November 10, 2020

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RE: Submission of 2020 Geotechnical Inspection Report No. 2 (September 2020)

Under Part D, Item 18 of Baffinland Iron Mines Corporation's (Baffinland) Type "A" Water Licence 2AM-MRY1325 Amendment No. 1 (Water Licence), Baffinland is required to conduct biannual geotechnical inspections of specified Mary River Project (the 'Project") infrastructure. Part D, Item 18, of the Water Licence states that:

> "The Licensee shall conduct inspections of the earthworks and geological and hydrological regimes of the Project biannually during the summer or as otherwise approved by the Board in writing. The inspection shall be conducted by a Geotechnical Engineer and the inspection report shall be submitted to the Board within sixty (60) days of the inspection, including a cover letter from the Licensee outlining an implementation plan to respond to the Engineer's recommendations."

The second biannual geotechnical field inspection for 2020 was conducted by Laszlo Bodi, M.Sc., P.Eng., Principal Civil/Geotechnical Engineer with Wood Environment & Infrastructure Solutions. The focus of the inspection was on the Water Licence related infrastructure located at the Mary River Mine Site and Milne Port, as well as select water crossings along the Milne Inlet Tote Road. The attached report covers the second inspection that was conducted between September 3 and 11, 2020.

During the September 2020 inspection, the following site facilities were inspected:

Mary River Mine Site

- Polishing/Wastewater Stabilization Ponds (3)
- Hazardous waste-cell berms (HWB-1 to HWB-7)
- MS-06, MS-07 and MS-08 surface water collection/settling ponds and adjacent ditches
- Genset pond berm (located adjacent to the generators)
- Fuel Storage Farms (3) – Aerodrome jet-fuel storage, MS-03 and MS-03B diesel fuel farms
- Solid-waste disposal site (non-hazardous landfill facility)
- Camp Lake silt sedimentation check dams and berms, adjacent to the water intake
- Rock fill slope at the water (effluent) discharge area
- Deposit 1 pit walls
- Existing QMR2 and proposed D1Q1 rock quarries, and KM106 ore storage area

Milne Inlet Port Site

- Hazardous waste-cell berms (HWB-1 to HWB-4)
- MP-01A pond berm

- MP-03 fuel tank farm
- MP-04 landfarm and MP-04A contaminated snow pond berms
- MP-05, MP-06 and Settling Pond #3 surface water settling ponds and drainage ditches
- Q01 rock quarry walls
- Surface water collection ditches (P-SWD-3, -5, -6, -7, W3/W14, 380M pad and PSC ditches)
- Tote road culverts (conveying surface water from the quarry area)

Milne Inlet Tote Road

- Bridges (4)
- Culverts (12)

The attached report (refer to Attachment 1) presents the findings of the September 2020 inspection and recommendations for the aforementioned structures. The following subsections of this letter summarize Baffinland's plan for implementing recommendations.

Recommendations for the Mary River Mine Site Infrastructure

Polishing/Waste Stabilization (PWS) Ponds PWS Pond #1, Pond #2 and Pond #3
Timber/lumber debris was noted on the liner on the upstream slope of the berm in PWS Pond #2, which should be removed to prevent potential damage to the liner. A section of floating liner (whale) was observed in PWS Pond #3. The floating liner in PWS Pond #3 was previously observed during the 2019 geotechnical inspections, but there was no damage to the liner or seepage from the pond observed during the 2019 or 2020 inspections.

Baffinland Action: Baffinland will remove timber/lumber debris from the upstream slope of the berm in PWS Pond #2 (Completion date in spring 2021). Baffinland will continue to monitor the PWS Ponds and initiate cleanup of this area to remove excess materials (Completion in Q2 2021).

Mine Site Hazardous Waste Disposal Areas

HWB-3, HWB-4 and HWB-5
Some soil displacement caused by foot and vehicle traffic was observed on the surface of the slopes and crests of the berms at a few locations.

Baffinland Action: Baffinland will provide controlled/ramped access points for skid steers and discourage foot and vehicle traffic on the slopes and the crests of the berms (Completion in Q2 2021).

Generator Fuel Berm (Genset Pond)
Disturbance by foot-traffic and areas of exposed geotextile and liner were visible along some locations on the berm's crest and minor sloughing of the upstream slope of the berm is also visible along the southern section of the berm. Minor slope deterioration was visible along the berm adjacent to the generators due to tire tracks that are cutting into the toe of the berm.

Baffinland Action: Baffinland commits to placing granular fill in the location of the minor sloughing to re-fill the slope and regrade the area. In addition to the repair work on the slope, the southern, lower section of the berm will be reconstructed to its original geometry. The affected slope of the berm that has been cut by tire tracks will be regraded manually with new fill and compacted using a plate tamper or like

equipment. Truck traffic on the berm will be avoided to prevent additional damage. (Completion in Q2 2021).

Water (Effluent) Discharge Area
Minor surface erosion was noted adjacent to the rock fill slope, within the native material.

Baffinland Action: Baffinland commits to recovering the eroded slope with rock fill to prevent any regressive erosion in the future (Completion in Q2 2021).

QMR2 Quarry
Ponding water covers a section of the main level of the quarry, with potential to cause slope stability and traffic safety issues in the area.

Baffinland Action: Baffinland commits to improving surface water drainage in the quarry through excavation/formation of additional drainage ditches that include erosion protection measures at strategic locations (Completion in Q2 2021).

Recommendations for Milne Port Infrastructure

Milne Port Hazardous Waste Disposal Areas

HWB-1
Some disturbance at a few locations on the crest of the sea-side berm was identified during the inspection.

Baffinland Action: Baffinland commits to regrading the disturbed areas on the slopes and crest of the berm as part of the onsite maintenance program (Completion in Q2 2021).

HWB-2
An area of exposed geotextile and liner was noted in the cell.

Baffinland Action: Baffinland commits to covering the area of exposed liner with a protective layer of clean sand and gravel during cell maintenance (Completion in Q2 2021).

MP-04 and 04A Landfarm and Contaminated Snow Disposal Cells
Exposed liner was visible on the access ramp of the MP-04A berm.

Baffinland Action: Baffinland commits to regrading and covering the area of exposed liner with protective granular fill material consisting of clean sand and gravel (Completion in Q2 2021).

MP-05
Minor liner damage was noted on the slope of the southern intake channel to the pond.

Baffinland Action: Baffinland repaired this liner damage on September 11, 2020.

MP-06
A small area of liner damage was observed on the slope of the inlet to the pond.

Baffinland Action: Baffinland repaired this liner damage on September 11, 2020.

Surface Water Collection Ditches
Sloughing of the sides of ditch P-SWD-3, adjacent to the LP2 laydown area, is visible at several locations along the ditch. The riprap appeared to be missing at a small section of the P-SWD-5 ditch. Minor sloughing of the riprap was observed in the 380M ditch. The length of the culvert in the PSC drainage ditch is too long to facilitate uninterrupted water flow in the ditch.

Baffinland Action: Baffinland commits to further assessing the sloughing observed on the sides of ditch P-SWD-3 and the 380M ditch. Baffinland will replace the missing riprap observed in the P-SWD-5 ditch. Baffinland will further assess the culvert installation at the PSC ditch to determine if the culvert needs to be shortened and riprap slope regraded to improve water flow (Completion in Q2 2021).

Tote Road between Mary River and Milne Inlet - Bridges and Culverts

Bridge 17
There are two historic abutments, located immediately adjacent to the "new" ones. The metal front and wing walls of both "old" abutments have suffered damages in the past, particularly at the south abutment.

Baffinland Action: To maintain the stability of the currently used bridge abutments, Baffinland will keep the two old abutments in place since they provide support to the adjacent new structures.

Bridge 63
There are two historic abutments, located immediately adjacent to the "new" ones and damage to the metal front and wing walls of both abutments are visible.

Baffinland Action: To maintain the stability of the currently used bridge abutments, Baffinland will keep the two old abutments in place since they provide support to the adjacent new structures.

Bridge 80
A sandbar was identified immediately upstream of the south-east side of the south abutment that has potential to reduce the width of the wetted channel and cause changes to the cross-sectional area of the channel if it increases in size. There are two historic abutments, located immediately adjacent to the "new" ones, providing support to the new abutments and road embankment. Therefore, removal of these structures is not recommended.

Baffinland Action: Baffinland will immediately begin monitoring during open water season, the sandbar upstream of the south-east side of the south abutment to identify and determine corrective measures for contraction scour beneath the bridge caused by a decrease in the width of the wetted channel. To maintain the stability of the currently used bridge abutments, Baffinland will keep the two old abutments in place since they provide support to the adjacent new structures.

Bridge 97
Water flow at the toe of the south abutment has potential to cause scour to the toe of the abutment during elevated flows. At this location the old abutments are located somewhat away from the new ones and they appear to be structurally stable and there are no concerns if they remain in place.

Baffinland Action: Baffinland commits to immediately begin monitoring during open water season, the toe of the south abutment to identify and determine corrective actions if scour is identified during elevated flow conditions (Q2 2021).

Culvert – 078
The outlet of this culvert is damaged slightly, although the "cut" at the top of the corrugated pipe has no effect on the flow within the pipe.

Baffinland Action: Baffinland commits to monitor the culvert outlet to identify and determine corrective actions to mitigate further damage, which may include removing the outlet end of the culvert if the damaged part impedes water flow (Q2 2021).

Culvert – 083
The outlet of this culvert appears to be too short and water flow is visible parallel to the road embankment at the inlet. The culvert outlet should be extended by about 1.5 m and the slope of the adjacent road embankment covered by the placement of crushed rock riprap around the culvert.

Baffinland Action: Baffinland commits to extend the culvert and place crushed rock riprap fill adjacent to the outlet. Baffinland will monitor the water flow parallel to the toe of the embankment at the culvert inlet to identify if channel alignment is required to prevent further erosion (Completion in Q2 2021).

Culvert – 102
Some erosion of the road embankment material is visible at the outlet of the four culverts at this location.

Baffinland Action: Baffinland commits to placing additional riprap at the outlet end of the four culverts to prevent further erosion of the road embankment material (Completion in Q2 2021).

Culvert – 107
This is a short, small diameter culvert installed several meters north of the lowest point of the wetted channel.

Baffinland Action: Baffinland commits to further inspecting this culvert to determine if replacement with a longer, larger diameter pipe several meters south of the current location is required (Q2 2021).

Culvert – 110A
Minor damage is visible on the outlet of the culvert at the slope of the embankment, however the "cut" at the top of the corrugated pipe has no effect on water flow. Some erosion of the road embankment is visible adjacent to the culvert.

Baffinland Action: Baffinland commits to monitor the culvert outlet to identify additional damage that has potential to affect water flow (Q2 2021). Baffinland commits to repair the erosion on the road embankment adjacent to the culvert by placing and compacting soil into the embankment (Completion in Q2 2021). Baffinland commits to placing crushed rock riprap around the culvert to improve erosion protection (Completion in Q2 2021).

Culvert – 114D
Both ends of the two culvert are damaged and too short for the embankment slopes, particularly at the outlet ends.

Baffinland Action: Baffinland commits to further inspecting this culvert to determine if replacement with longer, larger diameters pipes is required (Q2 2021). If the pipes are replaced, the road embankment will also be widened at the outlet end and riprap placed around the culverts to stabilize the embankment slopes and improve erosion protection.

Culvert – 202
Some erosion is visible immediately adjacent to the inlet of this culvert and the invert of the outlet is located below the floor of the flow channel resulting in flow blockage immediately downstream of the outlet.

Baffinland Action: Baffinland commits to fill the erosion adjacent to the inlet with compacted soil and cover the affected area with crushed rock and regrade the rockfill immediately downstream of the outlet to improve water flow (Completion in Q2 2021).

We trust that this submittal meets the requirements for geotechnical inspections as outlined in the Water Licence. Should you have any questions, please do not hesitate to contact the undersigned or Connor Devereaux.

Regards,

Aaron MacDonnell
Environmental Superintendent

Attachments:
Attachment 1: 2020 Geotechnical Inspection Report No. 2

Cc: Karén Kharatyan (NWB)
Chris Spencer, Jared Ottenhof (QIA)
Bridget Campbell, Godwin Okonkwo, Jonathan Mesher, Justin Hack (CIRNAC)
Tim Sewell, Shawn Stevens, Megan Lorde-Hoyle, Lou Kamermans, Christopher Murray, Sylvain Proulx, Francois Gaudreau, Connor Devereaux, Amanda McKenzie (Baffinland)