



NUNAVUT WATER BOARD

REASONS FOR DECISION INCLUDING RECORD OF PROCEEDINGS

In the Matter of:

Applicant: CanZinco Ltd., a Wholly-Owned Subsidiary of Breakwater Resources Ltd.

Subject: Application for Renewal and Amendment of Type “A” Water Licence

Date: March 31, 2009

Precedence: Where there is any inconsistency or conflict between the *Nunavut Land Claims Agreement* and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWSRTA)*, the Agreement prevails to the extent of the inconsistency or conflict. Where there is any inconsistency or conflict between the *NWSRTA* and any other *Act* of Parliament, except the *Nunavut Land Claims Agreement Act*, the *NWSRTA* prevails to the extent of the inconsistency or conflict.

RECORD OF PROCEEDINGS

Applicant: CanZinco Ltd, a Wholly-Owned Subsidiary of Breakwater Resources Ltd.

Address: 95 Wellington Street West, Suite 950
Toronto, ON M5J 2N7

Purpose: Application for Renewal and Amendment Type “A” Water Licence for the Nanisivik Mine

Application Received: Amendment – September 26, 2006
Renewal – February 15, 2008

Date(s) of Hearing: February 23, 2009

Panel Members: Thomas Kabloona, Chair
Ross Mrazek, Member
Lootie Toomasie, Member

Board Staff:	Executive Director	D. Filiatrault, P. Eng.
	A/Director Technical Services	D. Hohnstein, C.E.T
	Manager of Licensing	P. Beaulieu
	Assistant Trainee	I. Porter
	Technical Advisor	D. Carr, B.Sc.
	Board Secretary/Interpreter	B. Kogvik

Interpreter(s): M. Allurut

NWB Legal Counsel: C. Emrick, William A. Tilleman Professional Corporation

Court Reporter: K. Schumann, CSA(A)

Sound Technician: T. Kullualik

Applicant: CanZinco Ltd. (CanZinco)

- W. Health, President,
- R. Carreau, Vice-President

Parties: Indian and Northern Affairs Canada (INAC)

- D. Abernethy, Manager Water Resources Division
- A. Campbell, Legal Counsel, Justice Canada

Environment Canada (EC)

- C. Spavor, Environmental Assessment Coordinator

Department of Fisheries and Oceans Canada (DFO)

- G. Cooper

BACKGROUND AND REGULATORY HISTORY

Background

The Nanisivik Mine operated as a zinc, lead and silver underground mine owned by CanZinco Ltd. (CanZinco or Licensee), a wholly-owned subsidiary of Breakwater Resources Ltd. (Breakwater).

The mine site is located in the Canadian Arctic on northern Baffin Island, on the south shore of Strathcona Sound, on the Borden Peninsula, at latitude 73° 02'N and longitude 84°31'W. The environment around the mine site is typical of the High Arctic region, characterized by extremely cold temperatures, low precipitation, continuous permafrost and largely barren surface soils, which results in the mine area having minimal vegetation coverage and wildlife usage.

The mine site is located 1,650 kilometres north of Yellowknife, 750 kilometres north of the Arctic Circle, and approximately 25 kilometres by road from the Hamlet of Arctic Bay, which is located on the shore of Arctic Bay on the Adams Sound. This community, with a population of about 700 people, composed of a majority of Inuit, is located west of Nanisivik. Operationally, Nanisivik mine concentrates were exported to Europe by ship during the short summer open water season, which usually runs from July to November.

Nanisivik is an Inuktitut word that means "the place where one finds things." The ore body was first discovered in 1910 by Arthur English, a prospector on Captain Joseph Bernier's second Canadian government expedition to the High Arctic. The area around the Nanisivik mine was mapped for the Geological Survey of Canada in 1954 and the occurrence of galena and sphalerite in pyrite zones was noted. Based on the work of the Geological Survey of Canada, Texasgulf Inc. initiated exploration work in 1957.

In 1972, Mineral Resources International Limited (MRI) purchased the property and after completing a positive feasibility study on the project, formed Nanisivik Mines Ltd. (NML). MRI ultimately became a wholly owned subsidiary of AEC West Limited, formerly Conwest Exploration Company Limited. At the time of startup, mine life was estimated to be 12 years. In July 1996, Breakwater acquired NML from AEC West Limited. In 1997, the mine was sold to CanZinco.

The main lens mined at the Nanisivik mine is flat lying with outcrops on surface at both ends of the zone. The geometry of the mineralized body and the presence of permafrost permitted large underground excavations and the use of large-scale mining equipment. In the main zone, the primary mining method was mechanized room and pillar. Sulphide ore was mined primarily by underground methods and milled on site to produce lead and zinc concentrates. The mill operated at a nominal 2,200 tonnes per day. Mine personnel and their families resided in the Town of Nanisivik, which was constructed as part of the mine facilities.

The Nanisivik Mine is situated on land leased from the Government of Canada under the Territorial Lands Act and Regulations. Mineral title to the Nanisivik Mine is held under mineral leases. Surface title was also required for certain operations mostly on Crown Lands under the control of Indian and Northern Affairs Canada (INAC).

However, at mine start-up, the surface rights to one block, called the Block Transfer, was transferred to the Government of the Northwest Territories, subsequently the Government of Nunavut, following the creation of the Territory of Nunavut on April 1, 1999. The operation of the Nanisivik Mine was governed by an Agreement signed on June 18, 1974 (Master Agreement) between NML (as assignee of MRI) and INAC which provided for the development and operation of the Nanisivik Mine.

The Nanisivik Mine facilities consisted of an underground mine and a 2,200 tonne per day concentrator using conventional crushing, rod and ball mill grinding, differential lead and zinc flotation, and concentrate drying. A dense media separation plant at Nanisivik came on-stream in July 2001. The main components of the Nanisivik Mine included:

1. Open Pits

The West Open Pit adjacent to the north bank of Twin Lake Creek, about 500 metres east of the industrial plant, with the south side of the pit along the bank of Twin Lakes Creek adjacent to the West Adit of the main underground mine.

The East Open Pit to the east end of the underground workings adjacent to the East Adit, with the north and east limits of the pit defined by the surface contours where mining intersected the moderately sloping topography. The south and west pit walls containing some sulphide. The west pit wall connected to the primary underground workings. Runoff from the surrounding topography drained to the East Adit Treatment Facility (EATF).

The Oceanview Pit was a flat lying sulphide zone adjacent to the Oceanview decline about 5 kilometers east of the industrial plant. The site sloped gently north with solar heating effects considered moderate. The Oceanview area, in general, contains high metal concentrations in the overburden.

2. Solid Waste Disposal Sites

The three waste disposal areas are: a “bone-yard” area used for scrap metal and other pieces of equipment located west of the tank farm and east of Twin Lakes Creek, a second bone-yard located at the maintenance shop, and an active waste disposal site used for municipal and industrial waste.

3. Underground Workings

Underground workings consisted of a main underground access and eight openings to the main underground working. Separate portals were located at Oceanview, K-Baseline and Area 14. There was also a ventilation raise to the surface at Oceanview.

4. Tailings Disposal and Treatment

Tailings from the mining and milling process were deposited in the West Twin Disposal Area (WTDA), consisting of the Surface Cell, Reservoir, Test Cell Area, West Twin Dyke, the polishing pond, and the decant structure, as well as tailings and water return pipelines.

Mill tailings were deposited subaqueously for the first 14 years of operation, and on the surface since 1990. The West Twin Dyke, at 18 metres high and a nominal elevation of 388 metres above sea level, divided West Twin Lake into the subaerial Surface Cell in the western portion of the original lake, and the subaqueous cell Reservoir and Test Cell area and dyke in the eastern portion of the lake. The Reservoir received and stored water decanted from the Surface Cell and runoff water from the watershed and the Test Cell areas.

5. Waste Rock Storage Areas

Waste rock dumps at 02 South Dump, 09 South Dump, 39 North Dump (East Adit), and K-Baseline, were associated with portal and open pit development. Waste rock was also used to build roads. Sulphide bearing waste rock was produced by mining and placed around the site.

6. Water Management Structures

Runoff from the East Adit waste rock disposal area and the East Open Pit area was collected and directed to the EATF where it was treated with lime and processed through a series of retention ponds.

7. Dump Ponds

Two dump ponds, one east of the town site along the pipeline right-of-way and the other near Twin Lakes Creek below the mill, were established within the WTDA system to collect tailings when sections of the tailings line were drained during maintenance operations and emergency shutdowns.

8. Borrow Pits, Stockpile Pads, Roads and Other disturbed Areas

Several borrow pits were located throughout the mine site and stockpile pads were adjacent to the portals at Area 14, K-Baseline, and Oceanview for temporary broken ore storage. Local roads serviced the airport, dock, East Twin Lake and the Town site. Other roads serviced the mine, the EATF, WTDA, Oceanview, K-Baseline and Area 14. Portions of the mine service roads were constructed with mine waste. Other surface disturbances included storage areas, vehicle parking spaces, and building foundations.

9. Surface Structures

Surface structures included the industrial complex and concentrator, DMS circuit, power plant, maintenance shops, warehouse, administration and technical offices. The industrial complex was built on bedrock and reinforced with a concrete foundation. The concentrate storage building in the dock area included a truck weight scale, several conveyors and the ship loader used to load concentrates

from the storage building to the ships. The town site consisted of residences, bunkhouse, PAMO building, ice rink, church, Dome, carpenter shop/food storage building, a generating station, NorthwestTel equipment trailers, government garage, and central government buildings/recreation centre.

10. Petroleum and Chemical Storage Areas

Many chemicals such as mill reagents (hydrated lime used to control the process pH), copper sulphate and xanthate (used to control the flotation grade and recovery of final concentrates), bulk ammonium nitrate, bulk calcium chloride salt, were stored on the dock area. The tank farm comprises 19 steel tanks of various sizes located in a lined and dyked enclosure, adjacent to the concentrate storage shed, providing storage for 13.9 million litres of P60 diesel, 1.1 million litres of Jet A1, 0.6 million litres of gasoline and a waste products tank for motor oil, glycol, etc. Intermediate day tanks were two 105,000-litres diesel tanks and one 47,000-litre gasoline tank located in a dyked and lined enclosure adjacent to the industrial building.

Numerous end user tanks were located around the mine site for different uses. Two buildings and a 1,000 litre fuel tank were associated with the ANFO explosive facility. The mill concentrator required a number of bulk chemicals for efficient recovery of metals from the ore. Other petroleum products such as lubricants, solvents and minor specialty products were also located on the mine site. Paints were kept and mixed in the carpenter shop. Janitorial supplies and kitchen cleaning agents were kept in the warehouse or near the point of use.

11. Other Disturbed Areas

The stolport was a small airstrip located approximately half a kilometer north of the landfill/landfarm site. The airstrip was used during exploration and construction of the mine. NorthwestTel had satellite dish antennas, small electrical equipment buildings, and radio antennas adjacent to the stolport. The runway strip and light posts remain.

A landfarm was created adjacent to the landfill approximately one kilometer west of town to remediate a fuel spill at the carpenter shop in 2000.

Land Use Planning

The Nanisivik Mine is located within the North Baffin planning region of Nunavut in an area with a valid land use plan. A conformity determination by the Nunavut Planning Commission (NPC) was obtained in accordance with Article 11 and section 11.5.10 of the *Nunavut Land Claims Agreement* (NLCA).¹

Impact Review

¹ Letter from Tommy Owljoot, Regional Planner, Nunavut Planning Commission, to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board Re: NWB1AR-NAN0208 Nanisivik Project – CanZinco Limited-Site Reclamation, Nanisivik Mine, Nanisivik, North Baffin, Nunavut, June 19, 2009.

On July 4, 2008, the Nunavut Impact Review Board (NIRB) acknowledged receipt of the application for development impact assessment, primarily for reclamation and abandonment, pursuant to Article 12 of the NLCA. On September 3, 2008, the Nunavut Water Board (Board or NWB) received notification of NIRB's decision to re-issue the terms and conditions of its October 7, 2002, screening decision.²

Regulatory History

The first water licence for the Nanisivik Mine, N5L3-0159, was issued by the Northwest Territories Water Board on July 5, 1976, pursuant to the *Northern Inlands Waters Act*, and subsequently renewed in 1978, 1983, 1988, and 1991.

The NWB assumed regulatory authority on July 9, 1996, and assumed authority for the licence issued by the Northwest Territories Water Board at that time. Following a public hearing in Arctic Bay on September 24, 1996, and an extensive *ad hoc* post-hearing procedure followed by the NWB to allow interested parties to review the application and make comments, the NWB issued its first renewal licence for the Nanisivik, licence NWB1NAN9702, on July 31, 1997. The licence authorized the then-owner of the mine, NML, to use water for industrial purposes for a five-year term expiring June 30, 2002.

Following the NWB's decision, the Qikiqtani Inuit Association (QIA) filed an application for judicial review pursuant to section 18.1 of the *Federal Court Act* to have the Board's decision set aside. Justice J. Reid dismissed the QIA's request.³

Two amendments were issued during the licence period: the first to allow an open pit at Oceanview, effective December 9, 1999; and the second, to permit exploratory drilling effective March 20, 2000.

On February 20, 2001, the licence was assigned from NML to Nanisivik Mine, a division of CanZinco Ltd.. At that time CanZinco filed an application for licence renewal. The February 2001 application was withdrawn when CanZinco formally notified the NWB on November 13, 2001, of the permanent cessation of mining and milling operations at the Nanisivik Mine due to depressed metal prices. On December 7, 2001, the NWB amended the expiry date of the licence to September 30, 2002, to coincide with the proposed end of mining and milling operations and the beginning of closure and decommissioning activities.

² Letter from Stephanie Autut, Executive Director, Nunavut Impact Review Board to Thomas Kabloona, Chairperson, Nunavut Water Board Re: Application Terms and conditions for CanZinco Limited's Renewal Request for its Water License for the Nanisivik Mine Project, September 3, 2009, with attached Screening Decision Report from Ryan St.John, Vice-Chairperson, Nunavut Impact Review Board to Thomas Kudloo, Chairperson, Nunavut Water Board Re: Screening Decision of the Nunavut Impact Review (NIRB) on application: NIRB 02MC117-NWB1NAN9702 Closure and Reclamation (A&R) Plan for Nanisivik Mine, October 7, 2009.

³ *Qikiqtani Inuit Assn. v. Canada (Attorney General)*, (1998-10-09) FC T-2019-97.

On February 12, 2002, in accordance with Part H, Item 8 of licence NWB1NAN9702, CanZinco filed an application for a water licence and submitted its final closure and decommissioning plan in support of the application. The NWB held a public hearing in Arctic Bay on July 22, 23, and 24, 2002. On October 1, 2002, the Board issued licence NWB1NAN0208 (Licence) for a term expiring May 1, 2008. The Licence terms and conditions include financial security in the amount of \$17.6 million and the submission of a Final Reclamation and Closure Plan for Board approval.

To regulate CanZinco's proposal for the development of the Final Reclamation and Closure Plan, the NWB facilitated a technical meeting in Iqaluit on March 29, 2003, and in Ottawa on September 22 and 23, 2003. Following written hearings, a Phase II Environmental Site Assessment (ESA) and a Human Health and Ecological Risk Assessment (HHERA) were conditionally approved by the Board on August 22, 2003, and November 21, 2003.

On February 6, 2004, CanZinco submitted the *Nanisivik Mine 2004 Reclamation Plan and Closure Plan* with the Waste Disposal Plan and West Twin Disposal Area Closure Plan submitted on March 3 and March 5, 2004, respectively.⁴ On March 24, 2004, the NWB gave notice of a public hearing to be held in Arctic Bay from May 31 to June 4, 2004. A technical meeting was held in Yellowknife on May 4 and 5, 2004, to review and discuss technical issues related to the Final Reclamation and Closure Plan and supporting documents, prior to the public hearing. The technical meeting was followed by a prehearing conference on May 6, 2004, to discuss procedural and other issues in preparation of the hearing. A public hearing date was held on June 3 and 4, 2004 in Arctic Bay. On July 6, 2004, the NWB approved the 2004 Reclamation Plan and Closure Plan, subject to the terms and conditions set out by the Board.⁵

Application

During the most recent term of the Licence, two amendment requests were received by the NWB. Following these requests, a single formal amendment application was submitted on September 26, 2006, including a request to modify the sampling frequency of the Licence based on an assessment of results obtained to date. The amendment application was ultimately incorporated into the renewal application received by the

⁴ The Nanisivik Mine 2004 Reclamation Plan and Closure Plan includes eleven appendices:

- G-4 Engineering Design of Surface Reclamation Covers;
- G-5 Assessment of Surface Cell and Test Cell Taliks;
- G-6 Quarry Development and Reclamation Plan;
- G-7 Detailed Design of the West Twin Dyke spillway;
- G-8 Rock Piles and Open Pits Closure Plan;
- G-9 Closure Monitoring Plan;
- G-13 Phase III ESA;
- G-14 HHERA;
- G-15 West Twin Disposal Area Closure Plan
- G-16 Waste Disposal Plan; and
- G-17 Landfill Closure Plan.

⁵ On July 6, 2004, the NWB issued a "*Letter of Approval for Terms and Conditions Applying to the Nanisivik Mine 2004 Reclamation Plan and Closure Plan*" to Breakwater Resources Limited.

Board on February 21, 2008 (Application). The Application is for a five-year term, with changes to the terms and conditions of the Licence to reflect the two amendments applied for during the term of the previous licence. A list of the submissions and correspondence related to the Application is provided in Appendix A. During the course of the Application review process, the Licence expired on May 1, 2008.⁶

The NWB acknowledged receipt of the Application on April 30, 2008, and requested preliminary technical comments. Comments were received from the Community Liaison Officer (CLO) and the Senior Administrative Officer (SAO) for the Hamlet of Arctic Bay, and INAC.

On September 29, 2008, the NWB issued public notice of the Application with a copy to the Licensee and interested parties outlining the proposed process and timelines for consideration of the Application and requesting comments on the Board's determination of completeness of the Application and supporting documentation by November 3, 2008. The Board received comments from INAC; Environment Canada (EC); the Government of Nunavut Department of Environment (GN-DOE); and the Government of Nunavut Department of Culture, Language, Elders and Youth (GN-CLEY). The Board did not receive comments from the parties advising that the Application should not proceed through the regulatory process.

Pre-Hearing

In accordance with section 14 of the Board's *Rules of Practice and Procedure for Public Hearings*, on October 1, 2008, the Board delegated its authority to staff to hold a technical meeting and prehearing conference (PHC). Notice of the technical meeting and PHC was given to all parties on November 13, 2008. The PHC was held by teleconference on November 28, 2008. The Licensee, INAC, EC, the Department of Fisheries and Oceans Canada (DFO), GN-DOE, GN-CLEY, and the CLO and SAO of the Hamlet of Arctic Bay either attended the PHC and/or provided written submissions to the Board throughout the review process. No party objected to the application proceeding through the regulatory process.

The Parties that identified themselves as having a role in the Public Hearing are:

- INAC,
- EC,
- DFO, and
- GN-DOE.

Other parties identified who may have an interest in the Public Hearing are:

- Community (SAO and CLO) of Arctic Bay,
- GN-CLEY, and

⁶ Pursuant to section 46 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (Act), the expiry of the Licence does not relieve the Licensee from the obligations imposed by the Licence. Further, sections 11 and 12 of the Act and the Licence prohibit the use of waters and the disposal of wastes dispose of waste, except in accordance with a valid licence.

- QIA.

At the PHC, clarification was requested from the Licensee on several issues including: the decommissioning of the bulk fuel storage facilities, roads, port facilities and garage, the weathering of the final cover for the tailings facilities, the soil quality beneath and around the bulk fuel storage facilities and historic monitoring results. The Licensee undertook to provide the Board with the following supplemental information:

1. Written confirmation that the Project is moving into post-closure monitoring phase;
2. A report on the extent of the abandonment and restoration (A&R) activities that have been completed to date and outstanding activities;
3. A revised security estimate based on the A&R activities completed to date;
4. The monitoring results gathered during the 2008 season;
5. A summary of the proposed revised monitoring stations and frequency;
6. Clarification of the results of past toxicity tests; and
7. A list of annual reporting requirements applicable to the current project status.

On December 15, 2008, the Board issued a PHC decision, setting out the following classifications of issues to be presented to the Board at the Hearing:

1. Term of Licence;
2. Annual Reporting;
3. Work Plan Requirements;
4. Care and Maintenance Plan;
5. Type and Amount of Security;
6. Geotechnical;
7. Water Management and Water Quality;
8. Waste Management;
9. Tailings Storage Facility;
10. Contingency Planning;
11. Mitigation, Treatment and Management of Contaminated Soils;
12. Monitoring;
13. Closure and Reclamation; and
14. Other Issues.⁷

Considering the Nanisivik mine site is moving from the closure and reclamation phase to post-closure monitoring; the importance to provide the community, and in particular elders, with the opportunity to participate in the Hearing; and giving due regard to Inuit oral communication and decision-making and respecting section 12.2.27 of the Nunavut Land Claims Agreement (NLCA) to take all necessary steps to provide and promote public participation at hearings, the Board decided to hold the Public Hearing in Arctic Bay commencing on Monday February 23, 2009 (Final Hearing). The PHC Decision included requirements for CanZinco to provide additional documents and clarifications by January 31, 2009, and set the deadline for interventions from the parties at February 13, 2009.

⁷ File No. 1AR-NAN0208, Pre-hearing Conference for the Renewal and Amendment Application of Type A Water Licence for the Nanisivik Mine, CanZinco Limited, December 15, 2008.

The following supplemental information was received from CanZinco:

- *Nanisivik Mine Remaining Financial Obligations*, received January 30, 2009;
- *Nanisivik Mine Proposed Geotechnical Monitoring Program 2009-2012*, received January 30, 2009;
- *Nanisivik Mine Summary of Contaminated Soil Remediation Progress – December 31, 2007*, Gartner Lee Limited (AECOM) received January 30, 2009;
- *Nanisivik Mine Reclamation Project Completion Report*, BGC Engineering Inc., received January 30, 2009;
- *Nanisivik Mine Summary of Contaminated Soil Remediation Progress*, SRK Consulting, received January 30, 2009;
- *2008 Annual Geotechnical Inspection Nanisivik Mine, Nunavut*, BGC Engineering Inc., received January 30, 2009;
- *Nanisivik Mine Summary of Contaminated Soil Remediation, Interim Close Out Report: Dock Area*, Gartner Lee Limited, received January 30, 2009;
- *2008 Annual Water Quality Monitoring Report, Nanisivik Mine, Nunavut*, Jacques Whitford, received January 30, 2009;
- *Nanisivik Mine Proposed Water Quality Monitoring Stations 2009-2012*, received January 30, 2009

Public Hearing

Written interventions were received from INAC, GN-DOE, and EC prior to the February 13, 2009, closing date for written submissions. A late submission was filed by DFO on February 19, 2009, and placed on the record with the Board confirming at the Public Hearing that there were no objections to doing so from parties.

The Public Hearing on the Application was held on February 23, 2009, in Arctic Bay at the Inuujaq School Gymnasium. To promote local participation a community session was held in the evening.

On February 23, 2009, the Chairman closed the record except for written submissions from the intervenors and a reply submission from the Licensee on a letter from Jacques Whitford Stantec regarding water quality monitoring (see Appendix B, Exhibit 4 of the Public Hearing record) submitted by CanZinco. Written submissions were filed in accordance with the deadlines established by the Board by INAC, EC, and GN-DOE and CanZinco.

The Chairman closed the record of proceedings on March 13, 2009.

Summary of Public Hearing Submissions of the Parties

Indian and Northern Affairs Canada

INAC's mandate to participate in the review of the Application is derived from the *Department of Indian and Northern Affairs Act*, the *NLCA*, *Territorial Lands Act* and

Regulations, the NWNSRTA, as well as the *Mine Site Reclamation Policy for Nunavut*. INAC's review focused on issues within its mandate, including term of licence, annual reporting, type and amount of security, geotechnical matters, waste management, contingency planning, monitoring for both water quality and geotechnical issues, and closure and reclamation.

INAC concurred with the Licensee's request for a five-year licence term and recommends that the Licence be simplified to include terms and conditions that apply to the mine's current reclamation status. INAC further recommends that CanZinco continue to adhere to the approved 2004 Reclamation Plan and Closure Plan and associated monitoring program. INAC recommends that any plans to dispose of waste at the site that are not in accordance with that Plan require the approval of the NWB prior to any disposal.

In addition, INAC recommends that post-closure monitoring commence in 2009 and be required for the full five-year renewal of the licence, with the monitoring results reviewed prior to any further renewal.

INAC recommends that terms and conditions related to annual reporting include:

- Results for all water quality monitoring activities and geotechnical monitoring, including analyzed observed trends and proposed recommend mitigation measures, if necessary;
- Total yearly costs of reclamation monitoring; and
- A detailed workplan of work to be done in the subsequent year including dates of onsite inspection and sampling activities.

INAC concurred with CanZinco's proposal to conduct an annual geotechnical inspection, and recommends that the results be included within an annual report and be presented in a similar format as the 2008 geotechnical inspection report provided by BGC Engineering.

On the issue of the amount of security, INAC advised the Board that following a review of CanZinco's submission of \$1,517,250 for remaining financial security, INAC recommends that a 25% contingency plus the additional costs of sample monitoring be applied for the five-year renewal period for security in the amount of approximately \$2.0 million.

INAC recommends that the NWB require an updated contingency plan be submitted to the Board for approval prior to renewing the Licence; or, as an alternative, within three months of renewal. The Contingency Plan should include:

- "trigger" or contingency levels for water quality monitoring parameters and the geotechnical monitoring program, must be established whereby defined abatement or mitigation actions would be undertaken for any exceedance of such levels or criteria. Criteria should be developed for, at least, the metals parameters;
- Mitigation and monitoring that addresses any environmental issues that may develop during reclamation of the site's fuel tank farm; and,

- Consideration of aspects and parts of previous contingency plans in the development of its Water Quality and Geotechnical Monitoring Plans.

INAC further recommends that to improve inspection efficiency and clarity, the Licence should require the Contingency Plan to include reporting of water quality monitoring, geotechnical monitoring programs as attached schedules rather than referencing separate reports. Revised or updated contingency plans should also be appended as schedules.

Prior to monthly water quality sampling in years three to five, or any request to reduce sampling frequency, locations or parameters; INAC recommends that CanZinco submit comprehensive trend and comparative analysis to previously collected data, including background monitoring data for all sample parameters and locations and provide a rationale acceptable to the NWB to support a request for reduced sampling.

INAC recommends that the NWB continue to impose discharge compliance criteria presently stated in the License for the recognized final discharge point at monitoring Station Number 159-4, and the outflow from the WTDA. Further, INAC recommends that the following parameters be tested for at monitoring Stations 159-4, 159-6, NML-23, 159-17, and 159-14:

- Metals: aluminum, arsenic, cadmium, copper, iron, lead, nickel, mercury, molybdenum and zinc.
- Other parameters: ammonia, nitrate, alkalinity, sulphate, conductivity, dissolved oxygen, pH, total suspended solids, radium-226, oil and grease for visible sheen.

In addition, INAC recommends the water quality monitoring commence in June and continue through to September 30th or freeze-up, whichever is soonest.

With regard to geotechnical monitoring, INAC agreed with the proposed water quality program at two monitoring wells in the WTDA test cell as proposed by BGC Engineering Incorporated.

INAC also agreed with CanZinco's proposal to monitor the water and sediments for presence of visible sheens and if a visible sheen is observed on the water surface, or is released when sediments are disturbed, then a water sample should be collected for Total Petroleum Hydrocarbon (TPH) analysis. INAC recommends that the Board require this monitoring activity at monitoring station NML-29 and NML-30, at a bi-weekly frequency in 2009 and 2010. If sheens are observed, contingencies should then be implemented.

INAC recommends that CanZinco submit to the Board for approval prior to any reclamation of the remaining fuel tank farm, a comprehensive reclamation plan, including:

- A firm schedule for removal;
- Soil remediation and removal;
- Liquid or hazardous waste disposal off-site in accordance with the Government of Nunavut's *Environmental Guideline for General Management of Hazardous Waste in Nunavut* (2002);

- Tank cleaning and removal procedures; and,
- Confirmatory soil analysis for Total Petroleum Hydrocarbons

Department of Fisheries and Oceans Canada

The DFO participated in the review of the Application in accordance with its responsibility for the sea coast and inland fisheries pursuant to the *Constitution Act*, including the conservation and protection of fish and marine mammals and their habitat pursuant to the *Fisheries Act*. DFO also participated as an administrator of federal real property, including the Nanisivik dock area.⁸

DFO advised the Board that DFO habitat management did not have any issues with the proposed monitoring plan in relation to physical impacts to fish habitat. DFO's submissions to the Board related primarily to remediation of the remaining fuel tank farm facilities. DFO advised the Board that on February 19, 2009, a formal request was sent to Breakwater requesting that the dock area property be returned to its original condition.

DFO recommends to the Board that the fuel tank farm be removed and that the soils underneath them be remediated. DFO requested that the remediation occur prior to December 31, 2009, with a restricted decommissioning period from August 15 to December 15, 2009. The restriction period was established by the Canadian Coast Guard, to allow the dock area to be used for receiving and marshalling cargo destined for Eureka and Kugaaruk.

DFO recommends that CanZinco provide a detailed reclamation plan for the tank farm facilities for review by DFO, the NWB, and other interested parties, including:

- Decontamination and removal procedures for the tank and liner;
- Final disposal location for the tank and liner; and
- Remediation plans for underlying soils.

Environment Canada

The primary relevant legislation and standards that EC administers or adheres to are section 36 of the *Fisheries Act*, the *Metal Mining Effluent Regulations* (MMER), and the *Canadian Environmental Protection Act*. EC made submissions on water management, water quality, contingency planning, monitoring timeframes, closure and reclamation and reclamation of the fuel storage facilities.

⁸ In 1976, the Department of Transportation leased the property to the Nanisivik Mines Limited to use the site for its concentrate storage building, lay-down area or storage area, and fuel tank farm. In 1998, DFO assumed the administration of the property and took over the lease agreement with an expiry date of December 31, 2003. This area is referred to by DFO as the Dock Area. See Transcript, p. 120, lines 2-18.

Following completion of the requirements specified under subsection 32(1) of the MMER, EC advised the Board that the Nanisivk Mine became a recognized closed mine under the MMER, effective July 30, 2006.⁹

EC advised the Board that a more comprehensive monitoring plan is warranted. In addition to the monitoring proposed by CanZinco, EC recommends the analysis of a full suite of parameters for a minimum of the first two years of post-closure monitoring at the following locations:

- Final discharge point (159-4);
- Outlet of Twin Lakes creek into the Strathcona Sound (159-6);
- Chris Creek outlet into Stathcona Sound (159-17); and
- Landfill at NML-30.

EC recommends the parameters measured include total metals, major ions, total suspended solids, conductivity, pH, temperature; and hardness. EC also recommends that TPH be measured at monitoring station 159-6 and NML-30 at least once annually when the active layer is deepest. TPH should also be measured visually at all monitoring sites.

EC further recommends that CanZinco provide a complete contingency plan for both of the water quality and geotechnical monitoring programs, with specific reference to the monitoring parameters. In addition, EC submitted it is essential that the contingency plan outline management actions to be taken in the event that higher than predicted levels of contaminants are observed and include thresholds for action on a site specific basis taking into account historical background conditions.

EC further recommends that monitoring results be reviewed and approved by the Board prior to CanZinco moving into the second phase of post-closure monitoring. EC recommends that the NWB require a five-year post closure monitoring period beginning with the field sampling season in 2009 and finishing at the end of the field sampling season in 2013. The monitoring period should be reviewed and extended until results are consistently and reliably below the established allowances for all parameters and demonstrate a stable closure configuration.

Regarding the tank farm facility, EC recommends that CanZinco provide an updated, detailed reclamation plan for the tanks, sludge and contaminants in the soil to the Board for approval by September 30, 2009.

Overall, EC supports the renewal of the Licence for a maximum term of five years

⁹ Letter from Shauna Sigurdson, A/Regional Director-Regional Authorization Officer MMER, Environment Canada, to Murray Markle, Site Manager, Breakwater Resources Ltd. Re: Recognized Closed Mine Status, July 31, 2007.

Government of Nunavut – Department of the Environment

The GN-DOE reviewed the Application under its authority to control the discharge of contaminants and their impact on the environment under the *Environmental Protection Act* and its authority under the *Wildlife Act*. The GN-DOE provided a written intervention but did not attend the Public Hearing. Prior to the Public Hearing, an addendum to the GN-DOE's written intervention was circulated to the parties attending the Public Hearing and accepted without objection into the record as an exhibit.¹⁰ With the consent of the Licensee, GN-DOE also provided a post-hearing written submission on a letter from Jacques Whitford Stantec regarding water quality monitoring (see Appendix B, Exhibit 4 of the Public Hearing record) submitted by CanZinco.

In the written intervention, GN-DOE supported a renewal term of five years, with further monitoring required beyond 2013 depending on the results obtained during the five-year term.

GN-DOE recommends that CanZinco develop a contingency plan to outline actions to be taken in the event that water quality monitoring results show exceedances and are not meeting the effluent quality requirements set out in the water licence. GN-DOE further recommends that station 159-6, the outlet of Twin Lakes Creeks into Strathcona Sound, be added as a final discharge point and further recommends that site-specific trigger values be established for Stations 159-6 and 159-17 as they are located downstream from the reclaimed areas. GN-DOE submitted concerns related to lack of historical water quality data relevant to the landfill area, and recommends that further parameters be included in the water quality monitoring at the landfill stations NML-29 and NML-30.

GN-DOE further recommends that CanZinco provide a plan for the final reclamation and remediation of the tank farm on the dock area.

Hamlet of Arctic Bay and Residents

In written comments to the Board, the SAO and the CLO for the Hamlet of Arctic Bay raised concerns regarding the long-term monitoring of the tailings pond and impacts of global warming. The SAO further expressed concerns about the remediation of oil to be cleaned at the tank farm area and the need to ensure that oil will not enter into sea water.

The CLO advised the Board that the residents of Arctic Bay want to have input as to the progression of the reclamation and be informed of the monitoring reports. In addition the CLO raised concerns with the lack of proper signage in all languages for potentially dangerous locations.

During the Public Hearing, Arctic Bay residents asked that there be learning from the Nanisivik legacy of demolishing and throwing away of usable materials; that their social,

¹⁰ Exhibit 1: Document entitled "Intervention Statement Addendum for the Nanisivik Type A Water License Renewal Application" provided by the Government of Nunavut-Department of Environment.

health and safety concerns be taken into consideration; the need for ongoing consultation with Inuit about the use of their land and resources; and the importance of setting aside funds for clean-up should something happen at the Mine site in the future.

JURISDICTION OF THE BOARD

This Board has jurisdiction over CanZinco's Application pursuant to Division 2 of the *Nunavut Waters Nunavut Surface Rights Tribunal Act* (Act or NWNSRTA).¹¹ Relevant sections in that Division of the Act allow the Board to issue a licence.¹² In deciding to issue a licence or engage in any other statutory function, the Board must follow the objects of the governing legislation, which are:

... to provide for the conservation and utilization of waters in Nunavut, except in a national park, in a manner that will provide the optimum benefit from those waters for the residents of Nunavut in particular and Canadians in general.¹³

In setting the terms and conditions of this licence, the Board is guided by these objects and by the NIRB Project Certificate that covers these same matters. The Board intends to meet its statutory duty to make *all* reasonable efforts to minimize *any* adverse effects on aquatic ecosystems. Reading the several Articles of the NLCA together, which the Board is entitled to do to understand its jurisdiction,¹⁴ the Board relies on the broad definition of "ecosystemic" found in Article 12.1.1 of the NLCA to require not only NIRB but also the NWB to ensure all components of the ecosystem such as fish and fish habitat are protected within the parameters of section 71 of the *Nunavut Waters Nunavut Surface Rights Tribunal Act* (Act).

For all matters relating to its Application, the burden of proof in this Application rests with the Applicant. The NWB Rules of Practice and Procedure state: "In cases in which the Board accepts evidence, any party offering such evidence shall have the burden of introducing appropriate evidence to support its position. Where there is conflicting evidence, the Board will decide which evidence to accept and will generally act on a balancing of the evidence".¹⁵ Where a party presents no evidence supporting or rejecting the applicant's evidence, the NWB will base its decision on its own assessment of the Applicant's request.

REQUIREMENTS OF THE NWNSRTA

Objects of the Board and its Relationship to other Bodies

¹¹ See sections 42-81 of the NWNSRTA.

¹² See sections 42, 48, 55, 56, and 70 of the NWNSRTA.

¹³ Section 35 of the NWNSRTA.

¹⁴ See Article 2 and section 2.9.1 of the NLCA.

¹⁵ Nunavut Water Board *Rules of Practice and Procedure for Public Hearing*, section 8.13.

Land Use Plans

The Nanisivik Mine site is located within the North Baffin land use planning region of Nunavut in an area where a valid land use plan exists. Pursuant to Article 11 and section 11.5.10 of the NLCA, the NPC provided a positive conformity determination.¹⁶

Relationship to Environmental Assessment

For the purpose of the Application, two Articles of the NLCA are relevant and binding: Article 12 (Impact Assessment) and Article 13 (Water Management). Where possible the two Articles must be read together and interpreted as one.

On July 4, 2008, the NIRB acknowledged receipt of the application for development impact assessment pursuant to Article 12 of the NLCA. On September 3, 2008, the NWB received notification of NIRB's decision to re-issue the terms and conditions of its October 7, 2002, screening decision.¹⁷

Article 20 of the NLCA

The QIA is on the distribution list for this Application. The Board was not advised by the QIA of any outstanding issues of water compensation related to this application.

Recommendations on Marine Areas

Section 41 of the NWNSRTA permits the Board to advise and make recommendations respecting any marine matters that may arise to any department or agency of the Government of Canada or the Government of Nunavut.¹⁸ The Board has no specific recommendations on marine areas for this Application, except to say that the Board agrees with those residents whose concerns extend to the protection of the marine environment.

¹⁶ Letter from Tommy Owljoot, Regional Planner, Nunavut Planning Commission, to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board Re: NWB1AR-NAN0208 Nanisivik Project – CanZinco Limited-Site Reclamation, Nanisivik Mine, Nanisivik, North Baffin, Nunavut, June 19, 2009.

¹⁷ Letter from Stephanie Autut, Executive Director, Nunavut Impact Review Board to Thomas Kabloona, Chairperson, Nunavut Water Board Re: Application Terms and conditions for CanZinco Limited's Renewal Request for its Water License for the Nanisivik Mine Project, September 3, 2009, with attached Screening Decision Report from Ryan St.John, Vice-Chairperson, Nunavut Impact Review Board to Thomas Kudloo, Chairperson, Nunavut Water Board Re: Screening Decision of the Nunavut Impact Review (NIRB) on application: NIRB 02MC117-NWB1NAN9702 Closure and Reclamation (A&R) Plan for Nanisivik Mine, October 7, 2009.

¹⁸ Section 41 of the NWNSRTA states:

The Board may, either jointly with the Nunavut Planning Commission, the Nunavut Impact Review Board and the Nunavut Wildlife Management Board, as established by the Agreement, acting as the Nunavut Marine Council referred to in section 15.4.1 of the Agreement, or on its own, advise and make recommendations respecting any marine area to any department or agency of the Government of Canada or the Government of Nunavut, and those governments shall consider that advice and those recommendations when making any decision that may affect that marine area.

DECISION TO ISSUE

Following the Public Hearing and for the reasons set out below, the Board has decided to issue Water Licence 1AR-NAN0914 (Renewed Licence) subject to the conditions set out therein.¹⁹ The Renewed Licence contains terms and conditions the Board finds necessary to protect the environment, conserve the water resources and provide appropriate safeguards in respect of the Licensee's use of waters and deposit of wastes. The Renewed Licence takes into consideration the screening decision issued by the NIRB in the environmental assessment.²⁰

Issuance of a Licence

As stated above and pursuant to subsection 42(1) of the NWNSRTA, the Board has decided to issue the Renewed Licence subject to the terms and conditions set out therein and explanation herein. In issuing the Licence, the Board is satisfied that the application contains the required information based on the NWB Guidelines and is in the proper form having regard to the NWNSRTA and associated regulations.²¹

Assumptions

Where there was doubt in the Board's mind about a certain parameter or standard, the Board has imposed stringent monitoring conditions to ensure the company will be meeting its promises of performance made in its Application and Hearing submissions. Based on the Board's assumption that CanZinco intends to meet its commitments, the commitments filed by CanZinco during the Application review process have, where appropriate, been incorporated into the Licence.

Applications in Relation to Licenses

Overall, the Board is satisfied that the requirements of section 48 of the NWNSRTA have been met. CanZinco filed an application which complied with the Board's Rules, including submission of the application fee as required.²² The Licensee also provided the necessary information to evaluate the qualitative and quantitative effect of the use of water or the deposit of waste into water.

Application to Amend or Application for future Modifications

¹⁹ The Renewed Licence has been issued under separate cover.

²⁰ NIRB Screening Decision dated October 7, 2002, re-issued September 3, 2008. See Footnote 15.

²¹ *Northwest Territories Water Regulations*, S.O.R./93-303 [hereinafter Regulations] and Application of Regulations made under paragraph 33(1) (m) or (n) of the *Northwest Territories Waters Act* in Nunavut Order, S.O.R./2002-253.

²² In accordance with section 48(1) of the Act, an application fee of \$30 and a water use fee of \$30 were provided with the Application received February 21, 2008. Letter from Phyllis Beaulieu, NWB, to Bob Carreau, CanZinco Limited, Re: Acknowledgement and Receipt of Application Fee and Water Use Fee for Renewal Water License Application – Nanisivik Mine Project, dated April 23, 2008.

In relation to future applications to amend or modify the Nanisivik Mine, the Board reminds CanZinco that it must comply with all requirements of the NLCA and the NWNSTRA.

Assignment of a Licence

The Board reminds CanZinco that any sale or other disposition of any right, title or interest in an appurtenant undertaking must comply with the requirements to assign a licence set out in section 44 of the NWNSTRA.²³

Term of Licence

In accordance with section 45 of the NWNSTRA, the term of a licence or any renewal may be as long as twenty-five years. The Application before the Board is for a five-year term. Based on the submission from INAC that a five-year term is appropriate,²⁴ and for consistency with the recommended five-year post-closure monitoring period,²⁵ the Board has decided to issue the Renewed Licence for a five-year term.

The Board acknowledges the concerns expressed by the CLO and SAO of Arctic Bay on behalf of the residents regarding the ongoing monitoring of the tailings pond and the impacts of global warming.²⁶ The Board notes that future decisions regarding the need for monitoring beyond the term of the Renewed Licence will be made based on the information provided to the Board at that time. Further, the Board notes that section 46 of the NWNSTRA states “[T]he expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence.”

WATER LICENCE 1AR-NAN0914 TERMS AND CONDITIONS

This Licence does not take effect until approval of the Minister is given pursuant to section 56 of the NWNSTRA.²⁷

The Application was made on the basis of a renewal with changes to the terms and conditions of the Licence to reflect the Nanisivik Mine’s reclamation status. The Board accepts INAC’s recommendation to simplify the Renewed Licence by removing terms

²³ Assignment forms may be obtained from <http://nunavutwaterboard.org/ftp/administration>.

²⁴ See INAC, Nunavut Water Board Hearing Re: Nanisivik Mine Type A Water Licence Renewal and Amendment Application, February 23, 2009 [hereinafter “Transcript”], at p. 95, lines 1-21.

²⁵ See INAC, Transcript, at p. 95, lines 18-24, EC, Transcript, at p. 142-143, lines 26-44.

²⁶ See E-mail from Niore Iqalukjuak, to licensing@nunavutwaterboard.org, Subject: File No. 1AR-NAN0208 Renewal, dated May 21, 2008; and e-mail from Joeli Qamanirq, to licensing@nunavutwaterboard.org, Subject: File No. 1AR-NAN0208/Renewal, dated May 29, 2008.

²⁷ Subsection 56(1) of the NWNSTRA states:

56(1) the issuance, amendment, renewal and cancellation of a Type A licence and if a public hearing is held a Type A licence are subject to the approval of the Minister. The license is considered approved ninety days followings issuance of the licence or as otherwise approved by the Minister under section 56 of the *Act*.

and conditions from the existing Licence that are no longer applicable, and including appropriate terms and conditions that reflect the Nanisivik Mine's current reclamation status.²⁸ Accordingly, the terms and conditions of the Renewed Licence focus on the continued adherence to the approved 2004 Reclamation Plan and Closure Plan, the outstanding reclamation of the fuel tank farm, and the post-closure monitoring program.²⁹

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

Enforcement and Compliance

For the purpose of ensuring compliance with the Licence, an Inspector designated by the Minister may inspect or examine works, waters or waste and exercise other powers according to the NWNSRTA.³⁰ The NWNSRTA includes serious penalties for breach of the Licence, including furnishing or maintaining security.³¹ Investigation or inspections are carried out by persons designated by the Minister.³²

Compliance with Applicable Legislation, Guidelines and Directives

The Renewed Licence states that "Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with all applicable legislation, guidelines and directives."³³

The Renewed Licence does not authorize habitat alteration disruption or destruction pursuant to section 35 of the *Fisheries Act*, nor does it authorize the deposit of deleterious substances into fish-frequented waters pursuant to section 36 of the *Fisheries Act*. The Board acknowledges that following completion of the requirements specified under subsection 32(1) of the MMER, the Nanisivik Mine became a recognized closed mine under the MMER, effective July 30, 2006.³⁴

PART B: GENERAL CONDITIONS

Water Use Fees

The Licensee is required under the Regulations to provide a fee for the right to the use of water. This fee must be calculated on an annual basis in accordance with subsection 9(1)

²⁸ See INAC, Transcript, at p. 95, lines 4-14.

²⁹ On July 6, 2004, the NWB issued a "*Letter of Approval for Terms and Conditions Applying to the Nanisivik Mine 2004 Reclamation Plan and Closure Plan*" to Breakwater Resources Limited. The relevant terms and conditions contained in the Letter of Approval are incorporated into the Renewed Licence.

³⁰ See sections 85-94 of the NWNSRTA.

³¹ See section 90 of the NWNSRTA.

³² See sections 85-88 of the NWNSRTA.

³³ Licence Part A, Item 3.

³⁴ Letter from Shauna Sigurdson, A/Regional Director-Regional Authorization Officer MMER, Environment Canada, to Murray Markle, Site Manager, Breakwater Resources Ltd. Re: Recognized Closed Mine Status, July 31, 2007.

(b) of the *Northwest Territories Water Regulations* (Regulations). The water use fee shall be paid in accordance with subsection 9(6)(b) of the Regulations.

The Board acknowledges receipt of the water use fee for the first year of the Renewed Licence.³⁵ For each subsequent year of the Renewed Licence the water use fee shall be paid in advance, on the anniversary of the date the Renewal License was issued. Payments shall be made to the Manager of Licensing with a cheque payable to the Receiver General for Canada. The Board encourages CanZinco to consult with the NWB staff for confirmation on calculation of water use fees.

Reports filed with the NWB

With the exception of the Annual Report all other plan(s) or report(s) (Plan, or collectively Plans) submitted to the Board under this Renewed Licence shall include a proposed timetable for implementation. Unless listed as approved in the Renewed Licence, a Plan cannot be undertaken without subsequent written Board approval. In approving a Plan, the Board may subject the Plan to further consultation with the parties. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Applicant in writing of acceptance, rejection, or alteration of the Plan. The Plan must then be carried out in a manner and timeframe consistent with the Board's direction.

Every Plan to be carried out pursuant to the terms and conditions of this Renewed Licence shall become a part of this Licence, and any additional terms and conditions imposed upon approval of a Plan by the Board become part of this Renewed Licence. All terms and conditions of the Renewed Licence should be contemplated in the development of a Plan where appropriate.

In response to community concerns about proper signage for potentially dangerous locations, the Board requires CanZinco to post and maintain signs in English and Inuktitut that identify the location of the water supply facilities and waste disposal facilities.³⁶

PART C: CONDITIONS APPLYING TO SECURITY

Financial Responsibility of the Applicant and Requirement of Security

The NWNSRTA allows the Board to require a licensee to furnish and maintain security with the Minister in a form determined by the regulations or satisfactory to the

³⁵ Letter from Phyllis Beaulieu, NWB, to Bob Carreau, CanZinco Limited, Re: Acknowledgement and Receipt of Application Fee and Water Use Fee for Renewal Water License Application – Nanisivik Mine Project, dated April 23, 2008.

³⁶ See E-mail from Niore Iqalukjuak, to licensing@nunavutwaterboard.org, Subject: File No. 1AR-NAN0208 Renewal, dated May 21, 2008.

Minister.³⁷ Further, in a matter related to the posting of security, the Board may not issue a licence unless the Board is satisfied that the financial responsibility of the applicant, taking into account the applicant's past performance, is adequate for the mitigation measures and any costs associated with the closing or abandonment of the undertaking.³⁸

Amount of Security

The Licence currently requires CanZinco to furnish and maintain security in the amount of \$17.6 million dollars. In CanZinco's January 30, 2009 submission the estimate for financial security provided to the Board is \$1,517,250. INAC advised the Board that there was no contingency in CanZinco's estimate and recommended the amount be increased to \$2.0 million dollars:

INAC has reviewed the CanZinco Ltd. submission for remaining financial security provided in their January 30th response to the Board. The amount provided was \$1,517,250.00. INAC has noted that no contingency was provided in this assessment, and as such, INAC recommends that a 25 percent contingency plus the additional costs of sample monitoring suggested in the Monitoring section of my presentation should be applied for the five-year period of this license. This would amount to approximately \$2 million. INAC has reviewed the security estimate internally and participated in the site visit this past summer with technical expertise engineers, and we're quite confident with our review that \$2 million would be appropriate.³⁹

The Board has some reservations that INAC's recommended \$2.0 million dollars is sufficient to secure the costs of reclaiming the tank farm and related facilities, including the removal of an estimated 30,000 litres of sludge waste fuel that is not useable,⁴⁰ as well as fulfilling CanZinco's post-closure monitoring obligations.

The Board is also conscious of the concerns of residents regarding security. Mr. Kilabuk, a resident of Arctic Bay, stated:

I have one other question related to \$17 million security was mentioned in the report...I want those to stay there until Arctic Bay people realize or know that they will probably hear something like negative about the Nanisivik site. So in those years while it's being monitored, I want those security to be retained by INAC because it will have impact on the wildlife or the environment, and therefore, I don't want to hear that there's no more money to further clean up the area. So I

³⁷ Subsection 76(1) of the NWNSRTA states:

76(1) The Board may require an applicant, a licensee or a prospective assignee to furnish and maintain security with the Minister in the form, of the nature, subject to such terms and conditions in an amount prescribed by, or determined in accordance with, the regulations or that is satisfactory to the Minister.

³⁸ See subsection 57(b) of the NWNSRTA.

³⁹ Transcript, at p. 97, lines 4-18.

⁴⁰ See Transcript, at pp. 88-89, lines 24-1.

want those security to be retained by INAC so that we know for our own guarantee as Arctic Bay that they are still there to help us.

... You mentioned that the reclaimed areas have been cleaned up, so I'll explain why I don't want those security to be taken, because the landfill site, we know there were a few oil drums being buried, and after so many years, if they spill or seep to the ground after its been closed for a number of years, we need some kind of an avenue that we can turn to help us. So we want those money to be set aside for those kind of -- for that purpose.⁴¹

However, the Board's reservation on the amount of security are mitigated somewhat by the fact that no issues were raised by INAC regarding the site inspection and enforcement, what EC described as CanZinco's "good job of decommissioning the mine",⁴² and by CanZinco's statement to the Board about the importance of the Nanisivik site as an example of "good mining" and "why we would be the proponent of choice for a mine".⁴³

Accordingly, in the absence of evidence to support a higher amount of security, pursuant to subsection 76(1) of the NWNSRTA and the Board's jurisdiction to determine the amount of security for the Nanisivik Mine site as a whole, the Board requires security in the amount of \$2.0 million. In making this decision, the Board notes that an updated estimate of the cost to reclaim the fuel tank farm is required in the terms and conditions set out in Part J below and the Board may exercise its jurisdiction to reconsider the amount of security in the light of that information.

The Licensee may also submit to the Board, for approval in writing, a request for a reduction in the amount of security, with evidence provided to support the request. Subject to these processes, the security referred to in Part C, Item 1 of the Renewed Licence will be maintained until such time as it is fully or in part refunded by the Minister pursuant to section 76(5) of the Act. This clause of the Renewed Licence survives the expiry of the term or renewals thereof and until full and final reclamation has been completed to the satisfaction of the Minister.

Form of Security

Pursuant to section 76(1) of the NWNSRTA, the final determination with respect to the most appropriate *form* of security must be left to the Minister.

PART D: CONDITIONS APPLYING TO CONSTRUCTION

The Board has determined the terms and conditions in this Part of the Licence are to be carried forward to the Renewed Licence, subject to updating terms and conditions from

⁴¹ Transcript, at pp. 76-77, lines 23-25.

⁴² Transcript, at p. 140, lines 7-9.

⁴³ Transcript, at p. 28, lines 19-22.

the existing Licence to reflect the Nanisivik Mine's current reclamation status and for consistency with standard licensing terminology.

PART E: CONDITIONS APPLYING TO WATER USE AND MANAGEMENT

Section 11 of the NWNSRTA states "... no person shall use, or permit the use of, water in Nunavut except in accordance with the conditions of a licence." The Board has determined the terms and conditions in this Part of the Licence are to be carried forward to the Renewed Licence, subject to updating terms and conditions from the existing Licence to reflect the Nanisivik Mine's current reclamation status and for consistency with standard licensing terminology.

PART F: CONDITIONS APPLYING TO WASTE DISPOSAL AND MANAGEMENT

The Board has determined the terms and conditions in this Part of the Licence are to be carried forward to the Renewed Licence, subject to updating terms and conditions from the existing Licence to reflect the Nanisivik Mine's current reclamation status and for consistency with standard licensing terminology.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

Pursuant to Article 12 and section 12.4.3 of the NLCA, a proposed modification submitted under the Renewed Licence may require a screening determination by the NIRB. It is the responsibility of the Licensee to notify and consult with NIRB to ensure Article 12 requirements are met prior to submission of a modification request to the NWB under the Licence.

The Board has determined the terms and conditions in this Part of the Licence are to be carried forward to the Renewed Licence, subject to updating terms and conditions from the existing Licence to reflect the Nanisivik Mine's current reclamation status and for consistency with standard licensing terminology.

PART H: CONDITIONS APPLYING TO EMERGENCY RESPONSE AND SPILL CONTINGENCY PLANNING

The Board has determined the terms and conditions in this Part of the Licence are to be carried forward to the Renewed Licence, subject to updating terms and conditions from the existing Licence to reflect the Nanisivik Mine's current reclamation status and for consistency with standard licensing terminology.

PART I: CONDITIONS APPLYING TO THE MONITORING PROGRAM

CanZinco has committed to the Board to proceed with post-closure monitoring for the full five-year term of the Renewed Licence, in accordance with the terms and conditions of the Renewed Licence and the 2004 Reclamation Plan and Closure Plan. In the terms

and conditions, the Board has accepted CanZinco's commitments to modify the proposed water quality monitoring plan to include:

- continuing to monitor Station 159-4 against monitoring criteria in the Renewed Licence;
- adding a inductively coupled plasma (ICP or trace element) scan at Stations 159-4, 159-6, and 159-7, twice annually; and
- add TPH analysis for Stations NML-29 and NML-30, in addition to visual inspection for sheens at all sampling locations on each sampling date.⁴⁴

Results of the monitoring are to be reported to the Board on an annual basis, or as otherwise set out in the Renewed Licence.

The Board acknowledges CanZinco's request for the Board to retain some discretion to alter the terms and conditions of the Renewed Licence to reflect monitoring results.⁴⁵ The Board notes that section 174 of the NWNSRTA provides the Board with the authority to amend a Type A licence without a public hearing in cases where the amendment does not affect use, flow or quality of waters or alter the term of the licence.⁴⁶ Further, Part I, item 12 of the Renewed Licence permits the Chief Executive Officer (Chair of the Board) to modify the monitoring program. A request for change(s) to the monitoring program is to be forwarded to the NWB in writing and include a comprehensive trend and comparative analysis to previously collected data.

The Board also accepts CanZinco's commitment to prepare an updated and consolidated contingency plan for Board approval.⁴⁷ The Board requires a Comprehensive Contingency Plan be submitted to the Board for approval within three months of the issuance of the Renewed Licence. In setting reporting requirements for the Comprehensive Contingency Plan, the Board is to be notified if the plan is triggered.

PART J: CONDITIONS APPLYING TO ABANDONMENT, RECLAMATION AND CLOSURE

⁴⁴ Letter from Bob Carreau, Vice President, CanZinco Ltd., to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, Subject: Water Licence Renewal – Reaching Closure on Key Issues, dated March 5, 2009.

⁴⁵ Letter from Bob Carreau, Vice President, CanZinco Ltd., to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, Subject: Water Licence Renewal – Reaching Closure on Key Issues, dated March 5, 2009.

⁴⁶ Section 174 of the NWNSRTA states:

174. (1) The regulations made under paragraph 33(1)(c) of the *Northwest Territories Waters Act* are deemed, in relation to the use of waters or the deposit of waste in Nunavut, to prescribe, as classes of applications that are exempted from the requirement of a public hearing, the classes of applications in relation to the following:

(a) in the case of a Type A licence,

(i) any amendment that does not affect the use, flow or quality of waters or alter the term of the licence,

...

⁴⁷ Letter from Bob Carreau, Vice President, CanZinco Ltd., to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, Subject: Water Licence Renewal – Reaching Closure on Key Issues, date March 5, 2009.

As stated above, CanZinco has committed to the Board to proceed with post-closure monitoring for the full five-year term of the Renewed Licence, in accordance with the terms and conditions of the Renewed Licence and the approved 2004 Reclamation Plan and Closure Plan.

The Board further accepts CanZinco's commitment to provide a detailed Fuel Tank Farm Closure and Reclamation Plan by September 30, 2009, for approval by the Board.⁴⁸ The Board requires the Plan to include:

- Decontamination and removal procedures for the tank and liner;
- Final disposal location for the tank and liner;
- Remediation plans for underlying soils;
- A schedule for carrying out the plan; and
- An updated estimate of the cost of carrying out the plan.

The Board notes that the approval of the Fuel Tank Farm Closure and Reclamation Plan may place additional terms and conditions on the Licensee.

In making this decision, the Board considered DFO's recommendation to have the fuel tank farm removal and remediation occur prior to December 31, 2009.⁴⁹ At the same time, DFO advised the Board that the reclamation of the fuel tank farm was not included in the 2004 Reclamation Plan and Closure Plan because it was anticipated that ownership of the fuel tank farm would be transferred.⁵⁰ Furthermore, DFO advised the Board that it was only on February 19, 2009, that DFO sent a formal request to return the fuel tank farm property to the original condition.⁵¹ While the Board recognizes DFO's interest in having the property returned to its original condition as soon as possible, from a practical stand point, the Board is of the view that it would be virtually impossible for CanZinco to carry out the site investigation, field testing and engineering necessary to prepare a closure and reclamation plan for Board approval and carry out the required work by December 31, 2009.

SCHEDULES

Schedules provide instructive detail to the conditions appearing in more general terms in the main body of the Licence and are spelled out in this format for greater clarity. Except for Schedule A, the schedules provide specific requirements for Plans to be submitted to the Board.

⁴⁸ See Transcript, at pp. 53-54, lines 8-4.

⁴⁹ See Transcript, at p. 124, lines 15-18.

⁵⁰ See Transcript, at pp. 124-125, lines 25-1.

⁵¹ See Transcript, at pp. 124-125, lines 11-15.

APPENDIX A – LIST OF SUBMISSIONS AND CORRESPONDENCE

Application:

1. Cover letter and initial application for amendment dated June 7, 2006, received September 26, 2006 with attached portion of Terms and Conditions of current licence for Effluent Monitoring and copy of Appendix B-1 159-4.
2. Water Licence Application Form for Renewal, received on February 21, 2008

Initial Submissions and Correspondence:

3. Letter to Mr. Phillipe diPizzo, Executive Director NWB from Murray Markle, Site Manager – Nanisivik Mine, dated June 7, 2006 RE: Water License No: NWB1NAN0802 Request for Ammendment [sic].
4. Letter to Mr. Murray Markle, Site Manager – Nanisivik Mine, dated June 14, 2006, Subject: Request for Amendment to Water License NWB1NAN0208
5. Letter to Mr. Phillipe diPizzo, Executive Direction NWB from Murray Markle, Site Manager – Nanisivik Mine, dated June 16, 2006 RE: Water License No: NWB1NAN0802 Request for Ammendment [sic].
6. Letter to Local Organizations from Richard Dwyer, Licensing Trainee, Nunavut Water Board, dated August 17, 2006 with attached Public Notice of Amendment Application, CanZinco Ltd.
7. Letter to Murray Markle, Site Manager – Nanisivik Mine, dated August 17, 2006 from Richard Dwyer, Licensing Trainee, Nunavut Water Board, Subject: CanZinco Ltd. – Nanisivik Mine Project – Amendment
8. Letter to Murray Markle, Nanisivik Mine from Richard Dwyer, Licensing Trainee, Nunavut Water Board, dated October 6, 2006 Re: Acknowledgement and Receipt of Application Fee Amendment to Water License Application – Nanisivik Project
9. Letter to Mr. Murray Markle, Site Manager, Nanisivik Mine from Dionne Filiatrault, P. Eng, A/Executive Director, Nunavut Water Board, dated June 7, 2007 Re: Application for Amendment to CanZinco Limited's Type "A" Water License
10. Letter to Robert Carreau, Vice President CSR and Sustainability, CanZinco Limited from Dionne Filiatrault, P. Eng, Executive Director, Nunavut Water Board, dated February 14, 2008 Re: Application for Amendment for 1AR-NAN0208
11. Letter to Robert Carreau, Vice President CSR and Sustainability, CanZinco Limited from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated April 23, 2008 Re: Application for Renewal for 1AR-NAN0208 – Nanisivik Mine
12. Letter to Robert Carreau, Vice President CSR and Sustainability, CanZinco Limited from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated April 23, 2008 Re: Acknowledgement and Receipt of Application Fee

- and Water Use Fee for Renewal Water Licence Application – Nanisivik Mine Project
13. Letter to Dionne Filiatrault, Executive Director, Nunavut Water Board, from Robert Carreau, Vice President, CanZinco Ltd., dated May 30, 2008 Re: Nanisivik Mine – License Renewal
 14. Letter to Robert Carreau, Vice President, CSR and Sustainability, Breakwater Resources Ltd., from Shereen Ismail, P.Eng., Project Manager, Jacques Whitford, dated May 30, 2008 Re: Recommended Water Quality Monitoring For Closure Period – Nanisivik Mine
 15. Memorandum to Breakwater Resources Ltd., Attention Bob Carreau, from Geoff Claypool, BGC Engineering Inc., dated May 31, 2008 Subject: Proposed 2008-2012 Geotechnical Monitoring Schedule
 16. Letter to Bob Carreau, Corporate Manager, Environmental Affairs, Breakwater Resources Ltd., from Arlene Laudrum, P.Geol., Gartner Lee Limited, dated April 9, 2008 Re: GLL 50338 – Issuance of the Nanisivik Mine Summary of Contaminated Soil Remediation, Interim Close Out Report: Dock Area
 17. Letter to Robert Carreau, Vice President, CanZinco Limited from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated April 30, 2008 Re: Application for Renewal
 18. Letter to Robert Carreau, Vice President, CanZinco Ltd., from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated September 29, 2008 Subject: CanZinco Limited – Nanisivik Project – Amendment/Renewal – Type “A”
 19. Letter to Local Organizations from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated September 29, 2008 with attached Public Notice of Renewal/Amendment Application, CanZinco Ltd.
 20. Tearsheet from Nunatsiaq News dated October 3, 2008: Notice of Application and Hearing, Public Notice of Renewal/Amendment Application, CanZinco Ltd.
 21. Letter to Robert Carreau, Vice President, CanZinco Ltd., from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board dated October 13, 2008 Subject: Notice of Pre-Hearing Conference/Technical Meeting for Amendment/Renewal Water Licence Nanisivik Project with Pre-Hearing Technical Meeting Agenda attached
 22. Letter to Local Organizations from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated October 13, 2008 with attached Public Notice of Renewal/Amendment Application, CanZinco Ltd.
 23. Letter to Robert Carreau, Vice President, CanZinco Ltd., from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated October 13, 2008 Subject: Notice of Pre-Hearing Conference/Technical Meeting for Amendment/Renewal Water Licence Nanisivik Project
 24. To Nanisivik Distribution List, dated November 13, 2008, Agenda for Pre-Hearing Technical Meeting.

25. Letter to Local Organizations from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated November 21, 2008 with attached Notice of Pre-Hearing Technical Meeting
26. List of Attendees at the Pre-Hearing Technical Meeting November 28, 2008
27. List of Exhibits submitted for the Pre-Hearing Technical Meeting of November 28, 2008:
 - a) PP Presentation - Breakwater Resources Ltd.-Nanisivik Reclamation Update Nov. 28/08, submitted by CanZinco
 - b) Nanisivik Mine Summary of Contaminated Soil Remediation Progress - December 31, 2007, submitted by CanZinco
 - c) 1AR-NAN0208, Nanisivik Mine - INAC Site Inspection July 2008, submitted by INAC
 - d) Re: NWB File #1AR-NAN0208-CanZinco Ltd./Breakwater Resources Ltd.-Nanisivik, Mine Reclamation Renewal & Amendment Water License Application, submitted by GN-DOE
 - e) Water License 1AR-NAN0208, CanZinco Ltd., Nanisivik Project, License Amendment and Renewal Application, submitted by INAC
 - f) November 6, 2008 email Subject: CanZinco - Nanisivik Project-Amendment/Renewal Type A, submitted by Environment Canada
28. Nunavut Water Board Notice of Public Hearing dated December 12, 2008 (English and Inuktitut)
29. Letter to Local Organizations dated December 12, 2008 – request to post notice of Public Hearing
30. Letter to Local Organizations from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated December 13, 2008 with attached Notice of Public Hearing
31. Letter to Nanisivik Distribution List from David Hohnstein, C.E.T., Director of Technical Services, Nunavut Water Board, dated December 15, 2008 Subject: Pre-Hearing Conference for the Renewal and Amendment of Type A Water Licence for the Nanisivik Mine, CanZinco Limited with attachments Appendix A, Appendix B, and Appendix C
32. Tearsheets from Nunatsiaq News dated December 19, 2008: Notice of Public Hearing (English and Inuktitut)
33. Received from Breakwater Resources, dated January 1, 2009 - Jacques Whitford Report entitled Final Report 2008 Annual Water Quality Monitoring Report.

Pre- Hearing Technical Submissions:

34. Letter from Bob Carreau, Vice President CanZinco Ltd. to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated January 30, 2009 Re: Request for Additional Information – Licence Renewal for Nanisivik Mine, included the following:
 - a) Nanisivik Mine Reclamation Completion Report
 - b) Nanisivik Remaining Reclamation Financials 2009
 - c) Nanisivik Water Quality Monitoring Report 2008

- d) Nanisivik Proposed Geotechnical Monitoring 2009
 - e) Nanisivik Proposed Water Quality Monitoring 2009
 - f) Nanisivik Dock – Contaminated Soil Remediation 2007
 - g) Nanisivik Mine – Contaminated Soil Remediation 2007
 - h) Nanisivik Mine – Contaminated Soil Remediation 2008
 - i) Human Health Ecological Risk Assessment – Review 2009
 - j) Nanisivik Geotechnical Inspection Report 2008
35. Letter to Nanisivik Distribution List from Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated February 3, 2009 Subject: Renewal and Amendment Application of Type A Water Licence for the Nanisivik Mine, CanZinco Limited – List of Submissions
 36. To Nanisivik Distribution List – Hearing Agenda dated February 10, 2009 (English and Inuktitut)
 37. Letter to Malli Aulakh, Senior Manager of Infrastructure, Government of Nunavut, from Deon Bridge, Technical Advisor, Nunavut Water Board, dated February 12, 2009 Subject: Government of Nunavut Property at the Nanisivik Mine
 38. Letter from Froeydis Reinhart, Government of Nunavut Department of Environment to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated February 13, 2009 Re: Intervention for the Nanisivik Type A Renewal Application NWB File # 1AR-NAN0208.
 39. Letter from Carey Ogilvie, Environment Canada to Chair, Nunavut Water Board, dated February 13, 2009 Re: Environment Canada's Intervention on the Renewal and Amendment Application for Nanisivik Mine, CanZinco Ltd. Public Hearing February 23, 2009.
 40. Environment Canada – Non-Technical Executive Summary English and Inuktitut received by the Nunavut Water Board on February 13, 2009.
 41. Indian and Northern Affairs Canada – Executive Summary English and Inuktitut received by the Nunavut Water Board on February 13, 2009.
 42. Letter from David Abernethy, Indian and Northern Affairs Canada, to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board dated February 13, 2009 Subject: Water Licence #1AR-NAN0208, CanZinco Ltd., Nanisivik Mine, Qikiqtani Region, Renewal and Amendment Application, Technical Intervention Memorandum.
 43. Letter from David Abernethy, Indian and Northern Affairs Canada, to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board dated February 13, 2009 Subject: Water Licence #1AR-NAN0208, CanZinco Ltd., Nanisivik Mine, Qikiqtani Region, Renewal and Amendment Application, Technical Intervention Memorandum (Red Line Version) received on February 17, 2009.
 44. Indian and Northern Affairs Canada – Executive Summary Red Line Version received on February 17, 2009 by the Nunavut Water Board on and dated February 13, 2009.
 45. Received from Bob Carreau, Breakwater.ca on February 17, 2009 Inuktitut Summary of HHERA Review, Summary of Remediation At Dock Area, and Summary of Remediation Progress to December 31

46. Received from CanZinco on February 17, 2009 – Executive Summary HHERA Review – Inuktitut version
47. Received from CanZinco on February 17, 2009 – Executive Summary Geotechnical Inspection – Inuktitut version
48. Received from CanZinco on February 17, 2009 – Executive Summary Remediation at Dock Area – Inuktitut version
49. Received from CanZinco on February 17, 2009 – Executive Summary Remediation Progress to December 31 – Inuktitut version
50. Received from CanZinco on February 17, 2009 – Executive Summary Remediation Progress to September 10 – Inuktitut version
51. Letter from Amy Liu, Fisheries and Oceans Canada to Mr. Thomas Kabloona, Chair, Nunavut Water Board dated February 17, 2009 Subject: Fisheries and Oceans Canada Comments for the Nunavut Water Board Final Hearing on the Renewal Application for the Nanisivik Mine Project Type “A” Water License (English and Inuktitut).
52. Email to Nanisivik Distribution List, from Richard Dwyer, dated February 17, 2009 regarding late submission from Fisheries and Oceans Canada.
53. Received from CanZinco on February 19, 2009 – Executive Summary Completion Report – Inuktitut version
54. Received from Bob Carreau, Breakwater.ca on February 19, 2009 Inuktitut Summary of Remediation Progress to September 10 and Inuktitut Executive Summary – Nanisivik Completion Report
55. Email from Amy Liu, Fisheries and Oceans Canada, dated February 19, 2009, confirming attendance of Gary Cooper at the Public Hearing in Arctic Bay for February 23, 2009
56. Email from Richard Dwyer, Licensing Administrator, Nunavut Water Board to Government of Nunavut, Department of Environment dated February 19, 2009 regarding late submission

Post Public Hearing Submissions:

57. Letter to Froeydis Reinhart, Government of Nunavut, Department of Environment from Thomas Kabloona, Chairman Nunavut Water Board dated February 25, 2009 Re: Review of Exhibit 4 from Nanisivik Public Hearing Held on February 23, 2009.
58. Letter from Carrie Spavor, Environment Canada to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board, dated February 27, 2009 Re: 1AR-NAN0208 – Review of Exhibit 4 from Nanisivik Public Hearing Held on February 23, 2009.
59. Letter from Froeydis Reinhart, Government of Nunavut, Department of Environment from Thomas Kabloona, Chairman Nunavut Water Board dated February 26, 2009 Re: Review of Exhibit 4 from Nanisivik Public Hearing Held on February 23, 2009.
60. Letter from David Abernethy, Indian and Northern Affairs Canada to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board dated February 27, 2009 Subject: Water Licence # 1AR-NAN0208, CanZinco Ltd., Nanisivik Mine,

Qikiqtani Region, Feb 19/09 Jacques Whitford Stantec Ltd., Interventions on Water Licence Renewal Hearing – Water Quality Monitoring, Technical Letter of Clarification.

61. Letter from Bob Carreau, Vice President, CanZinco Ltd., to Phyllis Beaulieu, Manager of Licensing, Nunavut Water Board dated March 5, 2009 Subject: Water Licence Renewal – Reaching Closure on Key Issues
62. Letter to Nanisivik Distribution List from Thomas Kabloona Chair, Nunavut Water Board dated March 13, 2009 Subject: Closing of the Hearing Record for the Nanisivik Mine Type A Water Licence Renewal and Amendment Application 1AR-NAN0208.

APPENDIX B – LIST OF EXHIBITS FILED AT THE FEBRUARY 23, 2009 PUBLIC HEARING

- Exhibit 1: Document entitled “Intervention Statement Addendum for the Nanisivik Type A Water License Renewal Application” provided by the Government of Nunavut-Department of Environment.
- Exhibit 2: Electronic PowerPoint presentation entitled “Breakwater Resources Limited Nanisivik License Renewal, February 23rd, 2009”, submitted by Robert Carreau of CanZinco Limited.
- Exhibit 3: Electronic PowerPoint presentation entitled “Review of Interventions CanZinco Limited”, provided by Robert Carreau of CanZinco Limited.
- Exhibit 4: Letter in electronic form from Jacques Whitford Stantec to Robert Carreau Re: Interventions on Water License Renewal Hearing Water Quality Monitoring, dated February 19, 2009, provided by Robert Carreau, CanZinco Limited.
- Exhibit 5: Hard copy PowerPoint presentation entitled “Water License Number 1AR-NAN0208, CanZinco Limited, INAC, Nanisivik Mine, Qikiqtani Region, Amendment and Renewal Application, February 23rd, 24th, 2009” provided by David Abernethy of Indian and Northern Affairs Canada.
- Exhibit 6: Electronic PowerPoint presentation entitled “Water License Number 1AR-NAN0208, CanZinco Limited, Nanisivik Mine, Qikiqtani Region, Amendment and Renewal Application, February 23rd to -24th, 2009”, submitted by David Abernethy of Indian and Northern Affairs Canada.
- Exhibit 7: Hard copy PowerPoint presentation entitled “Intervention to the Nunavut Water Board on the Type A Water License Renewal for the Nanisivik Mine Project, February 23rd, 2009”, provided by Gary Cooper of Fisheries and Oceans Canada.
- Exhibit 8: Electronic PowerPoint presentation entitled “Intervention to the Nunavut Water Board on the Type A Water License Renewal of the Nanisivik Mine Project, February 23rd, 2009” provided by Gary Cooper of Fisheries and Oceans Canada.
- Exhibit 9: Hard copy PowerPoint presentation entitled “Environment Canada’s Intervention on the CanZinco Limited Nanisivik Mine Water License, February 23rd, 24th, 2009” provided by Carrie Spavor of Environment Canada.
- Exhibit 10: Electronic PowerPoint presentation entitled “Environment Canada’s Intervention to the CanZinco Limited Nanisivik Mine Water License, February 23rd, 24th, 2009”, provided by Carrie Spavor of Environment Canada.
- Exhibit 11: Electronic PowerPoint presentation entitled “The Presentation to the Community, Breakwater Resources Limited, Nanisivik, License Renewal, February 23rd, 2009”, submitted by Robert Carreau of CanZinco Limited.