



20 February 2019

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**RE: Response to Crown Indigenous Relations and Northern Affairs Canada Comments  
Interim Closure and Reclamation Plan, Revision 5**

Baffinland Iron Mines Corporation (Baffinland) provides this letter to the Nunavut Water Board (NWB), in response to the additional comments received from Crown Indigenous Relations and Northern Affairs Canada (CIRNAC)<sup>1</sup> on the Interim Closure and Reclamation Plan (ICRP), Revision 5.

Regarding CIRNACs Comment No. 1, Baffinland maintains that the predictions for the open pit have not been disproven, as no open pit exists on which to sample runoff and confirm water quality results. Furthermore, while the open pit and waste rock facility water quality models completed by AMEC (2012) share the same source terms based on the results of humidity cell testing, the results of the modelling (mass loading approach) for each location are different, based on the difference in assumptions and other source terms including hydrological factors.

The Final Environmental Impact Statement (FEIS) did identify the potential for low pH in open pit water quality at year 11 and onward, however the effects assessment determined that the magnitude of the effect in the Mary River had a hazard quotient less than 10, and is “not expected to result in an adverse environmental effect on water and sediment quality in the Mine Site LSA. The residual effect is ranked as Not Significant.” Therefore, the presence of low pH water generation is not unexpected, but is only anticipated to be in sufficient quantity to result in low pH of the pit water in year 11 and onward.

Baffinland maintains that the acid rock drainage (ARD) issue observed at the Waste Rock Facility is an operational issue related to waste rock management, and is being addressed through the interim updates to the Waste Rock Management Plan and the final update scheduled for December 2019. The water quality modelling completed by AMEC (2012) was based on the assumption that the waste rock pile is complete (year 21 of the mine life) and is in the closure phase, and that a steady-state thermal condition exists in the pile. The waste rock facility is currently active, and the thermal regime remains to be characterized through the thermistor monitoring program initiated in 2018, but may continue to remain

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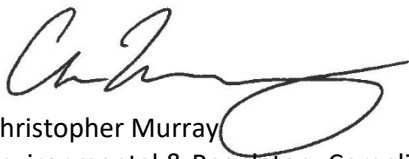
<sup>1</sup> CIRNAC (2019) Re: Crown-Indigenous Relations and Northern Affairs Canada’s reply to Baffinland Iron Mines Corporation’s response to CIRNAC comments on the Interim Closure and Reclamation Plan – Revision 5 for the Mary River Project, Water Licence #2AMMRY1325 – Mary River Project. 28 January 2019

dynamic or semi-steady state until waste rock placement ceases. This program along with updated geochemical analysis is intended to provide Baffinland with the ability to place potentially acid generating (PAG) and non-potentially acid generating (NPAG) material in a manner within the Waste Rock Facility that reduces or eliminates ARD formation during operation and into closure. Regardless, the ARD issue at the Waste Rock Facility is in no way indicative of inaccurate predictions in the water quality modelling for the Open Pit. Baffinland remains committed to implementing reclamation research programs to address the uncertainties in the predictions, but until such time that these predictions are revised or updated with new data, the predictions have not been disproven for the Open Pit.

Regarding CIRNACs Comment No. 6, Baffinland recognizes that timelines for reclamation research programs may need to be adjusted as the project evolves, including the referenced Task 2 of the Pit Filling research program. In committing time and resources to reclamation research in 2019, Baffinland has identified revegetation research as a priority such that results can inform early stages of progressive reclamation, and to prioritize research at the waste rock facility to inform on-going management and closure objectives. Through the development of the Mine Closure Working Group in 2019 Baffinland is committed to engaging with relevant stakeholders to determine annual research priorities and review results of reclamation research to evaluate where additional resources may need to be devoted. Consideration will be given to accelerating timelines for research programs, including Task 2 of the Pit Filling program, where warranted or directed as a result of the Mine Closure Working Group outcomes.

We trust that the attached provides sufficient clarification for the NWB and CIRNAC to provide approval of Revision 5 of the ICRP. Please do not hesitate to contact the undersigned should you have any remaining questions or comments.

Regards,

A handwritten signature in black ink, appearing to read "Chris Murray", with a large, stylized flourish at the end.

Christopher Murray  
Environmental & Regulatory Compliance Manager

Cc: Karén Kharatyan (NWB)  
Fai Ndofo, Sean Joseph (QIA)  
Sarah Forté, Bridget Campbell, Ian Parsons (CIRNAC)  
Grant Goddard, Megan Lord-Hoyle, Tim Sewell (Baffinland)