Indigenous and Northern Affairs Canada
Affaires autochtones et du Nord Canada

Nunavut Regional Office
P.O. Box 100
Iqaluit, NU, X0A 0H0

Your file - Votre référence
08MN053
Our file - Notre référence
CIDM#1219061

May 11, 2018

Dr. Solomon Amuno
Technical Advisor II
Nunavut Impact Review Board
P.O. Box 1360
Cambridge Bay, NU, X0B 0C0
Via electronic mail to: info@nirb.ca

Re: Comment Request for Baffinland Iron Mines Corporation's *Mary River Project 2017 Annual Monitoring Report*

Dear Dr. Amuno,

On April 6th, 2018, as per Section 12.7 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (Nunavut Agreement) and the Mary River Project Certificate [# 005], the Nunavut Impact Review Board (NIRB) requested parties to review Baffinland Iron Mines Corporation (Baffinland) 2017 Annual Monitoring Report with respect to compliance and effects monitoring.

Indigenous and Northern Affairs Canada (INAC) has conducted a review in areas under its mandate as they pertain to compliance monitoring and INAC's responsibilities for the Type 'A' Water Licence and land use authorizations.

INAC would like to provide the following comments for NIRB's consideration.

In general, INAC found the annual report submitted by Baffinland well-structured and easy to follow. However, INAC would like to note that Baffinland classified its 2017 performance in fulfilling the project certificate's terms and conditions (T&Cs) into four categories and INAC does not believe that the "Partially-Compliant" category is appropriate. A T&C can either be met or not met and a Partially-Compliant T&C should be interpreted as "Non-Compliant" since the T&C is considered as a whole. INAC recommends that Baffinland stop classifying T&Cs as "Partially-Compliant" in its future Annual Monitoring Report.

1) Effects Monitoring

a. ***Whether the conclusions reached by Baffinland in the Mary River Project 2017 Annual Report are valid; and,***
b. ***Any areas of significance requiring further supporting information***

General Condition #11

General condition #11 from section 4.1 in Project Certificate # 005 requires Baffinland to "*maintain the Final Environmental Impact Statement and the Environmental Effects Monitoring program developed for the Project, with predictions updated as new baseline data is collected*."

On page 29 of the 2017 Annual Report, in responding to this T&C, Baffinland stated "*The Environmental Effects Monitoring programs are reviewed on a regular basis through discussions with the Terrestrial and Marine Environmental Working Groups. Monitoring programs that are not managed under one of the environmental working groups, are reviewed with applicable regulatory agencies. A summary of the effects of the Project compared to those predicted in the FEIS is also provided in Sections 4.5.1 through Section 4.7.4.*"

INAC has reviewed Section 4.5.1 through Section 4.7.4 of the 2017 Annual Report and concluded that not all FEIS predictions have been updated as new baseline data are collected. In particular, although a large quantity of new data on mine waste rock geochemistry and waste rock drainage water quality has been available since 2014, Baffinland has not yet updated its FEIS and FEIS Addendum predictions. INAC recommends that Baffinland do so at the earliest.

T&C 17

T&C 17 requires Baffinland to "*develop and implement effectives measures to ensure that effluent from project-related facilities and/or activities, including sewage treatment plants, ore stockpiles, and mine pit, satisfies all discharge criteria requirements established by the relevant regulatory agencies prior to being discharged into the receiving environment*."

On page 65 of the 2017 Annual Report, Baffinland stated "*Discharges at the Project in 2017 that did not comply with the applicable discharge criteria outlined in the Type A Water Licence and the MMER mainly involved elevated TSS concentrations in surface water flows during freshet and pH and TSS exceedances at the WRF surface water management pond (WRF pond) in August and September 2017.*" However, when discussing trends related to these discharges on page 66 of the 2017 Annual Report, Baffinland stated "*Overall, the frequency and nature of incidents involving the discharge of effluent to the receiving environment that exceeds the applicable discharge criteria have remained low and incidental since the start of operations in 2014*." INAC disagrees with this conclusion since acid rock drainage (ARD) was discharged to the receiving environment in 2017 and this issue had not been encountered before 2017. Baffinland acknowledges these discharges on page 65 of the 2017 Annual Report: "*During August 2017, the pH of runoff collected in the WRF pond dropped below the pH discharge limits outlined in the MMER. Observations indicated the decrease in pH may have been the result of potential acid rock drainage (ARD)*" and in Table 4.3 of the 2017 Annual Report.

In its FEIS and FEIS Addendum, Baffinland predicted that no potentially acid generating (PAG) waste rock would be generated and therefore no ARD would be produced from the waste rock stockpile within the first five years of mining operation. However, the project was only in its fourth year of operation in 2017 which conflicts with original predictions. INAC is concerned by the environmental significance of the observed ARD formation from the waste rock stockpile. It indicates that previous waste rock geochemical characterization programs, ARD predictions and waste rock management plans have failed. INAC recommends that Baffinland (1) re-evaluate, revise and implement its waste rock geochemical characterization programs and its waste rock management plans based on new data, (2) develop contingency plans for waste rock stockpile ARD for the upcoming 2018 freshet, and (3) update its waste rock drainage water quality predictions.

Additionally, although current mining activity has not yet created a pit lake at Deposit No.1, given that ARD has occurred contrary to early predictions, INAC recommends that Baffinland make efforts to predict the water quality of the eventual pit lake so that effective mitigation measures can be taken or planned prior to potential or eventual mine closure.

T&C 23

T&C 23 requires Baffinland to "*develop and implement a Groundwater Monitoring and Management Plan to monitor, prevent and/or mitigate the potential effects of the Project on groundwater within the Project area."*

On page 78 of the 2017 Annual Report, Baffinland stated "*During the 2017 pilot program near the Landfill, groundwater was detected and sampled at three (3) monitoring wells down-gradient and one (1) monitoring well located up-gradient of the Landfill Facility. Due to the limited data set collected to date for groundwater chemistry, further groundwater monitoring is required to gain a better understanding of natural groundwater chemistry at Project sites."*

Given that uncontrolled seepages originating from the toe of the waste rock sedimentation pond's berm have been observed, INAC recommends that Baffinland present the limited groundwater data in the Annual Report and make the data available for review.

T&Cs 24 and 46

T&C 24 requires Baffinland to *"monitor as required the relevant parameters of the effluent generated from Project activities and facilities and shall carry out treatment if necessary to ensure that discharge conditions are met at all times."*

T&C 46 requires Baffinland to *"ensure that runoff from fuel storage and maintenance facility areas, sewage and wastewater other facilities responsible for generating liquid effluent and runoff meet discharge requirements."*

On page 80 of the 2017 Annual Report, Baffinland stated "*Prior to discharge, wastewater (treated sewage, treated contact water, etc.) is sampled to ensure the wastewater's water quality meets the applicable discharge criteria stipulated in the Type A Water Licence and MMER."*

INAC notes that based on data presented in Table 4.3 of the 2017 Annual Report, there were at least six cases where Non-Compliant Contact Water (i.e., water from waste rock sedimentation pond) was discharged to the environment. It is not clear if the decisions on discharge were made before or after test results on water quality or toxicity had become available. INAC recommends that Baffinland include such information in the Annual Report and avoid discharge any wastewater until it has the appropriate test data to demonstrate that water quality meets the applicable discharge criteria.

On page 82 of the 2017 Annual Report, Baffinland stated "*In response to the non-compliant discharges from the WRF, Baffinland has taken multiple corrective actions to prevent additional non-compliant discharges from the WRF and retained Golder Associates (Golder) to determine the appropriate corrective actions required to address the seepage observed at the WRF in 2017 and investigate the potential for ARD and develop mitigation measures, as required. Preliminary mitigation measures planned for 2018 include the mobilization of a water treatment*

system to manage potential non-compliant waters in the WRF pond during 2018. Refer to the 2017 QIA and NWB Annual Report for Operations for further details on the concerns identified at the WRF in 2017 and the corrective actions taken and planned."

In order to assess the potential impacts and the effectiveness of the mitigation measures, INAC recommends that Baffinland provide in the Annual Report the complete list of the actions being taken and planned, as well as the associated monitoring measures.

Table 4.3 List of Unauthorized Discharges in 2017
INAC notes that the quantities or volumes of five unauthorized discharges of Non-Compliant Contact Water were not given in Table 4.3. INAC recommends that Baffinland give explanations for data not provided.

Table 4.23 2017 Ship Ballast Water Salinity Test Results
INAC notes that the unit of salinity results presented in Table 4.23 of the 2017 Annual Report should be ‰ (i.e., per mil or per thousand), instead of % (i.e., per cent).

2) Compliance Monitoring

a. Provide a summary of any compliance monitoring and/or site inspections undertaken in association with the project, including specifically:
i. Identify the terms and conditions from the Project Certificate which have been incorporated into any permits, certificates, licenses or other approvals issued for the Project, where applicable;

INAC has a broad mandate for the co-management of water resources and the management of Crown Land in Nunavut under the following applicable acts and regulations:

- The *Department of Indian Affairs and Northern Development Act (DIAND Act);*
- The *Nunavut Land Claims Agreement Act;*
- The *Arctic Waters Pollution Prevention Act* and *Regulations;*
- The *Nunavut Waters and Nunavut Surface Rights Tribunal Act* and *Regulations; and*
- The *Territorial Lands Act* and *Regulations.*

In terms of water management in Nunavut, INAC has a number of different responsibilities. The Minister of INAC has a decision-making role with regard to the Nunavut Water Board's (NWB) issuance of any water licences associated with a project. Furthermore, INAC participates as an intervenor in the water licensing process, providing advice and expertise. When a proposed project is approved to proceed, INAC is responsible for inspecting and enforcing any terms and conditions (T&C) contained within any water licence associated with the project. However, the decision to implement the T&Cs of a Project Certificate, from the perspective of water management, rests with the Nunavut Water Board.

Although INAC is not responsible for implementing water related T&Cs, we have reviewed the Type 'A' water licence associated with the Mary River project (2AM-MRY1325 Amendment #1) with respect to Project Certificate # 005 and have included a concordance table (Appendix A)

that outlines how these T&Cs have been incorporated in the water licence, as well as the Land Use Permits that are issued by INAC.

In July of 2007, INAC issued a land use permit (N2007F0004) for the portion of the tote road that is not on Inuit Owned Land. The land use permit for the tote road was issued prior to NIRB issuing Project Certificate # 005, so the implementation of T&Cs was not considered when preparing this regulatory document. Subsequently, INAC issued the following Land Use Permits in July 1, 2014 for various areas of the project:

- Land Use and Quarrying permit for the tote road (N2014Q0016);
- Land Use Permit for Steensby and Milne Inlets (N2014C0013);
- Land Use Permit for the Milne Foreshore area (N2014X0012); and,
- Land Lease for the Milne Foreshore area (47H16-1-2).

These authorizations have been active and remained unchanged ever since.

In 2017, Baffinland's Mary River Project activities and monitoring were conducted under the following water licences:

- Type A Water Licence 2AM-MRY1325; and,
- Type B Water Licence 2BE-MRY1421.

INAC is a member of the Socio-Economic Monitoring Committee for the Qikiqtaaluq Region (QSEMC) overseen by the Government of Nunavut. They meet yearly to review socio-economic monitoring reports including that produced by Baffinland, which addresses (but is not limited to) T&Cs 129, 131, 133, 145, 148, 154, 159 168, and 169. The 2017 meeting took place in Arctic Bay in July 2017. The department is also a member of the Mary River Socio-economic Monitoring Working Group (SEWG) along with the Baffinland, the Qikiqtani Inuit Association, and the Government of Nunavut. The SEWG is intended to support the QSEMC regional monitoring initiatives through project-specific socio-economic monitoring. The SEWG met in-person in Iqaluit in September 2017 and via teleconference in February 2018.

ii. A summary of any inspections conducted during the 2017 reporting period, and the results of these inspections; and,

INAC's Water Resource Officers (WRO) conducted three inspections in 2017: May 29 to June 1, August 22-24, and November 8-9. As a result of these inspections, the WRO issued two Inspector's Directions, on June 9, 2017 and September 5, 2017, related to Non-Compliances associated with the Milne Port Camp Pad and the Waste Rock Facility, respectively.

During the August 22-24 site visit, an annual geotechnical site inspection was also conducted where no geotechnical issues warranting immediate mitigation were identified at the facilities inspected.

May 29 to June 1, 2017
Two WROs from INAC's Field Operations Division performed an inspection of water licence compliance at the Mary River Mine Site, the Tote Road and the Milne Port area. Major issues identified include:

1. Ore Stockpile Pad and associated water management structures:

The Ore Stockpile Pad had significant pooling inside the facility and there was water infiltrating it. This appeared to be the reason of the unauthorized discharge from the east sedimentation pond. INAC's WROs had identified similar pooling before and advised Baffinland to properly divert the water away from the area. The ditches surrounding the facility were not graded properly and there was water pooling within the unlined ditches. Baffinland had removed snow mixed with crushed ore from the facility and dumped it outside of the facility. In the 2016 Geotechnical Report, the engineer recommended that repairs be done to both sedimentation ponds. However, at the time of the inspection, no work had been done.

2. Ore Crusher Pad and associated Sedimentation Ponds

There were previous concerns with the grading of the Ore Crusher Pad at the Mine Site. This continued to be an issue and was causing the crusher pad to become saturated with iron filled mud. Water pooling was observed in the unlined ditches surrounding the facility. It was noted that there was no culvert in place to allow water from the North West unlined ditches to enter the sedimentation pond (a 1000mm DIA CSP culvert should have been installed, based on the approved construction drawings). The extent of the Ore Stockpile Pad area was larger than that in the application to the NWB and consequently, the sedimentation pond might be under capacity.

3. Camp lay-down pad

A camp lay-down pad had been constructed within a waterway at approximately N71° 52.529, W080° 54.379 in Milne Inlet. It was constructed in contravention of the Water Licence 2AM-MRY1325. An Inspector's Direction was issued to Baffinland on June 9, 2017 to stop all work on the lay-down pad until Part D, Item 2 of the Water Licence 2AM-MRY1325 has been complied with.

August 22-24, 2017

A second Water Licence inspection was conducted by INAC's WRO at the Mary River Mine Site, the Tote Road and related infrastructure, and the Milne Port area on August 22-24, 2017.

Three uncontrolled discrete seepages originating from the central toe of the waste rock containment berm at approximately N71° 20' 43", W79° 14' 18" were observed. Field measurements taken during the inspection indicated that water quality of the seepages did not meet the effluent quality criteria required by Part F, Item 25 of the Water Licence 2AM-MRY1325. An Inspector's Direction was issued to Baffinland on September 5, 2017 to (1) fix the facility to the specifications provided in the approved construction drawing, within 30-days of this direction or prior to freeze-up, whichever occurs first; (2) prevent all uncontrolled discharges from leaving the facility; (3) amend its Waste Rock Management Plan with a plan for treating non-compliant water, including contingencies, and submit this plan to the WRO and the NWB for approval by October 31, 2017; (4) produce a report that re-assesses the hydrological data of the waste rock pile drainage to determine if the size of their current facility meets industry standards in the North, taking into consideration freshet and submit it to the WRO and the NWB by September 31, 2017; and (5) stop all other uses of water from this facility for any other purpose, including road watering and water for drill use.

August 22-24, 2017

An annual geotechnical site inspection was also conducted by an external Senior Geotechnical Engineer contracted by INAC and accompanied by the INAC manager for the Mary River Project and a WRO.

It was concluded that the overall condition of the earthworks and ancillary structures that were inspected was good. No geotechnical issues warranting immediate mitigation were identified at the facilities inspected. However, four recommendations were made on the Waste Rock Sedimentation Pond, the Crusher Pad Sedimentation Pond Perimeter Ditch, the Exposed Geomembranes, and the Polishing Waste Stabilization Pond #2, respectively. A copy of the inspection report can be found on NWB's ftp site.

November 8-9, 2017

A Water Licence inspection was conducted by INAC's WRO, accompanied by INAC's Senior Engineer, at the Mary River Mine Site, the Tote Road and the Milne Port area. Major issues identified include:

1. Ore Stockpile Pad and associated water management structures

Previous inspections found that the Ore Stockpile Pad had not been graded properly. There were low points throughout this facility that affected the flow of surface water from the unlined facility to the lined sedimentation ponds. Ore was used to level an area outside of the containment on the west side of the east sedimentation pond.

2. Ore Crusher Pad and associated water management structures

The diversion ditches did not fully surround the Ore Crusher Pad. In certain locations, crushed ore and a boulder were pushed into the ditches.

3. Waste Rock Stockpile and associated water management structures

Rhodamine dye tests conducted by Baffinland on November 4th, 2017 showed that the containment structure was leaking into the surrounding environment, indicating that Baffinland failed to comply with INAC's Inspector's Direction issued on September 5, 2017.

4. Geomembrane liners

The geomembranes throughout Mary River and Milne Port were not covered properly and therefore did not meet industry standard.

iii. A summary of Baffinland's compliance status with regard to authorizations that have been issued for the Project.

Although some non-compliances have been identified in 2017, INAC is generally satisfied with Baffinland's response to the concerns raised by our WROs, and INAC will continue to work with Baffinland to ensure compliance with all Water License requirements associated with this project.

In conclusion, INAC appreciates the opportunity to review Baffinland Iron Mines Corporation's Mary River Project 2017 Annual Report. Should you have any questions, please do not hesitate to contact David Zhong at 867-975-4556 or by email at david.zhong@canada.ca.

Sincerely,

[Original signed by]

Indigenous and Northern Affairs Canada | Affaires autochtones et du Nord Canada

Rachel Theoret-Gosselin
A/Manager of Impact Assessment
Indigenous and Northern Affairs Canada

Appendix A: Project Certificate Terms and Conditions (T&C) incorporated into any permits, certificates, licenses or other approvals issued for the Project, where applicable:

Project Certificate 005 term & condition		Implemented in NWB water licence 2AM-MRY1325 Amendment #1	Implemented in INAC's land use permit
10	The Proponent shall update its Dust Management and Monitoring Plan to address and/or include the following additional items: a) Outline the specific plans for monitoring dust along the first few kilometres of the rail corridor leaving the Mary River mine site. b) Identify the specific adaptive management measures to be considered should monitoring indicate that dust deposition from trains transporting along the rail route is greater than initially predicted. c) Outline specific plans for monitoring dustfall at intervals along and in the vicinity of the Milne Inlet Tote Road to determine the amount and extent of dustfall. d) Identify the specific adaptive management measures to be considered if monitoring indicates that dust deposition from traffic on the Milne Inlet Tote Road is greater than initially predicted.		**N2014Q0016**, Part 31 (1) (m), 48
11	The Proponent shall develop and implement an Incineration Management Plan that takes into consideration the recommendations provided in Environment Canada's Technical Document for Batch Waste Incineration (2010).	Part F, Item 7 (requirement to test and dispose bottom ash and record analysis results and volumes of ash)	
14	The Proponent shall conduct noise and vibration monitoring at Project accommodations sites located at the Mary River mine site, Steensby Inlet Port site, and Milne Inlet Port site. Sampling shall be undertaken during the summer and winter months during all phases of Project development. (b) The Proponent, through coordination with the TEWG as may be appropriate, shall demonstrate appropriate adaptive management for project activities during operations which have the potential to produce noise and sensory disturbance to wildlife and other users of project areas.		**N2014Q0016,** Part 31 (1) (m) 49)

Project Certificate 005 term & condition		Implemented in NWB water licence 2AM-MRY1325 Amendment #1	Implemented in INAC's land use permit
16	The Proponent shall ensure that the water related infrastructure or facilities that are designed and constructed, including the modification of culverts, diversion of watercourses, and diversion of runoff into watercourses along the railway, access roads, the Milne Tote Road, and other areas of the Project site, are consistent with those proposed in the FEIS in terms of type, location, and scope and that the requirements of all relevant regulatory authorities are satisfied advance of constructing those facilities.	Part D	
17	The Proponent shall develop and implement effectives measures to ensure that effluent from project-related facilities and/or activities, including sewage treatment plants, ore stockpiles, and mine pit, satisfies all discharge criteria requirement established by the relevant regulatory agencies prior to being discharged into the receiving environment.	Parts F and I	
18	The Proponent shall carry out continued analyses over time to confirm and update, accordingly, the approximate fill time for the mine pit lake identified in the FEIS.	Part F, Item 3	
19	The Proponent shall ensure that it develops and implement adequate monitoring and maintenance procedures to ensure that the culverts and other conduits that may be prone to blockage do not significantly hinder or alter the natural flow of water from areas associated with the proposed mine. In addition, the Proponent shall monitor, document and report the withdrawal rates for water removed and utilized for all domestic and industrial purposes.	Parts B, D, Item 23, E Item 23, and I	
20	The Proponent shall monitor the effects of explosives residue and related by-products from project-related blasting activities as well as develop and implement effective preventative and mitigation measures, including treatment, if necessary, to ensure that the effects associated with the manufacturing, storage, transportation and use of explosives do not negatively impact the Project and surrounding areas.	Part E, Item 24, Part I, Item 23, and Part D, Item 18, g	

	Project Certificate 005 term & condition	Implemented in NWB water licence 2AM-MRY1325 Amendment #1	Implemented in INAC's land use permit
21	The Proponent shall ensure that the scope of the Aquatic Effects Monitoring Plan (AEMP) includes, at a minimum, monitoring of non-point sources of discharge, selection of appropriate reference sites, measures to ensure the collection of adequate baseline data and the mechanisms proposed to monitor and treat runoff, and sample sediments.	Part I	
22	The Proponent shall develop a detailed Sediment and Erosion Management Plan to prevent and/or mitigate sediment loading into surface water within the Project area.	Part D	
23	The Proponent shall develop and implement a Groundwater Monitoring and Management Plan to monitor, prevent and mitigate the potential effects of the Project on groundwater within the Project area.	Part I, Item 14 (requirement to conduct opportunistic monitoring on any observed seepage)	
24	The Proponent shall monitor as required the relevant parameters of the effluent generated from Project activities and facilities and shall carryout treatment if necessary to ensure that discharge conditions are met at all times.	Part E and F.	
25	The Proponent shall undertake the additional geotechnical investigations to identify sensitive landforms, modify engineering design for Project infrastructure and develop mitigation and monitoring measures to minimize the impacts of the Project's activities and infrastructure on sensitive landforms.	Part D, Item 19 and Part I, Item 12 (for water infrastructure)	
26	The Proponent shall develop and implement a comprehensive erosion management plan to prevent or minimize the effects of destabilization and erosion that may occur due to the Project's construction and operation.	Parts D, E, and F (requirement to prevent or minimize erosion)	**N2014Q0016**, part 31 (1) (m) 50
28	The Proponent shall monitor the effects of the Project on the permafrost along the railway and all other Project affected areas and must implement effective preventative measures to ensure that the integrity of the permafrost is maintained.	Part D, Item 10 (requirement to minimize disturbance to permafrost around the site, including railway corridor)	
29	The Proponent shall provide to the respective regulatory authorities, for review and acceptance, for-construction engineering design and drawings, specifications and engineering analysis to support design in advance for constructing those facilities. Once project facilities are constructed, the Proponent shall provide copies of the as-built drawings and design to the appropriate regulatory authorities.	Part D, Item 2 and Part E, Item 23	

Project Certificate 005 term & condition		Implemented in NWB water licence 2AM-MRY1325 Amendment #1	Implemented in INAC's land use permit
30	The Proponent shall develop site-specific quarry operation and management plans in advance of the development of any potential quarry site or borrow pit.	Part D, Item 5	**N2014Q0016**,Part 31 (1) (m) 51
31	The Proponent shall ensure that Project activities are planned and conducted in such a way as to minimize the Project footprint.	A general requirement	
33	The Proponent shall include relevant Monitoring and Management Plans within its Environmental Management System, Terrestrial Environment Management and Monitoring Plan (TEMMP).	Part J, Item 2	
39	The Proponent shall develop a progressive revegetation program for disturbed areas that are no longer required for operations, such program to incorporate measures for the use of test plots, reseeding and replanting of native plants as necessary. It is further recommended that this program be directly associated with the management plans for erosion control established for the Project.	Part J, Item 11 (requirement to implement progressive reclamation including revegetation)	
40	The Proponent shall include revegetation strategies in its Site Reclamation Plan that support progressive reclamation and that promote natural revegetation and recovery of disturbed areas compatible with the surrounding natural environment.	Part J, Items 10 and 11	
41	Unless otherwise approved by regulatory authorities, the Proponent shall maintain a minimum 100-metre naturally-vegetated buffer between the high-water mark of any fish-bearing water bodies and any permanent quarries with potential for acid rock drainage or metal leaching.	Part D, Items 13 and 14	
42	The Proponent shall maintain minimum a 30-metre naturally-vegetated buffer between the mining operation and adjacent water bodies.	Parts D, E, F, and H	
43	Prior to the start of construction, the Proponent must submit a Site Drainage and Silt Control Plan to the appropriate regulatory authorities for approval.	Part D, Item 2	
44	The Proponent shall meet or exceed the guidelines set by Fisheries and Oceans Canada for blasting thresholds and implement practical and effective measures to ensure that residue and by-products of blasting do not negatively affect fish and fish habitat.	Part E, Item 24	

Project Certificate 005 term & condition		Implemented in NWB water licence 2AM-MRY1325 Amendment #1	Implemented in INAC's land use permit
46	The Proponent shall ensure that runoff from fuel storage and maintenance facility areas, sewage and wastewater other facilities responsible for generating liquid effluent and runoff meet discharge requirements.	Part F	
47	The Proponent shall ensure that all Project infrastructures in watercourses are designed and constructed in such a manner that they do not unduly prevent and limit the movement of water in fish bearing streams and rivers.	Part E, Item 23	**N2014Q0016**, Part 31 (1)(f) 16.
48	The Proponent shall engage with Fisheries and Oceans Canada and Qikiqtani Inuit Association in exploring possible Project specific thresholds for blasting that would exceed the requirements of Fisheries and Oceans Canada's Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters (D.G. Wright and G.E. Hopky, 1998).	Part E, Item 24 (requirement to submit Blasting Management Plans)	
53	The Proponent shall demonstrate consideration for the following: a. Steps taken to prevent caribou mortality and injury as a result of train and vehicular traffic, including operational measures meant to maximize the potential for safe traffic relative to operations on the railway, Milne Inlet tote road and associated access roads. b. Monitoring and mitigation measures at points where the railway, roads, trails and flight paths pass through caribou calving areas, particularly during caribou calving times. c. Evaluation of the effectiveness of proposed caribou crossings over the railway, Milne Inlet tote road and access roads as well as the appropriate number. d. Development of a surveillance system along the railway corridor to identify the presence of caribou in proximity to the train tracks and operational protocols for the train to avoid collisions and enable caribou to cross the train tracks unimpeded. e. Protocols for documentation and reporting of all caribou collisions and mortalities, as well as mechanisms for adaptive management responses designed to prevent further such interactions.		**N2014Q0016**, Parts 31 (1) (h) 36-38, and 31 (1) (m) 52

	Project Certificate 005 term & condition	Implemented in NWB water licence 2AM-MRY1325 Amendment #1	Implemented in INAC's land use permit
64	The Proponent shall ensure that its Environment Protection Plan incorporates waste management provisions to prevent carnivores from being attracted to the Project site(s). Consideration must be given to the following measures: a. installation of an incinerator beside the kitchen that will help to keep the food waste management process simple and will minimize the opportunity for human error (i.e. storage of garbage outside, hauling in a truck (odours remain in truck), hauling some distance to a landfill site, incomplete combustion at landfill, fencing of landfill, etc.). b. installation of solid carnivore-proof skirting on all kitchen and accommodation buildings (i.e., heavy-duty steel mesh that would drop down from the edge of the buildings/trailers and buried about a half meter into the ground to prevent animals from digging under the skirting).	Part F, Item 7	**N2014Q0016**, Part 31 (1) (g) 27
92	The Proponent shall ensure that it maintains the necessary equipment and trained personnel to respond to all sizes of potential spills associated with the Project in a self-sufficient manner.	Part H, Item 5	**N2014Q0016**, Part 31 (1) (g) 30, 31