B

Letter of Assurance

As per The Ministry of Energy and Mines Orders

February 3, 2015

Barrick Gold Corporation
460 West 50 North, Suite 500
Salt Lake City, Utah
84101

27 June 2015

Al Hoffman, P.Eng.
Chief Inspector and Executive Director, Health & Safety

British Columbia Ministry of Energy and Mines
Health and Safety and Permitting Branch
PO Box 9320 Stn Prov Govt
Victoria, BC
V8W 9N3

Re: Understanding of foundation conditions, water balance adequacy and filter adequacy at the closed Giant Nickel tailings impoundment near Hope, BC

Dear Mr. Hoffman:

In response to the instructions of your memorandum dated 03 February 2015 to our Mr. Robbin Harmati, BC Properties Closure Manager for Barrick Gold Corporation (Barrick), I have reviewed the available information regarding the foundation conditions, the water balance and the filter adequacy (specifically, the internal zoning) of the constructed earthfill embankments of the tailings storage facilities (TSFs) at the closed Giant Nickel mine site. This letter has been prepared and submitted to the BC Ministry of Energy and Mines (MEM) to summarize the results of my review findings, and follows the item numbering system provided in your memorandum of 03 February.

Giant Nickel Mine and Tailings Impoundment Background

The closed Giant Nickel mine site is located approximately 11 km north of Hope, BC; the underground nickel and copper mine operated continuously from 1959 to 1974 and produced a reported 31,979,700 kg of nickel and 14,151,554 kg of copper from 4,158,231 tonnes of ore. Tailings generated from the ore processing circuit during this period were deposited in the Upper TSF and the Lower TSF that formed the overall tailings impoundment; as indicated, these facilities have been in closure for over forty years. Prior to the continuous operation period, the mine and mill ran intermittently from the 1920s to the 1950s, and tailings generated during this era are understood to have been placed in what is referred to as the Historic Tailings Deposit, located north and adjacent to the more modern Upper TSF. There does not appear to be a dam associated with the Historic Tailings Deposit, and the area is now overgrown with trees and other vegetation. As well, the south end of the Upper TSF embankment was reportedly first

constructed over older tailings (Golder Brawner, 1970); a buttress was later added to the Upper TSF embankment section in question, to ensure adequate geotechnical stability (Knight Piésold, 2006).

The Giant Nickel Mine, also known as B.C. Nickel, Pacific Nickel, Western Nickel, Giant Mascot and Pride of Emory over its long and complex ownership and operation history (Christopher, 1974; Pinsent, 2002) was acquired by Barrick as part of its takeover of Homestake Canada Inc. (Homestake) in 2003. Homestake and the two previous owners, Giant Mascot Mines Limited (1980 to 1988) and International Corona Corporation (1988 to 1992) completed a significant amount of the mine closure work, including reclamation and rehabilitation activities at the tailings impoundments as summarized further below. The BC Ministry of Energy, Mines and Petroleum Resources (MEMPR) completed a site inspection of the closed tailings impoundment in August 1995, and in January 1996 issued a memorandum stating that the impoundment did not pose any undue risk to the public from instability under static, earthquake or runoff events, and that the facility could be abandoned without any further geotechnical work or maintenance (BC MEMPR, 1996).

Geotechnical information for the current review of foundation and embankment conditions comes from a variety of sources, including a report by Golder Brawner (1970) as part of its test pit, borehole and laboratory testing work for the geotechnical assessment of the existing tailings impoundment, other reports by Golder Brawner regarding a proposed but never-constructed new tailings impoundment east of and adjacent to the Lower TSF (Golder Brawner, 1971; 1972) and a report from Knight Piesold (2006) on seismic piezocone (SCPTu) soundings and direct push sampling work to characterize tailings and foundation soil conditions in the Upper and Lower TSFs.

Paper copies of the relevant geotechnical reports, including their appended test pit logs, borehole logs, SCPTu sounding profiles, laboratory results, maps and cross-sections for the Giant Nickel Mine tailings impoundments are archived in the closure administration building at Barrick's Nickel Plate Mine near Penticton, BC and can be provided at your request. I have visited the site on three occasions, the most recent being in June 2015 to inspect current closure conditions, review progress on the permanent removal of ponded water from the Lower TSF and discuss site investigation and design details for upgradient diversion ditch construction.

As documented in the earlier tailings dam design and stability analyses reports (Golder Brawner, 1970; 1971; 1972) as well as the more recent stability assessment and dam safety inspection reports (Knight Piésold, 2006; 2014), foundation conditions underlying the Giant Nickel tailings impoundment and embankments generally consist of compact, silty sand and gravel soils overlying weathered andesite and dacite bedrock, in turn overlying fresh bedrock. The tailings dams were constructed of fine silty sand with gravel to coarse sand and gravel borrow soils, in a generally compact state (Golder Brawner, 1970).

Most of the reclamation and rehabilitation work for closure of the Upper and Lower TSFs was conducted over three periods: in 1972 (a limited extent of topsoil cover placement and vegetation, as progressive reclamation during operations); in 1980 (direct seeding of tailings in

the Upper TSF); and from around 1994 to 2000 (additional cover soil placement, seeding and fertilizing, emergency outlet channel construction and general care and maintenance work).

Between 2000 and 2014, care and maintenance of the Upper and Lower TSFs primarily comprised quarterly water sampling for water quality testing, inspections of the TSF by Barrick staff, repair work as required to the emergency outlet channels and monitoring and control of public use of the site. In March 2015, maintenance work was completed on the emergency outlet channels at the north and south ends of the Lower TSF and a bathymetric survey and supplemental water quality sampling program was conducted to characterize the remnant pond on the Lower TSF.

In late 2014, Barrick submitted to the BC MEM a dam safety inspection report (Knight Piésold, 2014), an independent review of the dam safety inspection report (Golder, 2014a) and a dam breach and inundation study for the Giant Nickel tailings impoundment (Golder, 2014b), in fulfillment of your Order of 18 August 2014. A Dam Classification of Very High was assigned to the Upper and Lower TSFs, following the scheme summarized in Table 2-1 of the applicable Dam Safety Guidelines (Canadian Dam Association, 2013).

Response to TSF Dam Risk Items in 03 February 2015 BC MEM Memorandum

1. Undrained shear failure of silt and clay foundations
    a. Based on the reviewed geotechnical information, weak silt and/or clay soil layers do not exist in the Giant Nickel Upper TSF or Lower TSF embankment foundations.
    b. Sufficient site investigation has been completed to have confidence in the assessment that weak silt and/or clay soil layers do not exist in the Giant Nickel Upper TSF or Lower TSF embankment foundations.
    c. The geotechnical design of the Upper and Lower TSF embankment dams appears to appropriately account for the inferred foundation conditions, which do not include weak silt and/or clay soil layers.
    d. Barrick has no plan or schedule to conduct additional subsurface investigation related to the Upper or Lower TSF embankment foundations.

2. Water balance adequacy
    a. No water balance models are kept for the closed tailings impoundment. There is a small pond (estimated volume 25 m^3 to 50 m^3) located at the southwest toe of the Upper TSF, well below the closed and capped impoundment surface. The pond, which is contained within a small berm that has an overflow section, is subject to seasonal (freshet) discharge. A small stream course is also located nearby, and storm events occasionally divert the stream through the small pond. No water is otherwise impounded on the Upper TSF surface. Water from runoff and direct precipitation is contained in the remnant decant pond of the Lower TSF, centered along the eastern side of the embankment. A bathymetric survey

completed in April 2015 yielded a water volume of 41,440 m^3 and maximum water depth of 3.8 m (Knight Piésold, 2015). Lastly, there are a series of small (approximate volume 5 m^3 to 10 m^3 each) beaver ponds along the western, central side of the Lower TSF, against the upstream toe of the Upper TSF. The beaver ponds are fed by a small stream which eventually reports to the Lower TSF pond. Ongoing (March to June 2015) remediation work at site has resulted in the removal of much of these ponded water volumes, and the final TSF regrading and stormwater diversion scheme planned for completion in 2016 will preclude future water ponding.

b. No new process-affected water has been added to the tailings impoundment since the end of mine and mill operations, some forty years ago. The only inputs to the small pond, the beaver ponds and the former decant pond as described above are from surface water runoff and direct precipitation.

c. As discussed with representatives from the BC Ministry of Environment (MoE) and the BC MEM in Victoria, BC on 21 and 22 April 2015 and in accordance with Barrick's notice to the MOE and MEM on May 22, 2015, Barrick has nearly finished initial draining of the small pond, the beaver ponds and the former decant pond waters on the Upper and Lower TSFs, and intends to design and construct diversion ditches, and recontour (backfill and crown) the eastern side of the Lower TSF to permanently prevent future ponding of water on the tailings impoundment. This work is scheduled for completion in 2016.

d. With the ponds at the TSF permanently removed, the consideration of beach widths will not apply.

e. There has been no significant new loading of the Upper and Lower TSF embankments and foundations since site closure, and the relatively coarse-grained nature of the embankment and foundation materials precludes concern over any ongoing, nominal consolidation processes that could deform the TSF embankments and result in the uncontrolled release of water and fluidized solids. Estimates of seismically-induced displacements and post-earthquake deformations, including the assumption of residual (liquefied) tailings strengths, indicate no loss of embankment integrity under the maximum credible earthquake (Knight Piésold, 2014). The potential for uncontrolled release of fluids and transported solids, and the consequences of any such release, has been significantly reduced by the permanent removal of the water ponds that started this year.

f. The Lower TSF (which currently can store precipitation and runoff water) has emergency outlets established at its south and north abutments. These outlet channels, most recently remediated in March 2015, were designed to safely pass the 1:10,000 year flood and thus prevent water from flowing over the embankment crest.

g. As indicated above, Barrick has in place a plan and schedule to permanently remove and prevent future water ponding on the closed Giant Nickel tailings impoundment.

3. Filter adequacy
   a. The Upper and Lower TSF dams were built as homogeneous earthfill embankments and thus do not contain filter zones. Mine records indicate that the original timber crib and corrugated pipe decant system in the Lower TSF embankment failed in late August 1971, and were permanently sealed with concrete backfill. Barrick recognizes the potential for piping associated with this abandoned decant structure and the remnant decant pond in the Lower TSF and has thus scheduled the permanent water pond removal to mitigate the residual risk.
   b. The Upper and Lower TSF embankment dams were not designed or constructed with filter zones.
   c. As indicated above, Barrick has begun to remove the runoff and precipitation water currently stored in the Lower TSF remnant decant pond, design and construct diversion ditches, and backfill and crown the subject area to permanently prevent future ponding of water on the tailings impoundment. Among other geotechnical benefits, this work will preclude development of a driving head for piping and erosion through the embankment.

Letter Closure

I trust that the information contained in this letter is sufficient for your present needs. Please contact me should you have any questions or concerns.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
M. A. B. Shelbourn

27 June 2015

Michael Shelbourn, P.Eng. (BC)
Senior Manager, Geotechnical Engineering – Corporate Technical Services
Barrick Gold Corporation

Telephone: (801) 990-3853
Cell: (801) 556-8484
Email: mshelbourn@barrick.com

Reference Reports – Giant Nickel Tailings Impoundment

Barrick Gold Corporation, 2014. Annual Reclamation Report for 2013, Giant Nickel Mine Property, Permit No. M-64, March 2014.

BC Ministry of Energy, Mines and Petroleum Resources, 1996. Memorandum: Giant Nickel Mine – Abandonment of Tailings Impoundment, File No. 14745-40/GIAN/01, 15 January 1996.

Canadian Dam Association, 2013. Dam Safety Guidelines, ISBN 978-0-7726-5802-9, 2013.

Canadian Dam Association, 2014. Technical Bulletin: Application of Dam Safety Guidelines to Mining Dams, ISBN 978-0-9936319-2-4, 2014.

Christopher, P.A., 1974. Giant Mascot Mine (92H/6), British Columbia Geological Survey, Geological Fieldwork 1974.

Golder Brawner Associates, 1970. Report to Giant Mascot Mines Ltd. on Dyke Stability Analyses, Tailings Pond Facilities near Hope, British Columbia, File No. V.70078, October 1970.

Golder Brawner Associates, 1971. Report to Giant Mascot Mines Ltd. on Provision of Tailings Storage, Tailings Pond Facilities near Hope, British Columbia, File No. V-71009, March 1971.

Golder Brawner Associates, 1972. Report to Giant Mascot Mines Ltd. on Preliminary Appraisal of Future Tailings Storage, Hope, British Columbia, File No. V-72089, August 1972.

Golder Associates Ltd., 2014a. Independent Review of 2014 Dam Safety Inspection Report, Giant Nickel Tailings Dams, Ref. No. 1412161-003-R-Rev1-2000, 26 November 2014.

Golder Associates Ltd., 2014b. Giant Nickel Tailings Facility, Dam Breach and Inundation Study, Dogwood Valley, BC, Ref. No. 1412161-002-R-Rev0-2020, 26 November 2014.

Homestake Canada Inc., 1995. Giant Nickel Mine Lower Tailings Water Management Report, October 1995.

Knight-Piésold Ltd., 2006. Barrick Gold Inc. Giant Nickel Mine, Tailings Dam Stability Assessment, File No. VA101-93/1-1, Rev. 0, 06 March 2006.

Knight-Piésold Ltd., 2014. Barrick Gold Inc. Giant Nickel Mine, Tailings Facility 2014 Dam Safety Inspection Report, File No. VA101-93/4-1, Rev. 0, 25 November 2014.

Knight-Piésold Ltd., 2015. Bathymetry and Surface Water Quality, File No. VA101-93/5-A.01, 17 April 2015.

Pinsent, R.H., 2002. Ni-Cu-PGE potential of the Giant Mascot and Cogburn ultramafic-mafic bodies, Harrison-Hope area, southwestern British Columbia (092H), British Columbia Geological Survey, Geological Fieldwork 2001, Paper 2002-1.