

Environmental Monitoring Advisory Board

Minutes – December 16, 2019

Conference Call

Present:

Jack Kaniak, *Vice-Chair*

Arnold Enge, *Director*

Laurie McGregor, *Alternate*

Gord Macdonald, *Director*

Joline Husky, *Alternate*

Kitikmeot Inuit Association

North Slave Metis Alliance

GNWT

Diavik Diamond Mines

Tlicho Government

Absent:

Charlie Catholique, *Chair*

Machel Thomas, *Secretary-Treasurer*

Lutsel K'e Dene First Nations

Yellowknives Dene First Nation

Staff:

John McCullum, *Executive Director*

(minutes)

Janyne Matthiessen, *Environmental Specialist*

(minutes)

Environmental Monitoring Advisory Board

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Guests:

Bill Slater, SEC

**Monday, December 16
10:30am Conference Call**

Bill Slater's Review of Diavik's A21 Deep Proposal

Executive Director opened the meeting at 10:30am

ED and ES provided updates

- Bill had 3 questions for Diavik regarding the review
- Diavik's responses to Bill's questions were included in the review

Bill presented his review. There are 5 comments/recommendation for consideration.

1. Security estimates are to be addressed in the final closure plan and iterations of the ICRP
 - Not a concern
 - ICRP V. 4.1 will be submitted for approval sometime this month (Dec 2019)

Recommendation: The licence should establish a clear requirement for closure plans, cost estimates, and security bonding to be in balance prior to beginning the A21 Below Pit Mining Project.

2. Modelling included for the assessment for the A21 Below Pit Mining Project is not up to date
 - Golder's assessment for A21 Below Pit Mining states that groundwater inflow to pits will be mitigated by stable meromixis. This assumption is based on modelling from ICRP Ver. 3.2.
 - More recent modelling of A21 was completed for the PK to Mine Workings Proposal.
 - More recent modelling indicates that meromixis is unlikely to be stable in A21.

Q: How could adaptive management be applied here?

A: Need some follow-up monitoring to measure performance; adaptive management is a key component of this.

Q: where is recommendation for additional modelling?

A: Section 2. Bill will add a reference to adaptive management.

Q: the recommendation needs to be clear on timing; this would be included in closure planning?

A: Yes

Recommendation: Completion of more detailed site-specific modelling should be conducted to confirm that the accuracy of predictions also applies to the planning for closure of the A21 Pit.

- Bill to amend recommendation to mention adaptive management ie. monitoring to verify model predictions.

3. Characteristics of A21 Waste Rock should be verified

- Diavik has committed to verifying that A21 Underground rock is non-leaching
- The Waste Rock Management Plan (WRMP) should be updated to include this information

Recommendation: To ensure the updated WRMP comprehensively addresses the potential for identifying and managing changes in waste rock composition for the below pit mining project, the water licence amendment should require the submission of the updated WRMP. The WRMP should describe the monitoring plan for verification of geochemical characteristics of the mined material, the specific findings that would signify a concern, and the steps that would be taken if these findings arise.

4. Details of flooded-pit mining options not included in Diavik's proposal

- Diavik's application included potential use of mining options that would involve flooding the pits. Details were not included.
- Flooding the pit has potential effects. If Diavik is seriously considering these options, all details should be included.
- Bill proposed recommendation to limit options to dry pit-bottom mining.
 - Board's view is to recommend that Diavik include the details and timing within the regulatory process

Recommendation: The application of the deep access surface mining methods be limited to dry pit-bottom conditions under this water licence amendment.

- Recommendation to be amended to include that if Diavik wants to consider these mining methods, the details and timing within the regulatory process should be provided.

5. Water Quality Information

- Diavik's predictions for the A21 Below-Pit Mining Assessment used data from Well 19
- Diavik's assessment did not provide information on the location of Well 19
- Diavik provided EMAB/Bill Slater with clarification on the well's location, and other details via email
- Noted that TDS from A21 is predicted to be lower than the North Inlet
- Additional information is still needed to verify assumptions about water quality

Recommendation: In order to facilitate the completion of an informed review, DDMI should provide details about the Well 19 location, as well as summaries and copies of the data used to support the water quality predictions and conclusions.

6. Recommendation on Preliminary Screening / EA

Discussion:

Q: these comments are in relation to preliminary screening. What is Bill's opinion on whether this should go to EA?

A: Based on information provided, no need for EA.

Board agrees; this conclusion will be added to the report.

- Item 6 to be added. Item 6 will include recommendation that EMAB does not think there is benefit in taking the Project to an EA.
- Will ensure that specific recommendations are **bolded**.
- Comments and recommendations will be put into ORS excel format

Action item: Staff to review amended text/recommendations and circulate along with an email motion for Board approval.