



Water Resources Division
Nunavut Regional Office
Iqaluit, NU X0A 0H0

November 15, 2011

Phyllis Beaulieu
Manager of Licensing
Nunavut Water Board
PO Box 119
Gjoa Haven, NU X0A 1J0

**Re: 2AM-JER0410 – Jericho Diamond Mine – Shear Diamonds Ltd. –
Application for Renewal – Aboriginal Affairs and Northern
Development Canada's intervention to the Type 'A' Water Licence
Final Hearing, November 30 – December 1, 2011.**

Aboriginal Affairs and Northern Development Canada (AANDC) is pleased to present the following intervention in accordance with the Nunavut Water Board's (NWB or the Board) Type 'A' water licence renewal final hearing process for Shear Diamonds Ltd (Shear) Jericho Diamond Project.

By way of its pre-hearing decision, the NWB requested comments from interested parties on outstanding matters for the final hearing by September 23, 2011. On September 21, 2011 the NWB posted a Pre-hearing Conference Decision Addendum regarding the postponement of the Final Hearing. The Board has asked written submissions of interested parties, complete with an executive summary in English, Inuktitut and Inuinnaqtun, be filed with the Board no later than 3:00 pm MST, Tuesday, November 15, 2011.

To support in the narrowing of issues for the final hearing, Shear hosted AANDC at the Jericho site in order to proactively resolve outstanding information requests. Many items were resolved; however some items resulted in action items that will be addressed by Shear through the submission of plans following the final hearing process.

Please note that AANDC reserves the right to identify additional questions or comments for the final hearing that arise as a result of ongoing discussions.



Indian and Northern
Affairs Canada

Affaires indiennes
et du Nord Canada

Please feel free to contact Bernie MacIsaac, Director of Operations for AANDC should you have any questions or comments. Mr. MacIsaac can be reached at (867) 975-4546 or by email at Bernie.macisaac@aandc.gc.ca.

Sincerely,

Original signed by

Robin Aiken
Regional Director General
Nunavut Regional Office
Aboriginal Affairs and Northern Development Canada



Technical Review Memorandum

To: Phyllis Beaulieu, Manager of Licensing - Nunavut Water Board

From: Tanya Trenholm, Pollution Policy Specialist – Aboriginal Affairs and Northern Development Canada – Water Resources Division

Re: **2AM-JER0410 – Jericho Diamond Mine – Shear Diamonds Ltd. – Application for Renewal – Aboriginal Affairs and Northern Development Canada’s intervention to the Type ‘A’ Water Licence Final Hearing, November 30 – December 1, 2011.**

AANDC would like to thank the Nunavut Water Board (NWB or the Board) for the opportunity to participate in the NWB type ‘A’ water licence renewal process for Shear Diamonds Ltd. Jericho Diamond Mine.

AANDC looks forward to participating in the final hearing, scheduled to take place November 30 – December 1, 2011, in Kugluktuk, Nunavut.

Additionally, AANDC would like to thank Shear for their hospitality, cooperation and willingness to openly discuss outstanding AANDC information requests on site August 24-26, 2011.

Attachments to this submission include the following:

- Appendix 1: a draft conformance table summarizing outstanding information requests and conformity requirements in respect of Shear’s existing license,
(It is important to note that the draft conformance table includes only those information requests that still require action as posed by AANDC (i.e., does not include issues raised by other interested parties). AANDC also understands that some of the forthcoming issues will not be resolved in advance of, or at the hearing, but rather by way of proposed plans to be submitted following the licensing hearing);
- Appendix 2: a proposed plan submission/conformity schedule; and
- Appendix 3: a summary of the AANDC’s reclamation estimate.

Generally speaking, AANDC is satisfied with the terms and conditions of the original licence moving forward, subject to the additional comments and considerations noted in this Intervention including our comments set out in Appendices 1, 2, and 3.



Technical Issues and Recommendations:

AANDC recommends that the Board require Shear to comply with the outstanding conformity requirements set out in Appendix 1. Of specific note to the Board are the following additional comments:

Site Water Management Plan:

Water Balance:

It was noted that the Mine site experienced peak flow events while under Tahera operation in 2006. Shear committed to checking previous records of peak flow events to ensure that the current water balance includes these considerations. This is expected to be addressed by way of an updated Site Water Management Plan.

Final Abandonment and Restoration Plan:

The final A&R plan should address how permafrost aggradation impacts the use of waste rock material for reclamation. Additionally, a final A&R Plan should address the possible impacts and the potential formation of a talik at the bottom of the open pit when mining concludes, and the potential hydraulic connection to Carat Lake.

Waste Rock Management Plan:

AANDC requests that results from Acid Rock Drainage and Metal Leaching testing be made available for review before any segregation of the rock is necessary during mining operations. AANDC understands that Shear has conducted the analysis.

Aquatic Effects Management Plan:

General:

The AEMP does not mention planned toxicity testing of the effluent discharge to stream C3. Additionally, and in general, the current version of the AEMP does not include any fish sampling or toxicity testing. Shear indicated at the August 24-26, 2011 site visit that fish sampling and toxicity testing would be forthcoming. AANDC looks forward to receiving the updated AEMP that reflects the inclusion



of this sampling, and does recommend that ongoing toxicity testing be carried out at the effluent discharge location to stream C3.

Location of phytoplankton and zooplankton monitoring:

The current AEMP monitoring for phytoplankton and zooplankton appears to be limited to the south basin of lake C3 (JER-AEM-07) which is a distance from the stream discharge. In order to sample at a location more representative of the mixing zone, and closer to the discharge point, AANDC would like to recommend Shear consider changing the sampling location to JER-AEM-06.

Reclamation Estimate:

To date, the Board's practice has been to set the security estimate for the Jericho mine taking into account both land and water reclamation costs, having regard to any security arrangements between landowners and the Proponent. The Jericho mine is unique in that the operation takes place both on Crown and Inuit Owned Land.

Accordingly, AANDC has updated its reclamation cost estimate (attached as Appendix 3) for decommissioning of the Jericho property as follows:

Lands Liability:

Total liability for the site was estimated to be \$11,916,505.00; with the lands portion of the total estimate being \$ 8,527,431.00. Of the \$8,527,431.00, \$1,264,034.00 is estimated to be KIA lands, leaving \$7,263,397 for Crown related land liability.

AANDC Lands Administration confirms that it presently holds \$6,120,413.99 in financial assurances with the Minister. AANDC Lands Administration would like to further confirm that it will work cooperatively with Shear towards securing the additional amount of security related to crown land related liability.

Waters Liability:

Waters related liability is presently estimated at \$ 3,389,074.00. AANDC confirms that it presently holds \$ 2,200,000.00 in financial assurances with the Minister; leaving a balance of \$ 1,189,074.00 required for water related liability.

Additional Licensing Considerations:

On August 22, 2011, Shear submitted an Operational Commitment List that proposed a schedule of plan submissions to the NWB. It is contemplated that



certain of these plans will be submitted subsequent to the issuance of the renewal licence. Generally speaking, AANDC prefers that plans be submitted prior to issuance of a licence, where technically feasible. However, in this case AANDC is supportive of allowing plans to be filed subsequent to the issuance of the licence in accordance with the procedures set out below and included in Appendix 2.

AANDC recommends that each plan be submitted to the Board and circulated for comment by interested parties as outlined in Appendix 2, section 1. AANDC has recommended four categories of recommended lead-time. Plans rated as Red, Yellow, or Orange should be circulated for review prior to the Board's consideration of the Plan's acceptability. In each case, the plan should be submitted and circulated with sufficient advance lead-time (as outlined in section 1) to allow for a reasonable review and comment-period by interested parties and for proper consideration by the Board. Finally, AANDC recommends that the Board require the outstanding Plans to be approved prior to the commencement of the proposed activity contemplated therein -- again, as described in Appendix 2.

Language of licence terms and conditions:

As noted above, it is understood that the outstanding AANDC information requests will be addressed by way of plans to be submitted by Shear after the water licence hearing process. In order to provide greater certainty and clarity to the existing licence, AANDC would like to propose that any renewed licence reflect more prescriptive language to the fulfillment of license conditions dealing with submission of plans post-licensing. For instance, if a plan relates to a specific activity, the licence should explicitly state that the Board must complete its review and approval of such a plan prior to the specific undertaking or activity becoming permissible, and further, that the activity shall not occur until such a time as Board approval is obtained. As noted above, AANDC recommends that such language should give sufficient lead-time for the Board to receive and review the plans and obtain whatever technical assistance or comments it deems necessary prior to approval.

Proposed Additional Licence Condition:

Finally, in order to promote a clear understanding of the project and its direction and to facilitate timely reviews of outstanding plans, Shear has suggested that it submit quarterly reports and projections to the NWB. AANDC recommends the requirement for quarterly reporting/projections be included as a licence term and condition, understanding that projections will be draft and that any such submissions will be for information purposes only (i.e., not for review or comment by interveners).



Term of Licence:

By way of their Type 'A' water licence application for renewal, Shear has asked for a renewed licence term of 10 years to allow for the completion of proposed exploration, site evaluations, maintenance, upgrades, etc and to allow for subsequent potential mine operation. Understanding that any changes to the scope of the mine plan or project will require an application for amendment, and subsequent thorough review by all interested parties, AANDC is in support of a 10 year licence term.

Please feel free to contact Bernie MacIsaac, the departmental representative for this file (Bernie.macisaac@aandc.gc.ca, or (867) 975-4546) should you wish to further discuss any part of this submission to the Board.

Attachments: Appendix 1 - Draft AANDC conformance table
 Appendix 2 - Proposed Plan Submission Schedule
 Appendix 3 - Reclamation Summary

cc. Bernie MacIsaac, Director, Operations, AANDC
 Tanya Trenholm, Policy Advisor, AANDC
 Eva Paul, Water Resources Technician, AANDC
 Andrew Campbell, Department of Justice