoring programs are also done jointly with Diavik and RWED.
- Grizzly bears are beginning to move out of their winter dens. Robert Mulders from RWED will be collaring more animals this year in and around the BHPB claim block. BHPB is assisting with logistics (e.g., fuel for helicopters).
- A graduate student will be doing additional research on upland breeding birds this summer at the mine site. They are specifically researching Lapland Longspurs. The student and BHPB personnel have sought advice on the project from experts at the Canadian Wildlife Service.

Aquatics:

- BHPB is preparing for spring freshet. The Panda Diversion channel has been cleared of snow and frequent surveys will be done on it during freshet to ensure that it operates as designed.
- The Fox bridge at the Nero-Nema stream crossing has the potential for snow build-up and will require annual snow management. The two to three metre thick ice pad that was used for bridge construction was scraped clean, but additional gravel was placed for construction (traction for trucks on the freshly scraped ice surface). Most of this additional gravel was removed, but some remains in areas where machinery cannot remove it (i.e., underneath the new bridge). One pile of gravel was also placed directly on the tundra by mistake within the high water mark of the stream. This pile also cannot be removed by machinery for fear of disturbing the tundra further. Manual removal of the gravel was employed but was not completely successful. The area where the gravel pile was placed will be covered and sandbagged to prevent erosion and additional gravel entering the stream. The pile will be removed following freshet. The DIAND inspector as well as DFO personnel will be visiting the site shortly to inspect this area.
- The culvert at the Pigeon stream crossing will not be completed before freshet. The ice pad on the stream is currently being cleaned up and preparations are being made for freshet. Some heavy machinery used for placing backfill, have been left near the stream crossing. The culvert is very large and it may shade some vegetation currently living under it. The possible die-off of shaded vegetation may negatively influence and ultimately impact the stability of soils during periods of high water flow.
- At the Misery site, BHPB is not confident that the entire freshet entering Desperation Pond can be collected and pumped to King Pond. If the freshet is larger than expected, then any water that enters Carrie Pond from Desperation will be monitored.
- Phase II of the Long Lake kimberlite toxicity study focusing on benthic invertebrates continues, but further discussions between Environment Canada, BHPB and the University of Saskatchewan are needed regarding the sampling design of the project.
- The 2002 Aquatic Effects Monitoring Program (AEMP) will be started shortly. Leslie Lake will not be monitored in 2002. However, the AEMP re-evaluation is reviewing this sampling site and it will likely be added in the 2003-monitoring year.

A general discussion took place on the re-evaluation of the AEMP (i.e. changes to the program) and what information is required to adequately determine aquatic effects.

Reclamation:

- BHPB has contracted out a consultant to review and prepare a first draft set of reclamation criteria. These criteria are required to determine when reclamation has been completed, and will be sent out for all interested parties to review. They will eventually need to be approved by regulatory authorities.
- The definition of "reclaimed areas" noted in the annual report is based on BHPB's observations and professional judgement.

Spills

- BHPB continues to work on better spill reporting. Hydraulic fluid spills appear to occur the most at the mine site and investigations into this recurring problem are being carried out with the goal of reducing their frequency. Human error remains a cause for diesel spills.
- BHPB would like to review the definition of a spill (i.e. location of the spill and potential effects on the receiving environment).

General:

- During the stripping of Koala South pit some unexpected ore was discovered.
- Infrastructure is still being placed for the Koala North underground development. A brine (salt) sludge that is a waste product from the underground mining process is being placed in special location within the Panda-Koala waste rock pile.
- Larger pieces of contaminated waste rock and barrels containing hydrocarbon-contaminated rock (from the hope bay development) need to be removed from the land farm. Ammonia nitrate is added to the land farm to assist in the breakdown of hydrocarbons, but the sub-arctic climate results in very slow breakdown rates.
- BHPB has applied to the MVLWB for a type 'B' water licence to use water from Lac de Gras for Misery road watering during the summer months.
- The dust suppressants used at BHPB need to be approved by Boeing for use on the airstrip to ensure corrosion of plane parts does not result.
- BHPB is going to be using dust volume samplers (similar those used at Diavik) this year.
- Tom Edwards from the University of Waterloo is researching permafrost hydrology at Daring Lake and BHPB has agreed to provide some logistical support.

Zabey began his update by noting that the Agency has been recently involved in the regulatory proceedings for the Sable, Pigeon and Beartooth applications. Zabey also noted that the Agency has sent a letter to BHPB (copied to IACT members) commenting on the 2001 aquatic and wildlife effects monitoring programs and workshops. The review by the Agency's seepage consultant, Dr. Kevin Morin, on BHPB's 2001 waste rock and seepage report is on the Agency website. The Agency is still awaiting BHPB's final proposed changes to the 2002 aquatic and wildlife effects, and waste rock seepage monitoring programs. BHPB's plain English summary for their annual report is also outstanding. Zabey took this time to thank Anne for providing a copy of the thesis from the first phase of the Long Lake kimberlite toxicity study to the Agency.

Agency staff have also been actively drafting the 2001-2002 Agency annual report and reviewing BHPB's 2001 annual report. Zabey requested from BHPB two reports documented in BHPB's annual report (i.e. Phase II Hydro-geological Evaluation of Panda Pit, Final Report - 2001 and; Processed Kimberlite Deposition Investigation, Long Lake Containment Facility - 2002). In addition, Zabey noted that BHPB's annual report documented a non-compliance discharge event from King Pond (SNP station 1616-43) to Cujo Lake on September 23rd, 2001. The duplicate sample at this station also exceeded water licence discharge limits. It is possible that this is case of mixed up samples, but no discussion has been provided to explain this event in either the annual report or in the October SNP report. In fact, it was not even reported in the October SNP report.

John committed to an investigation of this non-compliance discharge event. John also responded to Zabey's requests for the two documents noted in BHPB's annual report and noted that the report on the hydro-geological evaluation of Panda Pit is an ongoing study, but the report entitled 'Processed Kimberlite Deposition Investigation, Long Lake Containment Facility – 2002' would be available shortly. John briefly noted that this kimberlite deposition investigation had found significant ice entrenched within tailings and a pool of water under the tailings near Dyke B, which at some point in the future could be pumped out. In response to another request, John committed to copying the Agency and DIAND on the May 9th, 2001 letter that was sent to the MVLWB regarding the schedule of security deposits under the water licence.

Lionel began by noting that, as requested by John last meeting, he has looked into RWED's approval of BHPB's 2002 wildlife research permit. He brought copies of the approval to the meeting for BHPB and the other IACT members. Lionel also noted that RWED is expanding their air-monitoring program and air quality monitoring equipment is being set up at the Daring Lake research station and in Inuvik. Lionel mentioned that the environmental assessment analyst position at RWED has still not yet been filled. He also noted that RWED is working on getting an accurate value for the footprint of the BHPB project through the use of GIS and satellite imagery.

Anne noted that Environment Canada has been actively involved in the regulatory proceedings for the Sable, Pigeon and Beartooth applications and in the recent aquatic effects and seepage monitoring program meetings. Anne has also been involved in the Long Lake kimberlite toxicity studies. Phase II of the toxicity study will involve personnel from the University of Saskatchewan and BHPB performing benthic invertebrate investigations, while Environment Canada continues water quality and phytoplankton sampling. The graduate thesis for the first phase of the study has been completed. The first phase of the flocculent and coagulant residual study (i.e. literature survey by the University of Saskatoon) has also been completed and will be distributed shortly for comments and feedback. Phase II will begin once comments have been received and incorporated into the study.

Chris noted that BHPB had recently hosted a mine reclamation workshop for the Mackenzie Valley Environmental Impact Review Board, detailing reclamation work done at BHPB's Island copper mine as well as what is done at other mines. The workshop included discussions on pit lake reclamation.

Buddy mentioned the land leases for the Sable and Pigeon sites have been drafted and sent to BHPB for execution. The license for the access road to the Pigeon and Sable sites has been approved, and will be issued once construction is complete so the license sketch can accurately reflect the road alignment and size requirements. Although there is no public registry for this type of information, some information is available to the public if asked for. Buddy raised concern with the concept of utilizing the waste disposal site (land farm, solid waste disposal area, waste rock pile) for disposal of wastes originating from projects besides/outside of the Ekati mine. (e.g., barrels from the Hope bay operation ending up in Ekati's land farm). He will be looking further into this situation.

Tamara began by noting that Francis Jackson (DIAND Waters division) apologizes for not being able to attend today's meeting. She continued her update by noting that she is drafting the minutes from the March 15 Cost-Variance meeting and will hopefully be sending them out some time next week. She proposed that the next meeting on the cost variance <u>process</u> take place on June 14. Tamara noted that she would contact Helen Butler (BHPB) to discuss the agenda and goals of the meeting. Action items and a review schedule will hopefully result from this meeting. The minutes from the May 8th Environmental Agreement review meeting will also be sent out in the near future. Once completed, a written proposal for changes to the agreement will be submitted to the Agency. Tamara has also been involved in the regulatory proceedings for the Sable, Pigeon and Beartooth applications and noted that she looks forward to discussing security requirements with the MVLWB and other parties. Tamara concluded her update by mentioning that the official 45-day review of BHPB's annual report won't start until the plain English summary has been distributed to everyone, including the aboriginal communities.

Latisha noted that the MVLWB is waiting for the recent transcripts from the Sable, Pigeon and Beartooth public hearing before drafting of the water licence is completed. The final draft water licence and perhaps the land use permits will be sent out for comments and feedback. Depending on the comments received on the draft licence (permits?) a technical group may be established to address major concerns. Mention was also made that a follow-up process from the public hearing regarding BHPB's closing remarks and the review of these remarks will be occurring. As well, Latisha noted that the MVLWB has just received BHPB's application for a type 'B' water licence for watering Misery road. A letter approving BHPB's February 2001 operating environmental management plans has also been sent to the company. In addition, the MVLWB is looking into whether the submission from BHPB regarding the proposed changes to the aquatic effects and waste rock seepage monitoring programs, that is in front of board, is an official and appropriate proposal.

Marc noted that he is concerned with what has happened at the Nero-Nema stream crossing from construction activities (i.e. potential for gravel to impact the stream) and follow-up discussions with BHPB will take place. Marc noted that he would be sending out DFO's comments on the AEMP re-evaluation to BHPB and other meeting participants shortly. He mentioned that he is also working on a response to BHPB's letter on DFO's work plan for fisheries authorizations (Sable, Pigeon and Beartooth development). As well, Marc reminded John of DFO's request for a partnership with BHPB to help fund the quality control phase of the fish out data analysis currently being performed by DFO.

Next meeting will be held on June 14 at 1:15 in the Agency Boardroom.

Meeting adjourned at 3:00 pm