# ECHO BAY MINES LTD.

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July 5, 1999

Executive Director Nunavut Water Board P.O. Box 119 Gjoa Haven, NT X0E 1J0 NUNAVUT WATER BOARD

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PUBLIC REGISTRY

Our File: N7L2-0925 Your File: Water Register N7L2-0925

Dear Sir:

RE: Echo Bay Mines Ltd., Lupin Gold Mine, Contwoyto Lake, NT. Water Licence No. N7L2-0925; Licence Renewal Application

The Lupin Mine, located near Contwoyto Lake, NT currently operates under Water Licence N7L2-0925 originally granted by the Northwest Territories Water Board pursuant to the Northwest Territories Waters Act and Regulations. The current licence was last renewed on June 1, 1995 and the expiry date is **May 31, 2000**.

With the above in mind, please find enclosed a completed Nunavut Water Board Licence Application form and the renewal application fee of \$30.00 (Cheque No.030731) payable to the Receiver General for Canada. A second cheque is included (Cheque No.03730) in advance for the water use fee covering the period June 1, 2000 to May 31, 2001. Also included with the application is a supplemental information package in support of the licence renewal.

This application is submitted in advance of the licence expiry to allow adequate processing time, response time to requests of the Board and preparation time in anticipation of the requirement for a public hearing. Echo Bay Mines Ltd. could be available to participate in the Public Hearing Process as early as the fourth quarter of 1999 allowing a suitable time frame for review and issuance of a new licence prior to the May 31, 2000 expiry. Due to the current suspension of operations and the deferral of decant in both 1998 and 1999 from the TCA, no new data is expected to be available prior to the licence review.

The Licence history for the Lupin Mine originated with the first issue effective June 1,1981 with an expiry of May 31, 1987. Two amendments occurred during that period with the first allowing discharge of camp wastes to the sewage lakes system. A second amendment followed

a public hearing and was issued to allow discharge of mine water to the sewage lakes system subject to specified criteria and the licence was extended to May 31, 1990. In August of 1985, an emergency amendment was granted to allow the discharge of the TCA (in 1985) at arsenic concentrations in excess of the licence limits. In 1990, The licence was then renewed for the period of June 1, 1990 to May 31, 1995.

During this 1990-95 licence period, in November 1994, the Minister of Indian Affairs and Northern Development approved an amendment to the licence for the placement of tailings underground utilizing paste backfill technology. After this, minor modifications and rewording of the licence took place with the renewal that was effective June 1, 1995. No other amendments have been issued during this most recent licence term.

A clause by clause review of the licence will no doubt take place during the renewal process and the public as well as other governmental departments will be submitting interventions to be considered by the Board in preparation of a new licence. With this in mind, Echo Bay Mines Ltd. respectfully submits the following comments on the past licence term focusing on compliance and future considerations.

#### LICENCE N7L2-0925

The terms and conditions of the current Water Licence have been well accepted and complied with. The minor changes to the licence during renewal processes in 1994-95 have not resulted in any significant compliance issues that could not be managed. With the exception of the discharge rate of the TCA and various infrequent, unreported SNP monitoring data, all conditions of Licence N7L2-0925 are believed to have been filled to the satisfaction of the Board.

Other than the items listed in the following, Echo Bay Mines Ltd. does not have any further comments at this time with regard to the current licence in place and renewal.

### PART B; GENERAL CONDITIONS

Item 2 The security deposit was increased from \$400,000 in the term 1990-94, to an amount of \$1,000,000 in the term 1995-2000. This security deposit has historically been placed in the form of a "letter of credit", however, it is currently in place with the Receiver General for Canada in the form of cash.

Taking into account the Lupin Operation's excellent compliance history and the demonstration of progressive reclamation (Cell 1&2, East zone crown pillar), we believe that the amount currently set as security is reasonable and should be maintained.

Item 5 The Surveillance Network Program annexed to the water licence has been complied with during the licence term with the exception of infrequent, missing SNP analysis data from the monthly and annual compilations. This "missing"

data is ultimately the result of human error, be it in not recording the information properly at the time of sampling; misplacing the information prior to entering data or laboratory error with the end result of "no data available".

In most cases, re-sampling to obtain the result is not considered. Most on site laboratory analyses are carried out over the course of a few days and it is often at that time, sampling has already been completed for the next sampling session.

### PART C; CONDITIONS APPLYING TO WATER USE

Currently the annual quantity of water allowed to be withdrawn from Contwoyto Lake is 1,700,000 m3. The average quantity of water used during the licence term had been 1,572,726 m3 (using 1994-1997 data due to care and maintenance phase in 1998 to present). There is a slight increasing trend, however, in discussing the matter with the site mill operations people, it was felt that the additional water consumption was a result of the paste backfill system start up in 1995 and that better control and recycling of water within the mill circuit would be successful at maintaining the water demand below the licenced quantity. Please see the enclosed supplemental information for details on the historical water consumption and specifically, that during the licence period.

## PART D; CONDITIONS APPLYING TO WASTE DISPOSAL

- Item 3 The discharge rate from the TCA was exceeded on four occasions during the decant period in 1997. These dates represent two distinct circumstances when daily flow rates were affected due to 1) change in wind direction at the decant location after flow rates had been checked. Slight increase in flow due to wave action on the syphons; and 2) an increase in water level of Pond No.2 during concurrent transfer of water from Pond No.1. Syphon flow rates fluctuated accordingly prior to adjustment. On all dates in question the rates were within 10% of the maximum flow rate specified in the licence.
- Item 5 The water quality effluent requirements specified in this section have been met during the licence term with the exception of reported elevated total suspended solids on two days and two occurrences of pH below that specified, all in 1996. With the current treatment facility (containment holding time and iron/lime addition) it is felt that once operations resume, the Company will be able to continue to meet these effluent quality limits in the foreseeable future.
- Item 8 The water quality effluent requirements for discharge from the sewage lakes disposal system have been consistently met with the occasional exception of pH. The pH was recorded low (below 6.0) once in 1995 and once in 1996. During these periods, addition of lime has taken place to raise the pH and continue discharge until the end of the season.

### LICENCE TERM

Echo Bay Mines Ltd. is requesting an eight year licence term, with an expiry date of May 31, 2008 to correspond with a recent "Re-engineering Study" and mine plan developed based on current mine life, ore reserves and projected resource development. This plan indicates steady production for a five year period followed by three years of declining production.

It is expected that prior to the requested licence expiry of 2007, the renewal of Licence N7L2-0925 will again be required which will provide for approximately two years until the current Life of Mine plan is completed and the Lupin Operations are to be closed down. During this renewal review, restoration plans and the activities to date will have generated additional data that may be pertinent to final closure planning. During these final two years of operation, Echo Bay Mines Ltd. would also be seeking approval of the Abandonment and Restoration Implementation schedule and any concerns or additional clauses can be included in the licence renewal at that time.

#### OTHER CONSIDERATIONS

With respect to the need for a public hearing on the renewal of an industrial water licence, it is felt that it would be in the best interests of both the Company and the residents of Nunavut that the public hearing be held in the community of Kugluktuk, Nunavut. The proximity of the mine to the coastal community and the interactions of its residents with the mine, justify the holding of meetings in a location where access would be available and unrestricted.

I appreciate your time and consideration of the above and the attached application for renewal of Water Licence N7L2-0925. I do hope that the additional submission information is adequate for a thorough review of the Lupin Operation. If you have any questions, comments or require additional information, please feel free to contact the undersigned at your earliest convenience at (780) 890-8794.

Yours truly,

D. Hohnstein

Environmental Coordinator, Lupin

Attach.

CC

J. McCrank, V.P. Operations

B. Danyluk, Mine Manager

H. Ducasse, Manager Loss Control and Environmental Affairs