



Barrick Gold Inc.
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October 28, 2017

Ms. Stephanie Autut
Executive Director,
Nunavut Water Board
P. O. Box 119
Gjoa Haven, Nunavut
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Dear Ms. Autut:

Re: Water Licence 1BR-CUL1118 – renewal and amendment

Please find attached a license renewal / amendment application for Water Licence 1BR-CUL1118, which expires on January 31, 2018.

Barrick hereby re-iterates its position with respect to its original 2006 request for relinquishment as outlined in its June 11, 2016 letter to Indigenous and Northern Affairs Canada, i.e. Barrick will not be seeking to return the Cullaton Lake property to the crown in the near future. Rather, in addition to renewing the license, our application proposes to replace the current surveillance monitoring program with the proposed Adaptive Management Plan (AMP) outlined in Section 6.4 of the updated Closure and Reclamation Plan (CRP)¹ submitted on June 30 2017, in order to properly manage the site for the long term.

Summarized the proposed AMP includes chemical, biological and physical stability components tailored to provide proper future monitoring of existing site conditions, as recommended by the Palmer Environmental Consulting Group. This program would replace the current monitoring program which has several outdated components that are either redundant or have during the current license term consistently demonstrated stability or that they are not required due to absence of flow.

The principle components of the AMP are outlined in the following tables. Chemical and biological stability would be monitored in three downstream sites and one background upstream site according to Table 1 below:

¹ See NWB registry file [ftp://ftp.nwb-oen.ca/registry/1%20INDUSTRIAL/1B/1BR%20-%20Remediation/1BR-CUL1118%20Barrick%20Gold%20Inc/3%20TECH/10%20A%20and%20R%20\(I\)/2017/](ftp://ftp.nwb-oen.ca/registry/1%20INDUSTRIAL/1B/1BR%20-%20Remediation/1BR-CUL1118%20Barrick%20Gold%20Inc/3%20TECH/10%20A%20and%20R%20(I)/2017/)

Site Name	Site Location	Water Quality	Sediment Quality	Benthic Invertebrates
SW9	Shear Lake outlet (downstream of Shear Lake)	X	X	X
SW18 (Background)	Headwater of diversion channel creek 100 m upstream of the Main Site	X	X	X
SW33 (940-3)	Further downstream of current SW33 to the confluence of the 940-03 discharge stream and the diversion channel	X	X	X
940-2	Tailings Pond #1 Discharge	X	-	-

Table 1: Proposed chemical / biological stability monitoring program.

The proposed frequencies and parameters for the above programs are as outlined in Table 2:

Component	Parameters/Metrics	Frequency	Timing	Methodology
Surface Water Quality	940-2, SW33 (940-3), SW9, SW18 - Physical parameters - pH, conductivity, total dissolved solids (TDS), total suspended solids (TSS), hardness, acidity and ion balance - Anions and nutrients - alkalinity, chloride, sulphate, total organic carbon (TOC); - Total Metals – Al, Sb, As, Cd, Cr, Co, Cu, Fe, Pb, Li, Mn, Hg, Mo, Ni, Se, As, Th, U, V, Zn	Every 2 years	Early September	Sample collection and <i>in situ</i> measurements
Sediment Quality	- SW33 (940-3), SW9, SW18 - Physical parameters (grain size) - Leachable anions and nutrients - Total Metals	Every 4 years	Early September	Sample collection in depositional area
Benthic Invertebrates	- SW33 (940-3), SW9, SW18 - Benthic Community Composition and Descriptors	Every 4 years	Early September	kick-net sampling

Table 2: Chemical stability monitoring program proposed frequency and parameters.

Amendments to the physical stability monitoring programs including geotechnical inspections and general site inspections are proposed as follows:

Component	Parameters/Metrics	Frequency	Timing	Methodology
Dam Safety Inspection	- Condition of dam and spillway channel - Stability of till cap of Shear Lake waste rock - Infrastructure and Water Management System	Every 2 years	Early September	Inspection by qualified geotechnical inspector
Dam Safety Review	As per current Canadian Dam Association guidelines	Every 10 years	Early September	Conducted by a qualified third party geotechnical engineer
General site inspections	General physical stability of the site.	Every 2 years	Early September	Inspection by qualified inspector

Table 3: Physical stability monitoring program component and proposed frequency.

Barrick also commits to a one time replacement of the 4 non-functioning thermistors in 2018 in order to resume tailings cover thermistor permafrost monitoring. Data loggers will be included in the instrumentation in order to obtain more meaningful data and would be downloaded every 2 years during the September site inspection.

In addition to the above, a new financial assurance in the amount of \$400,000 is proposed to provision for the cost of the proposed monitoring program during the term of the next license (10 years). As outlined in Section 7 of the CRP, the amount of additional (post 10 year) financial assurance required would be reviewed prior to each license renewal and incorporate any findings during the previous 10 year term. Alternately Barrick can provide an additional up front financial assurance of \$550,000 to cover the cost of the post 10 year programs outlined in Section 7.

An electronic copy has been e-mailed to you concurrent with this submission. Should you have any questions or comments regarding this application, or any other Cullaton Lake matter, please do not hesitate to contact me at (705) 632-1871.

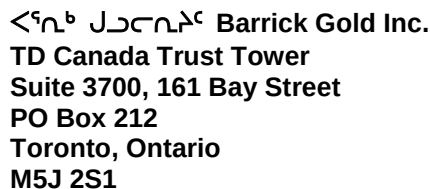
Sincerely,



Paul J. Brugger, P. Eng. | Closed Properties Manager – Eastern Canada Sites | **Barrick Gold Inc.** |
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Mobile: (807) 631-4895
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Email: pbrugger@barrick.com

Cc Ian Parsons, Water Resources Coordinator, Indigenous and Northern Affairs Canada
Holton Burns, Head of Innovation & Performance, Asset Development Group, Barrick
Gold Corp.
Michael McCarthy, Senior Counsel, Barrick Gold of North America Inc.

Attachments: As stated



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Paul Bruegg

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