

Wek'èezhii Land  
& Water Board  
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BHP Diamonds Inc.

JAN 22 2007

Application # MV03L2-13  
Copied To SB/KC/Reg

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**Our File:** 4.6.11.2  
4.6.6.1

January 22, 2007

Wek'èezhii Land and Water Board  
P.O. Box 2130  
Yellowknife, NT  
X1A 2P6

Attention: Ms. Violet Camsell-Blondin, Chair

Dear Ms. Camsell-Blondin:

**Re: 2006 Waste Rock and Waste Rock Storage Area Seepage Survey Report, Water Licence MV2003L2-0013**

BHP Billiton Diamonds Inc. would like to thank the Wek'èezhii Land and Water Board for their letter of January 15, 2007 approving the 2005 Seepage Report and we are pleased to submit for the Boards approval the 2006 Waste Rock and Waste Rock Storage Area Seepage Survey Report. This report is submitted in accordance with Part F, Section 4f of Water License MV2003L2-0013 and as requested 25 CD copies and 1 bound copy of the report are enclosed.

The seepage report focuses on presenting the analytical data obtained during two sampling rounds completed during the summer and fall field season. The report provides a comparison to previous year's analytical data and identifies where changes have occurred. These changes are then reviewed for the application of potential adaptive management techniques that may be required.

The objective of the waste rock sampling program in accordance with the requirements of the water licence is to ensure storage of waste rock in a manner which minimizes both existing and future environmental impacts, and to monitor the waste rock physical and chemical stability. This monitoring is accomplished by the testing of seepage water chemistry which is designed to detect potential chemical changes that may be produced by the placement and long term storage of the waste rock. Based on the results of the 2006 Seepage program no changes are recommended or required to the currently approved Waste Rock and Ore Storage Management Plan.

BHP Billiton takes our environmental management responsibilities seriously and it is our belief that we are listening to the concerns of our stakeholders in a constructive manner. We do take in to account stakeholder concerns and evaluate the applicability of each issue or point raised. Ultimately it is the responsibility of the company to manage in accordance with all legal requirements including the Water Licence.

In response and in accordance with our adaptive management approach several additional studies have been implemented at EKATI during 2006. These studies are designed to address identified information gaps within our current monitoring program and to assist with planning for closure. Some of these studies were identified and discussed during the Technical Information Sessions held in Yellowknife in late February and early March 2006 associated with our 2006 Environmental Impact Report process. These studies are as follows:

- Acid Rock Drainage (ARD) classification of kimberlite wastes.

Kimberlite is currently classified as not potentially acid generating (PAG) based on the presence of carbonate as the source of Neutralization Potential (NP). However the type of carbonate mineral is unknown and could affect this classification dependent upon the carbonate classification. Three samples from the Panda pipe were collected and submitted for Rietveld XRD analyses which will determine the carbonate mineral content. The results will be used to refine the method for calculating NP based on carbonate content. This study is currently underway.

- Field performance of "potentially reactive wastes".

The rationale for this study is that the field performance of waste rock and processing residues over the long term needs to be better documented to address perceived concerns of our stakeholders that EKATI will produce acid rock drainage. Controlled field tests using barrel tests have been designed and constructed to highlight the long term performance of our waste rock resulting from the effects of physical and chemical weathering. The results of this study will be to supplement the existing data which is currently being gathered in the bi-annual seepage surveys. The field test plots were finalized this fall and ongoing monitoring activities will be implemented during the 2007 summer season.

- Further evaluate the origin of acidity in SEEP-019 waters.

The rationale for this study is that analyses of ongoing seepage waters emerging from this location has shown pH values lower than natural tundra waters. The speculated source of this observed effect is the emergence of iron-rich waters resulting in a pH depression and technical experts engaged by our stakeholders has suggested that an ion exchange mechanism may be involved. An understanding of the mechanism will assist in identifying the potential for future changes in pH. The study to investigate the ion exchange mechanism is currently underway.

- LLCF fine processed kimberlite porewater characterization.

The porewater quality of Cell B fine processed kimberlite is currently being tested to provide an estimate of porewater quality of deposited wastes within the LLCF that are subject to physical and chemical weathering and annual water flushing. Cell B was selected as the test area as the wastes deposited in this location were the first wastes produced by the mine. The information obtained in this study will be used to identify potential issues associated with an exposed beach in mine closure as well as assisting in refining our ongoing LLCF water quality modeling exercise.

In conclusion we would like to state that BHP Billiton is committed to managing the EKATI Diamond Mine in accordance with all relevant legislation, regulation and government policy, and BHP Billiton's own Corporate Charter, Sustainable Development Policy and Health, Safety, Environment and the Community Guidelines and meeting it's Water Licence discharge criteria to the receiving environment and ensuring that no significant adverse environment impacts occur.

We trust that the 2006 Seepage Report meets with your requirements. If you have any questions or concerns regarding this report, please do not hesitate to contact the undersigned at (867) 880-2232.

Yours truly,  
**BHP Billiton Diamonds Inc.**



Richard Weishaupt  
Manager, Health, Safety, and Environment

RW/RBM/cjm/...

cc. Scott Stewart, DIAND Water Resource Officer