



2017-2018 ᐃᓐᓂᓕᓴᓂᓄᓐ ᓐᓂᓴᓴᓂᓄᓐ ᐃᓐᓂᓕᓴᓂᓄᓐ

ᐃᓐᓂᓕᓴᓂᓄᓐ ᓐᓂᓴᓴᓂᓄᓐ ᓐᓂᓴᓴᓂᓄᓐ ᓐᓂᓴᓴᓂᓄᓐ



ᓄᓇᓂᓴ ᐃᓐᓂᓕᓴᓂᓄᓐ ᑲᓂᓴᓴᓂᓐ

ᓂᓂᓴᓴᓂᓄᓐ ᓐᓂᓴᓴᓂᓄᓐ 08MN053

ᓄᓴᓴᓂ 2018

▷σ^bbc◁◁ CΔj^uL:

[illegible]

ΛC₂Δ^aΥ^bΓ^c:

Λαλτῶν Δαδῶν:
 Δαδῶν Δαδῶν:

ጠቅላይ ሚኒስትር አብነት ማህተም
የጥቅም ስርዓት (የጥቅም ስርዓት ማህተም) ለጥቅም ስርዓት ማህተም
ለጥቅም ስርዓት ማህተም ለጥቅም ስርዓት ማህተም

ΛCRLD^{45b}:

ረጅሞች ካልነበሩት ቀን
 2275 ዓ.ም. የታዘሙ የፊክሽን ፎክሎር፣ ልሳናት 300
 ፊክሽን፣ ታሪኮች
 L6H 0C3

ፍፅዋልናል፡፡

[illegible][illegible]

ՀՈԱՆ 2017-Դ ՀՈԱՆ 2018-Ե

በበፍጥነት ማረጋገጥ ይቻላል፡

၁၆၁၇ 8, 2018

ፍቅሪ ልጅህ ምስክር፡

ካልካፍታው ለጥቅም 1 ለጥቅም ለጥቅም ለጥቅም ለጥቅም

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1.2	ለጥራት ምርመራ ለሚደረግበት ስራ ምርመራ	4
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2.1.2	የፍትሕ ምርመራ ለሚደረግበት ስራ ምርመራ	6
2.2	የፍትሕ ምርመራ ለሚደረግበት ስራ ምርመራ	1
2.3	የፍትሕ ምርመራ ለሚደረግበት ስራ ምርመራ	1
2.4	የፍትሕ ምርመራ ለሚደረግበት ስራ ምርመራ	1
2.5	የፍትሕ ምርመራ ለሚደረግበት ስራ ምርመራ	1
2.6	የፍትሕ ምርመራ ለሚደረግበት ስራ ምርመራ	2
2.7	የፍትሕ ምርመራ ለሚደረግበት ስራ ምርመራ	2
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[illegible]

- [illegible]

- a) ልዩፋርጋዊነትና በጥበቃነት ለሚኖሩት ሕጻናት ካልተሰጠባቸው 2017-ፖሊሲና ማህበራዊ ድጋፍ ለሚሰጥበት ልማት ማቆራረጥ፤ ልዩፋርጋዊነት
- b) ልማት ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ፤

ወደፊት ለሚገኝበት የሚገባውን ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ፤ ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ፤

- የዋናው ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ (QIA)
- ወደፊት ለሚገኝበት ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ (GN)
- ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ (ECCC)
- ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ (DFO)
- ወደፊት ለሚገኝበት ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ (CIRNAC), የሚከፈልበት ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ (INAC)
- ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ (PC)
- ወደፊት ለሚገኝበት ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ (WWF)

በጥቅምት 2 ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ፤ ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ፤ ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ፤

በጥቅምት 2: ወደፊት ለሚገኝበት ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ፤ ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ፤

ለሚከፈልበት ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ	ወደፊት ለሚገኝበት ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ
የዋናው ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ (QIA)	<ul style="list-style-type: none"> • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ (ከሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ ጋር ማሳሰብ) • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ
ወደፊት ለሚገኝበት ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ	<ul style="list-style-type: none"> • የሚከፈልበት ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ • ለሚከፈልበት ለሚችሉ ልማት ማቆራረጥና ለማሳደግ ማቆራረጥ

			2017 ወክላትነት ጉዞ ለጉልበት ርዕሰ ሪፖርት የሰላም ልማት ደረጃ ደረጃው 2 ርዕሰ ሪፖርት ሪፖርት 2AM-MRY1325.
ጥቅምት 22-24, 2017			
	ጥቅምት 22-24, 2017 ጥቅምት 22-24, 2017	ጥቅምት 22-24, 2017 ጥቅምት 22-24, 2017	ጥቅምት 22-24, 2017 ጥቅምት 22-24, 2017

- [illegible]

2.7 $\Delta^{\epsilon} b \rhd c n^{b} d^c \Delta L^{\epsilon} f \triangleright C c n^{b} d^c \rhd b a C \Gamma$ (DFO)

[illegible]

- ኖሞክላው ወጋጌኛው ልክፊር (ልክጋርሲኦፊር ላዚ ልዚርሲኦፊር በበኖርፎሪኒኒ ሲካፎር: 06-HCAA-CA7-00084): ለርሲላካፎሪኒኒ ወጋጌልክፊርኒኒ 005, ላፎሪላኒኒ ላዚ ለርላኒኒ 19, 26, 45, 47, 48(a) ላዚ።
- ኖሞክላው ካልካው ፎሪኒኒ/ልጽፊ (ልክጋርሲኦፊር ላዚ ልዚርሲኦፊር በበኖርፎሪኒኒ ሲካፎር: 14-HCAA-00525): ለርሲላካፎሪኒኒ ወጋጌልክፊርኒኒ 005, ላፎሪላኒኒ ላዚ ለርላኒኒ 45, 76, 88, 99, 101, 106, 113, 115, 123.

[illegible][illegible]

- [illegible]

2.8 $\Gamma^a \Delta^b \rho^c \delta \Gamma^d \rho^e \delta^f b \delta \Gamma^g (PC)$

[illegible]

ዕለቱ ለጥያቄው ምላሽ ለሰጠው ሰው ምስጋና ይቀርባል፡፡

- [illegible]

2.9 பொருளாதார அமைதி (WWF)

[illegible][illegible]

- [illegible]

- [illegible]

[illegible][illegible]

- ልፍኛ/ልፍብላጭኛ ልዩነት
- ርብሃ ልዩነት ልሊጋ ነጠቃዊነት
- ወደፊት ልሊጋ ማስተካከል ነጠቃዊነት
- ማለት
- ልዩነት ነጠቃዊነት ለሰውነት ልሊጋ ስራ ልዩነት ልዩነት
- ወደፊት ልዩነት ልዩነት ልዩነት
- ልዩነት ልዩነት ልዩነት ልዩነት

2.11 መፀደቅ ልዩባርኬታዊ ክብረትና ለፍቃድ ጋር የሚገናኙ - ልዩነት ልረጋ ልካታ 2018

ወደቃቸው ልዩ ገርሲያቸውን ከገለጹ በኋላ
2017-2018 የክልላዊ ልማት ዓመት ስለሆነ

ደመወዝ(ኛ)	ለገጠና ለፍጥነት/ ለኃይል	ጥራት ለጥራት	ጥራት ለጥራት	ፍጥነት ለፍጥነት
ደመወዝ	ለገጠና ለፍጥነት/ ለኃይል	ለገጠና ለፍጥነት/ ለኃይል	ለገጠና ለፍጥነት/ ለኃይል	ለገጠና ለፍጥነት/ ለኃይል
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2018 Winter Site Visit Report

for the NIRB's Monitoring of
Baffinland Iron Mines Corp.'s Mary River Project



Nunavut Impact Review Board

April 2018

Report title: 2018 Winter Site Visit Report for the Nunavut Impact Review Board's Monitoring of Baffinland Iron Mines Corp.'s Mary River Project (NIRB File No. 08MN053)

Project: Mary River Project

Project Location: Qikiqtani (North Baffin) Region, Nunavut

Land Tenure: Inuit Owned and Crown Land

Project Owner: Baffinland Iron Mines Corporation
2275 Upper Middle Road East, Suite 300
Oakville, ON
L6H 0C3

Proponent Contact: Megan Lord-Hoyle, Director Corporate Sustainability
Telephone: (416) 364 8820

Visit conducted by: Solomon Amuno, Monitoring Officer
Jaida Ohokannoak, Technical Advisor II

Telephone: (867) 983-4603; email samuno@nirb.ca

Site visit dates: April 17-20, 2018

Last Site Visit: August 25-27, 2017

Report prepared by: Jaida Ohokannoak, Technical Advisor II

Pictures by: Solomon Amuno and Jaida Ohokannoak

Cover picture: View of Mine Pit at Deposit No.1 Mary River

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1 INTRODUCTION

The Nunavut Impact Review Board (NIRB or Board) was established through Articles 10 and 12 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada* (Nunavut Agreement) and is responsible for post environmental assessment monitoring of a Project in accordance with Part 7 of Article 12 of the *Nunavut Agreement*.

This report provides the findings that resulted from the NIRB's winter site visit to the Mary River Project site on April 17 to 20, 2018 as part of the NIRB's ongoing monitoring program.

1.1 Objectives & Purpose of Site Visit

The objective of the NIRB's site visit was to determine whether, and to what extent, the land or resource use in question is being carried out within the predetermined Terms and Conditions of NIRB Project Certificate No. 005 issued for the Mary River Project (the Project), in accordance with Section 12.7.2(b) of the Nunavut Agreement.

The observations resulting from this site visit shall, wherever possible, be incorporated into the measurement of the relevant effects of the Project according to Section 12.7.2(a), as well provide the information necessary for agencies to enforce terms and conditions of land or resource use approvals as required under Section 12.7.2(c). Site-specific observations will also be used to assess the accuracy of the predictions contained in the Project impact statements according to Section 12.7.2(d) of the *Nunavut Agreement*.

1.2 Introduction of the Mary River Project

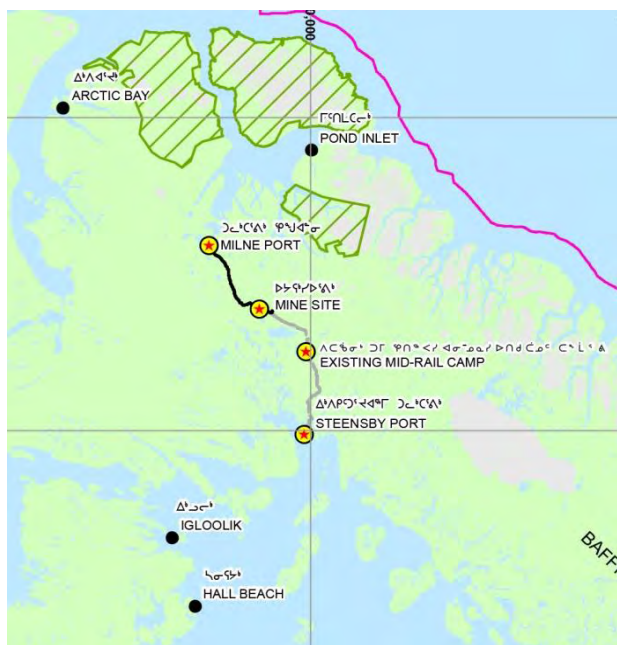


Figure 1: Project Location Map

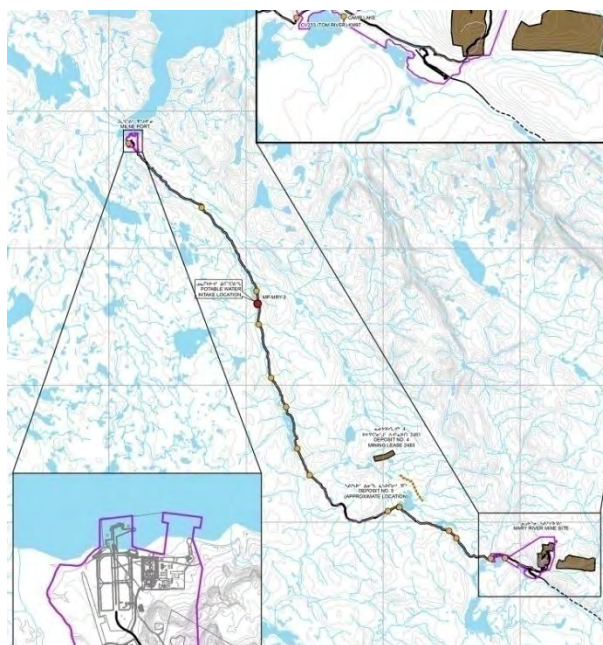


Figure 2: Tote Road

The Mary River Project involves the exploration, construction, operation, as well as the closure and reclamation of an open pit iron ore mine at what is known as Deposit No.1, and includes mining at a rate of 18 Million tons per year (Mt/a). There are three (3) main project locations – the Mary River Mine (the Mine) site, Milne Port located north of the Mine site, and Steensby Port located south of the Mine site. Milne Port is connected to the Mine site by the Milne Inlet Tote Road, which is approximately 100 kilometers (km) in length. The Project as originally proposed was to include construction of a railway approximately 150 km in length to connect the Mine site to Steensby Port. It was anticipated that facilities at Steensby Port and the railway would take up to four (4) years to construct. On December 28, 2018 the NIRB issued Project Certificate No. 005 for the Mary River Project following a thorough environmental review process, which included community consultations and a public hearing.

On January 13, 2013 Baffinland Iron Mines Corporation (Baffinland or the Proponent) informed the NIRB that it was proposing an Early Revenue Phase (ERP) that would change the schedule and specific activities associated with the Project as initially approved. The ERP was an amendment to the Mary River Project, which included the extraction of up to an additional 4.2 Mt/a of iron ore from the Mary River Mine site, with ore to be transported via the Milne Inlet Tote Road and Port at Milne Inlet during the open water season only. As the ERP outlined significant modifications to the activities previously approved under NIRB Project Certificate No. 005 for the Mary River Project, the Board determined that it was appropriate to assess the potential ecosystemic and socio-economic effects of the ERP and to consider modifications to the terms and conditions of the original Project Certificate under Article 12, Section 12.8.2 of the *Nunavut Agreement*. On May 28, 2014 pursuant to Article 12, Sections 12.5.5 and 12.8.2 of the *Nunavut Agreement*, the NIRB issued an *Amended* Project Certificate No. 005, allowing the Project to proceed in accordance with the Terms and Conditions issued therein. The Board is responsible for monitoring this Project as stipulated in Sections 12.7.1 and 12.7.2 of the *Nunavut Agreement*.

As currently approved, and in accordance with Baffinland's development plans, extracted ore is transported by truck along the Milne Inlet Tote Road and shipped by contracted vessels from Milne Port to European markets during the open water season. The approved Project also involves additional facilities at Milne Port, including the construction of a fixed ore dock, 4.2 Mt ore stockpile and reclaim area, 3,500 tonnes per hour ship loaders, a camp to accommodate workers, and the extension or relocation of the airstrip west of the proposed ore stockpile. The ERP operations are expected to continue for the duration of the mine life (i.e., 21 years), and continue in conjunction with the Mary River Project as originally proposed, once developed.

1.3 Preparations for the Site Visit

In preparation for the site visit, the Monitoring Officer reviewed the following items: Mary River Project Certificate; previous NIRB site visit reports, the NIRB's 2017 Recommendations to Baffinland, and additional follow-up correspondence regarding review of Annual Reports and monitoring of the Mary River Project.

2 SITE VISIT

The site visit was conducted on April 17 to 20, 2018 by Solomon Amuno, the NIRB's Monitoring Officer for Project Certificate No. 005 (Monitoring Officer) and Jaida Ohokannoak, Technical

Advisor II. On Tuesday, April 17, 2018, NIRB Staff flew from Pond Inlet to the Mary River site via Baffinland's regularly scheduled aircraft charter, accompanied by Baffinland's Director, Corporate Sustainability Ms. Megan Lord-Hoyle and on site we were met by Mr. Bill Bowden and other Environmental Staff who provided mine site area tours.

Once at the Mary River site, NIRB Staff were transported to the Mary River accommodation facility and received a brief health and safety orientation before undertaking a tour of the mine site, which included observational visits to the following locations: waste rock storage area, waste rock water treatment pad, and Deposit No. 1 pit. On April 18, 2018, NIRB Staff travelled by truck to Milne Inlet along the Tote Road, and observational visits were made to the following locations around Milne Inlet: the landfarm, incinerator, Membrane Biological Reactor Facility (MBR), ore pad, ore pad drainage ditches, ore settling ponds, docking area, laydown areas and accommodations facility. Upon return to the Mary River camp the landfill and sewage outfall area were observed for improvements and changes based on the 2017 NIRB recommendations to Baffinland. On April 19, 2018 observational visits included the incinerator, emulsion plant, new accommodations complex, as well as the crusher plant and associated sedimentation pond. There was no observational trip to the Steensby Inlet area during this site visit.

Upon completion of the tour, the Monitoring Officer and NIRB staff discussed several outstanding items and observations noted during the site visit, with Baffinland staff. The winter site visit provided the Monitoring Officer with an opportunity to comparatively assess on a spatial scale the environmental changes taking place in the surrounding environment of the Project development area, as well as to identify specific areas needing improvement with regards to environmental impacts and mitigation measures.



Photo 1: Deposit No.1 Mary River



Photo 2: Milne Inlet ore stockpile and port site

2.1 General Observations based on Progress from Previous Site Visit

The following sections briefly describe the major facilities visited during the tour around the project development area (PDA), as well as observations of the overall progress of the site compared to the previous site visit(s). Where applicable, the Monitoring Officer noted compliance with specific terms and conditions of the Project Certificate and followed up on items where Baffinland made commitment to mitigate the potential ecosystemic impacts of the Mary River Project.

2.1.1 Mary River Mine Site

Waste Rock Dump, Waste Rock Settling Pond

The waste rock facility is an area designated for the disposal of potentially acid generating (PAG) rocks. During the site visit, it was noted that the waste rock facility (WRF) area was snow covered and frozen and there was no observations of any signs of runoff or uncontrolled seepage of potentially contaminated contact water from the piles of PAG waste rocks into the adjacent tundra. Baffinland staff indicated that during 2017, exceedances of the applicable water quality discharge criteria during controlled discharges from the WRF pond consisted of two (2) minor exceedances for total suspended solids (TSS) limit in early July followed by multiple exceedances of the applicable pH and TSS limits in August and September respectively. Baffinland staff also noted that during on-site inspections by Indigenous and Northern Affairs Canada (INAC) and Environment and Climate Change Canada (ECCC) staff in late August, there were observations and concerns regarding the uncontrolled seepages of runoff from the toe of the pond's berm.¹ During the site visit, NIRB staff generally observed that Baffinland has taken key actions to address these environmental concerns by undertaking repairs of the WRF pond to address overflow issues as well as the planned installation of a waste water treatment plant to manage all the effluent discharges from the waste rock facility pond prior to discharge into the receiving environment. The Monitoring Officer also noted site preparation works were being undertaken in preparation for the installation of a new water treatment plant near the WRF to be completed by May 2018 (Photo 3 and Photo 4).



Photo 3: Waste Rock Storage Area Pond



Photo 4: Waste Water Treatment Plant Pad

Deposit No. 1 Reserve

After leaving the waste rock storage area the NIRB staff visited Deposit No.1 reserve pit. Ore extraction and mining activities within the mine pit has progressed since the last site visit in August 2017 with ore being extracted in successive layers or “benches” across the pit (Photo 5 and Photo 6). Two (2) drills were located on an upper bench with a blast scheduled for the following day (Photo 6 and Photo 8), and a loader was observed filling haul trucks with ore within the pit area (Photo 7) to be transported to the crusher facility where it is crushed and further sorted into lump or fines. Baffinland staff indicated that they plan to continue a pushback of the upper benches to access the iron ore on the benches below.

¹ Public Registry ID: 316609 - Baffinland Iron Mines 2017 Annual Report to the Nunavut Impact Review Board



Photo 5: Deposit No.1 Pit Benches



Photo 6: Deposit No.1 Pit



Photo 7: Filling an Ore Haul Truck

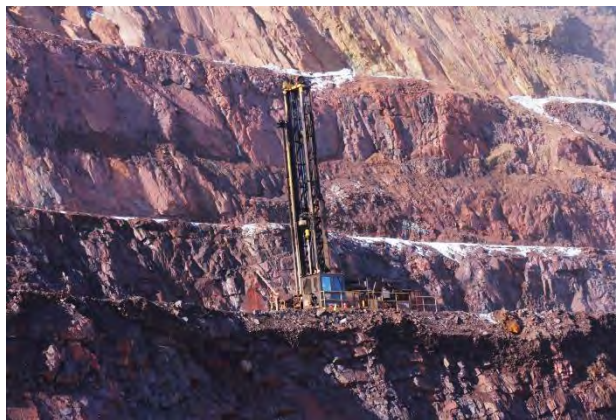


Photo 8: Drill Rig on Bench

Crusher and Screening Plant

NIRB staff also took a tour around the crusher area and while at the facility observed dust emissions including large visible dust plumes from the crusher plant due to ongoing ore crushing, stacking, and loading activities (Photo 9, Photo 10). Although shrouds had been installed (Photo 11) which improved dust emissions from the plant slightly, there is still large amounts of visible dust at the transfer points along the belts. The Monitoring Officer noted that the crusher plant was generally still lacking proper dust containment controls along the conveyor belt and end of the feeder (Photo 12). In addition, dust plumes were also observed when the haul trucks dump the iron ore into the crusher plant. Overall, the dust emissions observed from the crusher plant during the current site visit do not appear to have significantly improved compared to previous site visit observations. Dust accumulation was also noted in the surface soils and snow cover adjacent to the facility and up to a minimum of one (1) km away. Baffinland staff indicated that there are plans to come up with better engineering solutions, such as ensuring the covers are re-installed along the conveyor belt and at the end of the ore feed to reduce dust emissions. However, Baffinland staff also indicated that there are no current solutions for the shaker in the crusher facility as the movement of the equipment would not support a cover and may require increased maintenance on the screens (Photo 13).



Photo 9: Crusher Plant Area



Photo 10: Loader Working in Crusher Plant



Photo 11: Shroud

Baffinland staff noted that the Workers' Safety and Compensation Commission (WSCC) had previously expressed concerns regarding the increased dust generation from the crusher plant and noted the potential for dust exposure to affect the occupational health of the workers onsite.

At the time of the current site visit, the Monitoring Officer noted there are no effective dust control measures at the crusher and screening plant in order to prevent dust dispersion to the surrounding environment, as such dust management continues to be an issue from the crusher plant.



Photo 12: Missing cover from end of conveyor



Photo 13: Dust from shaker and transfer points

NIRB staff observed that the trenches constructed around the crusher pad to direct snowmelt and water runoff from the crusher pad to the sedimentation pond (Photo 14) were filled with snow, although Baffinland indicated that some improvements were made to the trenches to ensure that deposition of material carried off from the crusher pad due to erosion activities has been cleaned out and are hoping the issue will not re-occur this year. Additional trenching around the crusher

pad is expected to be completed prior to freshet. Baffinland staff indicated that the sedimentation pond is designed for a 1-10 year flood event and that there are plans to raise the level of the sedimentation pond a further 18 inches but that engineering designs would have to be completed prior to undertaking such activity. This will be confirmed with the NIRB's summer site visit.



Photo 14: Sedimentation Pond at crusher pad

Landfill Area

NIRB staff also visited the landfill site in order to follow-up on the NIRB's previous observations that most of the protective mesh around the landfill footprint was completely removed from the supporting poles and that the fencing issue has still not been fully rectified. Although wooden fences (Photo 15) are being utilized for fencing at the site, the Monitoring Officer noted that the current fencing does not fully enclose the landfill footprint and increase the risk for offsite waste dispersion. Baffinland has stated that they will be installing a wire mesh fence around the landfill using waste tires to support the posts this summer. This will be confirmed with the NIRB's summer site visit.



Photo 15: Fencing at landfill

Incinerator Area

The Monitoring Officer noted that the incinerator in use at the Mary River mine site continue to remain well maintained except for presence of oily water from a tank on the floor drainage system (Photo 16). Within the incineration building, NIRB staff noted that waste materials are segregated into labelled bins for incineration (i.e., food and paper waste) or disposal off site (i.e., batteries, paint, oily rags, kitchen grease etc.) (Photo 17). NIRB staff however, observed that some of the bags containing items for incineration contained recyclable waste such as aluminum cans, aerosols, and plastics (Photo 18) and recommended that Baffinland make improvements to its waste management and waste segregation practices site wide. NIRB staff also noted that throughout the site and especially within the accommodations complex there are few bins with poor labeling to enable proper segregation of wastes, and that all staff and visitors should be provided training during their orientation on how to segregate waste, including personal waste into the appropriate bins. During this site visit, the Monitoring Officer observed the ongoing effort of Baffinland staff in relocating most of the historical tires and other used items into sea cans which were properly stacked and prepared for offsite disposal (Photo 19). Baffinland staff also noted that used tires from the maintenance shops are now automatically being put into sea cans for disposal.



Photo 16: Tank with oil at Incinerator Building



Photo 17: Waste segregation in Incinerator Facility



Photo 18: Bagged wastes to be incinerated



Photo 19: Waste separation for disposal offsite

Effluent Discharge Area and Emulsion Plant

No environmental issue was identified at the effluent discharge location during the current site visit. NIRB staff also visited the emulsion plant and no issues were identified with this facility as it was very well maintained, organized and safe (Photo 20).



Photo 20: Emulsion Plant

2.1.2 Tote Road

During 2018 winter site visit, the Monitoring Officer did not observe any major environmental issues along the Tote Road; the road was well maintained. Baffinland was also preparing for spring freshet by having its staff undertake steaming and clearing snow from major culverts along the Tote Road (Photo 21). Dust plumes from vehicular and B-train truck traffic was observed and dust remained air borne for long periods of time travelling away from the road and deposited on the snow cover (Photo 22 and Photo 23). Several dust fall monitoring stations at kilometre (km) 33, 34, and 69 were observed along the Tote Road. NIRB staff noted the challenges of dust control due to vehicle traffic and further discussed alternative dust suppressants options to reduce dust along the Tote Road.



Photo 21: Excavator opening culverts preparing for freshet



Photo 22: Dust from B-Trains



Photo 23: Dust on Snow along haul road

2.1.3 Milne Inlet

Landfarm Area

The Monitoring Officer visited the landfarm facility and followed up on progress of the facility with respect to management of contaminated snow, synthetic liners, and used tires. While the Monitoring Officer generally indicated there has been an overall improvement in the operations of the facility, there were still outstanding concerns regarding presence of several waste material items such as plastics and wood materials (Photo 24 and Photo 25). The Monitoring Officer also noted that the laydown area near the landfarm area used for salt storage had not been addressed as previously recommended during NIRB's 2017 summer site visit as many salt bags were still there and deteriorating which could increase the risk of localized salt contamination into the environment. An addition to the landfarm area was a designated area for excess snow removed from around site. Excess snow was trucked and placed on the hillside to allow for meltwater to move slowly down the hillside and remove any sediment through natural filtration before reaching Milne Inlet, or any surrounding waterbodies.

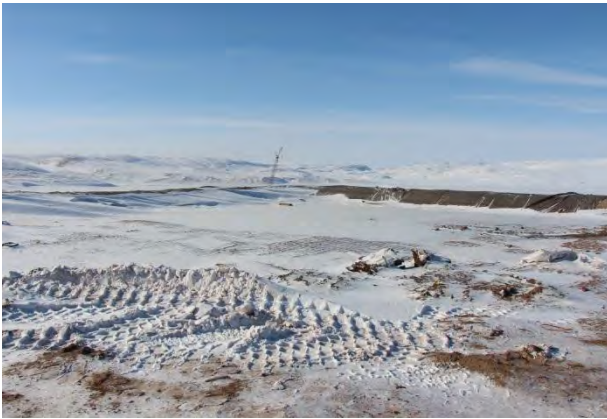


Photo 24: Landfarm



Photo 25: Plastics at landfarm area

Incinerator

The Monitoring Officer noted that the incinerator in use at the Milne Inlet site is well maintained. Within the incineration building waste is segregated into labelled bins for disposal off site (i.e., batteries, paint, aerosols, oily rags, etc.) (Photo 26 and Photo 27); however, NIRB staff observed some areas for improvements could be made to waste management and segregation site wide.



Photo 26: Incinerator



Photo 27: Segregating waste in Incinerator Building

Membrane Biological Reactor Facility (MBR)

NIRB staff also took a tour of the Membrane Biological Reactor Facility (MBR) at the Milne Inlet Site. The MBR is a sewage waste treatment facility that removes the liquid component leaving dry, burnable waste. The observed facility was functional clean and generally well maintained.

Ore Dock and Stockpile Area

NIRB staff also took a tour to the Milne Inlet stockpile area and the ore dock and did not observe any major activities with the exception of ore stockpiling activities (Photo 28 and Photo 29). The Monitoring Officer observed that during ore stockpiling the ore transfer heights were minimized and there was minimal dust blowing from the stockpile, however, ore dust was observed on the snow and ice in Milne Inlet originating from the stockpile (Photo 30 and Photo 31). As dust fall and its potential impacts to the aquatic environment in Milne Inlet continues to be a key community concern, NIRB staff undertook discussions with Baffinland environmental staff and recommended adding additional snow and sediment studies to their monitoring program.



Photo 28: Conveyor system at Milne Inlet



Photo 29: Ore Stockpiles at Milne Inlet



Photo 30: Iron ore dust on Milne Inlet



Photo 31: Dustfall on snow at Milne Inlet

The Monitoring Officer observed that the two (2) sedimentation ponds on the east and west side of the ore stockpile pad were completed (Photo 32). The trenches to these ponds along the ore pad were filled with snow (Photo 33) which was to be removed prior to spring freshet.



Photo 32: Ore sedimentation pond Milne Inlet



Photo 33: Trenches along ore pad Milne Inlet

The Monitoring Officer noted that many of the designated laydown areas around Milne port contained tires piles and various scrap materials and affect the aesthetics of the area. Baffinland staff informed the Monitoring Officer that the tire stockpiles would be removed to sealift containers and that the entire clean-up of the area will be completed prior to summer sealift season (Photo 34 and Photo 35).



Photo 34: Tires stockpiled at Milne Inlet



Photo 35: Tires containerized for shipping offsite

Visual Environment and Aesthetic Quality of Mine Site, Tote Road, and Milne Port

The Monitoring Officer observed that while there have been significant improvements, many areas within and surrounding the PDA, including the Mine site and Milne Inlet, require additional waste management actions of scrap materials and unused items such as tires. (Photo 36, Photo 37, and Photo 38). Baffinland has indicated it will do a site wide clean-up during and after freshet. This will be confirmed with the NIRB's summer site visit. The NIRB staff also observed that generally there was a lack of signage though out the site to indicate specific use of designated areas; however, Baffinland staff noted that there were plans to install more signage across the site to provide direction to personnel.



Photo 36: Scrap materials at crusher pad Mary River



Photo 37: Waste tires at Mary River



Photo 38: Pile of waste tires around ore stockpiles in Milne Inlet

2.2 Observations Based on NIRB Project Certificate No. 005

The following are the observations made during the site visit that pertain specifically to terms and conditions of Project Certificate No. 005:

2.2.1 Meteorology and Climate – Weather Monitoring Data

Condition 5

The Proponent shall endeavour to explore and implement reasonable measures to ensure that weather-related information for the various Project sites is readily accessible to the public on a continual basis throughout the life of the Project

The Monitoring Officer visited the weather station in the Mary River site. **(Error! Reference source not found.)** and observed that current weather-related information is displayed on the monitors located within the main accommodation building and is available on the internet.

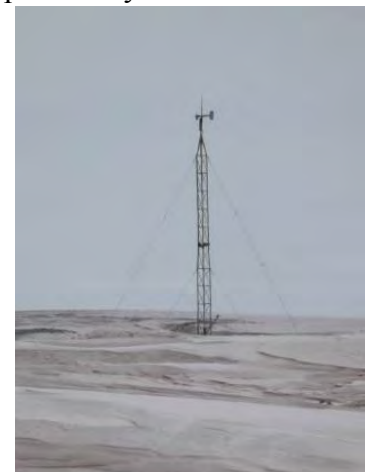


Photo 39: Weather monitoring station at Mary River

2.2.2 Air Quality –Dust Management and Monitoring Plan

Condition 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.*

Condition 58c

Within its annual report to the NIRB, the Proponent shall incorporate a review section which includes:

- c) A description of the extent of dust fall based on measured levels of dust fall (fugitive and finer particles such as TSP) on lichens and blueberries, and ash content of caribou fecal pellets;*

During the drive along the Tote Road, the Monitoring Officer observed the increased generation of dust plumes and widespread discolouration of snow areas adjacent to the road (Photo 22 and Photo 23). Managing dust in winter is difficult as freezing conditions after application of a dust suppressant may create associated safety concerns. NIRB staff inquired about any research being done into winter dust control. None are currently being considered. Dust fall stations were observed along the Tote Road, which can be noted as being in compliance to part c of Condition 10 (Photo 40).



Photo 40: Dustfall Monitoring Station

While at Milne Inlet, the Monitoring Officer followed up the community concerns regarding dust accumulation on sea ice and the potential effects to the aquatic environment. During the current site visit, there was clear evidence of dust deposition and accumulation on sea ice around Milne Inlet due to blowing dust from the ore stock pile (Photo 30 and Photo 31). Recommendations were made to Baffinland staff about adding additional snow and sediment studies to their monitoring program.

2.2.3 Terrestrial Wildlife and Habitat

Condition 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....*

Condition 61

Whenever practical and not causing a human safety issue, a stop work policy shall be implemented when wildlife in the area may be endangered by the work being carried out. An operational definition of 'endangered' shall be provided by the Terrestrial Environment Working Group.

During the current site visit, the Monitoring Officer did not observe caribou around the Project area; however, many fox tracks were observed around the site (Photo 41). Metallic skirtings were observed around the base of all accommodations buildings to deter foxes from entry into the building. Baffinland staff indicated that no caribou has been sighted around the PDA in over 5 years and that in the event that any caribou or other wildlife are encountered on site, a right of way policy is in place that requires vehicles stop to allow wildlife pass safely. In addition, the Monitoring Officer noted that wildlife logs continue to be posted at the main camp building for staff to report on wildlife encounters or observations around Mary River, Milne Port, and along the Tote Road.



Photo 41: Fox Tracks

3 FINDINGS AND SUMMARY

Due to the ongoing development of the Mary River Project, and the timing of the current site visit, it was noted that many biophysical components of the Project site could not be fully monitored due to ice conditions and extensive snow cover across Project locations. In addition, several terms and conditions as contained within the NIRB Project Certificate No. 005 may not be applicable for this monitoring period and/or have not yet been thoroughly implemented at this time by Baffinland. Based on the observations made during this current site visit, all Mary River Project facilities in operation appear to be generally well maintained with adequate environmental protection measures and procedures in place. In order to fully meet the requirements of the Project Certificate terms and conditions, and to ensure that potential adverse impacts to the environment are adequately mitigated, the NIRB Monitoring Officer has identified several issues that require follow-up and corrective action:

3.1 Dust Suppression Measures and Crusher Area

Condition 10 requires the implementation of a dust management and monitoring plan at site to prevent impacts to air quality from dust dispersion. At the time of the current site visit, it was noted that dust emissions, including visible dust plumes generated from the crusher plant, continue to be an ongoing issue. Specific parts of the crusher and screening plant were also noted to lack appropriate sealing or dust containment system, resulting in the release and dispersion of fugitive dust to the surrounding environment as was observed during previous site visits. Proper engineering designs and controls may be required to address the increased dust emissions from the crusher plant. In addition, there was dust deposition on sea ice from the blowing of dust from the ore stockpile.

3.2 Waste management

Within the incineration building, waste is generally segregated into labelled bins for incineration (i.e., food and paper waste) or disposal off site (i.e., batteries, paint, oily rags, kitchen grease etc.), but improvements could be made on how waste is segregated site wide. Throughout the site there are only a few posters on how to segregate wastes as such many Baffinland employees may not be fully aware on proper waste management practices. It is recommended that Baffinland improve the waste segregation part of their Waste Management Plan and that the waste management training program be part of site orientation and ongoing site-wide training.

Used tires continue to be a significant waste stream generated across the Project sites and continue to be an issue around the Mile Port. As the amended Project Certificate does not have any specific terms and conditions to address this particular waste stream, the Monitoring Officer recommended that Baffinland staff continue to develop a consistent approach for managing unused tires onsite. Baffinland is implementing the procedures outlined within its tire management plan, by placing them in sealift containers however more work is still required to be able to fully repurpose or dispose of the tires.

3.3 Waste Landfill

During the NIRB's current site visit, the Monitoring Officer observed that solid waste materials were properly contained within the landfill, although incomplete fencing of the landfill footprint continues to be a recurring issue. The Monitoring Officer noted that the condition of the landfill fencing has not improved compared to previous year's observations, as Baffinland has yet to fully install a more durable fencing material to prevent offsite dispersal of waste materials to the adjacent tundra. Baffinland is requested to develop a long-term solution for addressing the recurring fencing issue of the landfill.

3.4 Milne Inlet Salt Laydown

The salt laydown area at Milne port represents a potential issue as the bags are deteriorating and ripping, increasing the probability of content spillage and uncontrolled release into the environment, as well as the negative visual impact due to the untidiness. During the previous August 2017 site visit it was recommended to Baffinland that measures would be necessary to improve the storage area and implement plans to store and access the salt in an organized manner, this has still not been completed.

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Date: October 5, 2018
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Title: Monitoring Officer
Date: October 5, 2018
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Title: Manager, Project Monitoring
Date: October 5, 2018
Signature:



Report title: 2018 Summer Site Visit Report for the Nunavut Impact Review Board's Monitoring of Baffinland Iron Mines Corp.'s Mary River Project (NIRB File No. 08MN053)

Project: Mary River Project
Project Location: Qikiqtani (North Baffin) Region, Nunavut

Project Owner: Baffinland Iron Mines Corporation
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Site visit dates: August 16, 2018

Last Site Visit: April 17-20, 2018

Report prepared by: Keith Morrison

Pictures by: Keith Morrison and Baffinland Iron Mines Corporation

Figures: Baffinland Iron Mines Corporation

Cover picture: Mining Face at Deposit #1

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1 INTRODUCTION

The Nunavut Impact Review Board (NIRB or Board) was established through Articles 10 and 12 of the *Agreement between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada (Nunavut Agreement)* and is responsible for post environmental assessment monitoring of a Project in accordance with Part 7 of Article 12 of the *Nunavut Agreement*.

This report provides the findings that resulted from the NIRB's summer site visit to the Mary River Project site on August 16, 2018 as part of the NIRB's ongoing monitoring program.

1.1 Objectives & Purpose of Site Visit

The objective of the NIRB's site visit was to determine whether, and to what extent, the land or resource use in question is being carried out within the predetermined Terms and Conditions of NIRB Project Certificate No. 005 issued for the Mary River Project (the Project), in accordance with Section 12.7.2(b) of the *Nunavut Agreement*.

The observations resulting from this site visit shall, wherever possible, be incorporated into the measurement of the relevant effects of the Project according to Section 12.7.2(a), as well provide the information necessary for agencies to enforce terms and conditions of land or resource use approvals as required under Section 12.7.2(c). Site-specific observations will also be used to assess the accuracy of the predictions contained in the Project impact statements according to Section 12.7.2(d) of the *Nunavut Agreement*.

1.2 Introduction of the Mary River Project

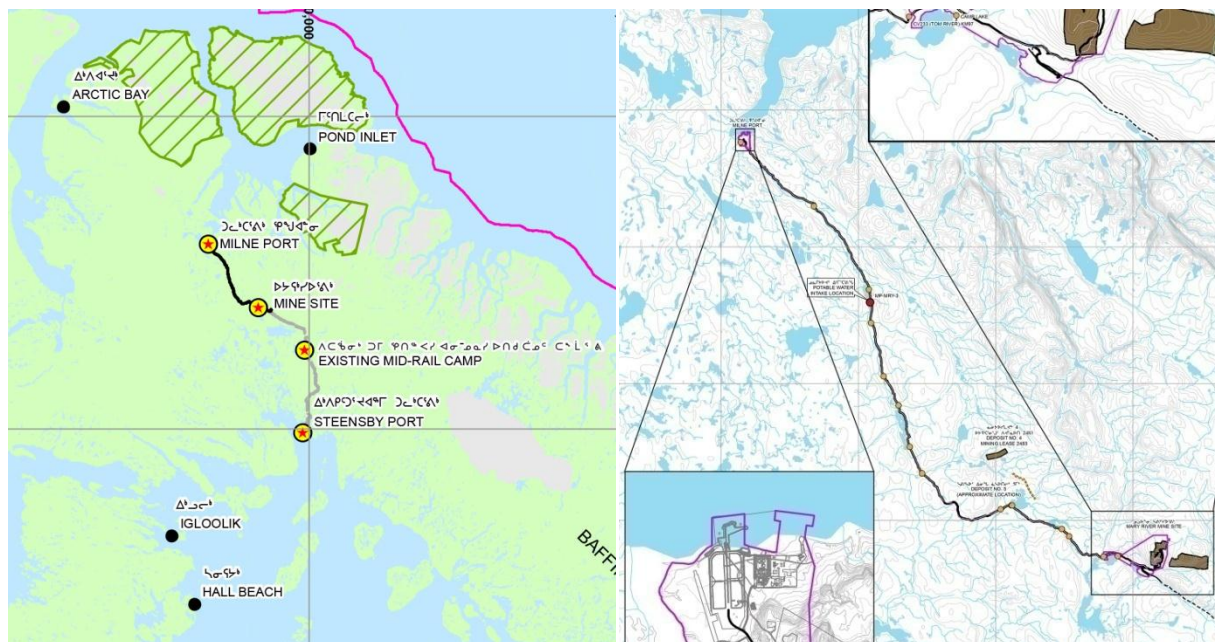


Figure 1 and 2

The Mary River Project involves the exploration, construction, operation, as well as the closure and reclamation of an open pit iron ore mine at what is known as Deposit No. 1 and includes mining at a rate of 18 Million tons per year (Mt/a). There are three (3) main project locations –the Mary River Mine (the Mine) site, Milne Port located north of the Mine site, and Steensby Port located south of the Mine site ([Figure 1](#)).

Milne Port is connected to the Mine site by the Milne Inlet Tote Road, which is approximately 100 kilometers (km) in length ([Figure 2](#)). The Project as originally proposed was to include construction of a railway approximately 150 km in length to connect the Mine site to Steensby Port. It was anticipated that facilities at Steensby Port and the railway would take up to four (4) years to construct. The NIRB Project Certificate No. 005 was issued for the Mary River Project on December 28, 2012 following a thorough environmental review process, which included community consultations and a public hearing.



Picture 1: Mary River Mine Site (2017)

On January 13, 2013 Baffinland Iron Mines Corporation (Baffinland or the Proponent) informed the NIRB that it was proposing an Early Revenue Phase (ERP) that would change the schedule and specific activities associated with the Project as initially approved. The ERP involved an amendment to the Mary River Project, which included the extraction of up to an additional 4.2 Mt/a of iron ore from the Mary River Mine site, with ore to be transported via the Milne Inlet Tote Road and Port at Milne Inlet during the open water season only. As the ERP outlined significant modifications to the activities previously approved under NIRB Project Certificate No. 005 for the Mary River Project, the Board determined that it was appropriate to assess the potential

ecosystemic and socio-economic effects of the ERP and to consider modifications to the terms and conditions of the original Project Certificate under Article 12, Section 12.8.2 of the *Nunavut Agreement*. On May 28, 2014 pursuant to Article 12, Sections 12.5.5 and 12.8.2 of the *Nunavut Agreement*, the NIRB issued an *Amended* Project Certificate No. 005, allowing the Project to proceed in accordance with the Terms and Conditions issued therein. The Board is responsible for monitoring this Project as stipulated in Sections 12.7.1 and 12.7.2 of the *Nunavut Agreement*.



Picture 2: Milne Port (2017)

As currently approved and in accordance with Baffinland's development plans, extracted ore is transported by truck along the Milne Inlet Tote Road and shipped by contracted vessels from Milne Port to European markets during the open water season. The approved Project also involves additional facilities at Milne Port, including the construction of a fixed ore dock, 4.2 Mt ore stockpile and reclaim area, 3,500 tonnes per hour ship loaders, a camp to accommodate workers, and the extension or relocation of the airstrip west of the proposed ore stockpile. The ERP operations are expected to continue for the duration of the mine life (i.e., 21 years), and continue in conjunction with the Mary River Project as originally proposed, once developed.

1.3 Preparations for the Site Visit

In preparation for the site visit, the Monitoring Officer reviewed the following items: Mary River Project Certificate; previous NIRB site visit reports, including the NIRB's 2016 and 2017 Recommendations to Baffinland, as well as additional follow-up correspondence regarding review of Annual Reports and monitoring of the Mary River Project.

2 SITE VISIT

The site visit was conducted on August 16, 2018 by Keith Morrison, Technical Advisor II (Technical Advisor). On Wednesday, August 15, 2018, Mr. Morrison flew from Montreal to the Mary River site via Baffinland's regularly scheduled aircraft charter, accompanied by Baffinland's Permitting Specialist, Mr. Steve Borcsok.



Picture 3: Mary River Airstrip (2017)

Once at the Mary River site, the Technical Advisor was accommodated at the Mine Site Complex. On Thursday, August 16, 2018 the inspection began with observational visits to the following locations: deposit No. 1, waste rock storage area, crusher pad, sewage outfall area, landfill, and incinerator. In the afternoon of August 16, Milne Inlet was visited by truck along the Tote Road during transit, and observational visits made to the following locations around Milne Inlet incinerator, tank farm, ore pad settling ponds, and the landfarm.

The site visit provided the Technical Advisor with an opportunity to comparatively assess the changes taking place in the surrounding environment of project development areas (PDA), as well as to identify specific areas needing improvement with regards to environmental impacts and mitigation measures. Upon completion of the tour, the Technical Advisor discussed several outstanding items and observations noted during the site visit.

2.1 General Observations based on Progress from Previous Site Visit

The following sections briefly describe the major facilities visited during the tour around the PDA, as well as observations of the overall progress of the site compared to the previous site visit(s).

2.1.1 Mary River Mine Site

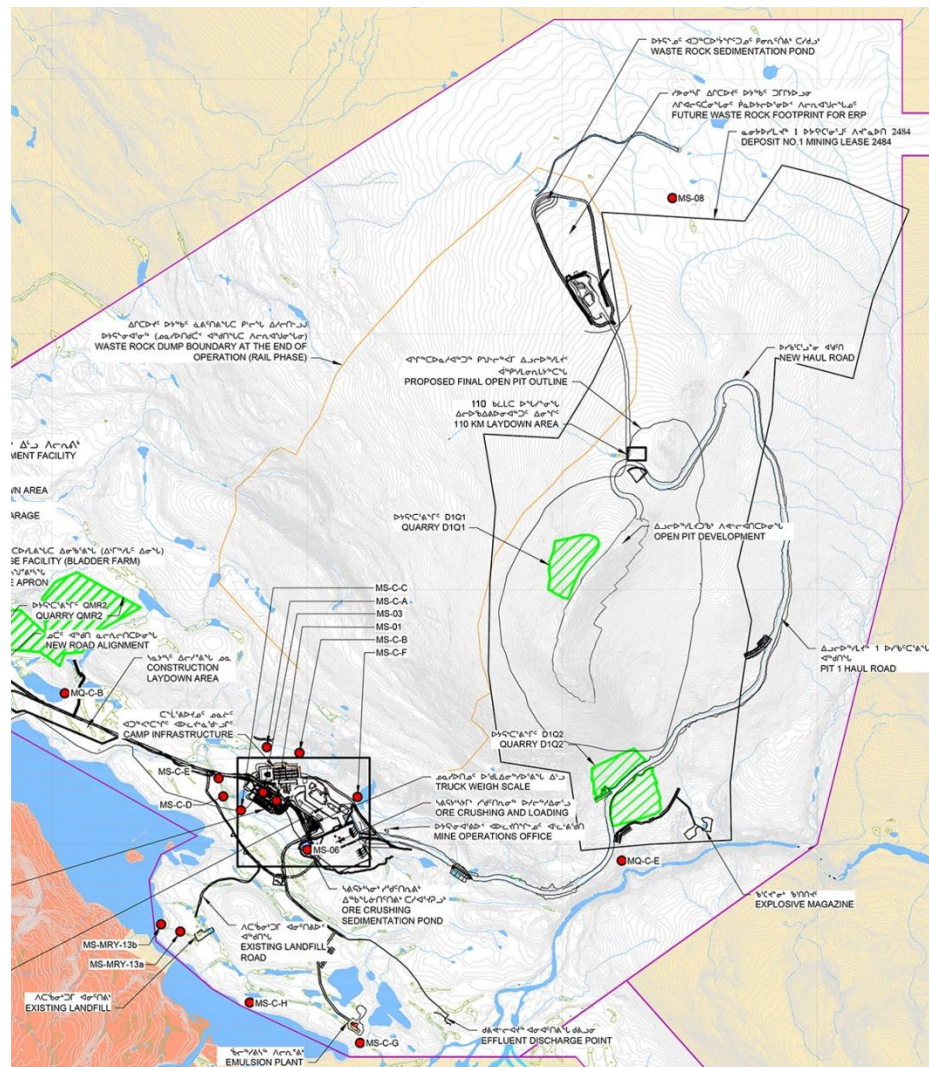


Figure 3: Mary River Mine Site Layout

Waste Rock Dump

In 2017 the NIRB visited MS-08, a ditch and sedimentation pond at the Waste Rock Pile, as it was a subject of concern by the Qikiqtani Inuit Association and Environment and Climate Change Canada as inspections noted that the area was not adequate to contain contact water. Baffinland had identified a leak in the MS-08 liner but the location was unknown. Therefore, Baffinland constructed emergency ditches and lined sumps were added to contain the seepage/overflow and intercept water not being diverted into MS-08 that were observed in the August 2017 site visit.

Since the winter inspection in April 2018, Baffinland has constructed and commissioned a water treatment facility at MS-08 ([Picture 4](#)) through which all contact water from the waste rock pile is processed. Contact water pumped through geotubes and into a bladder type structure ([Picture 5](#)) in which sediments and suspended solids are captured by settlement and filtration then the water is released through holes in the bladder into a bermed area. Prior to discharge, the water is assessed to ensure it meets all parameters and Baffinland stated that it had been in operation since July and the system was working as designed.



Picture 4: MS-08 Water treatment

The water in the sedimentation pond MS-08 was removed during the summer ([Picture 6](#)) in preparation for locating and repairing the tear in the liner. Baffinland noted the engineering consultants contracted to repair the liner would be arriving to work on the repairs.



Picture 5: MS-08 Geotubes



Picture 6: MS-08 Pond

Viewing the area around MS-08 area, the Technical Advisor observed liners on the tundra that had been used in the emergency ditches and sumps constructed in 2017 ([Picture 7](#)) that were no longer needed due to the new water treatment system. In discussions with Baffinland staff on site, debris would be removed and disposed of in appropriate facilities.



Picture 7: MS-08 Debris

Crusher and Screening Plant Area

During the 2018 August site visit the Technical Advisor observed that the crushing operations generated minimal to no dust ([Picture 8](#) and [Picture 9](#)); however, materials were water saturated given the recent rain at site. The Technical Advisor noted that the shrouds were still in place on the crusher plant, but no other dust control was being used at the crusher site.



Picture 8: Crusher Plant Area Location



Picture 9: Crusher Pad Operations

Crusher Pad Sedimentation Pond (MS-06)

The MS-06 sedimentation pond ([Picture 10](#)) was approved for expansion and modification prior to the 2018 August Site visit; however, construction had not started and therefore looked the same as the 2017 summer site visit. Baffinland stated that final approvals for the modifications had recently been received and modifications would begin soon.



Picture 10: MS-06 Sedimentation Pond (2017)

Landfill Area



Picture 11: Landfill and Effluent Discharge Locations

In previous visits, the landfill site ([Picture 11](#)) has had issues pertaining to the fencing around the landfill. During the 2016 and March 2017 site visits, it was noted that fencing mesh was removed from the supporting poles and that Baffinland had not replaced and maintained the fencing surrounding the landfill to retain wind-blown debris. Since 2017, the landfill was lacking fencing with only a small section of wooden fencing providing any means of containing wind-blown debris ([Picture 12](#)). No improvement in the fencing in comparison to the April 2018 site visit was observed, but Baffinland indicated mesh fencing was due on sealift and would be installed once it was on site; however, Baffinland staff indicated the fencing would be limited to the north and west sides of the landfill.



Picture 12: Landfill Fence

Effluent Discharge

In comparison to the August 2017 visit, Baffinland added additional rock armor to ensure the stability of the effluent discharge area. No other significant difference was noted.

Incinerator Area

Based on the previous 2017 site observations and the most recent 2018 site visit, the incinerator at the Mine site continues to be well maintained ([Picture 13](#) and [Picture 14](#)). Baffinland has been able to remove unused scrap materials, tires and synthetic materials currently stored temporarily at various Project locations, including around the immediate vicinity of the incinerator facility to improve the visual quality of the site.



Picture 13: Location of Mary River Incinerator



Picture 14: Mary River Incinerator Interior

During the August 2017 visit, it was noted that while the area around the incinerator showed improvement in the cleanup of scrap and synthetic materials, the large pile of scrap tires remained next to the incinerator. (Picture 15). During the August 2018 visit it was observed that the number of tires had been significantly reduced (Picture 16) and Baffinland indicated it continued its plan to place scrap tires in seacans for shipment south whenever personnel were available (e.g., such as the truck drivers during road closures)



Picture 15: Scrap tire pile at Mary River Incinerator (composite image), 2017



Picture 16: Scrap tire pile, August 2018

New Camp

In 2017, Baffinland began construction of a new camp facility at the mine site able to accommodate 800+ people ([Picture 17](#)). As of the August 2018 visit the first wing of six (6) was in use and Baffinland continued work on completing the facility.



Picture 17: New Camp Facility

2.1.2 Tote Road

For 2018 summer site visit no major environmental issues were observed along the Tote Road. and dust plumes due to vehicle traffic were minimal due to standing water at the surface. It was noted that the scrap materials from culvert replacement along the road and the scrap seacans at the KM 80 Bridge which had been observed during the Summer 2017 visit was removed.

Road maintenance and construction was ongoing during the visit, with Baffinland continuing to adjust the road to reduce the number of blind curves and adjusting slope cuts to provide better sight lines for traffic for safety reasons. Overall, the Tote Road showed significant improvement compared to the Summer 2017 visit.

2.1.3 Milne Port



Picture 18: Milne Port (2017)

Landfarm Area

Since 2014, site visit reports had reported on the deteriorating condition of the landfarm facility and raised concerns about the disposal of synthetic liners and that contaminated snow and soils had not been managed following industry best practices. At the time of this visit the landfarm showed significant improvement compared to the August 2017 visit with most debris removed. Although scraps of liner material and some debris remained ([Picture 19](#)), Baffinland staff indicated that workers would be removing scraps as they moved the soil within the landfarm to prepare for tilling the material.

At the time of the August 2018 visit, water from recent rain had pooled within the landfarm berm ([Picture 20](#)). Baffinland staff indicated that the water was being tested to decide if it needed treatment before being released into the environment. Once the determination was made, the water was to be removed from the landfarm and preparations for tilling the soil would begin.



Picture 19: Debris in Landfarm



Picture 20: Ponded Water in landfarm

Salt Laydown

In the August 2017 and April 2018 site visit, the laydown area at Milne Inlet used for storage of salt used as a dust suppressant ([Picture 21](#)) was noted as having poor organization and a generally untidy appearance.

In the August 2018 visit, the site had been reorganized and cleaned up, with most of the salt no longer present ([Picture 22](#)). Baffinland personnel indicated the majority of the salt had been used for exploration drilling and the remaining salt was stored appropriately.



Picture 21: Salt Laydown location



Picture 22: Salt Laydown

Ore Stockpile and Sedimentation Ponds

There was no dust observed by the Technical Advisor at site; however, several puddles/wet conditions were noted at the ore stockpile ([Picture 23](#)).

It was noted in the August 2017 site visit that the drainage ditches surrounding the stockpile were unlined and that NIRB staff had recommended that armoring be incorporated to prevent slumping of the ditch sides. Although Baffinland did not armor the ditches, they appeared to be functioning with no significant erosion of the sides. The east and west sedimentation ponds ([Picture 24](#) and [Picture 25](#)) also appeared to be in good operating condition with no issues.



Picture 23: Ore Stockpile



Picture 24: West Sedimentation Pond



Picture 25: East Sedimentation Pond

Incinerator

The incinerator at Milne Port was visited and continues to be well-maintained with no issues noted.

2.2 Observations Based on NIRB Project Certificate No. 005

The following are the observations made during the site visit that pertain specifically to terms and conditions of Project Certificate No. 005:

2.2.1 Air Quality –Dust Management and Monitoring Plan

Condition 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.”*

Condition 58c

“Within its annual report to the NIRB, the Proponent shall incorporate a review section which includes:

- c. A description of the extent of dust fall based on measured levels of dust fall (fugitive and finer particles such as TSP) on lichens and blueberries, and ash content of caribou fecal pellets;”*

Due to the wet conditions dust conditions were limited at the mine, port, or along the Tote Road. Baffinland has put in place additional shrouds and other covers to reduce dust generation at the crusher pad but, as noted, due to the conditions the effectiveness could not be evaluated or compared to previous site visits.

2.2.2 Terrestrial Wildlife and Habitat

Condition 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....”*

Condition 61

“Whenever practical and not causing a human safety issue, a stop work policy shall be implemented when wildlife in the area may be endangered by the work being carried out. An operational definition of ‘endangered’ shall be provided by the Terrestrial Environment Working Group.”

At the time of the current site visit, three (3) foxes were seen within the project area, two (2) at Milne Inlet—one near the PSC, the other near the ore stockpile (Picture 26) and one (1) at Mary River near the MSC. On the morning of the departure from Mary River, Baffinland staff had received a report of a Polar Bear near the KM 60 Bridge approximately one (1) kilometer from the Tote Road, apparently fishing in the river.



Picture 26: Fox at Port

3 FINDINGS AND SUMMARY

Based on the observations made during this current site visit, the Mary River Project facilities in operation appear to be well managed, and generally are maintained with adequate environmental protection measures and procedures in place.

In order to fully meet the requirements of the Project Certificate terms and conditions, and to ensure that potential adverse impacts to the environment are adequately mitigated, the NIRB Technical Advisor has identified several issues that require follow-up and corrective action:

3.1 *Milne Inlet Landfarm:*

As noted in sections [2.1.3](#), the land farm, while significantly improved over previous site visits by the removal of synthetic liners entrenched within the landfarm previously noted in the 2015, 2016, and 2017 site visits, continues to have an issue with material (primarily scraps of synthetic liner and some other debris) intermixed with the soil. Baffinland staff indicated that earthmoving and tillering operations would begin within the landfarm to properly treat contaminated soil, with the work crew pulling the debris from the soil as they were moving it. It is recommended that Baffinland ensure this is carried out.

3.2 *Tire management*

Used tires continue to be a significant waste stream generated across the Project sites, particularly around the Mine site and Mile Port. At the time of the August 2018 visit, the waste tires at Milne Port was removed and the tire pile at Mary River significantly reduced in size. It was recommended that Baffinland continue to work on completing the removal of the waste tires.

3.3 *Waste Landfill*

During the NIRB's current site visit, it was again noted that solid waste materials were generally properly contained within the landfill, although the incomplete fencing of the landfill footprint continue to be a recurring issue. The condition of the landfill fencing has not improved compared to previous observations. Baffinland staff indicated that chain-link fencing was being shipped to arrive during the 2018 sealift to be installed around the landfill, however fencing would only be used on the north and west sides of the landfill given the prevailing wind conditions.

3.4 *Sedimentation Ponds at Mary River*

The sedimentation ponds and associated feeder ditches at the Mary River crusher pad (MS-06) is of insufficient size to contain the runoff water from the ore pad. After the Summer 2017 site visit, Baffinland had applied for and received permission from the Nunavut Water Board to expand the sedimentation pond to increase its capacity, with construction to be completed prior to the 2018 freshet. However, the work had not yet been started prior to the Summer 2018 site visit due to, according to Baffinland staff, waiting for required permissions which had been received just prior to the site visit. Work was scheduled to commence following the site visit.

The construction of an emergency ditch to prevent untreated runoff from reaching the tundra was required in 2017 at the MS-08 facility (Waste Rock Pile) as noted in the 2017 site visit report. Construction of a new water treatment facility was completed and began operation in July 2018. Debris used for the construction of the emergency ditch and sumps in 2017 was not yet removed during the 2018 visit. The leak in the liner of the MS-08 sedimentation pond has yet to be located and repaired, although Baffinland indicated engineering consultants were due to begin work after the Summer 2018 site visit.

Prepared by: Keith Morrison
Title: Technical Advisor II
Date: October 5, 2018
Signature:

Reviewed by: Kelli Gillard PAg
Title: Manager, Project Monitoring
Date: October 5, 2017
Signature:

ልረረጉጉጉጉጉጉ III: ረጅረጅጅ ጅጅጅጅጅ ጅጅጅጅጅ ጅጅጅጅጅ 2017 ጅጅጅጅ ረጅጅጅጅጅጅ

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ልረርዕኑ፡፡ IV: ፍብርር ልዩ ልዩ ልዩ ልዩ ልዩ



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(ᐃᓂᓂᓯᐅᓂᓯ ᐃᓂᓂᓯᐅᓂᓯ ᐅᐅᓂᓯᓂᓯ
ᐅᐅᓂᓯᐅᓂᓯᐅᓂᓯ ᐃᓂᓂᓯ 08MN053)



ፎቶግራፍ ርዕስ: ልዩ ጋዜጠኛነትና የጥራት ልማት ስልጣን ሰጠው ለጥቅምት 17, 2018
በወጣው ወጪ ለጥራት ልማት የጥራት ልማት ስልጣን ሰጠው ለጥቅምት 17, 2018
የጥራት ልማት ስልጣን ሰጠው ለጥቅምት 17, 2018
የጥራት ልማት ስልጣን ሰጠው ለጥቅምት 17, 2018

ፎቶግራፍ: ሰላም ስላሴ, ለጥራት ልማት ስልጣን ሰጠው ለጥቅምት 17, 2018

ፎቶግራፍ: ሰላም ስላሴ

ፎቶግራፍ: ሰላም ስላሴ, 2012

ኖቶጽፊ

1.0	መግቢያ ለደብዳቤዎች የሚገቡ ጋራ ስሜቶች 4
1.1	የጽሑፍ ስሜት መግቢያ ለደብዳቤዎች የሚገቡ ስሜቶች 4
1.2	የሰነድ ስሜት 5
1.3	የጽሑፍ ስሜት 5
2.0	የሰነድ ስሜት በሰነድ ስሜት ስሜት መግቢያ ለደብዳቤዎች የሚገቡ ስሜቶች 5
2.1	ለደብዳቤ ስሜት ስሜት ስሜት 6
2.2	ለደብዳቤ ስሜት ስሜት 6
2.3	ለደብዳቤ ስሜት ስሜት ስሜት 6
2.4	ለደብዳቤ ስሜት ስሜት ስሜት 6
2.5	ለደብዳቤ ስሜት ስሜት 6
3.0	ለደብዳቤ ስሜት ስሜት 7
	ለደብዳቤ A - ስሜት ስሜት 8
	ለደብዳቤ B - መግቢያ ለደብዳቤዎች የሚገቡ ስሜቶች 9
	ለደብዳቤ C - ስሜት ስሜት 14

ΔCΔ^{5b} A - ΔNCD^{5b} ΔN^{5b}

Nunavut Impact Review Board Baffinland Iron Mines Corp. – August 2018 Monitoring Igloolik Community Information Sessions

SIGN-IN SHEETS

Location: Igloolik Community Hall

Date: Aug 17, 2018

Time: Evening

Page No:

Name (Please Print)	Organization or Community	Signature
Celestino Uyarak	Mayor of Igloolik	Celestino Uyarak
Mary Kunuk	Teacher	Mary Kunuk
JERRY ITTIER	Hunter	Jerry Ittier
ΔN ^{5b}		
Eulalie		
RICHARD AMARUALIK	HAMLET OF IGLOOLIK	Richard Amarualik
Alex Chailine	GN	Alex Chailine
Ogea Chailine	GN	Ogea Chailine
PETER KUNUK	CO-OP EMPLOYEE	Peter Kunuk
Rolanda Hannilay	Igloolik	Rolanda Hannilay
ΔCΔ - ΔLPΔ ^{5b}		
ΔCΔ ^{5b} ΔLPΔ ^{5b}	Igloolik	ΔCΔ ^{5b} ΔLPΔ ^{5b}
ΔN ^{5b} ΔN ^{5b}	ΔN ^{5b}	Moshi Katerik
Joseph Kikutay	" "	Joseph Kikutay
Lazarus Igagsoo	Igloolik	Lazarus Igagsoo
Dennis Jr. Tagooat	Igloolik	Dennis Jr. Tagooat

ፈርድናል ዘ - ጸሐፊና ልብከራንታይ ክበለጎሮር ኣምቢጎናልኦሮር

NUNAVUT IMPACT REVIEW BOARD UPDATE ON THE MARY RIVER IRON MINE PROJECT MONITORING PROGRAM

[illegible]

Community Information Session Igloodik, NU August 17, 2018	ᓄᓇᑦ ᐅᔭᐃᒪᕈᖅᓂᑦ ᖁᑎᐤᐱᕋᑦᓂᓴᕆᑦ ᐃᓯᓗᑦᓂ, ᓄᓇᑐᑦ ᐸᑏᙳ 17, 2018
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Outline

- What is NIRB?
- Why are we here today?
- The Mary River Project
- NIRB Monitoring Program
- Site visits observations (2017/2018)
- Public Participation in the NIRB Process
- Updates on modification/amendments
- Questions and Feedback

2

WHAT IS THE NUNAVUT IMPACT REVIEW BOARD?

- [illegible]



WHAT DOES THE NIRB DO?

ኮሚሽኑ ለጥቅምቶች ምን ዓይነት አገልግሎት ይሰጣል?



4

WHY ARE WE HERE?

- **Present:** NIRB's update on the monitoring of the Mary River Project
- **Explain:** NIRB's monitoring process for this project.
- **Ask:** What are your concerns about the project?
- **Listen:** Your questions, comments, and concerns
- **Assess:** Using the information you share

5




MARY RIVER PROJECT ጠንቅታ ድንገር ልማት
PROJECT CERTIFICATE NO. 005 ሙሉ ልማት ምዕራባዊ ስፋት 005
NIRB FILE NO. 08MN053

6

 <p>MAJOR PROJECT COMPONENTS ᐱᓕᓕᓐᓂᓐ ᐱᓐᓂᓐᓂᓐ ᐱᓕᓐᓂᓐ</p>	 <p>MARY RIVER MINE SITE ᐱᓐᓂᓐᓂᓐ ᐱᓐᓂᓐ</p>
 <p>STEENSBY AREA ᓐᓂᓐ ᐱᓐᓂᓐ</p>	 <p>TOTE ROAD ᐱᓐᓂᓐ ᐱᓐᓂᓐ</p>
 <p>MILNE PORT ᓐᓂᓐ ᐱᓐᓂᓐ</p>	<p>NIRB's Monitoring of Mary River Project 2017-2018 ᐱᓐᓂᓐ ᐱᓐᓂᓐ ᐱᓐᓂᓐ</p> <ul style="list-style-type: none"> ➤ Last monitoring update to the Board (November 2017) ➤ NIRB issues Monitoring Report and Recommendations to Baffinland (November 2017). ➤ Received Annual Report (April 4, 2018) ➤ Received comments on Annual Report (May 14, 2018) ➤ Site visits (April 17-20, 2018) ➤ NIRB to issue new recommendations based on 2018 observation (November 2018) <p>12</p>
<p>Project Development Status ᐱᓐᓂᓐ ᐱᓐᓂᓐ ᐱᓐᓂᓐ</p> <ul style="list-style-type: none"> ➤ 2017 marked the third season of open water shipping of iron ore ➤ 4.04 million tonnes of iron ore shipped between August 2 and October 17, 2017. ➤ 4.54 million tonnes mined and hauled using the Tote Road (exceedance of the approved limits by 7.5%).  <p>13</p>	<p>Key Project Activities ᐱᓐᓂᓐ ᐱᓐᓂᓐ ᐱᓐᓂᓐ</p> <ul style="list-style-type: none"> ➤ Expansion of the crusher pad storage area ➤ Expansion of the ore stockpile storage area ➤ Construction of an additional truck wash building ➤ Replacement of accommodation camps.   <p>14</p>

Operational Challenges

1. Stable iron ore price in 2017 (\$72/t)
2. Expanded market to ore buyers in U.K and Japan etc.
3. Some instances of non-compliance with authorizations:
 - (a) Port construction Camp site lay-down pad: INAC issued a "Stop work order" for the pad that was built overtop a stream.
 - (b) Waste Rock Facility (WRF): Minor water quality parameters exceedances was noted from discharges from WRF pond







15

Hours of Training Completed					
ልፅኛ ፍጥነት ለሮፊሲያን ለገሰ ለገሰ ለገሰ					
Employee Ethnicity	2013	2014	2015 (Q4)	2016	2017
ፈጣሪ ልግ	174,365	379,606	75,526	277,454	321,026
Non-Indig	688,668	1,488,276	354,718	1,604,052	2,059,964
Total	863,177	1,867,882	430,244	1,881,506	2,380,990

[illegible]

- List of community concerns from Pond Inlet**
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<ul style="list-style-type: none"> • Shipping • Wildlife • Sea Ice • Dust emissions • Waste Management • Employment 	<ul style="list-style-type: none"> • ስፈረሰገገብንና ምርጫውን • ስፈረሰገገብን • ስፈረሰገገብን • ስፈረሰገገብን • ስፈረሰገገብን • ስፈረሰገገብን
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OBSERVATIONS BASED
ON
NIRB SITE VISIT

ክልላዊና ሥልጣናዊ ምርመራዎች
የጥበቃ ስልጣን ምርመራ
የጥበቃ ስልጣን ምርመራ
የጥበቃ ስልጣን ምርመራ
የጥበቃ ስልጣን ምርመራ

April 17-20, 2018 (Winter visit)
August 24-28, 2017 (Summer visit)

ጥቅምት 17-20, 2018 (ሙሉ ወር)
ጥቅምት 24-28, 2017 (ሙሉ ወር)



[illegible]

- Baffinland notified NIRB that its 2017 road haulage would exceed (by 5-7%) the 4.2Mt/a limit established by the Mary River Project Certificate.

* ሰኔ 8, 2017፡
 <ልዩ የፈቃድ ሰነድ ምዕራባዊ ስራ ምዕራባዊ
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 ስራ ምዕራባዊ (by 5-7%) 4.2Mt / ስራ ምዕራባዊ
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NIRB MONITORING PROGRAM

ገጽ ፩ ለሰብረኃይና ክስተት የኮንትሎል ፕሮግራም

- **The Project Certificate imposes several limits:**
 - Baffinland shall not exceed 20 ore carrier transits to Steensby Port per month during the open water season and 242 transits per year in total.
 - In any given calendar year, the total volume of ore shipped via Milne Inlet, shall not exceed 4.2 million tonnes.
 - In any given calendar year, the total volume of ore transported by truck on the Milne Inlet Tote Road shall not exceed 4.2 million tonnes
- ዓመታዊ ስርዓተ-ጉዞ አማካኝነት በየወር እና በዓመቱ ላይ የሚኖረው የግዴታ ማሟላት፡
 - ባለአምስት ወር ውስጥ፡
 - ለፋይናይት፡ ልዩነት ሁለት ሆኖ ልገዳገድ ይችላል።
 - ለፋይናይት ሲኒንግ፡ ልዩነት ሁለት ሆኖ ልገዳገድ ይችላል።
 - ለፋይናይት ሲኒንግ፡ ልዩነት ሁለት ሆኖ ልገዳገድ ይችላል።
 - በአንድ ዓመት ውስጥ፡
 - ለፋይናይት፡ ልዩነት ሁለት ሆኖ ልገዳገድ ይችላል።
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 - ለፋይናይት ሲኒንግ፡ ልዩነት ሁለት ሆኖ ልገዳገድ ይችላል።

32

ጋራ ልዩነቶች

- Baffinland shall not exceed 20 ore carrier transits to Steensby Port per month during the open water season and 242 transits per year in total.
- In any given calendar year, the total volume of ore shipped via Milne Inlet, shall not exceed 4.2 million tonnes.
- In any given calendar year, the total volume of ore transported by truck on the Milne Inlet Tote Road shall not exceed 4.2 million tonnes

[illegible][illegible][illegible]

- The Phase 2 Proposal
 - Assessment Paused
- The Production Increase Proposal
 - Assessment Underway

NIRB WANTS TO HEAR FROM YOU!

ጎረቤቶችንና ህዝቦችን ልማት ጋይዘሮች

- What do you think about the Project?
- Comments, questions or concerns
- What environmental components are important to you?
- What potential effects do you think this Project might have on the land, animals, and people?

Fill out a NIRB
comment form!

የፖለቲካ አስተዳደር
አስተያየት ማቅረቢያ ቅጽ

ጋራ ምክር ቤቱ የደንብ አፈጻጸም

- What do you think about the Project?
- Comments, questions or concerns
- What environmental components are important to you?
- What potential effects do you think this Project might have on the land, animals, and people?

CCP 21 መታየት
ፋይበርኦኒዲየም ክሮሚየም
ሶርቲንግ ማሽን ለCCP ስራ

How can you get involved?

ፍጹሙ ለፍጥነትና ለሰላም?

<ul style="list-style-type: none"> • Provide feedback this evening 	<ul style="list-style-type: none"> • በፋይናል ሪፖርት ላይ ርዕስ ማስቀመጥ
<ul style="list-style-type: none"> • Review Baffinland's 2017 Annual Report: www.nirb.ca/project/123910 	<ul style="list-style-type: none"> • የፖሊሲና ሪፖርት 2017 ሪፖርት ላይ ርዕስ ማስቀመጥ: www.nirb.ca/project/123910
<ul style="list-style-type: none"> • Submit written comments and questions: info@nirb.ca 	<ul style="list-style-type: none"> • ጋራ ምርቶች ላይ በጥቅም ላይ ማውሰድ ለፋይናል ሪፖርት ላይ ርዕስ ማስቀመጥ: info@nirb.ca
<ul style="list-style-type: none"> • Phone the NIRB's office toll-free: 1-866-233-3033 	<ul style="list-style-type: none"> • የፋይናል ሪፖርት ላይ ርዕስ ማስቀመጥ በጥቅም ላይ ማውሰድ ለፋይናል ሪፖርት ላይ ርዕስ ማስቀመጥ: 1-866-233-3033

- | | |
|--|---|
| • Provide feedback this evening | • ԲԾՀ-ի նյութը ԳՆԻԲ-ի ԳԽՋՐ/ ՀԼՀԼ
Ե. ԳՆԻԲ |
| • Review Baffinland's 2017 Annual Report: www.nirb.ca/project/123910 | • ԳԽՋՐ-ը ՀՀԳԸ Ե 2017 ԳՆՀԱՀԼԷ
ԲժՄԵՀ ԳՆԻԲ:
www.nirb.ca/project/123910 |
| • Submit written comments and questions: info@nirb.ca | • Ծախ՝ ԳՆՀՀՈՒՆ ՈՐՈՇՊԵԼԸՑԻ
ՀԱՆՐԱՅԻՄԻ ԲՅԵԽԲԱՆԱԿՆԵՐԻ ԳԽՀ
ԳՆԻԲ-ԻՄԵ: info@nirb.ca |
| • Phone the NIRB's office toll-free: 1-866-233-3033 | • ԲՅԵՆՃԵԼՈՒՆ ԳՆՀՀՈՒՆԻՍԻ
ՈՐՈՇՊԵԼԸՑԻ ՀՈՋՈՋ ԵՆԱԽՈՋԻՆ
ԳՆԻԲ-ԻՄԻՍ ԲԵ. 1-866-233-3033 |

THANK YOU
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QUESTIONS & ANSWERS
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QUESTION & ANSWERS

36

no concerns	✓ traditional uses of land
water quality	Inuit harvesting activities
terrain disturbance	community involvement and consultation
✓ air quality	local development in the area
✓ terrestrial wildlife and their habitat	tourism in the area
✓ marine mammals and their habitat	✓ human health issues
birds and their habitat	Transboundary effects
✓ fish and their habitat	
heritage resources in the area	other: _____

Marine animals in and around
Stearns bay Inlet, Fishes around areas

Would the shipping go all year?
Does other Southern Baffin Communities
has concerns? Kimmirut, cape Dorset and
Coral Harbour

Your Name: Celestina Vega **Organization:** Mayor

Signature: Celestina Vega **Date:** Aug 17, 2018

GENERAL COMMENTS FORM FOR PUBLIC MEETING
NIRB Monitoring of Baffinland Iron Mine Corp.'s Mary River Mine

Indicate your concerns about the project proposal:

- | | |
|--|--|
| no concerns | traditional uses of land |
| water quality | Inuit harvesting activities |
| terrain disturbance | community involvement and consultation |
| air quality | local development in the area |
| terrestrial wildlife and their habitat | tourism in the area |
| marine mammals and their habitat | human health issues |
| birds and their habitat | Transboundary effects |
| fish and their habitat | |
| heritage resources in the area | other: _____ |

Please indicate if there are any additional concerns with this project:

Dust seems to be going everywhere to the water, animals and plants. It concerns me if it is healthy for animals on the land or in the water. If there is a dust control, it would help to save some animals. Breathing the dust is very unhealthy.

Do you have any specific questions or comments with respect to this project or the Nunavut Impact Review Board?

Your Name: May Organization: teacher
 Signature: [Signature] Date: Aug 17/18

GENERAL COMMENTS FORM FOR PUBLIC MEETING
NIRB Monitoring of Baffinland Iron Mine Corp.'s Mary River Mine

Indicate your concerns about the project proposal:

no concerns	traditional uses of land
water quality	Inuit harvesting activities
terrain disturbance	<input checked="" type="checkbox"/> community involvement and consultation
air quality	local development in the area
terrestrial wildlife and their habitat	tourism in the area
marine mammals and their habitat	human health issues
birds and their habitat	Transboundary effects
fish and their habitat	
heritage resources in the area	other: _____

Please indicate if there are any additional concerns with this project:

Do you have any specific questions or comments with respect to this project or the Nunavut Impact Review Board?

TO BE MORE ORGANIZED, BY HAVING A TRANSLATOR
FOR THE UNILINGUAL PEOPLE.

Your Name _____ **Organization:** _____
Signature: _____ **Date:** _____

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1.0	መግቢያ ለግብርና ቢሮ ከግብርና ጋር የተባራከረው የግብርና 4
1.1	የግብርና ስርዓት መግቢያ ለግብርና ቢሮ ከግብርና ጋር የተባራከረው የግብርና 4
1.2	ከግብርና ጋር የተባራከረው የግብርና 5
1.3	የግብርና ስርዓት 5
2.0	ከግብርና ጋር የተባራከረው የግብርና ስርዓት ለግብርና ቢሮ ከግብርና ጋር የተባራከረው የግብርና 6
2.1	ለግብርና ስርዓት የግብርና ስርዓት 6
2.2	ለግብርና ስርዓት የግብርና ስርዓት 6
2.3	ለግብርና ስርዓት የግብርና ስርዓት 6
2.4	ለግብርና ስርዓት የግብርና ስርዓት 6
2.5	ለግብርና ስርዓት የግብርና ስርዓት 7
3.0	ግብርና ስርዓት ለግብርና ቢሮ 7
Δርጅና A	- ለግብርና ስርዓት ስርዓት 9
Δርጅና B	- ለግብርና ስርዓት ስርዓት 10

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**Nunavut Impact Review Board
Baffinland Iron Mines Corp. – Mary River
Community Information Sessions**

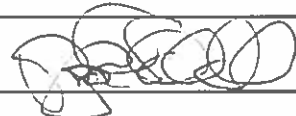








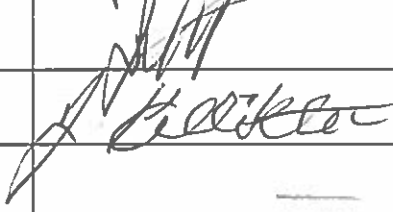



SIGN-IN SHEETS

Location: POND INLET.

Date: April 16, 2018

Time: 7:00pm

Page No: 1

Name (Please Print)	Organization or Community	Signature
Morgan Arnakalik	Pond Inlet (Translator)	
MARY AMAGOALK		
Hosia Kadloo	Pond Inlet	
Megan Lord-Hayle	Baffinland	
Fai Nlofor	QIA Igloodit	
Joapie Ootova	QIA CLO	
Peter Amualik &	PI	
Gina Komangapik	Pond Inlet	
Andy Wagg	PI	
AK & d	FMCC	
Joshua Katsak	HAMLET OF POND INLET	
YBL & SPIN	POND INLET HTO	
Rebecca Ethuk	P.I.	
Elijah Paniksoocho	Pond Inlet	
Dennis Nitarak	POND INLET	
Ragily SINGORIE	Pond Inlet	
HAM. KADLOO		
Lamedh Kadloo	Pond Inlet	
Simeonie OOTOVA		

SIGN-IN SHEETS

Page No: 2

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GENERAL COMMENTS FORM FOR PUBLIC MEETING

NIRB Review of Baffinland Iron Mine Corp.'s Mary River Community Information Session

Indicate your concerns about the project proposal:

- | | |
|--|--|
| <input type="checkbox"/> no concerns | <input checked="" type="checkbox"/> traditional uses of land |
| <input type="checkbox"/> water quality | <input checked="" type="checkbox"/> Inuit harvesting activities |
| <input type="checkbox"/> terrain disturbance | <input checked="" type="checkbox"/> community involvement and consultation |
| <input type="checkbox"/> air quality | <input type="checkbox"/> local development in the area |
| <input checked="" type="checkbox"/> terrestrial wildlife and their habitat | <input type="checkbox"/> tourism in the area |
| <input checked="" type="checkbox"/> marine mammals and their habitat | <input type="checkbox"/> human health issues |
| <input type="checkbox"/> birds and their habitat | <input type="checkbox"/> Transboundary effects |
| <input type="checkbox"/> fish and their habitat | |
| <input type="checkbox"/> heritage resources in the area | other: _____ |

Please indicate if there are any additional concerns with this project:

NOT ENOUGH MONITORING OF:
- DUST ON SEA ICE
- CONTAMINANTS IN FISH, SEAL, WHALE
INUIT QUAJMAJUTUQANGIT IS NOT BEING RESPECTED
PHASE II IS CAUSING TENSION, STRESS + BULLYING
IN THE COMMUNITY BY PEOPLE WHO WANT TO
MOVE THE PROJECT FORWARD THIS IS NOT REPRESENTING
THE WHOLE COMMUNITY.

Do you have any specific questions or comments with respect to this project or the Nunavut Impact Review Board?

WAY ARE COMMUNITY CONCERNS NOT BEING
MONITORED - IMPACTS ON PEOPLE, NOT JUST
ENVIRONMENTAL ISSUES
HUMAN IMPACTS ARE MORE THAN JUST EMPLOYMENT
NUMBERS - WHERE IS MORE MONITORING ON
COMMUNITY IMPACTS? NIRB NEEDS TO DO MORE
WORK TO LEARN ABOUT THIS

Your Name: ANONYMAS

Organization: _____

Signature: X

Date: JUNE 2, 2015

GENERAL COMMENTS FORM FOR PUBLIC MEETING

NIRB Review of Baffinland Iron Mine Corp.'s Mary River Community Information Session

Indicate your concerns about the project proposal:

no concerns	traditional uses of land
water quality	Inuit harvesting activities
terrain disturbance	community involvement and consultation
air quality	local development in the area
terrestrial wildlife and their habitat	tourism in the area
marine mammals and their habitat	human health issues
birds and their habitat	Transboundary effects
fish and their habitat	
heritage resources in the area	other: <u>Milne Inlet</u>

Please indicate if there are any additional concerns with this project:

Just came back from fishing trip from Koluktoo Bay with my family and grand kids. Very concern about the sea ice, there is lots of brown dust everywhere on ice, which will effecting the seals the are hasting on ice during June. The dust is going to breakup the ice sooner the usual.

Do you have any specific questions or comments with respect to this project or the Nunavut Impact Review Board?

Your Name: Joanna Inualuk

Organization: Nil

Signature: [Signature]

Date: June 2, 2015

GENERAL COMMENTS FORM FOR PUBLIC MEETING

NIRB Review of Baffinland Iron Mine Corp.'s Mary River Community Information Session

Indicate your concerns about the project proposal:

no concerns	traditional uses of land
water quality	Inuit harvesting activities
terrain disturbance	community involvement and consultation
air quality	local development in the area
terrestrial wildlife and their habitat	tourism in the area
marine mammals and their habitat	human health issues
birds and their habitat	Transboundary effects
fish and their habitat	
heritage resources in the area	other: _____

Please indicate if there are any additional concerns with this project:

Q'6DND'6C Dola- bNLo-1 '6DND'6C Dola- bND'6C Dola- a-ND'6C Dola- '6DND'6C Dola- - '6DND'6C Dola- a-ND'6C Dola- By QIA, GN, NITI and other Mediators.

Do you have any specific questions or comments with respect to this project or the Nunavut Impact Review Board?

There has no Report or UP-DATE given to community of Pond Tale. about Monitoring @ Site and Mine Port/Tate Road and Shipping that happen.

Your Name: Abraham

Organization: Hamlet of Pond.

Signature: A. Kibini

Date: June 2, 15

GENERAL COMMENTS FORM FOR PUBLIC MEETING

NIRB Review of Baffinland Iron Mine Corp.'s Mary River Community Information Session

Indicate your concerns about the project proposal:

no concerns
water quality
terrain disturbance
air quality
terrestrial wildlife and their habitat
☒ marine mammals and their habitat
birds and their habitat
fish and their habitat
heritage resources in the area

☒ traditional uses of land
☒ Inuit harvesting activities
☒ community involvement and consultation
local development in the area
tourism in the area
☒ human health issues
Transboundary effects

☒ other: lack of respect for
IQ - collecting but not applying it

Please indicate if there are any additional concerns with this project:

- Almost exclusive focus on environmental issues at the expenses of socio-ec and cultural issues
- Community is constantly in a reactionary position - need support to be in an equal footing with the proponent
- NIRB should support community "Town Hall" roundtables with community to have in-depth follow up on specific areas of concern, without the proponent present
- IQ is collected but not being applied - specifically in terms of proceeding with icebreaking - clearly against IQ and community wishes.

Do you have any specific questions or comments with respect to this project or the Nunavut Impact Review Board?

Pand Inlet is being placed under stress yet AGAIU - the EA process itself is a stress to the community as the community lacks the resources and support to adequately represent its concerns.

June is a horrible time for a public meeting!!!

Need more local involvement in monitoring

Need real improvement in focusing on community / cultural / socio-ec impacts. OTHER than simply employment!!!

Your Name: Shelly Elverum

Organization: independent researcher

Signature: Shelly Elverum

Date: June 2, 2015

GENERAL COMMENTS FORM FOR PUBLIC MEETING

NIRB Review of Baffinland Iron Mine Corp.'s Mary River Community Information Session

Indicate your concerns about the project proposal:

no concerns

water quality

terrain disturbance

air quality

terrestrial wildlife and their habitat

marine mammals and their habitat

birds and their habitat

fish and their habitat

heritage resources in the area

traditional uses of land

Inuit harvesting activities

community involvement and consultation

local development in the area

tourism in the area

human health issues

Transboundary effects

other: _____

Please indicate if there are any additional concerns with this project:

Next Meeting can there be
print out Reports Not Just
asking us to go web-site

Do you have any specific questions or comments with respect to this project or the Nunavut Impact Review Board?

Please come back to Panel
And have more meeting
Next time Hamlet with HTO
First then community meeting.

Your Name: Abraham K

Signature: A. KUBIU

Organization: Hamlet of Pond

Date: June 2, 15