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Your file - Votre référence
NWB1JER0410/TR/D1
Our file - Notre référence
9545-1-1-JER-R

May 11, 2005

Ms. Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
Box 119,
Gjoa Haven, NU. X0B 1J0

Dear Ms. Beaulieu,

Re: Jericho Diamond Project Mine Plan

Thank you for providing INAC with an opportunity to review the above-mentioned plan.

According to Part D, Item 1 of the Water Licence (NWBJER0410):

The Licensee shall submit to the Board for review, within thirty (30) days of the effective date of the licence, a detailed Mine Plan which outlines timing of construction for all infrastructure components. The Plan shall identify measures to be taken should implementation deviate from the proposal. This plan shall be developed in accordance with Schedule D, Item 1.

Schedule D- Conditions Applying to Construction, Item 1, states that:

The Mine Plan referred to in Part D, Item 1 of the licence, shall include, but not necessarily be limited to the following:

a. Schedule of commissioning of all facilities and infrastructure;
b. Proposed schedule for mine development (open pit and underground);
c. Plan for dealing with pit water;
d. Monitoring to be done during construction/development;
e. Adaptive Management strategy for construction phase;
f. Stability assessment planning.

INAC's comments for this plan, which are based on a thorough review by our expert technical and scientific advisors, are provided with respect to the above licence conditions.

General Comments

<u>Environmental Management</u>

1. There is a general absence of any reference to environmental management plans throughout the mine plan. While it is true that environmental management is covered under other reports required by the licence, Benachee should have been more clear about this. Environmental management plans should be described in a summary fashion in the mine plan so that there is a link to each and with a cross reference to the water licence condition to which it applies.

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2. INAC notes that the final decision regarding underground mining has not yet been made by Benachee. This mine plan only covers the open pit portion of the mining plan. Completion of open pit mining is expected to be in April 2009. Therefore, the mine plan given is only valid for the next 4 years. The schedule allows for an additional 2 years of underground mining, if this option is undertaken.

3. In Section 2.2, Climate, the actual evaporation rate should be provided for the Jericho site.

4. In Section 3, the terms "RMS" and "RMR" need to be defined. It is not clear what the rock classification terms such as "2A-2B" mean. The units for density should be given, unless they mean specific gravity. It is noted that the granite and contact zone granites don't have RMR values, and the lower kimberlites are missing the rock classification designation.

5. In Section 4, Benachee notes that in the initial year of pit development, follow-up slope stability assessments, including additional geotechnical diamond drilling, will be done to confirm the pit slope angle of the ultimate pit wall. Presumably this information will provide more details on the geotechnical properties of granites given in Table 1.

6. Sections 6 and 7 only discuss open pit mining. Presumably another mine plan will be submitted if the decision is made to go underground in 2009. Please confirm.

7. Why is the volume of waste dump Site 2 smaller in 2008 (1.4 M m3) than in 2007 (2 M m3)?

8. Section 7.2 (Blasting), made no mention of the importance of care in the storage, blending and application of ANFO to minimize spillage and loadings of ammonia and nitrate to the aquatic environment. Mention should have been made of instructions along these lines to the blasting crew(s).

9. "Hot loading" of explosives during wet periods suggests a potential for increased explosives loss. Little information is provided on good housekeeping practices for explosives, or alternatives, such as liners or use of alternative explosives types under wet conditions.

    - INAC is not sure what the term "hot loading" means. Does this refer to the practice of filling the blast holes with blasting agent as soon as they are drilled so that the holes don't freeze up?

10. In Section 7.4 (Haulage and Traffic Management), no information was provided regarding the airstrip.

Schedule D, Item 1 Conditions

<u>c. Plan for dealing with pit water</u>

1. In Section 7.5 (Materials and Water Management), there appears to be a very superficial handling of water management from the open pit. It would be appropriate to show a summary flow chart/water balance to indicate the quantities expected from various sources. It is noted that the pit water will be pumped to the PKCA and that an overall site water management plan is required under Part D, Item 9 of the Licence.

2. The Plan addresses mine site components and activities from the pit to the discharge point into the Long Lake tailings facility. A system of collection ponds and sumps will capture runoff from waste dump sites, stockpile areas and the pit.

    - There is no mention of the road infrastructure system and how potential snow accumulation in the ditches will affect capacity and how ditch flow is to be handled.

    - Will these details be covered in the Site Water Management Plan as required under Part F, Item 1 of the water licence?

3. It is stated that runoff collected in ponds and sumps will be pumped direct to the tailings facility, or pumped into Carat Lake if water quality is acceptable. Nevertheless, there is no detail provided outlining the routes that pipelines would take to Long Lake for the pumping activity.

    - Will Pond A be pumped to Pond B and then to Pond C, before the combined amount is pumped to Long Lake, or will separate lines be provided?

    - How will water collected in the sumps in the plant area be combined and sent to the lake?

These details should be covered in the Site Water Management Plan and meet the requirements of Part F of the water licence.

<u>d. Monitoring to be done during construction/development</u>

Section 7.7 of the Mine Plan covers monitoring, but refers to another document, the “Monitoring Summary Report”, submitted to the NWB, August 2004. Monitoring details are also covered in the “Aquatic Effects Monitoring Plan”, also submitted to the NWB August 2004.

In addition to the above, Benachee has indicated that monitoring will include the areas of:

- Climate
- Vegetation
- Dust
- Stream flows
- Water chemistry
- Sediment chemistry
- Ground ice
- Geotechnical structures
- Wildlife

Benachee should provide more details, summarizing the monitoring of these areas in the Mine Plan. This will provide INAC with a better understanding of how the overall mine site monitoring programs are integrated. No specific monitoring is detailed in this plan, either in terms of solid waste characterization or water quality or flow sampling. In particular, there is a reference to surfaced roads with run-of-mine granite waste (page 10), but this is not linked to any waste rock characterization program. A general reference is made to the Monitoring Summary report submitted to the Water Board, but the plan would be more effective if it linked aspects of that monitoring plan to objectives and triggers in this Mine Plan.

e. Adaptive Management strategy for construction phase

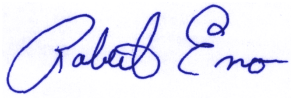
Section 7.6 provides no details on any adaptive management strategies, except to say that Benachee endorses the concept of adaptive management. This section could be strengthened if Benachee provided more specific details rather than leaving it open-ended and somewhat vague.

The adaptive management strategy must be supported by a solid monitoring program. Although monitoring plans are referenced in the Mine Plan document, Benachee should provide a summary list of the monitoring plans and what they will entail.

f. Stability assessment planning

There are no details provided concerning this condition. Benachee intends to use the starter pit to allow follow-up slope stability assessment and additional geotechnical diamond drilling in the area of the ultimate pit wall. The plan is to utilize the recommended slope angles until a steeper design can be confirmed and approved by the mines inspector. Benachee believes that steeper pit slopes can be maintained because of permafrost. In Section 7.3, Benachee notes that scaling will be done to remove loose material. No details were provided for stability assessment of the waste dumps. Benachee should provide more details regarding stability assessment planning for both the open pit and for waste dumps.

This concludes INAC's comments. Should the NWB or Benachee Resources Inc. have any questions or require clarification on any of the comments and suggestions in this review, do not hesitate to contact the undersigned.



Robert Eno
Water Resources Coordinator

c. Greg Missal - Tahera Diamond Corporation