

P.O. Box 119 Gjoa Haven, NU X0B 1J0 Tel: (867) 360-6338 Fax: (867) 360-6369 ຼວຣ້ ΔL ← ሊትና ቴበLት ነና NUNAVUT WATER BOARD NUNAVUT IMALIRIYIN KATIMAYINGI OFFICE DES EAUX DU NUNAVUT

File No.: 1BR-CUL1118

February 9, 2011

Paul Brugger, P. Eng.
Barrick Gold Inc.
171 Copper Cliff Rd. E.
Neebing, Ontario P7L 0B6
Email: pbrugger@xplornet.com

RE: NWB Renewal Licence No. 1BR-CUL1118

Dear Mr. Brugger:

Please find attached renewal Licence No. **1BR-CUL1118** issued to Barrick Gold Inc., by the Nunavut Water Board (NWB) pursuant to its authority under Article 13 of the Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada. The terms and conditions of the attached Licence related to water use and waste disposal are an integral part of this approval.

If the Licensee contemplates the renewal of this Licence, it is the responsibility of the Licensee to apply to the NWB for its renewal. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. Note that if the Licence expires before the NWB issues a new one, then water use and waste disposal must cease, or the Licensee will be in contravention of the *Nunavut Land Claims Agreement* (NLCA) and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* (NWNSRTA). However, the expiry or cancellation of a licence does not relieve the holder from any obligations imposed by the licence. The NWB recommends that an application for the renewal of this Licence be filed at least three (3) months prior to the Licence expiry date.

If the Licensee contemplates or requires an amendment to this licence, the NWB may decide, in the public's interest, to hold a public hearing. The Licensee should submit an application for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The process and timing may vary depending on the scope of the amendment; however, a minimum of sixty (60) days is required from time of acceptance by the NWB. It is the responsibility of the Licensee to ensure that all application materials have been received and acknowledged by the Manager of Licensing.

The NWB strongly recommends that the Licensee consult the comments¹ received by interested

¹ Environment Canada (EC), dated December 17, 2010; Government of Nunavut Department of Culture Language Elders and Youth (GN-CLEY), dated April 28, 2010; and Indian and Northern Affairs Canada (INAC), dated December 22, 2010.

parties on issues identified. Indian and Northern Affairs Canada (INAC) and Environment Canada (EC) recommend that the thermistors that are the source of erroneous readings, T1 and T4, be replaced. This information is attached for your consideration.

Sincerely,

TILLO

Thomas Kabloona Nunavut Water Board

Chair

TK/sj/rqd

Enclosure:

Licence No. **1BR-CUL1118** Comments: EC, GN-CLEY, INAC

cc: Kivalliq Distribution List

DECISION

LICENCE NUMBER: 1BR-CUL1118

This is the decision of the Nunavut Water Board (NWB) with respect to an application dated November 9, 2010 for the renewal of a Water Licence made by:

BARRICK GOLD INC.,

to allow for monitoring of waste at the recognized closed gold mine at Cullaton Lake located within the Kivalliq Region, Nunavut, generally located at the geographical coordinates:

Latitude: 61° 15' 37" N to 61° 18' 25" N; and Longitude: 98° 28' 13" W to 98° 30' 37" W.

DECISION

After having been satisfied that the application was in conformity with the Keewatin Regional Land Use Plan² and exempt from the requirement for screening by the Nunavut Impact Review Board³ in accordance with Schedule 12.1, Paragraph 5 of the *Nunavut Land Claim Agreement* (NLCA), the NWB decided that the application could proceed through the regulatory process. In accordance with S.55.1 of the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (NWNSRTA)* and Article 13 of the *NLCA*, public notice of the application was given and interested persons were invited to make representations to the NWB.

After reviewing the submission of the Applicant and considering the representations made by interested persons, the NWB, having given due regard to the facts and circumstances, the merits of the submissions made to it and to the purpose, scope and intent of the *NLCA* and of the *NWNSRTA*, waived the requirement to hold a public hearing, and determined that:

Licence Number 1BR-CUL0911 be renewed as 1BR-CUL1118, subject to the terms and conditions contained therein (Motion #: 2010-25-L01).

SIGNED this 9th day of February, 2011 at Gjoa Haven, NU.

Thomas Kabloona

Nunavut Water Board

1110

Chair

TK/si

² NPC Determination, dated January 7, 2011; and NPC Conformity Decision dated, October 29, 2008

³ NIRB Screening Decision, dated October 20, 2008 and August 11, 2008

PROCEDURAL HISTORY

On November 9, 2010, the Nunavut Water Board received, from Barrick Gold Inc., an application for the renewal of Type "B" Licence No. 1BR-CUL0911. No changes to the undertaking, nor the applicable terms and conditions of the current Licence were requested. On December 3, 2010, following an internal review of the application, the NWB distributed the document to interested persons for a thirty (30) day review and comment period. Comments were received from Environment Canada (EC), Indian and Northern Affairs Canada (INAC), and the Government of Nunavut, Department of Culture, Language, Elders and Youth (GN-CLEY). There were no objections from the parties to the Licence being renewed. INAC recommended that the term of the renewal be no longer than ten years. The Licensee had requested a twenty-five year term in its application.

The current two-year Licence, 1BR-CUL0911, which expired on January 31, 2011, was issued on February 9, 2009. The Licence generally allowed for the disposal of water from tailings pond no. 1 and the monitoring of water in and adjacent to the tailing containment area, waste rock disposal area, and quarry pit area.

The NWB noted in a previous decision, that the Licensee applied in 2001 for an amendment to the approved Abandonment and Restoration Plan to dispose of waste rock under water in Shear Lake. This application was forwarded to the Nunavut Impact Review Board for environmental screening, but the Licensee decided, before the conclusion of the environmental screening, to implement in the summer of 2001 a disposal alternative involving the encapsulation of waste rock on the shores of Shear Lake. This alternative disposal method, which would have required an amendment to the approved Abandonment and Restoration Plan, was implemented without having been assessed under Article 12 of the Nunavut Land Claims Agreement, and without subsequent formal approval of the NWB. As a result, the Licensee was required to apply for an amendment to the approved Abandonment and Restoration Plan. This amendment application was to include, among other requirements, a full assessment of the long-term impacts of the option that was implemented as well as an analysis of the impacts of alternatives that were originally contemplated, including the original option of subaqueous disposal in Shear Lake. An application for amendment was submitted March 28, 2003.

Amendment applications were received during the term of previous Licences, on March 28, 2003 for the amendment of the approved Abandonment and Restoration Plan to take into account the change of scope for the reclamation of the Shear Lake Zone waste rock and on November 25, 2003 for the request to remove the requirement for temperature monitoring at Station 940-26, remove the specific conductance monitoring at all water quality stations and to replace the monitoring requirements of Station 940-25 with 940-27. An amendment was issued by the NWB on June 6, 2005.

The required submissions of the amendment issued on June 6, 2005 were met through subsequent Annual Report submissions. The revisions to the approved Abandonment and Restoration Plan as required with the amendment were submitted with the 2005 Annual Report and the as-built drawings for the Shear Lake encapsulated waste rock were submitted with the 2006 Annual Report, that were based on surveys completed in 2006.

In addition to the amendment requests received, the NWB also received notification from the Licensee with respect to the company changes resulting from the merger of Barrick Gold Corporation and Homestake Mining Company. A name change for the Licence, from

Homestake Canada Inc. to Barrick Gold Inc., was requested on November 13, 2003. This change has been reflected in this renewal licence as well as the previous licence.

An application for Licence renewal was submitted to the NWB on March 13, 2002. The NWB gave notice to the public that Barrick Gold Inc. (Homestake Canada Inc.). Comments on the application were received by the Department of Indian and Northern Affairs Canada (INAC), Department of Fisheries and Oceans (DFO) and Environment Canada. In their respective submissions to the Board, INAC and Environment Canada expressed concerns regarding the potential for acid rock drainage from the Waste Rock Disposal Area adjacent to Shear Lake. The NWB agreed that there was potential for impacts to water, and decided to add Station 940-25 to the "Monitoring Program" to assess the presence of metals, pH, Total Suspended Solids and Total Sulphate. The Board also requested that thermistors be established at Station 940-26 to confirm the area is maintained in a frozen state. In their submission, Environment Canada expressed some concerns regarding hydrocarbon contamination in the Quarry Pit Area. The NWB agreed with these concerns and decided to add Station 940-24 to sample the area of seepage from the Quarry Pit to Tailings Pond No. 1 for metals, pH, Total Suspended Solids, and hydrocarbon parameters if visible sheen is observed in the area.

LICENCE TERM

The Licensee requested a term of twenty-five (25) years for this renewal; however, the Board is satisfied that a shorter term, seven (7) years, would be relatively and consistently appropriate for this type of Licence at the current stage of monitoring. In addition, INAC recommends that a term no longer than 10 years be granted.

CONDITIONS APPLYING TO WASTE DISPOSAL

With respect to effluent from the Tailings Containment Area, the term "Maximum Average Concentration" in Part D, Item 9, has been replaced with "Maximum Concentration" so as to consistently reflect the frequency at which sampling is done, one grab sample per year.

CONDITIONS APPLYING TO DRILLING OPERATION

Part F, Item 1, which applies under the terms and conditions in the Licence, has been changed to allow for the installation of thermistors as replacement for ones that are the source of erroneous reading, T1 and T4. EC and INAC recommend they be replaced.

CONDITIONS APPLYING TO Monitoring

This condition has been changed to include the requirement that the Licensee submit a Quality Assurance/Quality Control Plan (QA/QC) to an analyst for approval. The licensee is required to submit the approved Plan to the Board for review.

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LICENCE No. 1BR-CUL1118

Nunavut Water BoardChair

Pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and the *Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada*, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

	BARRICK GOLD INC.
_	(Licensee)
of	171 COPPER CLIFF RD. E., NEEBING, ONTARIO P7L 0B6
-	(Mailing Address)
	called the Licensee, the right to alter, divert or otherwise use water and/or dispose of waste subject to restrictions and conditions contained within this Licence:
Licence Nui	1BR-CUL1118 mber
Water Mana	NUNAVUT 06 agement Area
vv ater iviant	gement / nea
T 4:	CULLATON LAKE, KIVALLIQ REGION NUNAVUT
Location	LATITUDE: 61° 15' 37" N to 61° 18' 25" N; LONGITUDE: 98° 28' 13" W to 98° 30' 37" W
Purpose	MONITORING OF WATER IN AND ADJACENT TO THE TAILINGS CONTAINMENT AREA, WASTE ROCK DISPOSAL AREA, QUARRY PIT AREA AND DISPOSAL OF WASTE FROM TAILINGS POND N_0 . 1
Classificatio	INDUSTRIAL/REMEDIATION – TYPE "B" on of Undertaking
Quantity of	NO WATER USE AUTHORIZED Water Not to Exceed
Date of Lice	FEBRUARY 9, 2011
Expiry Date	JANUARY 31, 2018 of Licence
Dated this _	9 th day of February, 2011 at Gjoa Haven, NU.
T. All	2
Thomas Ka	abloona

PART A: SCOPE, DEFINITIONS AND ENFORCEMENT

1. Scope

This Licence allows for the monitoring of water quality and stored wastes for an undertaking classified as Industrial as per Schedule II of the *Regulations* at Cullaton Lake, located approximately 250 km west of Arviat within the Kivalliq Region, Nunavut at (Latitude: 61° 15' 37" N to 61° 18' 25" N; and Longitude: 98° 28' 13" W to 98° 30' 37" W)

- a. This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposits of such waste may enter any waters. Whenever new Regulations are made or existing *Regulations* are amended by the Governor in Council under the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements; and
- b. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with the requirements of all applicable Federal, Territorial and Municipal legislation.

2. Definitions

"Act" means the Nunavut Waters and Nunavut Surface Rights Tribunal Act;

"Abandonment and Reclamation Plan" means the Plan dated March 1996, approved by the Northwest Territories Water Board and amendments subsequently approved by the Nunavut Water Board in August 1998, June 2001, licence renewal dated September 30, 2002 and amendments dated March 28, 2003 and on November 25, 2003.

"Grab Sample" means an undiluted quantity of material collected at a particular time and place that may be representative of the total substance being sampled at the time and place it was collected;

- "Addendum" means the supplemental text that is added to a full plan or report usually included at the end of the document and is not intended to require a full resubmission of the revised report;
- "<u>Amendment</u>" means a change to original terms and conditions of this Licence requiring correction, addition or deletion of specific terms and conditions of the Licence; modifications inconsistent with the terms of the set terms and conditions of the Licence;
- "Appurtenant Undertaking" means an undertaking in relation to which a use of water or a deposit of waste is permitted by a licence issued by the Board;

- "Board" means the Nunavut Water Board established under the Nunavut Land Claims Agreement and the Nunavut Waters and Nunavut Surface Rights Tribunal Act;
- "Engineer" means a professional engineer registered to practice in Nunavut in accordance with the Engineering, Geological and Geophysical Act (Nunavut) S.N.W.T. 1998, c.38, s.5;
- "<u>Freeboard</u>" means the vertical distance between the water level and the top of the containment element (i.e. a liner), within a dam or any other channel or pond used for containment of site runoff;
- "Grab Sample" means an undiluted quantity of material collected at a particular time and place that may be representative of the total substance being sampled at the time and place it was collected;
- "ICP Scan" means the laboratory method for determining trace metals in water through Emission Spectroscopy using inductively coupled plasma (including up to approximately 32 elements depending on the laboratory performing the analysis);
- "Inspector" means an Inspector designated by the Minister under Section 85 (1) of the *Act*;
- "Licensee" means the holder of this Licence;
- "Mine Water" means any water, including groundwater, that is pumped or flows out of any underground workings or open pit;
- "Modification" means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;
- "Nunavut Land Claims Agreement" (NLCA) means the "Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada", including its preamble and schedules, and any amendments to that agreement made pursuant to it;
- "Passive Treatment System" means the treatment of seepage from the encapsulated waste rock pile with limestone or dolomite as described in the letter of August 19, 2003 from Barrick to the NIRB;
- "Quarry Pit" comprises the area and associated structures that were once a quarry pit and contain solid waste disposal as per the Board approval letter, dated August 18th 1998, on "Revisions to the Abandonment and Reclamation Plan, with respect to Quarry Pit Reclamation";
- "Regulations" means the *Northwest Territories Water Regulations sor/93-303 8th June, 1993*, omitting Section 5, Water Use or Waste Deposit Without a Licence;

- "Spill Contingency Plan" means a Plan developed to deal with unforeseen petroleum and hazardous materials events that may occur during the operations conducted under the Licence:
- "Sump" means an excavation in impermeable soil for the purpose of catching or storing water or waste;
- "<u>Tailings</u>" means the material rejected from the mill after the recoverable valuable minerals have been extracted.
- "Tailings Containment Area" comprises the tailings containment basin(s) and the engineered structures designed to contain tailings as described in Drawing Number 1, titled "Cullaton Lake Gold Mines Ltd, Tailings Pond General Arrangement", revised October 1983;
- "Waste" means, as defined in S.4 of the *Act*, any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect because of the quantity or concentration of the substances contained in it or because it has been treated or changed, by heat or other means; and
- "Waste Rock Disposal Area" comprises the area and associated structures designed to contain waste rock adjacent to Shear Lake.

3. Enforcement

- a. Failure to comply with this Licence will be a violation of the *Act*, subjecting the Licensee to the enforcement measures and the penalties provided for in the *Act*;
- b. All inspection and enforcement services regarding this Licence will be provided by Inspectors appointed under the *Act*; and
- c. For the purpose of enforcing this Licence and with respect to the use of water and deposit or discharge of waste by the Licensee, Inspectors appointed under the *Act*, hold all powers, privileges and protections that are conferred upon them by the *Act* or by other applicable law.

PART B: GENERAL CONDITIONS

- 1. The Licensee shall file an Annual Report on the appurtenant undertaking with the Board no later than March 31st of the year following the calendar year being reported which shall contain the following information:
 - a. Tabular summaries for all data and information generated under the "Monitoring Program";
 - b. A summary of any construction work, modification and major maintenance work carried out on site;
 - c. A list of unauthorized discharges and summary of follow-up actions taken;

- d. Any revisions to the approved Contingency Plan and A&R Plan;
- e. A summary of all activities authorized under this Licence;
- f. A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;
- g. A summary of any studies requested by the Board that relate to reclamation, and a brief description of any future studies planned;
- h. A brief description of follow-up action taken to address concerns detailed in inspection and compliance reports prepared by an Inspector;
- i. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;
- j. An executive summary in terms understandable to the general public translated into Inuktitut of all plans, reports, or studies conducted under this Licence. and
- k. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported.
- 2. The Licensee shall furnish and maintain a security deposit in the amount of fifty thousand dollars (\$50,000.00).
- 3. The security deposit described in Part B, Item 2, may be applied to carry out work necessary to fulfill requirements of this Licence where there is contravention of a condition of the Licence and/or failure by the Licensee to comply with a direction issued by the Board or the Minister. This includes operational requirements as well as provisions of the Final Abandonment and Restoration Plan.
- 4. The Security Deposit shall be maintained until such time as the Minister is satisfied that the Licensee has complied with all provisions of the approved Final Abandonment and Restoration Plan and any subsequent revisions approved by the Board. This clause shall survive the expiry of this Licence or renewals thereof.
- 5. The Licensee shall comply with the "Monitoring Program" annexed to this Licence, and any renewal to the said "Monitoring Program" as may be made from time to time, pursuant to the conditions of this Licence.
- 6. The "Monitoring Program" and compliance dates specified in the Licence may be modified at the discretion of the Board.
- 7. The Licensee shall post signs in the appropriate area to identify the stations of the "Monitoring Program". All postings shall be located and maintained to the satisfaction of an Inspector.
- 8. The Licensee shall notify the NWB of any changes in operating plans or conditions associated with this project at least thirty (30) days prior to any such change.
- 9. The Licensee shall, for all Plans submitted under this Licence, include a proposed timetable for implementation. Plans submitted, cannot be undertaken without subsequent written Board approval and direction. The Board may alter or modify a Plan if necessary to achieve the legislative objectives and will notify the Licensee in writing of acceptance, rejection or alteration of the Plan.

- 10. The Licensee shall, for all Plans submitted under this Licence, implement the Plan as approved by the Board in writing.
- 11. Every Plan to be carried out pursuant to the terms and conditions of this 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 Licence. All terms and conditions of the Licence should be contemplated in the development of a Plan where appropriate.
- 12. The Licensee shall ensure a copy of this Licence is maintained at the site of operations at all times. Any communication with respect to this Licence shall be made in writing to the attention of:

(a) Manager of Licensing:

Nunavut Water Board

P.O. Box 119

Gjoa Haven, NU X0B 1J0

Telephone: (867) 360-6338 Fax: (867) 360-6369

Email: licensing@nunavutwaterboard.org

(b) Inspector Contact:

Water Resources Officer, INAC Nunavut District, Nunavut Region P.O. Box 100

I . O. DOX 100

Iqaluit, NU X0A 0H0

Telephone: (867) 975-4295 Fax: (867) 979-6445

- 13. The Licensee shall submit one paper copy and one electronic copy of all reports, studies, and plans to the Board. Reports or studies submitted to the Board by the Licensee shall include a detailed executive summary in Inuktitut.
- 14. The Licensee shall ensure that any document(s) or correspondence submitted by the Licensee to the Board is received and acknowledged by the Manager of Licensing.
- 15. This Licence is not assignable except as provided in Section 44 of the *Act*.

PART C: CONDITIONS APPLYING TO THE PROTECTION OF WATER

- 1. Water use is not authorized under this Licence.
- 2. The Licensee shall not remove any material from below the ordinary high water mark of any water body unless authorized.
- 3. The Licensee shall not cause erosion to the banks of any body of water and shall provide necessary controls to prevent such erosion.
- 4. Sediment and erosion control measures shall be implemented prior to and maintained during the operation to prevent entry of sediment into water.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

- 1. The Licensee shall locate areas designated for waste disposal at a minimum distance of thirty one (31) metres from the ordinary high water mark of any water body such that the quality, quantity or flow of water is not impaired, unless otherwise authorized by the Board.
- 2. The Licensee shall not practice open burning or on-site land filling of domestic waste, unless otherwise approved by the Board.
- 3. The Licensee is authorized to dispose of all acceptable food waste, paper waste and untreated wood products in an incinerator.
- 4. The Licensee shall provide to the Board, documented authorization from the accepting community, for the disposal of non-hazardous waste at a licensed facility prior to the transferring of any waste to the accepting community.
- 5. The Licensee shall backhaul and dispose of all hazardous wastes, waste oil and non-combustible waste generated through the course of the operation in an approved waste disposal site.
- 6. The Licensee shall maintain records of all waste backhauled and records of confirmation of proper disposal of backhauled waste. These records shall be made available to an Inspector upon request.
- 7. The Licensee shall ensure that any hazardous materials, including waste oil, receive proper treatment and disposal at an approved treatment facility.
- 8. The Tailings Containment Area shall be operated and maintained to engineering standards such that:
 - a. Seepage from the Tailings Containment Area shall be minimized at station 940-20 and 940-22 if present;
 - b. Erosion of constructed facilities is addressed immediately;
 - c. The solids fraction of the mill tailings shall be permanently contained within the Tailings Containment Area;
 - d. An inspection of the Tailings Containment Area shall be carried out annually, between June and September, by a qualified geotechnical Engineer registered in Nunavut, unless otherwise directed by the Board. The Engineer's report shall be submitted to the Board within sixty (60) days of the date of inspection, including a covering letter from the Licensee outlining an implementation plan to respond to the Engineer's recommendations; and
 - e. The annual geotechnical inspection shall include monitoring of the encapsulated Shear Lake Waste Rock 'cap' for erosion and shall be carried out until such a time that vegetation is sufficiently established so as to stabilize the cap and preclude significant erosion thereof.
- 9. All Effluent discharged from the Tailings Containment Area at points indentified in the under the Monitoring Program shall not exceed the following Effluent quality limits:

Parameter	Maximum Concentration of any Grab Sample (mg/L)				
Total Arsenic	0.30				
Total Copper	0.20				
Total Cyanide	0.80				
Total Lead	0.20				
Total Nickel	0.30				
Total Zinc	0.30				
Total Suspended Solids	25				
Oil and Grease	Visible Sheen				
All Effluent discharged shall have a pH between 6.0 and 9.5					

10. The Licensee shall ensure that all Effluent discharges are conducted in such a manner as to minimize surface erosion.

PART E: CONDITIONS FOR CAMPS, ACCESS INFRASTRUCTURES AND OPERATIONS

- 1. The establishment of a camp is not authorized under this licence other than for emergency purposes.
- 2. The Licensee shall not store material on the surface of frozen streams or lakes, including immediate banks, except what is for immediate use.
- 3. All activities shall be conducted in such a way as to minimize impacts on surface drainage and the Licensee shall immediately undertake any corrective measures in the event of any impacts on surface drainage.
- 4. Winter lake and stream crossings, including ice bridges, shall be constructed entirely of water, ice or snow. The Licensee should minimize disturbance by locating ice bridges in an area that requires the minimum approach grading and the shortest crossing route. Stream crossings shall be removed or the ice notched prior to spring break-up.
- 5. With respect to access road, pad construction or other earthworks, the deposition of debris or sediment into or onto any water body is prohibited. These materials shall be disposed a distance of at least thirty one (31) metres from the ordinary high water mark in such a fashion that they do not enter the water.

PART F: CONDITIONS APPLYING TO DRILLING OPERATIONS

1. The Licensee is authorized to drill under the provisions of this Licence only for the purpose of installing replacement thermistors.

PART G: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications to the Water Supply Facilities and Waste Disposal Facilities provided that such Modifications are consistent with the terms of this Licence and the following

requirements are met:

- a. the Licensee has notified the Board in writing of such proposed Modifications at least sixty (60) days prior to beginning the Modifications;
- b. such Modifications do not place the Licensee in contravention of the Licence or the *Act*;
- c. the Board has not, during the sixty (60) days following notification of the proposed Modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
- d. the Board has not rejected the proposed Modifications.
- 2. Modifications for which all of the conditions referred to in Part G, Item 1 have not been met may be carried out only with written approval from the Board.
- 3. The Licensee shall provide as-built plans and drawings of the Modifications referred to in this Licence within ninety (90) days of completion of the Modification. These plans and drawings shall be stamped by an Engineer.

PART H: CONDITIONS APPLYING TO SPILL CONTINGENCY PLANNING

- 1. The Board has approved the Plan entitled "CULLATON LAKE, Environmental Spill Response Plan," revised Plan March 4, 2010. The Licensee shall review the approved Plan annually and submit any relevant changes made to the Plan as supplemental information within each Annual Report to Board. Revisions to the Plan are to be submitted in the form of an Addendum. The following items should be addressed in the next annual review of the plan and be submitted with the 2010 annual report:
 - a. The pager number listed for Environment Canada (EC) on page appendix 4-3 of the Plan should be removed as it is no longer in use;
 - b. The contact number (867) 975-4295, listed on page appendix 4-3 in the plan is that of INAC's Manager Field Operations as opposed to INAC Water Resources Inspector. The title should be changed accordingly; and
 - c. An updated topographic map depicting the project area, water bodies and other relevant information should be provided.
- 2. The Licensee shall ensure that any chemicals, petroleum products or wastes associated with the project do not enter water. All fuel caches shall be located a distance of at least thirty one (31) metres from the ordinary high water mark of any adjacent water body, in such a manner to prevent any direct or indirect flow into any water body and be inspected on a regular basis.
- 3. The Licensee shall ensure that any equipment maintenance and servicing be conducted only in designated areas and shall implement special procedures (such as the use of drip pans) to manage motor fluids and other waste and contain potential spills.
- 4. If during the term of this Licence, an unauthorized discharge of waste occurs, or if such

a discharge is foreseeable, the Licensee shall:

- a. Employ the Spill Contingency Plan;
- b. Report the spill immediately to the 24-Hour Spill Line at (867) 920-8130 and to the Inspector at (867) 975-4295; and
- c. For each spill occurrence, submit to the Inspector, no later than thirty (30) days after initially reporting the event, a detailed report that will include the amount and type of spilled product, the GPS location of the spill, and the measures taken to contain and clean up the spill site.

PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION OR TEMPORARY CLOSING

- 1. The Abandonment and Restoration Plan entitled "CULLATON LAKE GOLD MINES LTD., FINAL ABANDONMENT AND RESTORATION PLAN," dated March 1996, originally approved by the Northwest Territories Water Board and amendments subsequently approved by the Nunavut Water Board in August 1998, June 2001 and the revision submitted concurrent with the 2005 Annual Report, shall remain in effect.
- 2. The Licensee shall review the Plan referred to in this Part as required by changes in operation and/or technology and modify the Plan accordingly. Revisions to the Plan are to be submitted in the form of an Addendum to be included with the Annual Report, unless directed otherwise by the Board or an Inspector.
- 3. The Licensee shall submit to the Board for review, as part of their Annual Report required by Part B, Item 2, a revised status report and implementation schedule to reflect the current status of reclamation and monitoring. The status report shall include a detailed cost estimate of the remaining work required until final restoration.
- 4. The Licensee shall complete all reclamation and monitoring work within the time schedule specified in the approved Abandonment and Restoration Plan, or as subsequently revised and approved by the Board in writing.
- 5. The Licensee shall complete all restoration work prior to the expiry of this Licence.
- 6. The Licensee shall carry out progressive reclamation of any components of the project no longer required for the Licensee's operations.
- 7. When possible to do so, the Licensee shall backfill and restore all sumps, to the preexisting natural contours of the land, to the satisfaction of an Inspector.
- 8. The Licensee shall remove from the site infrastructures and site material, including but not limited to, all fuel caches, drums, barrels, buildings and contents, docks, water pumps and lines, material and equipment before the expiry of this Licence.
- 9. All roads and airstrip, if any, shall be re-graded to match natural contour to reduce erosion.

- 10. All culverts shall be removed and the drainage opened up to match the natural channel. Measures shall be implemented to minimize erosion and sedimentation.
- 11. In order to promote growth of vegetation and the needed microclimate for seed deposition, all disturbed surfaces shall be prepared by ripping, grading, or scarifying the surface to conform to the natural topography.
- 12. Areas that have been contaminated by hydrocarbons from normal fuel transfer procedures shall be reclaimed to the satisfaction of an Inspector. The use of reclaimed soils for the purpose of back fill or general site grading may be carried out only upon approval by an Inspector.
- 13. Drill holes and disturbed areas will be restored to natural conditions immediately upon completion of the drilling. The reclamation of drill holes must include the removal of any drill casing materials and the capping of holes with a permanent seal.
- 14. The Licensee may store drill core produced by the appurtenant undertaking in an appropriate manner and location at least thirty one (31) metres above the ordinary high water mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created, or as directed by an Inspector.
- 15. All disturbed areas shall be contoured and stabilized upon completion of work and restored to a pre-disturbed state.

PART J: CONDITIONS APPLYING TO THE MONITORING PROGRAM

- 1. The Licensee shall undertake the Monitoring Program as provided in Appendix A: Monitoring Program Sampling Locations, Sampling and Analysis Requirements.
- 2. All sampling, sample preservation and analyses shall be conducted in accordance with methods prescribed in the current edition of *Standard Methods for the Examination of Water and Wastewater*, or by such other methods approved by the Board.
- 3. All analyses shall be performed in a laboratory accredited according to ISO/IEC Standard 17025. The accreditation shall be current and in good standing.
- 4. The Licensee shall submit, to an Analyst for approval within three (3) months of the issuance of the licence, a Quality Assurance/Quality Control Plan, prepared in accordance with the INAC document "Quality Assurance (QA) and Quality Control (QC) Guidelines for use by Class "B" Licensees in Collecting Representative Water Samples in the Field, 1996." The plan shall include analysis of field blanks and certified reference material, and replicate sampling in order to assess accuracy, precision and field contamination.
- 5. The Licensee shall annually review the approved Quality Assurance/Quality Control plan and modify it as necessary. Proposed modifications shall be submitted to an Analyst for approval.
- 6. The approved Quality Assurance/Quality Control Plan in Part J, Item4, shall be submitted to the Board for review and implemented as approved by an Analyst.

- 7. An Inspector may impose additional monitoring requirements.
- 8. The Licensee shall include in the Annual Report required under Part B, Item 1 all data, monitoring results and information required by this Part.

Appendix A: MONITORING PROGRAM SAMPLING LOCATIONS, SAMPLING AND ANALYSIS REQUIREMENTS

Station Numbers	Description	Sampling Requirements	Analysis Requirements			
940-1	Kognak River freshwater pumphouse	Not required	Not required			
940-2	Tailings Pond No. 1 adjacent to the point of discharge to Tailings Pond No. 2.	Once a year during peak flow	Total Arsenic Total Zinc Total Lead	Total Copper Total Mercury pH	Total Nickel Total Cyanide Total Suspended Solids	
940-3	Tailings Pond No.2 adjacent to the point of discharge to the marshland.	Once a year during peak flow	Total Arsenic Total Zinc Total Lead	Total Copper Total Mercury pH	Total Nickel Total Cyanide Total Suspended Solids	
940-3A	Effluent discharge pipe at outlet to marshland	Not required	Not required	•	•	
940-4	Mill tailings pump box at the mill	Not required	Not required			
940-5	Tailings Pond No. 2 near the northwest corner, adjacent to the western most point of the tailings dam.	Not required	Not required			
940-6	Tailings Pond No. 2 offshore, near middle of pond.	Not required	Not required			
940-7	Tailings Containment Area diversion ditch adjacent to the northwest corner of Tailings Pond No. 2.	Not required	Not required			
940-8	Channel in marshland approximately 600 metres downstream of Tailings Pond No. 2. Also identified as SITE 8 in the Environmental Investigation of the Kognak River at Cullaton Lake Gold Mine by Diamond and Meach, 1984 (EIKR).	Not required	Not required			
940-9	Outflow channels from marshland below Tailings Pond No. 2 to Kognak River. Also identified as SITE 9 in EIKR.	Not required	Not required			
940-10	Control marsh site approximately 100 metres west of rad leading to the fresh water intake, 50 metres north of the Kognak River, and 30 metres east of a small creek. Also identified as SITE 10 in EIKR	Not required	Not required			
940-11	Kognak River approximately 200 metres upstream of Station No. 940-1. Also identified as SITE 2 in EIKR	Not required	Not required			
940-12	Kognak River approximately 1300 metres downstream of Station No. 940-1. Also identified as SITE 3 in EIKR	Not required	Not required			
940-13	Kognak River approximately 2850 metres downstream of Station No. 940-1. Also identified as SITE 4 in EIKR	Not required	Not required			
940-14	Kognak River approximately 4400 metres downstream of Station No. 940-1. Also identified as SITE 5 in EIKR	Not required	Not required			

Appendix A Cont.

940-15	B Zone Mine at the outlet of the minewater discharge pipe.	Not required	Not required		
940-16A	Shear Lake minewater disposal system at point of discharge	Not required	Not required		
940-17	Environment Canada stream gauging station number 06HD001 - Kognak River below Mountain Lake.	Not required	Not required		
940-18	Discharge from spillway or siphon at Tailings Pond No.1.	Once a year during peak flow	Total Arsenic Total Zinc Total Lead	Total Copper Total Mercury pH	Total Nickel Total Cyanide Total Suspended Solids
940-19	Piezometer stations within Tailings Pond No.1.	Once a year during peak flow	Total Arsenic Total Zinc Total Lead	Total Copper Total Mercury pH	Total Nickel Total Cyanide Total Suspended Solids
940-20	Area of seepage from east side of Tailings Pond No.1.	Once a year during peak flow	Total Arsenic Total Zinc Total Lead	Total Copper Total Mercury pH	Total Nickel Total Cyanide Total Suspended Solids
940-21	Thermistors installed in Tailings Pond No.1.	Once a year after June 1 and before August 31	Temperature	· ·	
940-22	Area of seepage from north east corner of Tailings Pond No.1.	Once a year during peak flow if flow present	Total Arsenic Total Zinc Total Lead Total	Total Copper Total Mercury pH	Total Nickel Total Cyanide Total Suspended Solids
940-23	Quarry pit	Once a year during peak flow	Total Arsenic Total Zinc Total Lead Total	Total Copper Total Mercury pH	Total Nickel Total Cyanide Total Suspended Solids
940-24	Quarry Pit Area- Area of seepage from the Quarry Pit to Tailings Pond No. 1	Once a year during peak flow.	Total Arsenic Total Zinc Total Lead	Total Copper Total Mercury pH	Total Nickel Total Cyanide Total Suspended Solids
		If visible sheen, test for the presence of hydrocarbons	Total Petroleum Hydrocarbons Total E Hydrocarbons		Total Extractable
940-25	Waste Rock Disposal Area- Area of seepage from Waste Rock Disposal Area to Shear Lake.	Not required	Total Arsenic Total Zinc Total Lead Total Sulphate	Total Copper Total Mercury pH	Total Nickel Total Cyanide Total Suspended Solids
940-26	Thermistors installed in Waste Rock Disposal Area	Not required	Temperature		
940-27	Waste Rock Disposal Area of seepage from Encapsulated Waste Rock Disposal Area to Shear Lake Creek.	Once a year during peak flow.	Total Arsenic Total Zinc Total Lead Total Sulphate	Total Copper Total Mercury pH	Total Nickel Total Cyanide Total Suspended Solids

^{*}The pH and temperature of the sample shall be recorded at the time of water quality sampling, as well as the laboratory value.

Table Revised to reflect Abandonment and Restoration amendment for Encapsulation of Shear Lake Waste Rock dated May 27, 2005