



***INDEPENDENT ENVIRONMENTAL MONITORING AGENCY***

P.O. Box 1192, Yellowknife, NT X1A 2N8 ▪ Phone (867) 669-9141 ▪ Fax (867) 669-9145

Website: [www.monitoringagency.net](http://www.monitoringagency.net) ▪ Email: [monitor1@monitoringagency.net](mailto:monitor1@monitoringagency.net)

January 26, 2017

Violet Camsell-Blondin  
Chair, Wek'eezhii Land and Water Board  
#1-4905 48th St, Yellowknife, NT  
X1A 3S3

Dear Ms. Camsell-Blondin,

**Re: Waste Rock and Ore Management Plan Version 6.2 - Proposed Raise of Misery Waste Rock Pile**

The Independent Environmental Monitoring Agency (Agency) has reviewed the design modifications proposed by Dominion Diamond Ekati Corporation (DDEC) in the Waste Rock and Ore Management Plan Version 6.2 (WROMP). DDEC has requested an increase to the storage capacity of the Misery Waste Rock Storage Area (WRSA) for schist and granite waste rock.

The current alternatives to managing the anticipated storage shortfall of 1.07 million m<sup>3</sup> of schist metasediment and 0.36 million m<sup>3</sup> of granite would appear to be limited. The Misery WRSA is the only waste rock storage area where schist metasediment is currently being stored. While, in the opinion of the Agency, uncertainty remains regarding the implications these actions may have on the long term internal thermal and geochemical processes and the closure and reclamation of the WRSA, expanding the current pile footprint or locating the schist to a new rock pile location raises even further questions. As a result, the Agency submits the following comments for your consideration.

**Nature of the Requested Revision**

The Agency is concerned that the request to provide additional waste rock storage capacity was not submitted by DDEC until it became an urgent matter. Normally, mine planning would be expected to identify this storage shortfall well in advance.

Recommendation: Explain what measures are being put in place to avoid similar situations from occurring in the future.

## **Implications on Internal WRSA Thermal and Geochemical Processes**

Schist metasediment mined from the Misery Pit has been described as being geochemically active and potentially acid generating. Although relatively small when compared to existing volumes, the implications of storing an additional 1.07 million m<sup>3</sup> of potentially reactive schist metasediment and 0.36 million m<sup>3</sup> of non-reactive granite on top of the existing Misery WRSA are unclear.

Recommendation: Explain how the thermal and geochemical characteristics of the additional metasediment material will be monitored and whether the additional waste rock is anticipated to affect the internal thermal and geochemical characteristics and processes of the Misery WRSA.

## **Implications on Closure and Reclamation**

While raising the southern portion of the Misery WRSA is not expected to increase the overall footprint, the area of side slope would increase due to the increase in overall height of the rock pile. This modification would affect the overall accumulation of snow, alter the infiltration of spring meltwater and may affect the long term geochemical characteristics of the WRSA. These changes may have implications for the final closure and reclamation of the waste rock pile.

Recommendation: Identify any implications the proposed design modification may have on final closure and reclamation of the Misery WRSA, including costs.

Should you have any questions concerning these comments, the Agency would be pleased to discuss these at your convenience.

Sincerely,



Jaida Ohokannoak  
Chairperson

Cc: DDEC – April Hayward  
Tlicho Government - Sjoerd van der Wielen  
Yellowknife Dene First Nation – Alex Power  
Lutsel K'e Dene First Nation – Lauren King  
North Slave Metis Alliance – Shin Shiga  
Kitikmeot Inuit Association – Jared Ottenhof  
Government of the Northwest Territories – Laurie McGregor  
Indigenous and Northern Affairs Canada – Jennifer O'Neil