

July 17, 2001

Nunavut Water Board
P.O. Box 119
Gjoa Haven
Nunavut, X0B 1J0

Attention: Mr. Philippe di Pizzo, Executive Director

RE: Hope Bay Joint Venture Licence Renewal NWB1BOS9801

Dear Sir:

Enclosed are the Kitikmeot Inuit Association's (KIA) written submissions in the above captioned licence renewal proceeding.

1. INTRODUCTION:

The KIA supports the Hope Bay Joint Venture's (HBJV) application for water licence renewal subject to the concerns and recommendations made below. As the Nunavut Water Board (NWB) is aware, parts of the facilities and project improvements at the Boston site at Aimaokatak Lake are on Inuit Owned Land (IOL).¹ This circumstance has some important implications in this proceeding and they are outlined below.

As the surface land owner, KIA could potentially be liable under environmental legislation, including the *Northwest Territories Waters Act*² (NWTWA), for any default of the licensee under its water licence. KIA is also responsible for the management of IOL on behalf of the Inuit of the Kitikmeot Region. Inuit also have an interest in some of the subsurface lands at the Boston site. These subsurface lands are managed by Nunavut Tunngavik Incorporated (NTI). The KIA has joined NTI in subscribing to their Mining Policy.³ That policy indicates that Inuit will support mining development which is consistent with the protection of the ecosystemic integrity of Nunavut. The policy's first objective is to "minimize the negative impacts" of mining in Nunavut. This policy approach and its objectives form the basis for the KIA submissions outlined below. KIA urges the NWB to ensure that its licence renewal decision protects the land and is supportive of Inuit objectives for IOLs while granting the HBJV the operational scope necessary to continue its exploration and development activities.

¹ *Re: Security Deposit for BHP Boston Gold Project*, NWB Reasons for Decision April 21, 1999, page 5. Hereinafter cited as "the 1999 Reasons".

² S.C. 1992, c.39.

³ Mining Policy, Nunavut Tunngavik Incorporated, 1998.

On June 25, 2001 the NWB indicated its decision to restrict the scope of this proceeding to the following issues:

- (a) All matters currently regulated under Licence NWB1BOS9801;
- (b) Potential acid rock drainage and metal leachate from ore and waste rock piles;
- (c) Abandonment and restoration of the undertaking;
- (d) Assessment of the cost to carry out the abandonment and restoration of the undertaking; and
- (e) Terms and conditions for the financial assurance.

KIA's primary concerns with respect to this proceeding relate to acid rock drainage and metal leaching potential, assessment of costs for abandonment and reclamation and the terms and conditions for financial security.

We address each of those issues in turn below:

2. ACID ROCK DRAINAGE AND METAL LEACHING:

KIA retained Ferguson Simek Clark Engineers (FSC) to assist with the interpretation of the documentation provided by the Board and the HBJV on the potential for acid rock drainage (ARD) and metal leaching from waste rock and ore stockpiles at the site. FSC in turn retained an expert in ARD, Mr. Bruce Matson, M.Sc., P.Geo. of Lorax Environmental Services Ltd. (Lorax) to assist with this initial review. Subsequently, in the period between June 12 and 14th, 2001, FSC staff attended at the Boston site and conducted a limited program of field sampling intended to provide additional information to inform KIA about ARD and metal leaching potential and to assist KIA in formulating this submission.

FSC was instructed to perform sampling of both rock and water at the site to analyze whether or not the rock contained in the ore piles is acid producing. The KIA was concerned about the results of previous sampling, literature and visits that occurred to the Boston site. It appeared that many of the results or conclusions from different documented sources contradicted each other or were incomplete. The field sampling program was to involve the collection of three (3) ARD samples directly in the ore pile and another ten (10) in the run-off area to the east of the ore pile. Three (3) water samples were also to be taken and analyzed for basic water chemistry and trace metals.

The initial review of documents submitted to KIA on June 6, 2001 by Lorax and FSC, suggested that the report by Rescan appeared to misinterpret the data produced by their extensive sampling program. It appeared that the acid generating potential of the property had been over estimated. However, there existed a concern for pH neutral leaching of arsenic, nickel and possibly antimony.

The conclusions drawn from this initial review of documents, conducted by Lorax and FSC, caused a change in scope of the field sampling program. The result was that the extent of all environmental issues with regards to the waste rock and ore piles at Boston had to be considered.

The Lorax Report of June 6, 2001 is attached as Exhibit 1 to this submission. The June 6, 2001 summary and recommendations derived from the Lorax report by Mr. Ron Kent, P.Eng., of FSC are attached as Exhibit 2. A preliminary report on the June 12 to 14th field sampling results from the Boston site has been provided to KIA by FSC. The preliminary conclusions from that report are outlined below. A final report cannot be provided until July 24th when KIA is scheduled to submit reply argument. We regret this situation but the laboratory analysis of the samples was not completed in time to append a final report to these submissions. We request the Board's indulgence in this regard.

The following preliminary conclusions on the issue of ARD and metal leaching were drawn by FSC after the preliminary analysis of the on site sampling results from June 12 to 14th:

1. Acid base accounting data indicated that the ten "rock, ore pile" samples collected on surface by FSC were not similar to the material sampled by BHP geologists or Rescan.
2. The lack of neutralization potential (NP) in the FSC samples suggests that these samples must be the quartz vein material associated with the ore, which appears to have significantly different ARD characteristics than the majority of the material discussed in the Rescan Report. Thus, many of the issues discussed in the Rescan report regarding waste rock do not apply to the ore material presently on the ore pad. However, the waste rock may underlie the sampled ore stockpile.
3. Despite having $NPR > 1.0$ and $NNP > 0$, five of the ore pile rock samples had paste pH < 5.5 . This confirms that a portion of the measured NP is ineffective at neutralizing acidity under field conditions for this material.
4. Arsenic leaching is a concern from waste rock sampled as shown by the results of the water samples.
5. The presence of standing water appears to exacerbate the leaching of arsenic, and also the leaching of nickel, both of which, in the samples collected, exceed CCME water quality guidelines for the Protection of Aquatic Life.
6. Ponded water near the stock piles and camp contained elevated levels of arsenic and the camp waters also contained elevated nickel concentrations. However, there appears to be sufficient assimilative capacity in the drainage system to lower the concentrations of these two metals to within the CCME water quality guidelines for the Protection of Aquatic Life, prior to discharge into Spyder Lake.

7. Given the potential of the development rock to leach metals, the accumulation of additional development rock in the area may increase metal loads to the system
8. The geochemical leaching characteristics of any new waste rock and eventually of mine tailings should be determined to facilitate the design of management facilities.
9. Determining the presence, distribution and form of the arsenic in the critical geologic units that will be mined should be the primary focus of future characterization and monitoring programs.
10. An on-going determination of ARD and metal leaching potential should be undertaken for new areas of the mine as they are developed.
11. An inventory should be maintained of which materials are placed in which locations on the surface.
12. Monitoring stations should be established to assess the quality of water discharged from stockpiles, tailings and other altered surfaces including the roads and camp site(s) in addition to any sampling at Spyder Lake.

Based on these findings, the KIA respectfully submits that the SNP should be reviewed. We suggest that the SNP be modified as required to monitor the metal leaching from the ore and waste rock piles. The applicant should be required to submit a revised SNP plan for NWB approval, taking these concerns into consideration, within a reasonable time after the issuance of the new licence. The applicant should also be required to submit a plan for Board approval for managing and minimizing metal leaching problems, if they are occurring.

3. ASSESSMENT OF COSTS FOR ABANDONMENT AND RECLAMATION:

a) Issue 1 – Solid Waste Disposal on Site

KIA has reviewed the “Abandonment and Restoration Plan for the Boston Gold Project” (A&R Plan) dated May 23, 2001, submitted by the HBJV to the NWB. We note that the existing licence, Part E, s.14 currently prohibits the burying of scrap metal and other bulky wastes. Page 3 of the A&R plan suggests that “Building materials that are not burned or salvageable, will be placed into the Boston underground workings or the solid waste disposal area and buried”. In order to authorize this activity, the NWB will have to take s.14 out of the licence.

The NWB, of course, has statutory authority under the NWTWA to authorize the establishment of a solid waste disposal facility insofar as water management issues may arise and DIAND has authority under the *Territorial Lands Use Regulations* ⁴

⁴ C.R.C. 1978, c.1524 as amended.

(TLUR) to approve such a facility on Crown lands. However, to the extent that such facilities are proposed for IOL, they require approval of the KIA or possibly the KIA and NTI. The applicant HBJV does not have this permission. In fact the current land use licence for the Boston site does not authorize the establishment of a dump.

It is also worth noting that if the establishment of such a facility requires a government licence or permit that it would have to be screened pursuant to Article 12 of the Nunavut Land Claims Agreement (NLCA). It is KIA's view that if such a facility is to be approved by the NWB as part of this new licence it should be screened first, not approved by the NWB and then screened.

KIA policy for the management of IOL has, for some time, been not to permit burial of waste materials because of permafrost problems. The buried material frequently is forced back to the surface by freeze thaw cycles. It thus seems unlikely that the applicant will be able to establish a dump/solid waste disposal facility on IOL. The assumptions in the A&R plan about the establishment of this facility and underground disposal of bulky waste materials were made without close consultation with KIA. In any event, it is the KIA's position that the NWB should not approve an A&R plan based on the use of such facilities without looking at the proposed design of the facilities.

The costing of the A&R plan depends on the assumptions that these modes of waste disposal will be possible. Until the applicant resolves these issues with the Inuit land owner or make arrangements for such facilities on Crown land, the cost estimated in the A&R plan will underestimate of the real cost of clean up and reclamation of the site.

KIA recommends that the applicant be required to provide a cost of A&R for the Board's consideration which does not include the use of solid waste disposal on site and the use of underground disposal of bulky waste. We submit as well that the NWB should require that the applicant file evidence of its authority to establish a solid waste disposal facility or to dispose of bulky waste materials underground before accepting any A&R plan which relies on such methods of disposal.

b) Issue 2 – KIA Security

On page 8 of the A&R plan, the applicant suggests that the joint security held for the Boston site may be excessive because KIA holds a bond of \$750,000.00 under land use licence KTL399C028. This bond is held as security for the A&R costs for another IOL parcel which is subject to HBJV operations, at north Hope Bay/Windy Lake. KIA holds no security, other than its interest in the joint security, for the Boston water licence site at Aimaokatak Lake.

It is not possible to determine from the A&R plan, as it is now written, how to distribute the "Indirect costs" and the "Contingency costs" between these two sites. It therefore appears to KIA that the applicant should break down the total costs of A&R on the basis of the costs for the area covered by the water licence (the Boston site area) versus

those for the “Outside Boston” area. This information would assist the Board in making the security reduction decision requested by the applicant.

KIA relies on its submissions from the previous Boston licence proceeding with respect to the legal issues raised by the request for a reduction in overall security under the water licence. KIA is potentially liable for any unsatisfied A&R costs if the HBJV security is not adequate to cover 100% of the potential clean up costs for their operations. The NWB has adopted a policy of requiring the full cost of A&R for security under water licences at new mine sites in Nunavut. KIA supports and commends this approach. We only need to consider the horrendous issues raised by the failure of the NWT Water Board to order adequate security from Royal Oak at the Giant and Colomac mine sites to reinforce the wisdom of the NWB’s approach to these security requirements.

Whatever amount is determined by this proceeding to be the full cost (100%) of clean up at the Boston site should be required by way of security from the applicant. The NWB should build in reasonable contingency amounts as well. If the total security held under the water licence is in excess of that amount then KIA would support a reduction of the bonding requirements. This submission is subject to our earlier argument about the increased costs which may result if no solid waste facility or disposal of bulky materials can take place underground on IOL.

KIA takes the position that the security bond held under its land use licence for the Windy Lake area is not relevant to these proceedings. That bond is a matter resulting from a private commercial transaction between the applicant and the KIA. It is unrelated to the water licence.

4. The Terms and Conditions for the Boston Financial Assurance

The applicant has not made a request for a change to the terms and conditions under which the security is held (and is accessible to KIA) other than its request for an overall reduction in the amount. KIA is satisfied with these terms and conditions which are outlined on pages 23 through 25 of the NWB’s 1999 Reasons.

We understand from discussion with counsel for DIAND that there are difficulties with the use of a pledge of assets as one of the forms of security which could be provided pursuant to the licence. The applicant indicates on page 8 of the A&R plan that security has been provided in the form of letters of credit, effective January 1, 2001. Subsection 12(3) of the NWT Water Regulations does not list a pledge of assets among the acceptable forms of security.

In KIA’s view it would be difficult for any creditor to realize value from a pledge of assets at the operations site. KIA submits that the forms of acceptable security in the new licence should be revised by deleting the “pledge of assets” option. This will cause no hardship to the applicant.

The current security arrangements were developed after a full oral hearing of the issues in Cambridge Bay in 1999. They represent a careful and innovative compromise worked by the Board to avoid the possibility that a licensee on private land might have to post security both with the land owner and with the Crown under a water licence. These terms and conditions are also sensitive to the unique land ownership arrangements in Nunavut. There is no evidence before the Board to indicate that they are not appropriate. KIA's position is that they are.

KIA urges the NWB to leave the terms and conditions of the security held under the water licence unchanged, except for the review of quantum and the elimination of the pledge of assets as a form of security, as outlined above. The appropriate time for a review of these arrangements is when a production decision is taken by the applicant.

5. CONCLUSION:

KIA suggests that the SNP plan be revised and that new stations be established to monitor metal leaching from the waste rock and ore piles. We will file our consultant's final report and recommendations on this and other ARD issues on July 24th. KIA supports in principle a reduction of the overall security held for the site, subject to seeing evidence from the applicant of the total costs of the Boston and outside Boston costs of A&R. Finally, KIA urges the NWB to retain the terms and conditions for security and access to security which have been in place for over 2 years, subject to the elimination of the pledge of assets as an acceptable form of security.

ALL OR WHICH IS RESPECTFULLY SUBMITTED:

This 17th day of July, 2001

John Donihee
Counsel for the
Kitikmeot Inuit Association

cc. Charlie Evalik President, KIA
Jack Kaniak, Lands Manager, KIA

Attach.