CULLATON LAKE GOLD MINES LTD.

WATER LICENCE 1BR-CUL1118

ANNUAL WATER LICENCE REPORT 2010

PREPARED on behalf of:

BARRICK GOLD INC.

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ᐅძᐊ Cullaton Lake Gold-ძᑦ ᐅᓴᖅᑕᕆᐊᑦ ᓇᓗᓇᐃᖅᓯᒪᓕᕆᓕᕐᓗᑐᑦ ᐃᓕᑕᖅᓯᒪᑎᒃძᑦ ᐱᓕᕆᐊᐅᖅᑲᑕᔪᔪᖅ ᐅᓴᖅᑕᕆᐊᒋᓄᑦ ᒪᑐᓯᒪᓕᕆᓂᖅᓯᒪᑦ ᑭᓐᓂᕐᒡᑕᑐᖅ ᓄᓇᕗᑦ. ᐱᖏძᑎᖅᖁᕕᒃ ᐃᒪᑎᑎ ᓯᕕᑐᓂᓕᒃ 645 ᑲᓪᒡᑕᐃᑦ ᑲᓇᖏᓕᓂ Thompson, Manitoba ᐊᒻᒪᓗ ᐅᖏᓪᓯᓂᖏᒡᑕᑐᖅ 250 ᑲᓪᒡᑕᐃᑦ ᐊᖅᕕᐊᒋᓄᑦ, ᓄᓇᕗᑦ.

ᒪᑐᒪ ᐊᖏᕐᒪᖏᓂ 2010 ᑕᑯᓐᓂ ᓄᓇᒥ ᐊᐅᓪᑕᐅᖅᑲᑕᔪᔪᑦ ᒪᑯᐊ ᐃᓪᓕᑎᓴᑦ ᐅᓐᓂ August 4, 2010 ᖃᐅᓯᓴᓕᐊᖅᑐᑦ ᑕᑯᓴᖅᑐᑎᓪᓗᑎᑦ ᐊᖏᕐᒪᑦᑎᓪᓗᑎᑦ ᖃᑎᖅᑐᑎᓪᓗᑎᑦ, ᐃᒥᐅᑦ ᖃᓄᐃᑐᑐᓂᖏᓂᖅ, ᓄᓇᒧᓐᓄᓪᓗ ᓯᕐᒥᒪᖓᑕ ᐊᑐᖅᑕᐅᓪᓗᑎᒃ ᖃᐅᓯᓴᖅᑎᑦᑎᓪᓗᒍ ᐊᖏᕐᒪᑦᑎᓪᓗᑎᑦ ᐱᖓᑯᖅᑎᒍᑦ ᒪᓕᒃᓯᑎᒃ ᐃᒥᓕᕆᓂᖅᑎᓂᖅᑕᓕᒻᓗ ᐊᖏᕐᒪᑦᑎᓂᖅ ᑲᐃᓴᖅ No. 1BR-CUL0911.

ᐅძᐊ ᓇᐃᓴᖅᓯᒪᔪᑦ, ᖃᓄᐃᑐᑐᓂᖏᓂᖅ, ᐊᖏᕐᒪᑦᑎᓪᓗᑎᑦ ᖃᐅᓴᖅᑐᑎᖅᑐᑦᑎᓂᓪᓗᒍ ᐊᒻᒪᓗ ᓯᕐᕋᔪᖅᑭᒪᖓᓕᒃ ᒪᓂᒃᓴᖅᓱᒪᓕᖅᓯᒪᔪᑦ:

- ᐃᒪᐅᑦ ᖃᓄᐃᑐᑐᓂᖏᓂᖅ ᐱᓕᕐᓂᓪ ᓯᕐᓴᓕᖅᓯᕐᒥᑐᑦ ᑕᐃᒪᐃᑐᐃᓇᖅᑐᑦ ᐊᑐᑕᐅᓴᕆᐊᖃᓕᒫᓂᖅ ᐃᓕᖅᑲᐃᓕᓕᓂᖅ ᒪᓂᖅᑕᐅᓪᓗᑎᒃᑐᖅ ᐱᓕᕐᓂᖅᓯᒪᓂᖅ ᓇᓪᓕᐊᓇᓂᖅᓯᒪᓂᖅ ᐃᒥᕐᒥᖅ ᐊᑐᑕᐅᓕᓇᖅᑐᑦ ᑕᐃᒪᓕᐃᑐᐃᓇᖅᑐᑦ.

- ᐅᓴᖅᑕᕆᐊᒋᓄᑦᑎᓪᓗᑎᒃ ᐊᖅᑕძᖅᐅᓕᕐᑐᑦ ᐃᓂᒥᓂᑐᑦ ᐊᓯᖏᓐᓇᖅᓯᒪᐃᓇᖅᑐᑦ ᓯᕐᓴᖅᑐᑦ.

- ᓄᓇᐅᑦ ᐃᓗᐊᓂᑦ ᖃძᐊᖅᐱᐃᓇᖅᑐᒋᑦᑐᑦ ᐅᓴᖅᑕᕆᐊᒋᓄᑦᑎᓪᓗᑎᒃᑐᖅ ᐊᖅᑕძᒥᑦ ᖃᐅᓰᓴᖅᑎᑦᑎᓪᓗᒃ ᖃᐅᔨᓪᓗ ᒥᓪᓚᕆᐊᖃᖅ ᐅᓴᓗᓴᐅᓪᓚᕆᐊᒃᑐᑦ ᐃᒪᐃᓪᓗᐊᖅᑎᑦᑎᓪᓗᑦᑐᑦ 1.4m ᓄᓇᐅᑦ ᐃᓗᐊᓂ ᐅᖏᓪ August 4, 2010 ᖃᐅᓴᖅᑕᐅᔪᓕᑦ ᖃᐅᓴᖅᑭᒪᔭᓕᑦ ᐃᑎᖅᑲᐃᑦᑐᑦ ᐃᓕᑎᑎ ᓵᖅᐅᑎᓪᓗᒍ ᖃᐅᓴᖅᑭᑦ T4.

ᑐᐱᓯᖅᑐᑦ ᑕᑕᑎᔪᖅ ᐊᖏᕐᓯᖅᑕᐅᓕᐅᖏᒥᔪᖅ ᐅᖏᓂ November ᓄᑖᕆᐊᕈᑎᐱᖅᓴᖅ ᓕᐃᓴᖅᑲᕐᒥᒃ. ᓄᑖᖅ ᓕᐃᓴ ᐱᖅᐅᓯᒪᓕᖅᑐᖅ ᐅᓇ 1BR-CUL1118, ᐃᓯᓕᐢᓘᐃᓴᓕᐅᖅ ᐅᖏᓂ January 31, 2018.

ᐊᖅᐃᐃᑎᑎᐱᖅᓴ ᓯᐅᒧᐊᐱᖓᓕᒫᓪᓚᕆᒪᒡᑕ ᐊᑐᑕᐅᔨᓴᕆᓕᐅᐅᖓᓪᓚᕆᒪᒡᑕ ᐅᖏᓂ 2010. ᐃᓄᓕᕆᓚᑐᖃᖅᑐᒃძᑦ ᑕᑯᓴᖅᑐᕐᔪᑦ ᑑᑦᓯᒥᓴᓗ ᓄᓇᒥᐅᑦ August 10, 2010-Γ ᓇᓗᓇᐃᖅᓯᒪᓕᕆᓂᖅᑐᖅᓯᒪᓂᖅ ᐊᑐᑕᐅᐅᖏᑐᓂᖅ ᖃᐅᓴᖅᑕᐅᔪᖅᑐᓂᖅ ᖃᐅᓯᑐᕐᔪᑕᐅᓯᓂᖅ ᐱᓕᕐᓂᖅᑐᖅ ᖃᓄᖅ ᓯᕐᓴᓕᖅᓴᖅᑲᓂᖅ ᖃᓄᐃᓕᓴᐅᓪᓚᕆᒪᓕᖅᑐᑦ ᖃᐃᓕᓴᕐᓂᖅᑐᖅᑐᓂᖅᓴᖅᑕᐅᓕᖅᓴᖅᑲᓂ ᑕᒪᒃძᓄᖅᓴᖅᑕᐅᓂᖅᑐᑦ ᖃᐅᔨᓴᖅᑲᐅᓯᓂᖅ ᐱᓕᕐᓂᖅᑐᖅᑐᓂᖅᓴᖅᑕᐅᓯᓂᖅ ᖃᐅᔨᓴᖅᑲᐅᓯᓂᖅ ᐱᖅᐅᓯᒪᓕᕆᓂᖅᑐᑦ 2009-Γ.

EXECUTIVE SUMMARY

The Cullaton Lake Gold mine is a recognized closed mine site located in the southern part of the Kivalliq Region in the Nunavut Territory. The property is 645 km north of Thompson, Manitoba and 250 km west of Arviat, Nunavut.

The 2010 site activities consisted of an August 4, 2010 visit to conduct the annual site inspection, water quality and thermistor monitoring and the tailings dam geotechnical inspection pursuant to Water Licence No. 1BR-CUL0911.

Summarized, the results of the annual site inspection and monitoring indicate that:

- Water quality continues to remain within the guidelines specified in the Water Licence.
- The tailings storage facility continues to remain stable.
- The permafrost in the tailings cover was found 1.4m below surface on August 4, 2010 by test pit at thermistor T4.

An application was also made in November to renew the license. A new license has now been issued as 1BR-CUL1118, which will expire on January 31, 2018.

Divestiture discussions were not advanced in 2010. Indian and Northern Affairs Canada did visit the site on August 10, 2010 to conduct confirmatory monitoring and continues to review the Screening Level Aquatic Ecological Risk Assessment submitted in 2009.

1.0 SITE BACKGROUND / LOCATION

Cullaton Lake Gold Mines Ltd. is a wholly owned subsidiary of Barrick Gold Inc. (Barrick) which in turn is a wholly owned subsidiary of Barrick Gold Corporation.

The Cullaton Lake Gold mine is a recognized closed mine site located in the south central part of the Kivalliq Region in the Nunavut Territory. The property is 250 km west of Arviat, Nunavut, 400 km northwest of Churchill, Manitoba, and 645 km north of Thompson, Manitoba (see figure 1). The mine was in operation for four years from 1981 to 1985. Following operation, the mine was in a care and maintenance mode from 1985 to 1991.

1.1 CLOSURE AND POST CLOSURE MAINTENANCE HISTORY

Decommissioning was initiated in 1991 with the rehabilitation of Tailings Pond No. 1, which included construction of a spillway in the dam and the covering of exposed tailings with water or till/mine rock. In addition, the water level in Tailings Pond No. 2 (the polishing pond) was lowered by partial removal of the dam (see figures 2 and 3 for site features).

Between 1991 and 1993, the fresh water intake, pump house and pipelines at the old diamond drill camp on the Kognak River were dismantled and removed. In 1995 and 1996 the mill buildings were dismantled. Some of the inert, non-salvageable material was crushed and placed in the quarry pit. In 1997, additional cover material was placed over the tailings area and the area was seeded and fertilized with a special arctic seed mix, as was the former mill site. During the winter of 1998/99 some salvageable equipment and material was removed from the property.

During the summer of 2001, all remaining inert material was placed in the former quarry pit and covered with 2 meters of till. All waste oils and hydraulic fluids, as well as tires and batteries were removed from equipment prior to burial and subsequently airlifted to Thompson, Manitoba for proper disposal. In addition, waste rock at the Shear Lake Portal area, which had been determined to be acid generating, was collected and encapsulated in till adjacent to the portal.

During the 2005 annual inspection, minor maintenance items identified during the 2004 inspection were corrected. These included a second application of seed and fertilizer on the Encapsulated Waste Rock (EWR) cover at Shear Lake and erosion repairs to the EWR cover, Tailings Pond No. 1 spillway and the quarry pit landfill cover.

During the 2006 annual inspection, a small above-water exposed section of rubber liner on the upstream side of the tailings dam south of the No.1 Spillway was removed.

In response to a request from Barrick in 2006 to return the property to the crown, Indian and Northern Affairs Canada (INAC) initiated a review to assess closure conditions. INAC visited the site in Sept 2006 and commissioned BGC Consulting Ltd. (BGC) to conduct a desk top review of the closure history and monitoring results.

The BGC report indicated for a variety of reasons that INAC should not accept return of the property. In response, INAC, BGC, Barrick and Trow Consulting personnel met on

the site during the 2007 annual inspection on July 5, to discuss the report findings and confirm a new pH issue at Shear Lake. In addition Barrick volunteered to complete an Ecological Risk Assessment (ERA) to determine a) whether the mitigation efforts at Cullaton Lake have adequately addressed the requirements of the approved 1996 Abandonment and Reclamation Plan, and b) whether the new ARD issue at Shear Lake is having any significant ecological effects.

In 2008 Barrick and Gartner Lee personnel visited the site on 4 occasions to collect field data for completing the ERA. During the August trip, a minor amount of was retrieved from the north bank of the Kognak river and from the former bunkhouse area.

The ERA was finalized and submitted to INAC in August 2009. Summarized the report indicated that the surface waters at the site are not significantly impacted by the former mine operation or existing conditions.

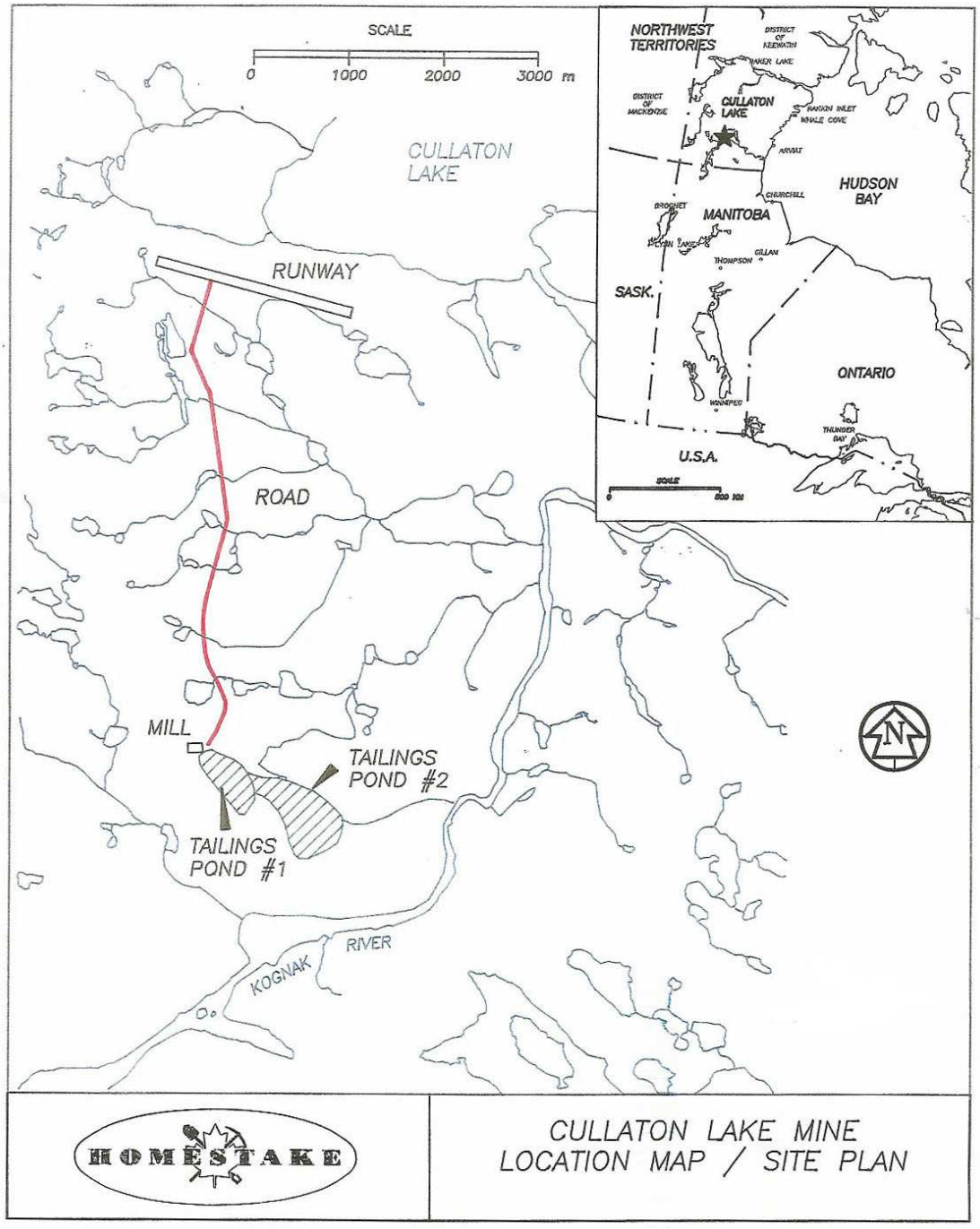
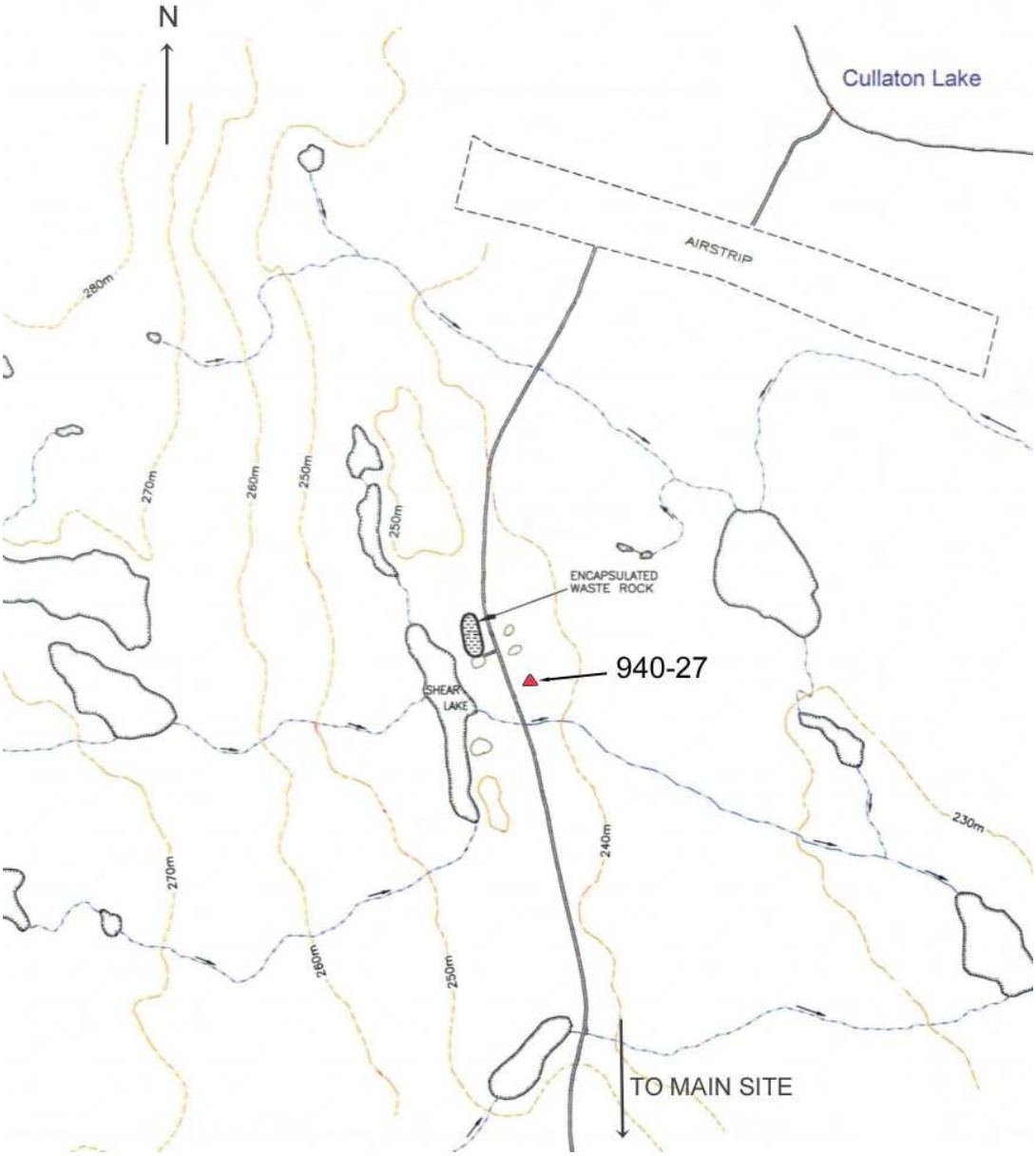
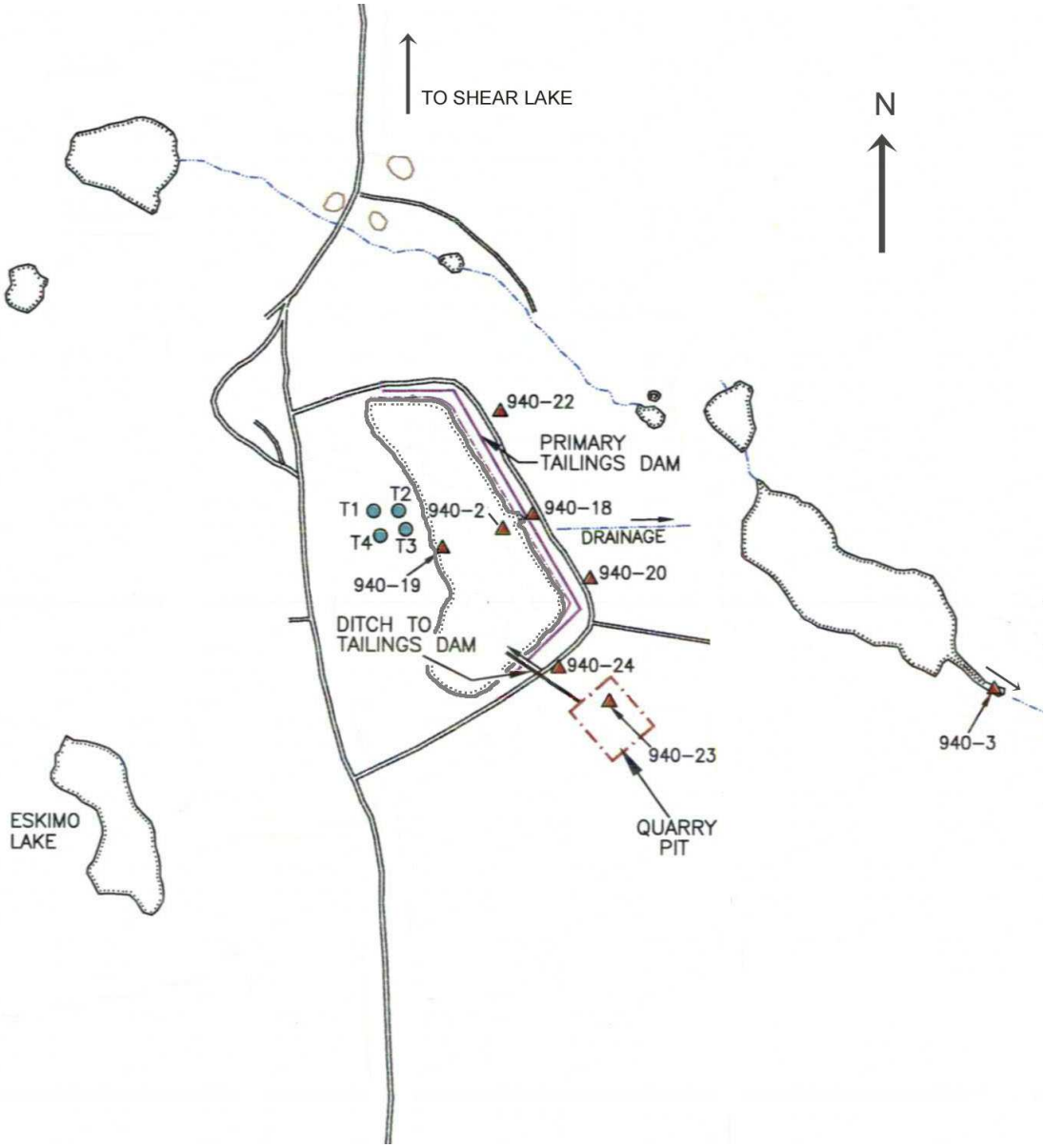


Figure 1: Cullaton Lake Mine location and general site layout



Legend:
940-27 Water sample station

Figure 2: Cullaton Lake Shear Lake site showing features and water sampling station (not to scale).



Legend:
T1: Thermistor station
940-2: Water sample station

Figure 3: Cullaton Lake main site showing features, water sampling and thermistor stations (not to scale).

2.0 WATER LICENCE SUPPLEMENTAL CONDITIONS AND NOTES

Management of Cullaton Lake is conducted pursuant to Water Licence 1BR-CUL1118, which was issued on February 9, 2011 to amend the expiry date of 1BR-CUL0911, in order to facilitate additional divestiture discussions and studies. 1BR-CUL1118 will expire on January 31, 2018. The following provides a historic summary of supplemental conditions and notes pursuant to previous licences:

Name Change:

On November 13, 2003, application was made to the Nunavut Water Board to change the name on Licence NWB1CUL0207 from Homestake Canada Inc. to Barrick Gold Inc. to reflect changes resulting from the 2001 merger of Barrick Gold Corporation and Homestake Mining Company.

Amendment for Encapsulated Waste Rock at Shear Lake:

Part F, Item 5 of Licence NWB1CUL0207 required submission of an application for amendment to the approved Abandonment and Restoration Plan by January 1, 2003 (subsequently extended to March 31, 2003) for the new waste rock disposal area on the shores of Shear Lake. The application for amendment with supporting documentation was submitted to the Nunavut Water Board on March 31, 2003. The amendment was granted on June 6, 2005. In addition, station 940-25 was removed from the monitoring program and replaced with station 940-27, intended to monitor any seepage from the encapsulated waste rock down-gradient to Shear Lake Creek.

The amendment required that suitable as-built drawings for the encapsulated waste rock be submitted within 6 months of the date of the amendment. Drawings were submitted on Dec 5, 2005.

The amendment also required that Section 4.4 of the Approved Abandonment and Restoration Plan be revised to incorporate the latest information with respect to the closure of the Shear Lake Waste Rock disposal area. The revision was submitted concurrent with the 2005 Annual Report.

Contingency Plan to Address Seepage Issues at the Encapsulated Waste Rock

Part F, Item 6, Amendment No. 1 of Licence NWB1CUL0207 required the submission of a Contingency Plan to address the potential of the permafrost not to re-aggrade into the waste rock pile / cover as anticipated, the clogging of the passive treatment system due to the relatively flat terrain and the remediation or mitigation of sediments contaminated with levels of metals in excess of CCME guidelines due to seepage from the encapsulated waste rock pile. The contingency plan for clogging of the passive treatment system and contamination remediation was submitted concurrent with the 2005 Annual Report and under separate cover. In the same document Barrick requested that the requirement for a Contingency Plan to address the possibility of permafrost not

re-aggrading into the waste rock be deleted from the Licence since this condition was identified as an "added benefit" and not a design parameter as specified by URS [1].

Amendment for Encapsulated Waste Rock Thermistors:

Water Licence NWB1CUL0207 required the installation of thermistors in the encapsulated waste rock at Shear Lake. An unsuccessful attempt to install the thermistors was made in July 2003. A report detailing this attempt was submitted to the Nunavut Water Board on November 25, 2003 and requested that this requirement be removed from the Licence. The request was granted on June 6, 2005 and station 940-26 was removed from the monitoring program.

Site Map:

Part G, Item 4a of Licence NWB1CUL0207 required submission to the Board of a Site Map of the Project Environmental Impact Area with active Surveillance Network Program (SNP) Stations within 60 days of issuance of the Licence. The required site map was submitted to the Nunavut Water Board on December 16, 2002.

GPS Coordinates:

Part G, Item 4b of Licence NWB1CUL0207 required submission of GPS coordinates of all surface and subsurface sampling points. The required GPS coordinates were submitted to the Nunavut Water Board on August 29, 2003.

Miscellaneous:

The NWB noted the following in their October 10, 2006 review of the 2005 Annual Water Licence report:

1. While the 2004 reported detection limit for nickel had been lowered as previously requested, the detection limit for arsenic was now higher than previously reported (1μg/l compared to 0.1 μg/l). To clarify the issue the NWB requested that detection limits proposed for the 2007 monitoring be included in the 2006 annual report.

   The variability in detection limits is largely the result of the many recent laboratory acquisitions / mergers and procedure changes. After discussing the issue with the present laboratory and reviewing the associated methods and equipment limitations, the 2007 proposed detection limits were as follows:

[1] Assessment of Closure Options and Impacts, Shear Lake Zone Waste Rock Dump, Cullaton Lake Mine Nunavut, March 2003, URS Norecol, Dames & Moore Inc.

Licence Parameter	Method Detection Limit
Total Suspended Solids	1 mg/l
Total Cyanide	0.005 mg/l
Total Arsenic	0.4 µ/l
Total Copper	1 µg/l
Total Lead	0.5 µg/l
Total Mercury	0.00005 mg/l
Total Nickel	1 µg/l
Total Zinc	5 µg/l

Following the 2007 sampling, the lab erroneously used a TSS detection limit of 10mg/l for the 2007 results. According to the lab, a correction to 1mg/l was not possible due the volume of analysis being less than 500ml. In 2008 the license required water samples were collected by Gartner Lee personnel along with the additional samples required for supporting their ERA. The 2008 and subsequent detection limits were equal to or lower than those shown above.

2. The NWB commented on the 2005 anomalous zinc value at station 940-23 (.065 mg/l) for follow – up in future monitoring.

   The 2006 sampling at 940-23 reported a zinc concentration of 0.012 mg/l.

   The 2007 sampling at 940-23 reported a zinc concentration of 0.006 mg/l.

   The 2008 sampling at 940-23 reported a zinc concentration of 0.0086 mg/l.

   The 2009 sampling at 940-23 reported a zinc concentration of 0.023 mg/l.

   The 2010 sampling at 940-23 reported a zinc concentration of 0.030 mg/l

3. The NWB requested that the Spill Response Plan contact number for the INAC Water Resources Inspector be changed.

   The required change was made to the 2006 and subsequent versions.

   On review of the 2008 annual report, the NWB requested that the NT-NU spill report form be included with the spill contingency plan. The form has been included with the 2011 plan and will be included with subsequent plans.

4. The NWB requested that water quality and thermistor data be also provided in Excel format, in order to allow for easier data analysis

   The 2006 data was provided in Excel format via e-mail on October 12, 2006. Subsequent results in Excel format are provided concurrent with the annual reports.

3.0 2010 ACTIVITIES

The annual site inspection was conducted at the closed Cullaton Lake Gold Mine (Cullaton Lake) on August 4, 2010. Personnel attending the site during this trip included:

Barrick Personnel:

Paul Brugger, Closed Properties Manager, Eastern Canada
Ron Aubry, assistant

Trow Associates Personnel:

Demetri Georgiou, Principle, qualified geotechnical engineer

Access to the site was via a chartered aircraft from Thompson, Manitoba. During this trip Mr. Brugger conducted visual inspections of the quarry pit, tailings cover, all former underground access areas, EWR and the site in general and collected water samples pursuant to then current Water Licence 1BR-CUL0911. Mr. Aubry excavated the test pit at Thermistor T4 to determine the depth of permafrost. Mr. Georgiou performed the annual geotechnical inspection.

There were no weather related or other issues affecting the inspections.

3.1 ANNUAL SITE INSPECTION GENERAL FINDINGS

The annual site inspection performed on August 4, 2010 indicated that overall the site remains in good condition. The following findings were noted:

The minor subsidence areas on the quarry pit landfill remain largely unchanged. Most of the affected areas are occupied by arctic ground squirrels.

Select photos are included in Appendix 1.

3.2 WATER QUALITY MONITORING

Duplicate water sampling was completed on August 4, 2010 at 6 of the 9 stations identified in the Water Licence (see Figures 2 and 3 for locations). Results are provided in Appendix 2. Recent historic results are also included for comparison. The following is a brief description of the sampling activities and results:

Station 940-2 (Tailings Pond No. 1 at discharge to Tailings Pond No. 2) – Duplicate water samples were collected on August 4, 2010. Results indicated that all parameters were below the limits prescribed in the Water Licence.

Station 940-3 (Tailings Pond No. 2) – Duplicate water samples were collected on August 4, 2010. Results indicated that all parameters were below the limits prescribed in the Water Licence**.**

Station 940-18 (Tailings Pond No. 1 spillway) – Duplicate water samples were collected on August 4, 2010. Results indicated that all parameters were below the limits prescribed in the Water Licence.

Station 940-19 (Tailings Pond No. 1 at piezometer) – Duplicate water samples were collected on August 4, 2010. Results indicated that all parameters were below the limits prescribed in the Water Licence.

Station 940-20 (Tailings Pond No. 1 seepage at east side) – Duplicate water samples were collected on August 4, 2010. Results indicated that all parameters were below the limits prescribed in the Water Licence.

Station 940-22 (Tailings Pond No. 1 seepage at northeast corner) – There was no flow observed on August 4, 2010 and consequently no samples were collected.

Station 940-23 (Quarry Pit) – Duplicate water samples were collected on August 4, 2010. Results indicated that all parameters were below the limits prescribed in the Water Licence. In addition, there was no visible sheen indicating the presence of oil / grease.

Station 940-24 (Quarry Pit flow to Tailings Pond No. 1) - There was no flow from the Quarry Pit to Tailings Pond No. 1 on August 4, 2010 and consequently no samples were collected.

Station 940-27 (Seepage from Encapsulated Waste Rock to Shear Lake Creek) - There was no flow observed on August 4, 2010 and consequently no samples were collected.

3.3 THERMISTOR MONITORING

A test pit excavated at Thermistor T4 in 2007 indicated that the thermistors are no longer providing correct readings. As in 2008 and 2009, the T4 test pit was re-opened during the August 4, 2010 visit in order to visually ascertain the depth of permafrost. Thermistor readings were also recorded at all 4 stations and are provided for comparison in Appendix 3.

Based on the test pit finding, the permafrost was found at a depth of 1.4m on August 4, 2010. The till cover is 90cm thick at this location. The thawed 50cm of tailings above the permafrost was saturated (see field notes and photos in Appendix 3).

3.4 GEOTECHNICAL INSPECTION

Demetri Georgiou (Trow Associates) performed the geotechnical inspection on August 4, 2010, pursuant to Part D, Article 8d of then current Water Licence 1BR-CUL0911. A copy of the inspection report was submitted to the NWB on March 16, 2011.

In summary the report indicates that the tailings dam remains stable. Continued monitoring for erosion in the No. 1 Spillway channel is also recommended.

Pursuant to Part D, Article 8e of then current Water Licence 1BR-CUL0911, the condition of the encapsulated waste rock cover at Shear Lake is to be monitored by the geotechnical engineer for erosion until vegetation is sufficiently established so as to stabilize the cover. At the time of the 2010 site inspection, the engineer noted the vegetation continues to take hold and is helping to reduce erosion. A recommendation for additional monitoring was also made.

4.0 ANNUAL REVIEW OF SPILL RESPONSE PLAN

Pursuant to Part H, Article 1a, b and c of new Water Licence 1BR- CUL1118, a review and update of the Spill Response Plan was conducted this month. A corrected and updated version is provided in Appendix 4.

5.0 ANNUAL REVIEW OF ABANDONMENT AND RESTORATION PLAN

Pursuant to Part I, Article 2 of the Water Licence, an annual review of the Abandonment and Restoration Plan was completed. There were no changes to the plan.

6.0 ANNUAL REVIEW OF QUALITY ASSURANCE / QUALTY CONTROL

Pursuant to Part J, Articles 4, 5 and 6 of new Water Licence 1BR-CUL1118 a review of the approved quality assurance / quality control plan (QA/QC) was conducted with reference to the document “Quality Assurance (QA) and Quality Control (QC) Guidelines for use by Class B Licensees in Collecting Representative Water Samples in the Field and for Submission of a QA/QC Plan, July 1996. Adjustments were made to the current

plan and a revised plan has been submitted concurrent with this annual report. Lab QC results for the 2010 samples are included in Appendix 2.

7.0 2011 PROPOSED PROGRAM

The 2011 program will consist of a site inspection, water quality monitoring, tailings dam geotechnical inspection and EWR cover stability inspection pursuant to Water Licence 1BR-CUL1118. The program is tentatively scheduled to occur during the first week of August.

Pursuant to Part F Item 1 of new Water Licence 1BR-CUL1118, research into replacing the non–functioning thermistors will be initiated in 2011, to determine if they can be successfully replaced without being susceptible to frost heave.

In addition to the above, minor maintenance activities will be performed, including additional top dressing at previously filled areas of settlement and erosion channel repair as required.

Appendix 1
Cullaton Lake Site Photos
August 4, 2010

Photo 1: Cullaton Lake main site, looking east, August 4, 2010

Photo 2: Shear Lake site, looking southeast, August 4, 2010

Photo 3: Tailings No.1 Pond spillway invert, looking west on August 4, 2010

Photo 4: Former polishing pond spillway dry on August 4, 2010

Photo 5: Former Shear Lake Portal, August 4, 2010.

Photo 6: Former B Zone Portal and Fresh Air Raise, looking north on August 4, 2010.

Photo 7: Encapsulated Waste Rock at Shear Lake 5 years after the application of additional seed and fertilizer.

Photo 8: Encapsulated Waste Rock cover top, looking north on August 4, 2010.

Photo 9: Shear Lake low pH pool on August 4, 2010.

Photo 10: Downstream side of low pH pool dry on August 4, 2010.

Photo 11: Tailings cover, looking southeast on August 4, 2010.

Photo 12: Tailings No 1 Pond, looking southeast from cover on August 4, 2010.

Photo 13: Previously filled subsidence area on August 4, 2010.

Photo 14: Subsidence at southwest corner of Quarry Pit on August 4, 2010.

Appendix 2
August 4, 2010
Water Quality Monitoring Results

Cullaton Lake
Water Quality Monitoring Results
August 4, 2010

Location	Sample Number	Field PH	Temp °C	Lab PH	Suspended Solids mg/L	Total Cyanide mg/L	Total Arsenic mg/L	Total Copper mg/L	Total Lead mg/L	Total Mercury mg/L	Total Nickel mg/L	Total Zinc mg/L
Tailings Pond No. 1 (at discharge)	940-2A	8.04	13.6	7.8	1	<0.005	0.0027	0.0010	0.00038	<0.00001	0.0008	<0.0025
	940-2B			7.9	<1	<0.005	0.0028	0.0010	0.00039	<0.00001	0.0008	<0.0025
Tailings Pond No. 2	940-3A	7.97	11.4	8.2	13	<0.005	0.0046	0.0035	0.00009	<0.00001	0.0043	0.0005
	940-3B			8.0	11	<0.005	0.0049	0.0038	0.00011	<0.00001	0.0046	0.0006
Tailings Pond No. 1 (spillway)	940-18A	9.37	12.8	8.7	<1	0.006	0.0057	0.0013	0.00011	<0.00001	0.0009	<0.0025
	940-18B			8.9	<1	0.006	0.0057	0.0012	0.00011	<0.00001	0.0011	<0.0025
Tailings Pond No. 1 (at piezometer)	940-19A	8.07	13.9	7.9	3	<0.005	0.0030	0.0010	0.00036	<0.00001	0.0011	<0.0025
	940-19B			7.9	4	<0.005	0.0033	0.0011	0.00043	<0.00001	0.0012	<0.0025
Tailings Pond No. 1 (seepage at east side)	940-20A	9.16	13.8	8.7	1	<0.005	0.0042	0.0029	0.00005	<0.00001	0.0033	<0.0025
	940-20B			8.9	2	<0.005	0.0042	0.0030	0.00006	<0.00001	0.0033	<0.0025
Tailings Pond No. 1 (seepage at northeast corner)	940-22A	Dry										
	940-22B											
Quarry Pit	940-23A	8.15	13.8	8.0	3	<0.005	0.0020	0.0016	0.00019	<0.00001	0.0022	0.0301
	940-23B			8.0	2	<0.005	0.0019	0.0016	0.00019	<0.00001	0.0022	0.0306
Quarry Pit (flow to Tailings Pond No. 1)	940-24	Dry										
Seepage from Shear Lake Encapsulated Waste Rock to Shear Lake Creek	940-27	Dry										

Cullaton Lake
Water Quality Monitoring
August 4, 2010
Water Analysis Certificate and Quality Control Report

Your Project #: Cullaton Lake
Your C.O.C. #: 20370601, 203706-0

Attention: Paul Brugger
BARRICK GOLD CORPORATION
shipping address
Thompson Shell Gas Station
745 Thompson Dr
Thompson, MB
CANADA R8N 0C7

Report Date: 2010/08/30
This report supersedes all previous reports with the same Maxxam job number

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B0A5841
Received: 2010/08/06, 08:59

Sample Matrix: Water
Samples Received: 14

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Total Cyanide	14	2010/08/10	2010/08/10	CAM SOP-00457	EPA 335.3
Hardness (calculated as CaCO3)	6	N/A	2010/08/13	CAM SOP 00102	SM 2340 B
Hardness (calculated as CaCO3)	8	N/A	2010/08/16	CAM SOP 00102	SM 2340 B
Mercury (low level)	14	2010/08/10	2010/08/10	CAM SOP-00453	EPA 7470
Metals in Water by ICPMS (low level)	14	2010/08/11	2010/08/12	CAM SOP-00447	EPA 6020
pH	6	N/A	2010/08/10	CAM SOP-00448	SM 4500H
pH	8	N/A	2010/08/28	CAM SOP-00448	SM 4500H
Sulphate by Automated Colourimetry	11	N/A	2010/08/10	CAM SOP-00464	EPA 375.4
Sulphate by Automated Colourimetry	3	N/A	2010/08/11	CAM SOP-00464	EPA 375.4
Low Level Total Suspended Solids	14	N/A	2010/08/09	CAM SOP-00428	SM 2540D

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
* Results relate only to the items tested.

Encryption Key

Flavia D'Silva
30 Aug 2010 17:17:40 -04:00

Please direct all qu s Certificate of Analysis to your Project Manager.

HEATHER JASUMANI, Campobello Customer Service
Email: Heather.Jasumani@MaxxamAnalytics.com
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B0A5841
Report Date: 2010/08/30

BARRICK GOLD CORPORATION
Client Project #: Cullaton Lake

RESULTS OF ANALYSES OF WATER

Maxxam ID			GT1067		GT1068		GT1069	GT1070		GT1071		
Sampling Date			2010/08/04		2010/08/04		2010/08/04	2010/08/04		2010/08/04		
	Units	**Criteria A**	**940-2A**	**QC Batch**	**940-2B**	**QC Batch**	**940-3A**	**940-3B**	**QC Batch**	**940-18A**	**RDL**	**QC Batch**
Calculated Parameters												
Hardness (CaCO3)	mg/L		230	2227781	230	2227781	99	98	2227781	220	1	2227781
Inorganics												
pH	pH	**6.5-8.5**	**7.8**	2249068	**7.9**	2249068	**8.2**	**8.0**	2230764	8.7		2229927
Total Suspended Solids	mg/L		1	2229756	ND	2229756	13	11	2229756	ND	1	2229756
Dissolved Sulphate (SO4)	mg/L		210	2229952	210	2231015	31	32	2231015	200	1	2229952
Total Cyanide (CN)	mg/L		ND	2230109	ND	2230109	ND	ND	2230109	0.006	0.005	2230109

Maxxam ID			GT1072		GT1073	GT1074		GT1075		
Sampling Date			2010/08/04		2010/08/04	2010/08/04		2010/08/04		
	Units	**Criteria A**	**940-18B**	**QC Batch**	**940-19A**	**940-19B**	**QC Batch**	**940-20A**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L		220	2227781	230	230	2227781	230	1	2227781
Inorganics										
pH	pH	**6.5-8.5**	8.9	2229927	**7.9**	**7.9**	2249068	8.7		2229927
Total Suspended Solids	mg/L		ND	2229756	3	4	2229756	1	1	2230035
Dissolved Sulphate (SO4)	mg/L		200	2229952	210	210	2229952	170	1	2229952
Total Cyanide (CN)	mg/L		0.006	2230109	ND	ND	2230109	ND	0.005	2230109

Maxxam ID			GT1076		GT1077	GT1078	GT1079	GT1080		
Sampling Date			2010/08/04		2010/08/04	2010/08/04	2010/08/04	2010/08/04		
	Units	**Criteria A**	**940-20B**	**QC Batch**	**940-23A**	**940-23B**	**SHEAR CREEK A**	**SHEAR CREEK B**	**RDL**	**QC Batch**
Calculated Parameters										
Hardness (CaCO3)	mg/L		230	2227781	110	110	14	14	1	2227781
Inorganics										
pH	pH	**6.5-8.5**	8.9	2229927	**8.0**	**8.0**	**6.9**	**6.8**		2249068
Total Suspended Solids	mg/L		2	2229756	3	2	2	1	1	2229756
Dissolved Sulphate (SO4)	mg/L		170	2229952	39	39	7	7	1	2229952
Total Cyanide (CN)	mg/L		ND	2230109	ND	ND	ND	ND	0.005	2230109

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria A: ONTARIO PROVINCIAL WATER QUALITY OBJECTIVES
Ref. to MOEE Water Management document dated Feb.1999

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Maxxam Job #: B0A5841
Report Date: 2010/08/30

BARRICK GOLD CORPORATION
Client Project #: Cullaton Lake

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID			GT1067	GT1068		GT1069	GT1070		GT1071	GT1072	GT1073	GT1074		
Sampling Date			2010/08/04	2010/08/04		2010/08/04	2010/08/04		2010/08/04	2010/08/04	2010/08/04	2010/08/04		
	Units	**Criteria A**	**940-2A**	**940-2B**	**RDL**	**940-3A**	**940-3B**	**RDL**	**940-18A**	**940-18B**	**940-19A**	**940-19B**	**RDL**	**QC Batch**
Metals														
. Arsenic (As)	ug/L	**5**	2.7	2.8	0.1	4.6	4.9	0.1	**5.7**	**5.7**	3.0	3.3	0.1	2231858
. Calcium (Ca)	ug/L		58500	56600	20	24200	23800	20	53900	53800	57600	58600	20	2231858
. Copper (Cu)	ug/L	**5**	1.0	1.0	0.1	3.5	3.8	0.1	1.3	1.2	1.0	1.1	0.1	2231858
. Lead (Pb)	ug/L	**1**	0.38	0.39	0.05	0.09	0.11	0.05	0.11	0.11	0.36	0.43	0.05	2231858
. Magnesium (Mg)	ug/L		20400	20700	5	9280	9320	5	21400	21100	21200	21200	5	2231858
Mercury (Hg)	ug/L	**0.2**	ND	ND	0.01	ND	ND	0.01	ND	ND	ND	ND	0.01	2230331
. Nickel (Ni)	ug/L	**25**	0.8	0.8	0.5	4.3	4.6	0.1	0.9	1.1	1.1	1.2	0.5	2231858
. Zinc (Zn)	ug/L	**30**	ND(1)	ND(1)	2.5	0.5	0.6	0.5	ND(1)	ND(1)	ND(1)	ND(1)	2.5	2231858

Maxxam ID			GT1075	GT1076			GT1077	GT1078		GT1079	GT1080		
Sampling Date			2010/08/04	2010/08/04			2010/08/04	2010/08/04		2010/08/04	2010/08/04		
	Units	**Criteria A**	**940-20A**	**940-20B**	**RDL**	**QC Batch**	**940-23A**	**940-23B**	**QC Batch**	**SHEAR CREEK A**	**SHEAR CREEK B**	**RDL**	**QC Batch**
Metals													
. Arsenic (As)	ug/L	**5**	4.2	4.2	0.1	2231858	2.0	1.9	2231858	0.4	0.4	0.1	2231858
. Calcium (Ca)	ug/L		47200	48500	20	2231858	26900	26800	2231858	3880	3860	20	2231858
. Copper (Cu)	ug/L	**5**	2.9	3.0	0.5	2231858	1.6	1.6	2231858	3.2	3.2	0.1	2231858
. Lead (Pb)	ug/L	**1**	0.05	0.06	0.05	2231858	0.19	0.19	2231858	0.08	0.08	0.05	2231858
. Magnesium (Mg)	ug/L		26400	26400	5	2231858	9270	9280	2231858	1150	1090	5	2231858
Mercury (Hg)	ug/L	**0.2**	ND	ND	0.01	2230331	ND	ND	2230195	ND	ND	0.01	2230331
. Nickel (Ni)	ug/L	**25**	3.3	3.3	0.5	2231858	2.2	2.2	2231858	2.9	2.9	0.1	2231858
. Zinc (Zn)	ug/L	**30**	ND(1)	ND(1)	2.5	2231858	**30.1**	**30.6**	2231858	2.9	1.3	0.5	2231858

ND = Not detected
RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria A: ONTARIO PROVINCIAL WATER QUALITY OBJECTIVES
Ref. to MOEE Water Management document dated Feb.1999
(1) - Detection Limit was raised due to matrix interferences.

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Maxxam Job #: B0A5841
Report Date: 2010/08/30

BARRICK GOLD CORPORATION
Client Project #: Cullaton Lake

GENERAL COMMENTS

Revised: pH values corrected upon re-analysis.

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Maxxam Job #: B0A5841
Report Date: 2010/08/30

BARRICK GOLD CORPORATION
Client Project #: Cullaton Lake

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
2229756	Total Suspended Solids	2010/08/09					ND, RDL=1	mg/L	NC	25	95	85 - 115
2229952	Dissolved Sulphate (SO4)	2010/08/10	NC	75 - 125	94	80 - 120	ND, RDL=1	mg/L	0.8	25		
2230035	Total Suspended Solids	2010/08/09					ND, RDL=1	mg/L	NC	25	95	85 - 115
2230109	Total Cyanide (CN)	2010/08/10	113	80 - 120	102	80 - 120	ND, RDL=0.005	mg/L	NC	25		
2230195	Mercury (Hg)	2010/08/10	99	80 - 120	88	80 - 120	ND, RDL=0.01	ug/L	NC	25		
2230331	Mercury (Hg)	2010/08/10	105	80 - 120	95	80 - 120	ND, RDL=0.01	ug/L	NC	25		
2231015	Dissolved Sulphate (SO4)	2010/08/11	NC	75 - 125	103	80 - 120	ND, RDL=1	mg/L	1.3	25		
2231858	. Arsenic (As)	2010/08/12	108	80 - 120	98	90 - 110	ND, RDL=0.1	ug/L	0.6	25		
2231858	. Calcium (Ca)	2010/08/12	NC	80 - 120	106	90 - 110	ND, RDL=20	ug/L	5.0	25		
2231858	. Copper (Cu)	2010/08/12	94	80 - 120	97	90 - 110	ND, RDL=0.1	ug/L	6.1	25		
2231858	. Lead (Pb)	2010/08/12	94	80 - 120	99	90 - 110	ND, RDL=0.05	ug/L	2.0	25		
2231858	. Magnesium (Mg)	2010/08/12	NC	80 - 120	112 (1)	90 - 110	ND, RDL=5	ug/L	0.2	25		
2231858	. Nickel (Ni)	2010/08/12	97	80 - 120	98	90 - 110	ND, RDL=0.1	ug/L	NC	25		
2231858	. Zinc (Zn)	2010/08/12	99	80 - 120	99	90 - 110	ND, RDL=0.5	ug/L	NC	25		

N/A = Not Applicable
RDL = Reportable Detection Limit
RPD = Relative Percent Difference
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.
QC Standard: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Spiked Blank: A blank matrix to which a known amount of the analyte has been added. Used to evaluate analyte recovery.
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.
NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.
NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.
(1) - Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Validation Signature Page

Maxxam Job #: B0A5841

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

CRISTINA CARRIERE, Scientific Services

==========

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Maxxam Analytics

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6-Aug-10 08:59
MARIJANE CRUZ
B0A5841
HSO ENV-720

CHAIN OF C

Page 1 of 2

Use Only:

BOTTLE ORDER #: 203706

PROJECT MANAGER: MARIJANE CRUZ

C#203706-01-01

INVOICE INFORMATION:		REPORT INFORMATION (if differs from invoice):		PROJECT INFORMATIO	
Company Name:	#12197 BARRICK GOLD CORPORATION	Company Name:	BARRICK GOLD CORP	Quotation #:	A94984
Contact Name:	~~Paul Brugger~~ BILL FERDINAND	Contact Name:	PAUL BRUGGER	P.O. #:	
Address:	PO BOX 1080	Address:	171 COPPER CLIFF RD E	Project #:	Cullaton Lake
	Elko NV 89803		NEEBING ON P7L0B6	Project Name:	
Phone:	(807)964-1657 Fax: (807)964-1658	Phone:	807-964-1657 Fax: 807-964-1658	Site #:	
Email:	pbrugger@xplornet.com	Email:	pbrugger@xplornet.com	Sampled By:	

REGULATORY CRITERIA:
- ☐ MISA — Reg. 153/04 — Sewer Use: ☐ Sanitary ☐ Storm ☐ Combined
- ☑ PWQO — ☐ Table 1 ☐ Table 2 ☐ Table 3 ☐ Table 6 — ☐ Residential/Parkland ☐ Industrial/Commercial ☐ Medium/Fine ☐ Coarse
- ☐ Reg. 558 — Municipality: ____ — Reg. 153 ☐ 2004 ☐ 2011
- Other (specify): ____ — Report Criteria on C of A ? ☐

SPECIAL INSTRUCTIONS

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details

Job Specific Rush TAT (if applies to entire submission)
Date Required: ____ Time Required: ____
Rush Confirmation Number: ____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	Total Cyanide	Hardness, pH, SO4	TSS Low	Mercury (low level)	As, Cu, Pb, Ni, Zn	BTEX/F1-F4				# of Bottles	Comments
1		940-2A, ~~2B~~	Aug 4/10		SW			X	X	X	X	X					~~12~~6	
2		940-2B															6	
3		940-3A																
4		940-3B																
5		940-18A																
6		940-18B																
7		940-19A																REC'D IN WINNIPEG
8		940-19B																
9		940-20A																
10		940-20B	↓		↓			↓	↓	↓	↓	↓					↓	

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
PAUL BRUGGER	Aug 5/10	12 noon	[illegible] Patricia Reimer	10/08/05	14:00	
			[illegible] Tim Stigsen	2010-08-06	8:59	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
X	9.8, 9.0, 8.7	☐ Yes ☐ No
	5/7/5°	
	4/7/9°	
	10/10/9°	

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Maxxam Yellow: Client

Maxxam Analytics

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5779 www.maxxamanalytics.com

CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:

- Company Name: #12197 BARRICK GOLD CORPORATION
- Contact Name: ~~Paul Brugger~~ BILL FERDINAND
- Address: PO BOX 1080, Elko NV 89803
- Phone: (807)964-1657 Fax: (807)964-1658
- Email: pbrugger@xplornet.com

REPORT INFORMATION (if differs from invoice):

- Company Name: BARRICK GOLD CORP.
- Contact Name: PAUL BRUGGER
- Address: 171 COPPER CLIFF RD E, NEEBING, ON P7L 0B6
- Phone: 807-964-1657 Fax: 807-964-1658
- Email: pbrugger@xplornet.com

PROJECT INFORMATION:

- Quotation #: A94984
- P.O. #:
- Project #: Cullaton Lake
- Project Name:
- Site #:
- Sampled By:

Laboratory Use Only:

- MAXXAM JOB #:
- BOTTLE ORDER #: 203706
- CHAIN OF CUSTODY #: C#203706-04-01
- PROJECT MANAGER: MARIJANE CRUZ

REGULATORY CRITERIA

- [ ] MISA — Reg. 153/04: [ ] Table 1 [ ] Table 2 [ ] Table 3 [ ] Table 6; [ ] Residential/Parkland [ ] Industrial/Commercial [ ] Medium/Fine [ ] Coarse
- [x] PWQO
- [ ] Reg. 558
- Sewer Use: [ ] Sanitary [ ] Storm [ ] Combined — Municipality ____
- Reg. 153: [ ] 2004 [ ] 2011
- Report Criteria on C of A? [ ]
- Other (specify) ____

SPECIAL INSTRUCTIONS:

Note: For regulated drinking water samples - please use the Drinking Water Chain of Custody Form

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

TURNAROUND TIME (TAT) REQUIRED:

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Regular (Standard) TAT: [ ]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) [ ]
Date Required: ____ Time Required: ____
Rush Confirmation Number: ____ (call lab for #)

ANALYSIS REQUESTED (Please be specific):

#	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Regulated Drinking Water ? (Y / N)	Metals Field Filtered ? (Y / N)	Total Cyanide	Hardness, pH, SO4	TSS Low	Mercury (low level)	As, Cu, Pb, Ni, Zn	BTEX/F1-F4					# of Bottles	Comments
1		940-23A	Aug 4/10		SW		N	✓	✓	✓	✓	✓						6	
2		940-23B	↓		↓			↓	↓	↓	↓	↓							
3		SHEAR CREEK A	↓		↓			↓	↓	↓	↓	↓							
4		SHEAR CREEK B	↓		↓			↓	↓	↓	↓	↓							
5																			
6																			
7																			REC'D IN WINNIPEG
8																			
9																			
10																			

*RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time:	# Jars Used and Not Submitted
PAUL BRUGGER	Aug 5/10	12 noon	M.R. / Marla Reimer	10/08/05	14:00	
			DM STIGSSON	2010-08-06	8:59	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[x]	9,8, 9,0 8,7 — 5/4/5°, 7/7/9°, 10/10/6°	[ ] Yes [ ] No

White: Maxxam Yellow: Client

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

Maxxam Analytics International Corporation o/a Maxxam Analytics

Cullaton Lake
Water Quality Monitoring Results
2001- 2010

CULLATON LAKE GOLD MINES LTD.

CULLATON LAKE MINE

WATER ANALYSIS REPORT

STATION 940-02A - TAILNGS POND NO. 1 DISCHARGE, AUGUST 2010

Physical and General	Units	Water License	CCME Guidelines	July 26 2001	July 3 2002	July 29 2003	July 7 2004	Aug. 5 2005	Aug. 2 2006	July 5 2007	June 28 2008	Aug. 5 2009	Aug. 4 2010	MINIMUM	MAXIMUM	AVERAGE
pH (lab)	units	**6.0 - 9.5**	**6.5-9.0**	8.00	7.81	8.07	7.77	7.8	8.0	7.7	7.5	8.0	7.8	7.5	8.07	7.85
Temperature	^{o}C			21.6	14.1	21.0	15.3	NR	14.5	15.2	12.5	15.8	13.6	12.5	21.6	16.0
Suspended Solids (105^{o}C)	mg/L	**25.0**		4	< 3	< 3	< 3	14	< 1	< 10	1	< 1	1	< 1	14	< 4
Total Cyanide	mg/L	**0.80**		0.015	0.009	< 0.005	< 0.0050	0.006	< 0.005	< 0.005	0.0088	< 0.005	< 0.005	< 0.005	0.015	< 0.007
Total Hardness	mg CaCO3/L						197	199	210	220	162	210	230	162	230	204
Minor Cations																
Arsenic	mg/L	**0.30**	**0.005**	0.0025	0.0022	0.0025	0.00159	0.003	0.0018	0.0021	0.00563	0.0019	0.0027	0.00159	0.00563	0.00259
Copper	mg/L	**0.20**	**0.004**	0.002	0.002	0.002	0.0014	0.002	0.001	0.001	0.00136	0.0012	0.0010	0.0010	0.0020	0.0015
Lead	mg/L	**0.20**	**0.007**	0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.0005	< 0.0005	0.00146	0.00032	0.00038	0.00032	0.00146	0.00082
Mercury	mg/L		**0.0002**	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.00005	< 0.00005	< 0.00001	< 0.00002	< 0.00001	< 0.00001	< 0.0001	< 0.00004
Nickel	mg/L	**0.30**	**0.150**	< 0.02	0.003	0.001	< 0.020	< 0.002	< 0.001	0.002	0.00258	0.001	0.0008	0.0008	< 0.020	< 0.0053
Zinc	mg/L	**0.30**	**0.030**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.005	< 0.005	0.0011	< 0.0025	< 0.0025	0.0011	< 0.005	< 0.0039

( ) Laboratory replicate.
[ ] Results re-checked.
(E) Not analyzed
NR: Not recorded due to equipment malfunction

CULLATON LAKE GOLD MINES LTD.

CULLATON LAKE MINE

WATER ANALYSIS REPORT

STATION 940-03A - TAILNGS POND NO. 2 DISCHARGE, AUGUST 2010

Physical and General	Units	Water License	CCME Guidelines	July 26 2001	July 3 2002	July 29 2003	July 7 2004	Aug. 5 2005	Aug. 2 2006	July 5 2007	June 28 2008	Aug. 5 2009	Aug. 4 2010	MINIMUM	MAXIMUM	AVERAGE
pH (lab)	units	**6.0 - 9.5**	**6.5-9.0**	8.03	8.05	8.07	7.96	7.7	7.9	7.8	7.7	8.0	8.2	7.7	8.2	7.9
Temperature	^{o}C			21.6	15.7	20.8	19.3	NR	17.4	13.7	17.0	15.4	11.4	11.4	21.6	16.9
Suspended Solids (105^{o}C)	mg/L	**25.0**		< 3	< 3	5	< 3	2	2	< 10	2	2	13	2	13	5
Total Cyanide	mg/L	**0.80**		0.035	0.010	0.010	0.0072	< 0.0020	< 0.005	< 0.005	0.0016	< 0.005	< 0.005	< 0.002	0.035	0.009
Total Hardness	mg CaCO3/L						92.4	100	90	88	82.3	94	99	82	100	92
Minor Cations																
Arsenic	mg/L	**0.30**	**0.005**	0.0042	0.0032	0.0059	0.00305	0.004	0.0037	0.0055	0.0032	0.0027	0.0046	0.0027	0.0059	0.0040
Copper	mg/L	**0.20**	**0.002**	0.003	0.003	0.003	0.0043	0.020	0.004	0.006	0.0037	0.0039	0.0035	0.003	0.020	0.005
Lead	mg/L	**0.20**	**0.002**	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.0005	< 0.0005	0.00006	< 0.00005	0.00009	< 0.00005	< 0.001	< 0.0006
Mercury	mg/L		**0.0002**	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.00005	< 0.00005	0.00001	< 0.00002	< 0.00001	0.00001	< 0.0001	< 0.00004
Nickel	mg/L	**0.30**	**0.065**	< 0.02	0.003	0.004	< 0.020	0.003	0.005	0.005	0.00357	0.0036	0.0043	0.003	< 0.020	< 0.007
Zinc	mg/L	**0.30**	**0.030**	< 0.005	< 0.005	< 0.005	< 0.005	0.015	< 0.005	< 0.005	0.0009	< 0.0005	0.0005	< 0.0005	0.015	0.0047

( ) Laboratory replicate.
[ ] Results re-checked.
(E) Not analyzed
NR: Not recorded due to equipment malfunction

CULLATON LAKE GOLD MINES LTD.

CULLATON LAKE MINE

WATER ANALYSIS REPORT

STATION 940-18A - TAILNGS POND NO. 1 SPILLWAY, AUGUST 2010

Physical and General	Units	Water License	CCME Guidelines	July 26 2001	July 3 2002	July 29 2003	July 7 2004	Aug. 5 2005	Aug. 2 2006	July 5 2007	June 28 2008	Aug. 5 2009	Aug. 4 2010	MINIMUM	MAXIMUM	AVERAGE
pH (lab)	units	**6.0 - 9.5**	**6.5-9.0**	8.10	7.86	8.87	7.89	8.1	8.4	7.8	7.5	7.8	8.7	7.5	8.87	8.1
Temperature	^{o}C			21.5	14.2	20.5	18.5	NR	21.4	15.2	15.8	15.8	12.8	12.8	21.5	17.3
Suspended Solids (105^{o}C)	mg/L	**25.0**		< 3	< 3	4	< 3	< 2	3	< 10	< 1	1	< 1	< 1	< 10	< 3
Total Cyanide	mg/L	**0.80**		0.009	0.008	0.009	0.0096	0.004	0.037	0.005	0.0077	< 0.005	0.006	0.004	0.037	0.010
Total Hardness	mg CaCO3/L						217	200	210	230	159	220	220	159	230	208
Minor Cations																
Arsenic	mg/L	**0.30**	**0.005**	0.0023	0.0021	0.0029	0.00165	0.002	0.0055	0.0023	0.00133	0.0033	0.0057	0.00133	0.0057	0.0029
Copper	mg/L	**0.20**	**0.004**	0.002	0.001	0.002	0.0018	0.001	0.005	0.002	0.00086	0.0012	0.0013	0.00086	0.005	0.0018
Lead	mg/L	**0.20**	**0.007**	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.0005	< 0.0005	0.00032	0.00011	0.00011	0.00011	< 0.001	< 0.0007
Mercury	mg/L		**0.0002**	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.00005	< 0.00005	< 0.00001	< 0.00002	< 0.00001	< 0.00001	< 0.0001	< 0.00004
Nickel	mg/L	**0.30**	**0.150**	< 0.02	0.002	0.001	< 0.020	< 0.002	0.002	0.001	0.00124	0.001	0.0009	0.0009	< 0.020	< 0.0051
Zinc	mg/L	**0.30**	**0.030**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.005	< 0.005	0.0003	< 0.0025	< 0.0025	0.0003	< 0.005	< 0.0038

( ) Laboratory replicate.
[ ] Results re-checked.
(E) Not analyzed
NR: Not recorded due to equipment malfunction

CULLATON LAKE GOLD MINES LTD.

CULLATON LAKE MINE

WATER ANALYSIS REPORT

STATION 940-19A - TAILNGS POND NO. 1 AT PIEZOMETER LOCATION AUGUST 2010

Physical and General	Units	NWB Water License	CCME Guidelines	July 26 2001	July 3 2002	July 29 2003	July 7 2004	Aug. 5 2005	Aug. 2 2006	July 5 2007	June 28 2008	Aug. 5 2009	Aug. 4 2010	MINIMUM	MAXIMUM	AVERAGE
pH (lab)	units	**6.0 - 9.5**	**6.5-9.0**	8.11	7.89	8.08	7.69	7.9	7.9	7.8	7.9	7.9	7.9	7.69	8.11	7.91
Temperature	^{o}C			22.0	12.7	20.8	16.3	NR	15.4	15.3	21.3	15.3	13.9	12.7	22.0	17.0
Suspended Solids (105^{o}C)	mg/L	**25.0**		< 3	< 3	8	< 3	2	< 1	< 10	< 1	< 1	3	< 1	< 10	< 4
Total Cyanide	mg/L	**0.80**		0.010	0.012	< 0.005	0.0074	0.006	< 0.005	< 0.005	0.0009	< 0.005	< 0.005	0.0009	0.012	0.006
Total Hardness	mg CaCO3/L						206	201	210	220	749	220	230	201	749	291
Minor Cations																
Arsenic	mg/L	**0.30**	**0.005**	0.0024	0.0030	0.0036	0.00209	0.002	0.0019	0.0016	0.0025	0.0019	0.0030	0.0016	0.0036	0.0024
Copper	mg/L	**0.20**	**0.004**	0.002	0.002	0.002	0.0015	0.002	0.001	0.001	0.00143	0.0015	0.0010	0.001	0.002	0.002
Lead	mg/L	**0.20**	**0.007**	< 0.001	0.001	< 0.001	< 0.0010	< 0.001	< 0.0005	< 0.0005	0.00182	0.00032	0.00036	0.00032	0.00182	0.00085
Mercury	mg/L		**0.0002**	< 0.00005	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.00005	< 0.00005	< 0.00001	< 0.00002	< 0.00001	< 0.00001	< 0.0001	< 0.00004
Nickel	mg/L	**0.30**	**0.150**	< 0.02	0.003	0.002	< 0.020	< 0.002	< 0.001	0.002	0.00858	0.001	0.0011	< 0.001	< 0.020	< 0.006
Zinc	mg/L	**0.30**	**0.030**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.003	< 0.005	< 0.005	0.0161	< 0.0025	< 0.0025	< 0.0025	0.0161	< 0.0054

( ) Laboratory replicate.
[ ] Results re-checked.
(E) Not analyzed
NR: Not recorded due to equipment malfunction

CULLATON LAKE GOLD MINES LTD.

CULLATON LAKE MINE

WATER ANALYSIS REPORT

STATION 940-20A - TAILNGS POND NO. 1 EAST SIDE SEEPAGE, AUGUST 2010

Physical and General	Units	Water License	CCME Guidelines	July 26 2001	July 3 2002	July 29 2003	July 7 2004	Aug. 5 2005	Aug. 2 2006	July 5 2007	June 28 2008	Aug. 5 2009	Aug. 4 2010	MINIMUM	MAXIMUM	AVERAGE
pH (lab)	units	**6.0 - 9.5**	**6.5-9.0**	8.43	D	D	8.13	7.8	8.1	8.2	8.1	8.3	8.7	7.8	8.7	8.2
Temperature	^{o}C			24.3	D	D	21.3	NR	22.0	17.9	19.6	18.9	13.8	13.8	24.3	19.7
Suspended Solids (105^{o}C)	mg/L	**25.0**		5	D	D	< 3	< 2	1	< 10	4	1	1	1	10	3
Total Cyanide	mg/L	**0.80**		0.019	D	D	0.0104	0.118	< 0.005	< 0.005	0.0038	< 0.005	< 0.005	0.0038	0.118	0.0214
Total Hardness	mg CaCO3/L						310	338	220	620	370	240	230	220	620	333
Minor Cations																
Arsenic	mg/L	**0.30**	**0.005**	0.0028	D	D	0.00297	0.001	0.0044	0.0052	0.00337	0.0028	0.0042	0.001	0.0052	0.0033
Copper	mg/L	**0.20**	**0.004**	0.005	D	D	0.0041	0.004	0.004	0.005	0.00423	0.0031	0.0029	0.0029	0.005	0.0040
Lead	mg/L	**0.20**	**0.007**	< 0.001	D	D	< 0.0010	< 0.001	< 0.0005	< 0.0005	0.00023	< 0.00005	0.00005	< 0.00005	< 0.001	< 0.00054
Mercury	mg/L		**0.0002**	< 0.00005	D	D	< 0.00005	< 0.0001	< 0.00005	< 0.00005	< 0.00001	< 0.00002	< 0.00001	< 0.00001	< 0.0001	< 0.00004
Nickel	mg/L	**0.30**	**0.150**	< 0.02	D	D	< 0.020	0.015	0.006	0.008	0.00644	0.0036	0.0033	0.0033	< 0.020	< 0.0103
Zinc	mg/L	**0.30**	**0.030**	< 0.005	D	D	< 0.005	< 0.003	< 0.005	< 0.005	0.0016	0.0038	< 0.0025	0.0016	< 0.005	< 0.0039

( ) Laboratory replicate.
[ ] Results re-checked.
D Dry
NR: Not recorded due to equipment malfunction

CULLATON LAKE GOLD MINES LTD.

CULLATON LAKE MINE

WATER ANALYSIS REPORT

STATION 940-22A - TAILNGS POND NO. 1 NORTH SIDE SEEPAGE, AUGUST 2010

Physical and General	Units	Water License	CCME Guidelines	July 26 2001	July 3 2002	July 29 2003	July 7 2004	Aug. 5 2005	Aug. 2 2006	July 5 2007	Jun 28 2008	Aug. 5 2009	Aug. 4 2010	MINIMUM	MAXIMUM	AVERAGE
pH (lab)	units	**6.0 - 9.5**	**6.5-9.0**	D	D	D	D	7.7	D	D	8.0	D	D	7.7	8.0	7.9
Temperature	^{o}C			D	D	D	D	NR	D	D	18.7	D	D	18.7	18.70	18.70
Suspended Solids (105^{o}C)	mg/L	**25.0**		D	D	D	D	6	D	D	1	D	D	1	6	4
Total Cyanide	mg/L	**0.80**		D	D	D	D	0.073	D	D	0.0015	D	D	0.0015	0.073	0.037
Total Hardness	mg CaCO3/L			D	D	D	D	515	D	D	546	D	D	515	546	531
Minor Cations																
Arsenic	mg/L	**0.30**	**0.005**	D	D	D	D	0.001	D	D	0.00339	D	D	0.001	0.00339	0.0022
Copper	mg/L	**0.20**	**0.004**	D	D	D	D	0.004	D	D	0.00239	D	D	0.00239	0.004	0.0032
Lead	mg/L	**0.20**	**0.007**	D	D	D	D	< 0.001	D	D	0.00057	D	D	0.00057	< 0.001	< 0.0008
Mercury	mg/L		**0.0002**	D	D	D	D	< 0.0001	D	D	< 0.00001	D	D	< 0.00001	< 0.0001	< 0.00006
Nickel	mg/L	**0.30**	**0.150**	D	D	D	D	0.045	D	D	0.00415	D	D	0.00415	0.045	0.0246
Zinc	mg/L	**0.30**	**0.030**	D	D	D	D	< 0.010	D	D	0.0022	D	D	0.0022	< 0.010	< 0.0061

( ) Laboratory replicate.
[ ] Results re-checked.
D Dry
NR: Not recorded due to equipment malfunction

CULLATON LAKE GOLD MINES LTD.

CULLATON LAKE MINE

WATER ANALYSIS REPORT

STATION 940-23A - QUARRY PIT, AUGUST 2010

Physical and General	Units	Water License	CCME Guidelines	July 26 2001	July 3 2002	July 29 2003	July 7 2004	Aug. 5 2005	Aug. 2 2006	July 5 2007	June 28 2008	Aug. 5 2009	Aug. 4 2010	MINIMUM	MAXIMUM	AVERAGE
pH (lab)	units	**6.0 - 9.5**	**6.5-9.0**	D	7.82	8.07	7.56	7.8	8.1	7.7	7.4	8.1	8.0	7.4	8.1	7.8
Temperature	^{o}C			D	12.7	20.7	15.7	NR	15.5	14.4	14.5	14.3	13.8	12.7	20.7	15.2
Suspended Solids (105^{o}C)	mg/L	**25.0**		D	< 3	10	< 3	4	1	< 10	< 1	< 1	2	< 1	10	4
Total Cyanide	mg/L	**0.80**		D	< 0.005	< 0.006	< 0.0050	< 0.002	< 0.005	< 0.005	< 0.0005	< 0.005	< 0.005	< 0.0005	< 0.006	< 0.004
Total Hardness	mg CaCO3/L						37.9	104	120	78	46.7	100	110	38	120	85
Minor Cations																
Arsenic	mg/L	**0.30**	**0.005**	D	0.0020	0.0019	0.00096	0.002	0.0014	0.0011	0.00084	0.0013	0.0020	0.00084	0.002	0.0015
Copper	mg/L	**0.20**	**0.002**	D	0.003	0.002	< 0.0010	0.002	0.002	< 0.001	0.00102	0.0024	0.0016	< 0.001	0.003	< 0.002
Lead	mg/L	**0.20**	**0.002**	D	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.0005	< 0.0005	0.00009	0.00014	0.00019	0.00009	< 0.001	< 0.00060
Mercury	mg/L		**0.0002**	D	< 0.00005	< 0.00005	< 0.00005	< 0.0001	< 0.00005	< 0.00005	0.00001	< 0.00002	< 0.00001	0.00001	< 0.0001	< 0.00004
Nickel	mg/L	**0.30**	**0.065**	D	0.003	0.002	< 0.020	0.002	0.002	0.001	0.00141	0.0023	0.0022	0.001	< 0.020	< 0.004
Zinc	mg/L	**0.30**	**0.030**	D	0.008	0.007	0.0087	0.065	0.012	0.006	0.0086	0.0229	0.0301	0.006	0.065	0.019

( ) Laboratory replicate.
[ ] Results re-checked.
(E) Not analyzed
NR: Not recorded due to equipment malfunction

CULLATON LAKE GOLD MINES LTD.

CULLATON LAKE MINE

WATER ANALYSIS REPORT

STATION 940-24A - AREA OF SEEPAGE FROM QUARY PIT TO TAILINGS POND, AUGUST 2010

Physical and General	Units	Water License	CCME Guidelines	July 26 2001	July 3 2002	July 29 2003	July 7 2004	Aug. 5 2005	Aug. 2 2006	July 5 2007	June 28 2008	Aug. 5 2009	Aug. 4 2010	MINIMUM	MAXIMUM	AVERAGE
pH (lab)	units	**6.0 - 9.5**	**6.5-9.0**	D	D	D	D	D	D	D	D	D	D			
Temperature	^{o}C			D	D	D	D	D	D	D	D	D	D			
Suspended Solids (105^{o}C)	mg/L	**25.0**		D	D	D	D	D	D	D	D	D	D			
Total Cyanide	mg/L	**0.80**		D	D	D	D	D	D	D	D	D	D			
Total Hardness	mg CaCO3/L			D	D	D	D	D	D	D	D	D	D			
Oil and Grease	mg/L	**Visible**		D	D	D	D	D	D	D	D	D	D			
Minor Cations																
Arsenic	mg/L	**0.30**	**0.005**	D	D	D	D	D	D	D	D	D	D			
Copper	mg/L	**0.20**	**0.004**	D	D	D	D	D	D	D	D	D	D			
Lead	mg/L	**0.20**	**0.007**	D	D	D	D	D	D	D	D	D	D			
Mercury	mg/L		**0.0002**	D	D	D	D	D	D	D	D	D	D			
Nickel	mg/L	**0.30**	**0.150**	D	D	D	D	D	D	D	D	D	D			
Zinc	mg/L	**0.30**	**0.030**	D	D	D	D	D	D	D	D	D	D			

( ) Laboratory replicate.
[ ] Results re-checked.
D: Dry

CULLATON LAKE GOLD MINES LTD.

CULLATON LAKE MINE

WATER ANALYSIS REPORT

STATION 940-27A - AREA OF SEEPAGE FROM EWR TO SHEAR LAKE CREEK (1), AUGUST 2010

Physical and General	Units	Water License	CCME Guidelines	July 26 2001	July 3 2002	July 29 2003	July 7 2004	Aug 5 2005	Aug 2 2006	July 5 2007	June 28 2008	Aug 5 2009	Aug. 4 2010	MINIMUM	MAXIMUM	AVERAGE
pH (lab)	units	**6.0 - 9.5**	**6.5-9.0**					D	D	D	D	D	D			
Temperature	^{o}C							D	D	D	D	D	D			
Suspended Solids (105^{o}C)	mg/L	**25.0**						D	D	D	D	D	D			
Total Cyanide	mg/L	**0.80**						D	D	D	D	D	D			
Total Hardness	mg CaCO3/L							D	D	D	D	D	D			
Sulphate	mg/L							D	D	D	D	D	D			
Minor Cations																
Arsenic	mg/L	**0.30**	**0.005**					D	D	D	D	D	D			
Copper	mg/L	**0.20**	**0.004**					D	D	D	D	D	D			
Lead	mg/L	**0.20**	**0.007**					D	D	D	D	D	D			
Mercury	mg/L		**0.0002**					D	D	D	D	D	D			
Nickel	mg/L	**0.30**	**0.150**					D	D	D	D	D	D			
Zinc	mg/L	**0.30**	**0.030**					D	D	D	D	D	D			

(1) Station added in 2005
( ) Laboratory replicate.
[ ] Results re-checked.
D: Dry

Appendix 3
August 4, 2010
Thermistor Monitoring Results

THERMISTOR MONITORING RESULTS
Station 940-21

Field notes for pit excavated on August 5, 2009 at same location as last year (immediately north of T4)

0 – 0.9m: till cover
0.9m – 1.4m: saturated tailings
1.4m: Permafrost

Test pit excavated at T4 on August 4, 2010, showing till cover / saturated tailings interface.

Test pit excavated to permafrost at 1.4m

August 4, 2010 T4 Test Pit Field Notes:

0 -0.9m: till cover
0.9m -1.4m saturated tailings
1.4m: permafrost

August 4, 2010 Thermistor Readings (See Notes Below)

Depth (m)	T1 (°C)	T2 (°C)	T3 (°C)	T4 (°C)
0.3	13.32	12.11	NR(4)	10.97
0.8	9.49	7.74	12.11	7.93
1.3	7.93	7.74	11.88	9.29
1.8	5.65	7.38	9.49	0.28
2.3	1.16	3.63	6.84	-0.08
2.8	-1.01	NR(4)	NR(4)	NR(3)

August 5, 2009 T4 Test Pit Field Notes:

0 -0.9m: till cover
0.9m -1.2m saturated tailings
1.2m: permafrost

August 5, 2009 Thermistor Readings (See Notes Below)

Depth (m)	T1 (°C)	T2 (°C)	T3 (°C)	T4 (°C)
0.3	21.26	NR (2)	20.52	20.89
0.8	9.29		18.78	11.42
1.3	5.65		16.00	7.56
1.8	3.05		8.50	3.33
2.3	-0.66		4.53	-1.23
2.8	-1.45		1.81	NR(3)

September 2, 2008 T4 Test Pit Field Notes:

0 -0.9m: till cover
0.9m -1.1m: unsaturated tailings
1.1m – 2.0m: saturated tailings
2.0m: permafrost

Notes:

(1) Thermistor readings are suspect and are included for comparison with test pit findings. High temperature readings for the top 2 sensors (0.3m and 0.8m) indicate they are above ground level and reflect daytime heating in the exposed black plastic casing.
(2) Cable was not accessible.
(3) Reading erroneously indicated 43.67℃ in 2009 a nd 23.67℃ in 2010.
(4) Reading indicated open circuit.

Appendix 4
2011 Spill Response Plan

CULLATON LAKE
ENVIRONMENTAL SPILL RESPONSE PLAN

COMPANY INFORMATION

Cullaton Lake Gold Mines Ltd. is wholly owned by Barrick Gold Inc. The Barrick head office responsible for the site is located at:

Barrick Gold Inc.
BCE Place, Canada Trust Tower, Suite 3700
161 Bay Street, P.O. Box 212
Toronto, Ontario
M5J 2S1

The site manager is:

Paul Brugger,
Barrick Gold Inc.
171 Copper Cliff Road East
Neebing, Ontario
P7L 0B6
Phone: 807-964-1657 (Thunder Bay, Ontario)
Cell: 807-473-7947
e-mail: pbrugger@xplornet.com

SITE LOCATION:

The Cullaton Lake property is located in the southern part of the District of Keewatin in the Nunavut Territory. The property is 250 km west of Arviat, NU, 400 km northwest of Churchill, Manitoba and 645 km north of Thompson, Manitoba. A topographic map is attached as Figure 1.

PROJECT HISTORY AND CURRENT ACTIVITY:

Cullaton Lake operated as an underground gold mine for four years from 1981 to 1985. Decommissioning and reclamation began in 1991 and was completed in 2001. By the end of 2001, all mine buildings had been removed, roads were decommissioned and the tailings impoundment area was reclaimed. No chemicals, fuels or reagents remain on site.

Remaining activities on the site consist of a one-day annual visit for inspection and monitoring purposes. The site is dormant and uninhabited for the remainder of the year.

REVISIONS AND EFFECTIVE DATE OF PLAN:

This plan was reviewed and revised on March 11, 2011 and is effective until March 31, 2012.

SPILL CONTROL AND REPORTING PROCEDURES:

Should it be necessary to mobilize contractors to the site for any reason in the future, the contractor will be required to supply spill control and clean up materials, have a spill control plan and train personnel in spill response procedures.

Upon discovery of a spill, the person discovering the spill will take the following actions:

INITIAL ACTIONS:

a. Stop the flow if possible.
b. Eliminate open flame ignition sources (i.e. extinguish cigarettes, shut off motors (from a remote location if surrounded by vapours).
c. Contain flow of fuel by dyking, barricading or blocking flow by any means available. Use earth-moving equipment if available. A dam made of earth or other available fill can be quickly constructed to contain and prevent a spill from spreading. If the ground is permeable, it may be necessary to excavate a shallow depression and line it with plastic to prevent the oil from seeping away.

ACTION IN CASE OF FIRE:

a. Use $C0_2$, dry chemical, foam or water spray (fog), although water may spread the fire.
b. Use jet streams to wash away burning gasoline.
c. Use fog streams to protect any rescue team and trapped people.
d. Use water to cool surface of tanks.
e. Divert the oil or gasoline to an open area and let it burn off under control. If the fire is put out before all the fuel is consumed, beware of re-ignition. Rubber tires are almost impossible to extinguish after involvement with a fire. Have vehicles with burning tires removed from the danger area.

RECOVERY PROCEDURE:

a. Unburned oil or gasoline can be soaked up by sand and peat moss, or by commercial absorbents such as Graboil.
b. If necessary, contaminated soil should be excavated and disposed of as per the following section.
c. Fuel entering the ground can be recovered by digging sumps or trenches.

DISPOSAL:

a. Evaporation may be used if appropriate.
b. Disposal as per the approved Abandonment and Restoration (1996) Plan.

REPORTING:

An individual discovering a spill must report it as soon as possible to the 24 hour Spill Report Line by calling:

(867) 920-8130

(1) A person reporting a spill shall give as much of the following information as possible:

- date and time of spill
- location of spill
- direction spill is moving
- name and phone number of a contact person close to the location of the spill
- type and description of contaminant spilled including an estimate of the quantity
- cause of spill
- status of spill (i.e. continuing or stopped)
- action taken to contain, recover, clean-up, and dispose of contaminant
- name, address and phone number of person reporting the spill
- name of owner, or person in charge or control of contaminant at time of spill

(2) No person shall delay reporting a spill because of lack of knowledge of the factors listed in subsection (1).

(3) The person reporting the spill shall also contact:

- INAC Manager of Field Operations at: (**867) 975-4295**
- Environment Canada at **(867) 975-4644**
- Government of Nunavut Environmental Protection at **(867) 857-2828**
- Kivalliq Inuit Association at **(867) 645-2810** or **1-800-220-6541 Contact Stephen Hartman**
- Barrick Gold Corporation :

  Paul Brugger,
  Site Manager
  Phone: **807-964-1657**
  Cell: 807-473-7947

  Alternate:
  Bill Ferdinand
  Director, Environment, Health and Safety,
  North American Region
  Phone: **801-990-3746**
  Cell: 801-244-3540
- If required:
  - RCMP – Arviat at **(867) 857-0123**
  - Arviat Hospital at **(867) 857-3100**
  - Arviat Fire Response at **(867) 857-2538**

(4) The attached NT-NU Spill Report will also be completed and submitted to the Nunavut spills reporting office at fax: (867) 873-6924 or email spills@gov.nt.ca

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR	REPORT TIME	☐ ORIGINAL SPILL REPORT, OR	REPORT NUMBER ____-_____
B	OCCURRENCE DATE: MONTH – DAY – YEAR	OCCURRENCE TIME	☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	

C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENCE NUMBER (IF APPLICABLE)
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION	REGION ☐ NWT ☐ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN
E	LATITUDE DEGREES MINUTES SECONDS	LONGITUDE DEGREES MINUTES SECONDS

F	RESPONSIBLE PARTY OR VESSEL NAME	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION	
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION	
H	PRODUCT SPILLED	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER
I	SPILL SOURCE	SPILL CAUSE	AREA OF CONTAMINATION IN SQUARE METRES
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS		

L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130

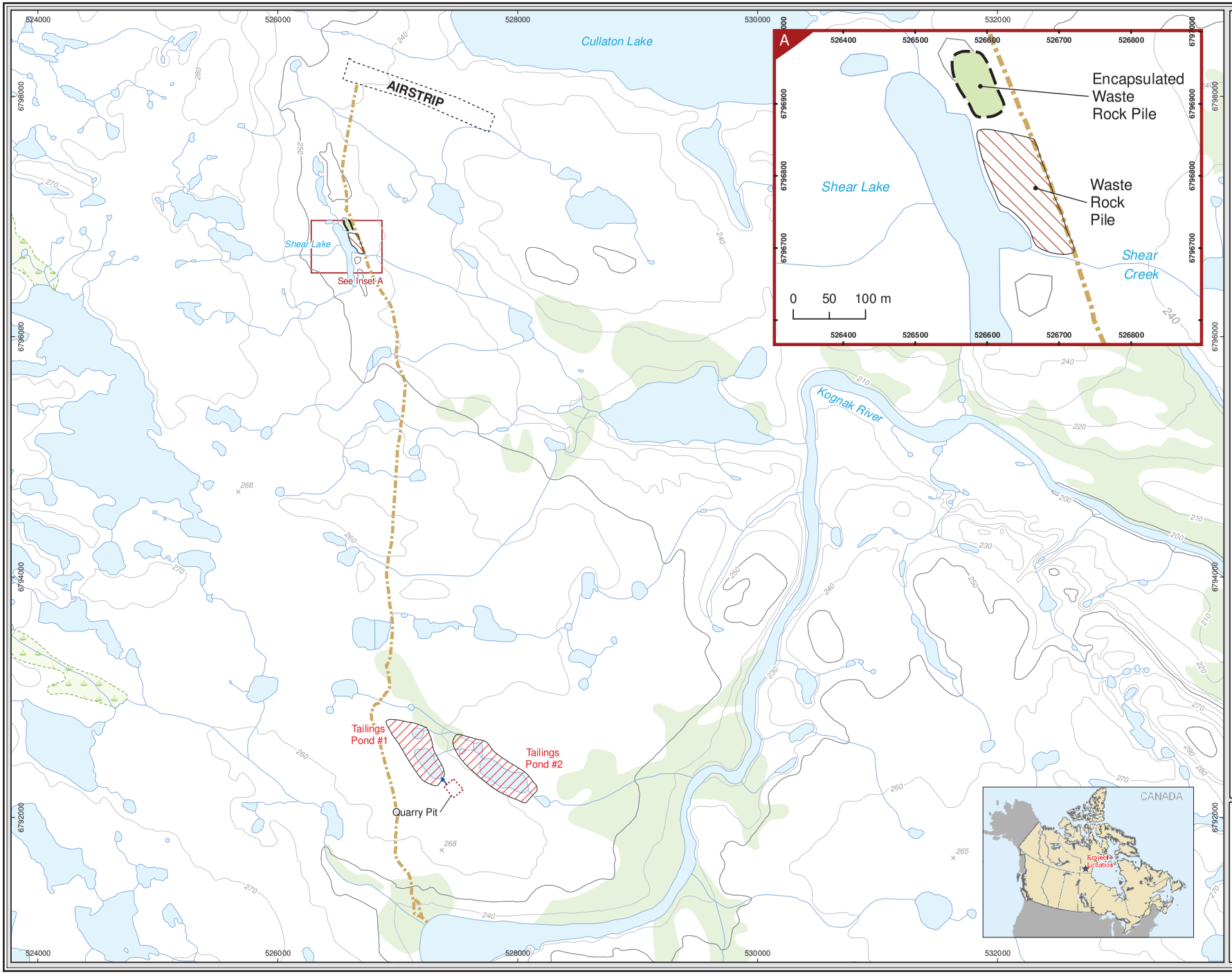
LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

Instructions for Completing the NT-NU Spill Report Form

This form can be filled out electronically and e-mailed as an attachment to spills@gov.nt.ca. Until further notice, please verify receipt of e-mail transmissions with a follow-up telephone call to the spill line. Forms can also be printed and faxed to the spill line at 867-873-6924. Spills can still be phoned in by calling collect at 867-920-8130.

A. Report Date/Time	The actual date and time that the spill was reported to the spill line. If the spill is phoned in, the Spill Line will fill this out. **Please do not fill in the Report Number**: the spill line will assign a number after the spill is reported.
B. Occurrence Date/Time	Indicate, to the best of your knowledge, the exact date and time that the spill occurred. Not to be confused with the report date and time (see above).
C. Land Use Permit Number /Water Licence Number	This only needs to be filled in if the activity has been licenced by the Nunavut Water Board and/or if a Land Use Permit has been issued. Applies primarily to mines and mineral exploration sites.
D. Geographic Place Name	In most cases, this will be the name of the city or town in which the spill occurred. For remote locations – outside of human habitations – identify the most prominent geographic feature, such as a lake or mountain and/or the distance and direction from the nearest population center. **You must include the geographic coordinates** (Refer to Section E).
E. Geographic Coordinates	This only needs to be filled out if the spill occurred outside of an established community such as a mine site. Please note that the location should be stated in degrees, minutes and seconds of Latitude and Longitude.
F. Responsible Party Or Vessel Name	This is the person who was in management/control/ownership of the substance at the time that it was spilled. In the case of a spill from a ship/vessel, include the name of the ship/vessel. Please include full address, telephone number and e-mail. Use box K if there is insufficient space. **Please note that, the owner of the spilled substance is ultimately responsible for any spills of that substance, regardless of who may have actually caused the spill.**
G. Contractor involved?	Were there any other parties/contractors involved? An example would be a construction company who is undertaking work on behalf of the owner of the spilled substance and who may have contributed to, or directly caused the spill and/or is responding to the spill.
H. Product Spilled	Identify the product spilled; most commonly, it is gasoline, diesel fuel or sewage. For other substances, avoid trade names. Wherever possible, use the chemical name of the substance and further, identify the product using the four digit UN number (eg: UN1203 for gasoline; UN1202 for diesel fuel; UN1863 for Jet A & B)
I. Spill Source	Identify the source of the spill: truck, ship, home heating fuel tank and, if known, the cause (eg: fuel tank overfill, leaking tank; ship ran aground; traffic accident, vandalism, storm, etc.). Provide an estimate of the extent of the contaminated/impacted area (eg: 10 m^2)
J. Factors Affecting Spill	Any factors which might make it difficult to clean up the spill: rough terrain, bad weather, remote location, lack of equipment. Do you require advice and/or assistance with the cleanup operation? Identify any hazards to persons, property or environment: for example, a gasoline spill beside a daycare centre would pose a safety hazard to children. Use box K if there is insufficient space.
K. Additional Information	Provide any additional, pertinent details about the spill, such as any peculiar/unique hazards associated with the spilled material. State what action is being taken towards cleaning up the spill; disposal of spilled material; notification of affected parties. If necessary, append additional sheets to the spill report. Number the pages in the same format found in the lower right hand corner of the spill form: eg. "Page 1 of 2", "Page 2 of 2" etc. **Please number the pages to ensure that recipients can be certain that they received all pertinent documents.** If only the spill report form was filled out, number the form as "Page 1 of 1".
L. Reported to Spill Line by	Include your full name, employer, contact number and the location from which you are reporting the spill. Use box K if there is insufficient space.
M. Alternate Contact	Identify any alternate contacts. This information assists regulatory agencies to obtain additional information if they cannot reach the individual who reported the spill.
N. Report Line Use Only	**Leave Blank**. This box is for the **Spill Line's use only**.



Legend

- Quarry Pit
- Encapsulated Waste Rock Pile
- Waste Rock Pile
- Tailings Pond
- Flow Direction

Base Mapping

Contours
- Index (50m)
- Intermediate (10m)

Hydrology
- Waterbody
- Watercourse

- Vegetation
- Wetland
- Road (decommissioned)

Base data: National Topographic Database (NTDB) compiled by Natural Resources Canada at 1:50,000 scale. Sampling performed by Gartner Lee Ltd., June 2008. Road GPS-tracked by Gartner Lee Ltd., June 2008. Airport footprint approximate; for reference purposes only. EWR pile, tailings ponds and quarry outlines, BGC Engineering, Inc. (2006). All other data, AECOM 2009.

N W E S

0 0.5 1
Kilometres

1:30,000
UTM Zone 14N, NAD 83

File Name: 107651_By1_Fig1_CullatonLake_Mar17_2011.mxd

Prepared By: MM Date Issued: Mar, 2011
Reviewed By: KW Project Number: 107651

Barrick Gold

Project: Cullaton Lake Project
Location: Nunavut

Cullaton Lake Site

AECOM

Figure 1

File Location: P:\60146995\000-CADD\050 GIS WIP\By7_Grizzly_Habitat\107651_By1_Fig1_CullatonLake_Mar17_2011.mxd

Date Revised: March 17, 2011
Date Plotted: March 17, 2011