



Affaires autochtones et
Développement du Nord Canada

Aboriginal Affairs and
Northern Development Canada



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Shear Diamonds Ltd. Jericho Diamond Mine Type 'A' Water Licence Renewal Application

Nunavut Water Board Final Hearing
Kugluktuk, Nunavut
November 30 - December 1, 2011

Canada



AANDC's role and responsibilities

Responsibilities, mandate and obligations stem from the following applicable law and policy:

- *Department of Indian Affairs and Northern Development (DIAND) Act*
- *Nunavut Land Claims Agreement and Nunavut Land Claims Agreement Act*
- *Territorial Lands Act and Regulations*
- *Nunavut Waters and Nunavut Surface Rights Tribunal Act*
- *Canadian Environmental Assessment Act*
- *Mine Site Reclamation Policy for Nunavut*



AANDC's review

- Review of Shear application materials and historic data related to the existing Jericho Mine Type A Water Licence
- Technical evaluation of the licence application and supporting plans for Jericho Mine, including a review of the reclamation estimate for the project
- Site visit August 24-26, 2011, to resolve information requests



AANDC's intervention

The specific elements included in AANDC's intervention are the following comments and recommendations:

Technical Review

- A table of outstanding information requests and conformity requirements
- Discussion of key issues
- Reclamation Estimate

Additional Licensing Considerations

- A schedule of plan submissions and recommended timeframes for review
- Recommended requirements for plan acceptance
- A requirement for quarterly reporting
- Licence term



Technical issues and recommendations

Included with the intervention is a draft conformance table summarizing outstanding information requests and conformity requirements. Notable amongst those items:

- The Site Water Management Plan
- The Final Abandonment and Restoration Plan
- The Waste Rock Management Plan
- Aquatic Effects Management Plan



Reclamation estimate

A	Total Reclamation Estimate for Lands	\$8,527,431
	KIA Lands	<u>(\$1,264,034)</u>
	Crown Lands only	\$7,263,397
	<u>Crown already holds</u>	<u>(\$6,120,414)</u>
	Balance for Lands	\$1,142,983
B	Total Reclamation Estimate for Waters	\$3,389,074
	<u>Crown already holds</u>	<u>(\$2,200,000)</u>
	Balance for Waters	\$1,189,074
C	Total Reclamation Est. Lands & Waters (A + B)	\$11,916,505



Reclamation Security

Brodie Consulting Ltd. retained by AANDC to:

- Prepare an updated reclamation cost estimate for the reclamation liability of Jericho Mine
- Calculate the total, water, and land related liability



Reclamation Security - Approach

- Review of mine development and interim closure plan
- Identify a scope of work (tasks & quantities), considering the site conditions
- Identify appropriate unit costs for each task



Reclamation Cost Estimate – Assumptions

- Same scope of tasks as per 2004 estimate
- Mine Plan same as previous owner
- Reprocessing 25,100 tonnes of recovery circuit rejects



Reclamation Cost Estimate - Results

- Total Liability - \$11,916, 505
- Land Liability - \$8,527,431
- Water Liability - \$3,389,074



Land/Water Segregation

- Same methodology as applied to:
 - Diavik, Snap Lake, Meadowbank,
- Rationale for segregation is technical:
 - For each reclamation task, it is assigned to land or water based on the impact that would result if the work were not conducted
 - Where impacts to land and water would result, the liability is split, based on judgement



Segregation of Indirect Costs

- Indirect costs:
 - Mobilization, monitoring, project management, engineering, contingency
- land ratio = $\frac{\text{direct land reclamation cost}}{\text{total direct reclamation cost}}$
- water ratio = $\frac{\text{water reclamation cost}}{\text{total direct reclamation cost}}$



Segregation – KIA Lands

- Land liability further segregated into KIA lands
- KIA lands have large portion of waste dumps 1 and 2 as well as emulsion plan and ammonium nitrate storage
- KIA land liability - \$1,264,034



Segregation - Land

- Total Land Liability - \$8,527,431
- Crown land liability – \$7,263,397
- KIA land liability - \$1,264,034



Schedule of plan submissions and recommended timeframes for review

Legend for proposed revised delivery

Proposed Delivery Deadline

Consideration



As soon as possible

90 days prior to
implementation

60 days prior to
implementation

90 days post construction

URGENT

Likely significant changes for
existing or new plan

Previous plan with significant or
reasonable review previously

No review necessary



Recommended procedure to approve plans

- Submission of plans to Water Board
- Circulation of plans for comment by interested parties
- Approval decision rendered by Water Board
- Use of water or deposit of waste related to any work or undertaking for which a plan is contemplated should be prohibited until the Board approves the plan in writing



Plans/components to be submitted

From the PKCA Management Plan:

- Divider Dyke B Design
- Perimeter Berm Design
- North Dam Design

From the Waste Management Plan:

- Landfill Design Report
- Landfarm Design
- Landfarm Management Plan
- Waste Rock Management Plan

Other plans:

- Site Water Management Plan
- Aquatic Effects Monitoring Plan
- Contingency Management Plan
- Mine Plan
- Updated Abandonment and Restoration Plan
- General Monitoring Plan
- Explosives Management Plan
- Quality Assurance/Quality Control Plan



Licence Terms and Conditions

- Quarterly reporting/projections for information purposes (no review or comment necessary)
- AANDC is in support of the proposed 10-year licence term



Koana
Qujannamiik
Thank you