



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee	Licensee Representative
Baffinland Iron Mines Corporation (BIMC)	Jim MILLARD/Allan KNIGHT
Licence No. / Expiry	Representative's Title
2AM-MRY1325	Environmental Manager
Land / Other Authorizations	Land / Other Authorizations
2BE-MRY1421	N2014X0012, N2014Q0016, N2014C0013
Date of Inspection	Inspector
July 6-8, 2016	Justin HACK
Activities Inspected	
<input checked="" type="checkbox"/> Camp	<input type="checkbox"/> Drilling
<input checked="" type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Other:
<input checked="" type="checkbox"/> Mining	<input checked="" type="checkbox"/> Construction
	<input type="checkbox"/> Reclamation
	<input checked="" type="checkbox"/> Fuel Storage
	<input type="checkbox"/> Other:

Conditions:	A - Acceptable	C - Concern	U - Unacceptable	NA – Not Applicable	NI – Not Inspected			
Water Use	Condition	Comment	Site Conditions	Condition	Comment	Haz/Mat Management	Condition	Comment
Intake/Screen	NI		Water Management Structures	C	1-3,7-10	Storage	NI	
Flow Measure. Device	NI		Culverts / Bridges	A	4-5	Spills	NI	
Source:	A		Drainage	A		Spill Plan	A	
Water Use:	A		Erosion / Sediment	A				
Recirculation (y /n)	NA		Mitigation Measures	A		Administrative		
			Reclamation Activities	A		Records	NI	
			Materials Storage	A	6, 11	Reports	A	
Waste Disposal			Signage	A		Plans	A	
Waste Water	A					Notifications	A	
Solid Waste	A		Monitoring			Other		
Hazardous Waste	A		Sample Collection / Analysis	NI		Follow-up from previous inspection	A	
*The number in the comments field will correspond with specific comments provided below.								
Samples taken by Inspector:			Location(s):					
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No								

SECTION 1	<input checked="" type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
Inspectors Statement			
On July 6-8 2016, a water licence inspection was conducted at the Mary River Project, Qikiqtani Region, Nunavut. Sites inspected included the Mary River Mine Site, the Tote Road and related infrastructure, and the Milne Port area.			
Weather Conditions on Site			
Temperatures of approximately 20°C, partially cloudy and no snow remained on site.			
Summary of Report			
At the time of inspection, the Licensee was undertaking activities related to the operation of an open-pit iron ore mine at the Milne Port (Milne Inlet), Mine site (Mary River), Tote Road. Most major construction activities have finished and BIMC is primarily mining ore and transporting it to Milne Port in preparation for ore transportation.			
During the Water Licence Inspection in May 2016, it was observed that commitments made by BIMC to complete the Ore Stockpile Pad Diversion Ditches and commitments to address areas prone to sedimentation along the Tote Road were not met. A Letter of Non-Compliance was issued to BIMC outlining deadlines to complete this work and a warning that further enforcement measures may be taken if reasonable diligence towards meeting the requirement of their licence, Part D, are not addressed.			
Since the May inspection, significant work has been completed related to addressing the sedimentation issues around site and completing the Ore Stockpile Diversion ditches. BIMC has committed, until the submission of the Tote Road and Mine Haul Road Mitigation Action Plan on September 30, 2016 to submit bi-weekly updates regarding work related to this concern.			
SECTION 2	<input type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input checked="" type="checkbox"/> Action Required
Water Management Structures:			
1. Waste Rock Pile Sedimentation Pond			
a. At the time of the inspection, it was observed that run-off at the Waste Rock Pile Sedimentation pond was not being properly diverted to the sedimentation pond.			
b. BIMC committed to addressing the surface water run-off concern of this facility by July 22, 2016.			



- c. Follow-up will be completed at the next inspection.
2. Ore Stockpile Pad Diversion Ditches and Ore Stockpile Settling Ponds at Milne Inlet
 - a. A Letter of Non-Compliance was issued regarding the commitments not achieved after the May 2016 Inspection.
 - b. In a response provided to the Inspector prior to this inspection, BIMC has submitted a plan entitled, “*Milne Stockpile Pad Water Drainage System – Execution Plan and Schedule*” whereas work was planned to be completed by June 22, 2016.
 - c. Completed work was confirmed to have occurred on this structure during the inspection.
3. Water Management Structures along the Tote Road
 - a. Due to the significant sedimentation of waterways around the project, a *Letter of Non-Compliance* was issued to BIMC to address this issue.
 - b. In response to the Letter of Non-Compliance, BIMC has made significant progress related to mitigating sedimentation events from project activities.
 - c. Updates are being provided by BIMC in bi-weekly reports of any new work associated with addressing and mitigating sedimentation of waterways along the Tote Road.
 - d. On September 30, 2016 a Tote Road and Mine Haul Road mitigation action plan is due to Environment and Climate Change Canada that will provide an implementation schedule addressing sediment water runoff from the road into culverts, ditchers, and creeks/streams which leads to David Lake, Mural Lake, Kabikok Lake, KM32 Lake, KM27 Lake, Camp Lake, Sheardown Lake, Mary River, and Phillips Creek.

Culverts/Bridges

4. Bridges along Tote Road
 - a. In a previous inspection it was noted that road material was being pushed into water courses that are crossed by a bridge.
 - b. In the report submitted June 24, 2016 BIMC provided documentation that this issue was addressed.
5. Culverts
 - a. Previous concerns related to culverts management and maintenance is being addressed in the Tote Road and Mine Haul Road mitigation action plan due September 30, 2016.

Materials Storage

6. Ore Crushing Area and associated Sedimentation Ponds
 - a. This structure was previously identified by BIMC as encroaching onto a nearby stream.
 - i. At the time of this inspection, BIMC was conducting work to remove a section of the ore crushing area pad away from the stream.
 - ii. Significant erosion and sedimentation control measures were in place during this activity.
 - b. Another concern that was noted in a previous inspection was the drainage of the facility.
 - i. BIMC has installed culverts and graded the facility to help channel water to the sedimentation pond.

Sites of Concern noted from Previous Inspections:

Water Management Structures:

Mine Site

7. Jetty at Camp Lake
 - a. Silt curtain were installed in July to prevent further damage to the structure.
 - b. On August 23, 2016 BIMC provided notice that there have been delays in making the required repairs to the jetty due to logistical problems.
 - c. BIMC has committed to finalizing the work before freeze-up.
8. Bulk Fuel Storage Facility Containment.
 - a. The embankment crest and some side slopes were not maintained to the design profile as required.
 - b. During the July 2016 inspection the berms/embankments appeared to be well maintained.
9. Hazardous Waste Containment
 - a. During a previous inspection, it was noted that the crest width and profiles of some of these facilities near the aerodrome were not in good shape. There were indications of manoeuvring of tracked machinery over the embankment resulting in a disturbed embankment profile. It is recommended these containments receive maintenance.
 - b. During the July 2016 inspection the berms/embankments appeared to be well maintained.

Milne Port Site

10. Hazardous Waste Containment Facility
 - a. During a previous inspection, it was noted that some of the berm crest widths and profiles were not in good shape and there were indications or manoeuvring of tracked machinery over the berms.
 - b. During the May 2016 inspection this structure was not inspected.
 - c. During the July 2016 inspection it was noted that there was evidence of water within the facility close to overtopping at the spillway.



d. Sufficient freeboard must be maintained at this facility.

Materials Storage:

11. Calcium Chloride Storage Area

- a. It is recommended that a perimeter berm/drainage ditch be installed to route the runoff away from the storage and down the slope hill to the drainage ditch along the Tote Road as a preventative measure.
- b. BIMC has committed to visual monitoring and flow mapping of the area during Freshet 2016 and that drainage measures will be implemented as appropriate.
- c. This facility was inspected and no concerns were noted.

Inspector's Name

Justin Hack

Signature

Date

September 13, 2016

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