

In the matter of:

Water licence number NWB1LUP0008 (Lupin Mine), and  
an Application to the Nunavut Water Board by Echo Bay Mines  
Ltd. for amendment of the licence

Written Intervention  
by the Department of Indian Affairs and Northern Development

October 30, 2001

## *1. Introduction*

This is an intervention by the Department of Indian Affairs and Northern Development (“DIAND”), with respect to an application by Echo Bay Mines Ltd. (“Echo Bay”) for amendment of water licence number NWB1LUP0008. Echo Bay is named as the licensee in that water licence. The licence is for a mining and milling undertaking at the Lupin Mine, which is located at Contwoyto Lake, in Nunavut. Echo Bay’s application seeks an amendment of a licence condition, so as to reduce the amount of security required by the licence.

The Department is responsible for the administration and enforcement of the *Northwest Territories Waters Act* (the “Act”). As described in section 12 of the Act, the objects of the Board are to provide for the “conservation, development and utilization of waters in a manner that will provide the optimum benefit therefrom for all Canadians and for the residents of the Northwest Territories in particular.” For purposes of the present proceedings, the reference to the Northwest Territories should be understood as a reference to Nunavut. (See also Section 13.2.1 of the Nunavut Land Claims Agreement.) The Department’s comments and recommendations, therefore, are made, with these objects in mind.

## *2. DIAND’s Considerations*

DIAND submits that it is inappropriate for the Board to entertain an application for amendment of water licence NWB1LUP0008 at this time, since the licence has not yet been approved by the Minister and is therefore not an “issued” licence.

If the Board rules that the lack of ministerial approval of the Lupin licence does not prevent the Board from entertaining an application for amendment, then DIAND submits that the Board should admit and consider, in support of the application, only evidence and arguments which the applicant could not have brought forward in the March, 2000 proceedings by exercising reasonable diligence. An application to amend a licence must not be used as a substitute for an appeal or a

judicial review application. It must not be used as a means of presenting evidence or arguments which Echo Bay put forward in the March, 2000 proceedings, or could have put forward had it exercised reasonable diligence.

Section 17 of the Act authorizes the Board to require a licensee to furnish and maintain security with the Minister in an amount determined in accordance with the NWT Waters Regulations (the “Regulations”), and in a form prescribed by the Regulations or a form satisfactory to the Minister. In addition to the Act and Regulations, the Department’s draft Mine Reclamation Policy for Nunavut (initial draft September 27, 1999) provides further guidance on the need for a licensed mining company to provide the Crown with financial assurance adequate to ensure that the site is reclaimed at the expense of the mining company. The draft Mine Reclamation Policy was presented at the last Echo Bay public hearing. The Department’s position on security for mining operations is that mining companies must have sufficient financial assurances in place so that costs for mine site clean-up do not become the responsibility of the Crown and thus the taxpayer. With respect to older mining operations, a case-by-case assessment must be made.

Traditional tailings reclamation has generally involved the covering of tailings with a quantity of suitable granular material sufficient to ensure that permafrost will re-form in the tailings area, and sufficient to ensure that the extent of re-formation will be such that, even at the time of maximum melt, the active layer will not extend downwards into the tailings material. In that way the ability of tailings to oxidize is eliminated. In the study proposal commissioned by Echo Bay to examine alternate approaches to cover mine tailings, and submitted to the Board on July 16, 2001, Messers. Sego and Biggar state that “temperatures have been measured beneath these two covers (0.5m and 1.0m in thickness) and indicate that thaw has penetrated to about 1.75m below the cover material.” They continue with “at least 1.75 m thickness of cover [is required] to prevent thaw from penetrating into the underlying tailings”. And further state that “it has been suggested that a cover of up to 2m thick may be required.”

Echo Bay has proposed research to study reclamation alternatives.

According to the proposal, Echo Bay would focus their research efforts on investigating whether it is possible to establish and maintain an insulating layer of cold air within a layer of open-rock cover and thereby to keep the tailings permanently frozen. Echo Bay proposes to conduct the research over a period of 3 years. The primary benefit which Echo Bay hopes to secure is a reduction in the necessary quantity and grade of cover material; and Echo Bay hopes that this in turn would reduce the reclamation costs otherwise associated with the more traditional method. However, Echo Bay has not established any definitive results as yet. What Echo Bay proposes is a 3-year research programme. There has been no data generated, no data analyzed, and no demonstration that the option proposed is effective, feasible, suitable and reliable.

While the department will optimistically monitor the progress of this research work, there are basic principles related to mine site abandonment and security requirements that the Board should continue to adhere to, in the interim, in order to limit the liability of the Crown and the taxpayer should a situation arise in which Echo Bay is unable to fulfill reclamation obligations.

### 3. Amount of Security Deposit

Both the Board and the DIAND have based security estimates on the RECLAIM modelling program, and have accepted security estimates so based. Indeed, the level of industry acceptance continues to support the use of this cost estimating model. The assumptions that are made when developing cost estimates using RECLAIM are based on previous DIAND experiences in the NWT, and they include the assumptions:

1. that third- party rates will have to be paid if the Crown has to conduct abandonment or reclamation work, and;
2. that equipment belonging to the licensee or its contractors will be either unavailable for use or in a condition such that it is unsuitable for use.

The Brodie report (prepared for the March, 2000 hearing) is based upon an application of RECLAIM, and DIAND therefore recommends that the

Board continue to use that report as the basis for calculating the amount of security required.

The Echo Bay submission of July 16, 2001 presents some ideas which, if borne out by further research, practical testing, and data, might in the future justify a reduction in the prescribed amount of security. However, at this time it has yet to be demonstrated that the approach that Echo Bay advocates and wishes to research would be effective, feasible, suitable and reliable. No substantive evidence has been presented that would warrant an embracing of the cold air barrier approach and a reduction in the anticipated thickness of the final tailings cover. Accordingly, there is no substantive evidence which would justify a corresponding reduction (if any) in the estimate of abandonment and restoration costs, and a consequential reduction in the amount of security required.

**DIAND recommends that the Board maintain the required amount of security at \$29.2 million.**

#### *4. Form and Schedule of Security*

If the Board rules that the lack of ministerial approval does not prevent the Board from entertaining an application for an amendment to the quantum of security, it is DIAND's submission that the Board must at the same time determine the date by which the quantum decided upon by the Board is to be posted. As part of determining the date by which the quantum is to be posted, the Board must determine whether posting is to be made in installments and, if so, the schedule (amounts and due dates) for the installments.

**DIAND submits that it is the responsibility of the Board to set the schedule.**

The form of security is the concern of the department. The department will continue to work with Echo Bay to ensure that security is posted in a suitable form or forms.

**DIAND will address the issue of the form(s) of security, in consultation with Echo Bay.**

O.S.B.

**Paul Smith  
Manager, Water Resources  
Department of Indian Affairs and Northern Development  
Nunavut Region**

**October 30, 2001**

Approved by:

O.S.B.

**Stephen Traynor  
Director of Operations  
Department of Indian Affairs and Northern Development  
Nunavut Region**

**October 30, 2001**