Nunavut Impact Review Board

2025 Site Visit Report

Mary River Project

Project Certificate 005

Baffinland Iron Mines Corporation

NIRB File No. 08MN053

September 2025

Report Title:	2025 Site Visit Report Mary River Project
Project:	Mary River Project (NIRB File No. 08MN053)
Project Location:	Qikiqtani (North Baffin) Region, Nunavut
Project Tenure:	Inuit Owned Lands and Crown Land
Project Owner:	Baffinland Iron Mines Corporation 360 Oakville Place Drive, Suite 300 Oakville, ON L6H 6K8 (416) 364-8820
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Site visit dates:	July 16-18, 2025
Last Site Visit:	September 17-20, 2024
Report prepared by:	Keith Morrison Varun Nayak
Photos by:	NIRB Staff
Cover Photo:	Ship loader at Milne Port

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Mary River Project: www.nirb.ca/project/125767

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1 INTRODUCTION

The Nunavut Impact Review Board (NIRB or Board), established under Articles 10 and 12 of the Nunavut Agreement and s. 135(4) of the *Nunavut Planning and Project Assessment Act (NuPPAA)*, oversees post-environmental assessment monitoring. The NIRB also provides periodic updates regarding its monitoring program to the most impacted community(ies) regarding the monitored project. This report summarizes observations from NIRB's July 16–18, 2025, site visit to the Mary River Project, conducted under Project Certificate No. 005, Amendment 05. The visit aimed to visually assess project activities for compliance with the Certificate's Terms and Conditions, as required by Section 12.7.2(b) of the Nunavut Agreement and s. 135(3)(b) of *NuPPAA*. Observations were based on the Baffinland's 2024 Annual Report submitted to the NIRB in May 2025 and will inform NIRB's 2025 Annual Monitoring Report.

2 PROJECT OVERVIEW

The Mary River Project is located approximately 150 kilometres (km) southwest of Pond Inlet on Northern Baffin Island. As currently constructed and approved under Project Certificate No. 005, Amendment No. 05, the Project includes four (4) main components: the Mary River Mine Site, the 100 km Milne Inlet Tote Road, Milne Port, and the Northern Shipping Route. The mine operations involve year-round open-pit mining at Deposit No. 1, ore crushing, and transportation to Milne Port, where the ore is stockpiled and shipped seasonally to international markets.

In 2024, Baffinland Iron Mines Corporation (Baffinland or the Proponent) continued to operate under the Sustaining Operations Proposal (SOP), which temporarily increased the approved shipping limit to 6.0 million tonnes per annum (Mtpa) until the end of the year. A total of 5.98 million tonnes of iron ore was hauled from the Mine Site to Milne Port, and 6.06 million tonnes were shipped between July 28 and October 25, marking the tenth shipping season. Seventy ore carrier voyages were completed.

While the Steensby Port and Railway remain undeveloped, archaeological and fisheries surveys were completed to support permitting. As of January 2025, the Project returned to the Early Revenue Phase (ERP) limit of 4.2 Mtpa, with expanded infrastructure at Milne Port.

For further information on the original Mary River Project, please refer to the Project Dashboard on the NIRB's Public Registry at www.nirb.ca/project/125767. There have been five amendments to Project Certificate No. 005, all of which are listed in Table 1, along with links to their respective dashboards.

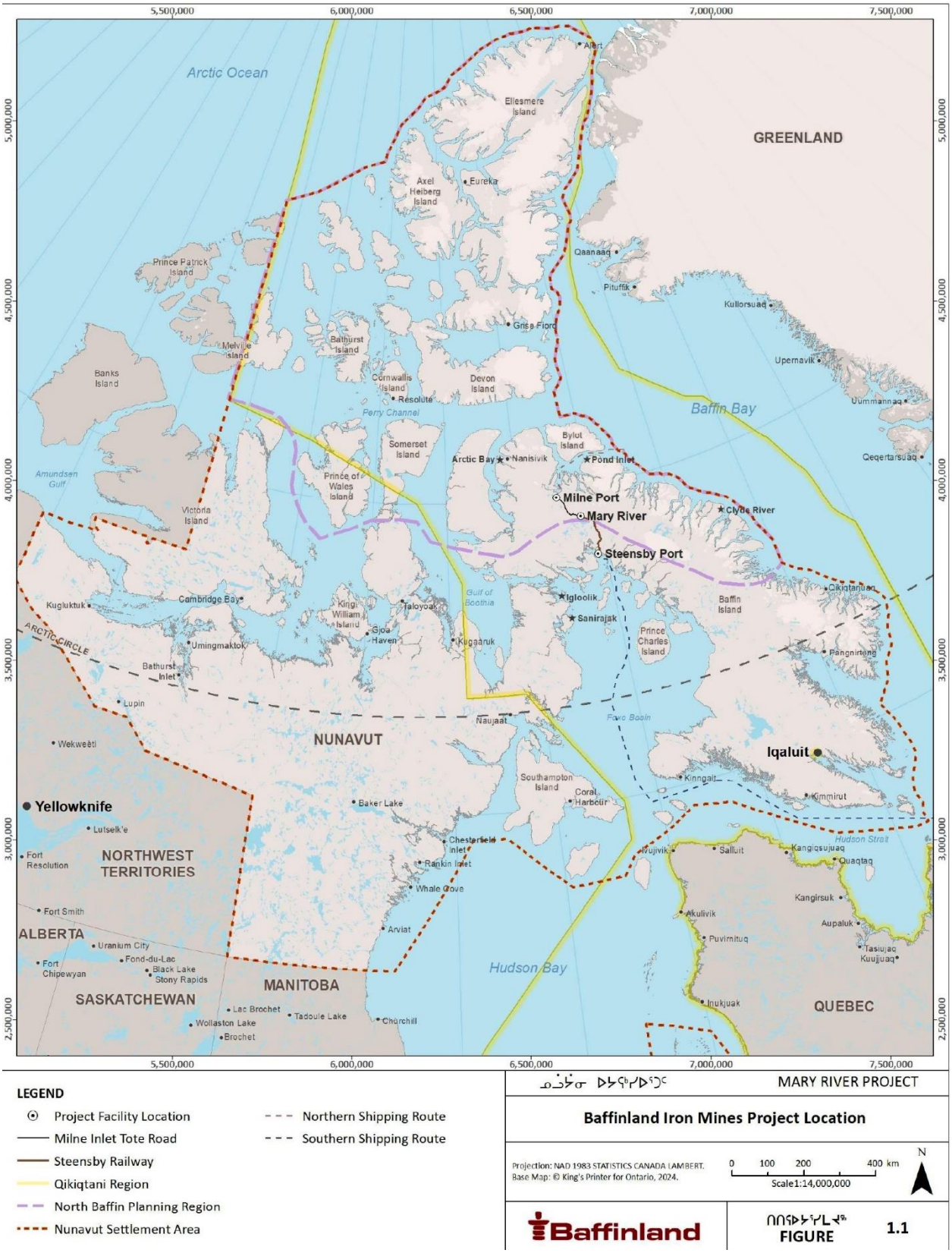


Figure 1: Project Location Map (Baffinland's 2024 Annual Report)

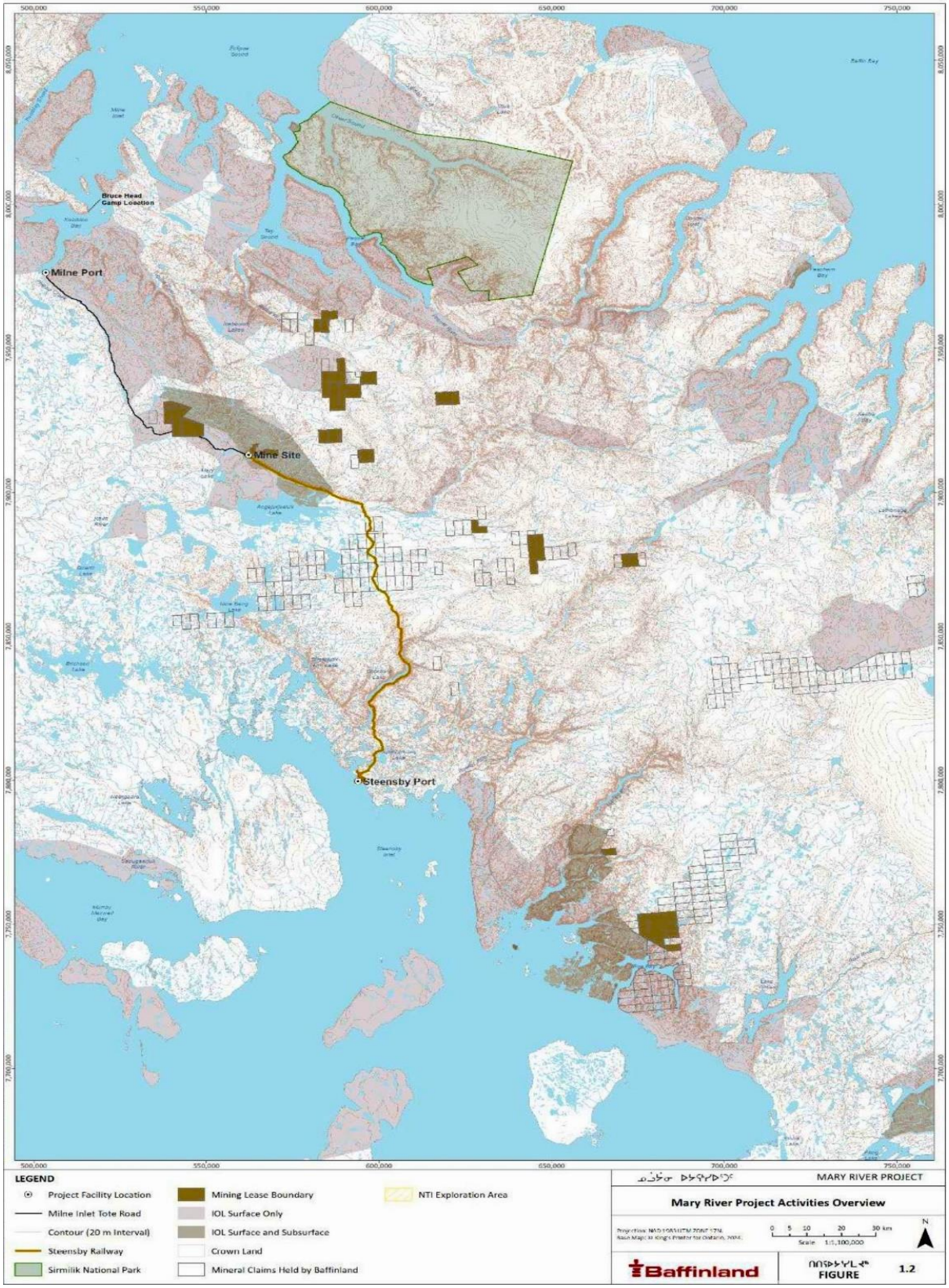


Figure 2: Project Activities Overview (Baffinland's 2024 Annual Report)

Photo 1: Aerial View of Milne Port (2024)

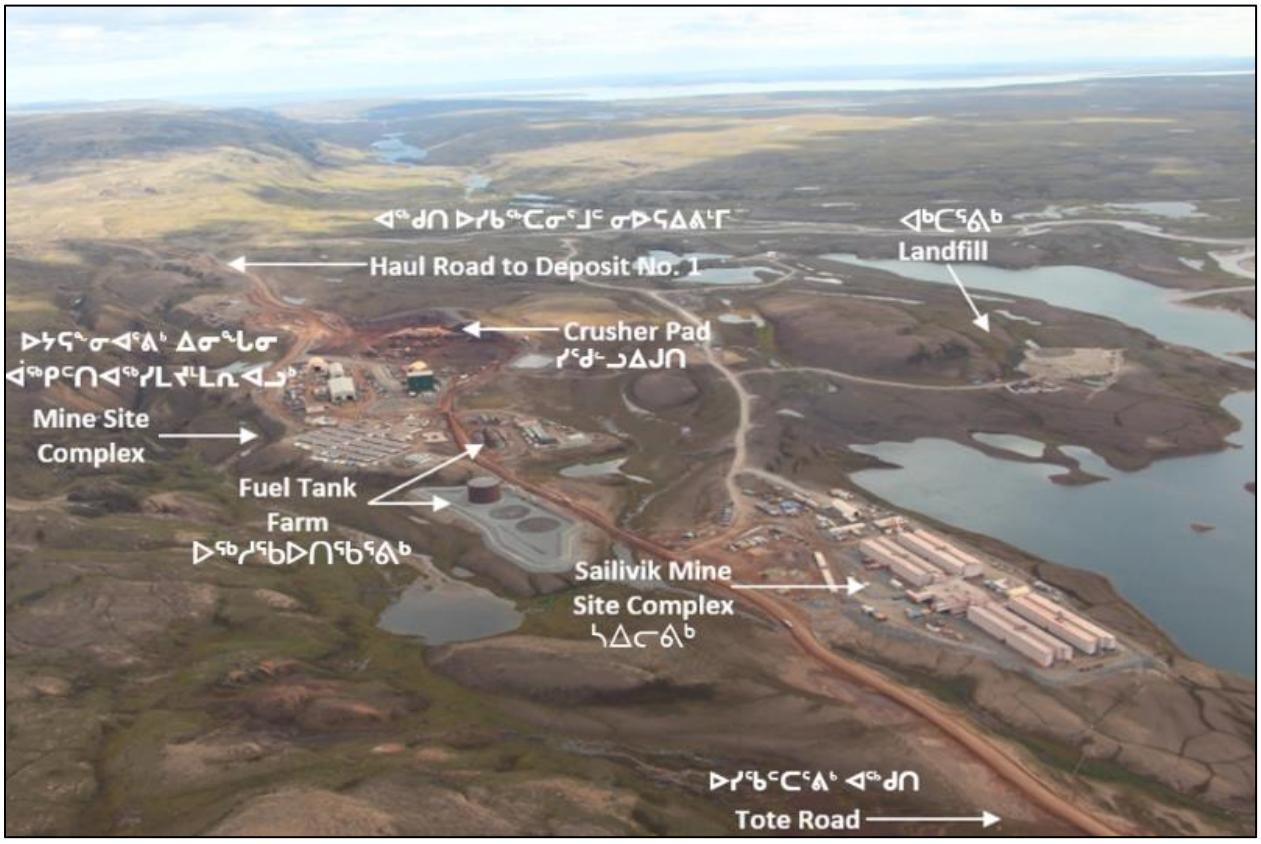


Photo 2: Aerial View of Mary River Site

Table 1: Mary River Project Certificate Modifications

Title	Project Dashboard	Modification
Early Revenue Phase (2014)	www.nirb.ca/project/124700	Transporting 4.2 Mtpa of ore for shipment during open water through Eclipse Sound.
Production Increase Proposal (2018)	www.nirb.ca/project/124702	Increase in the volume of ore from 4.2 Mtpa to 6 Mtpa.
Extension Request to the Production Increase Proposal (2020)	www.nirb.ca/project/124703	To extend the 6 Mtpa until the end of 2021.
Production Increase Proposal Renewal (2022)	www.nirb.ca/project/125710	To continue production at 6 Mtpa for 2022.
Sustaining Operations Proposal (2023)	www.nirb.ca/project/125767	To continue production at 6 Mtpa for 2023-2024 with operational flexibility to ship an additional 0.9Mtpa of ore that had been stranded on the ore pad from previous years.
Sustaining Operations Proposal 2 (2024) (Suspended)	www.nirb.ca/project/125893	In June 2024, Baffinland proposed SOP2 to maintain iron ore transport at 6 Mtpa via Tote Road and Milne Port until 2032. Baffinland requested a suspension in October 2024. As of January 1, 2025, transport limits reverted to 4.2 Mtpa.

3 OBSERVATIONS AT SITE

From July 16–18, 2025, NIRB staff conducted a site visit to the Mary River Project, accompanied by representatives from Baffinland. The visit focused on general site updates and matters related to Project Certificate No. 005. Photos were taken as opportunities arose throughout the tour. During the visit, NIRB and Baffinland staff discussed the Certificate's Terms and Conditions and ongoing site-related issues. Environmental controls such as erosion barriers, spill kits, and monitoring stations were observed to be in place at several locations across the site.

The Key Site components that were visited are listed below:

Mary River Mine Site

- Mine Site Landfill and Landfarm
- The Crusher Facility
- The Mine Site Incinerator Facility
- KM 106 Ore Stockpile
- Explosives Storage Area
- Deposit Haul Road

- Fueltank Farm
- Effluent Discharge Area
- Sailivik Camp Accommodations
- Visitor Communication Center at Mine Site
- Sedimentation Ponds
- Various Laydown Areas and Maintenance Shops
- Mine Site Weather Station and Air Quality Monitor
- Waste Rock Stockpile
- Deposit No. 1
- Airstrip

Tote Road

- Tote Road Snowmobile Crossing
- Culverts along the Tote Road
- Washout Areas
- Dust Samplers
- Bridges
- Explosives Storage Area

Milne Port Site

- Landfarm Cells
- Incinerator Facility
- Ship Loader
- Laydown Areas and Maintenance Shops
- Ore Pad
- Sedimentation Ponds

Table *2* summarizes observations made during the site visit that relate specifically to terms and conditions that can be visually assessed.

Table 2: Observations Made Pertaining to Terms and Conditions of Interest

T&C	Topic	Site Observations
Air Quality		
5	Weather data available to the community	Information is made available around site as well as online. Baffinland has several weather stations installed on site
10	Dust Management and Monitoring	Dust fall monitoring stations were observed along the Airstrip at the Mine Site. Baffinland has also been trialing some active air monitors to collect real time data on data events. These samplers have been installed across the site including at the crusher facility. Baffinland is also using liquid dust suppressant along the crusher conveyor system to coat the ore in dust suppressant earlier in the production chain. This is in addition to the hoods, shrouds and bellows along the crushing equipment as well as lowering the drop height (Photo 24). Collectively, all these chemical and mechanical mitigations have reduced the dust produces from the crusher facility, based on discussion with crusher staff. Due to rainy conditions during the site visit, visual assessment of dust levels was not possible.

T&C	Topic	Site Observations
11	Incinerator	All food waste is incinerated from the kitchen including cardboard that stored food. NIRB Staff visited the Incinerator facility at the Mine Site; it was clean and well organized (Photo 34).
Hydrology and Hydrogeology		
17 (related to 24 and 46)	Prevent impacts to water bodies from effluent	The KM 105 Dam, Settling Pond and Effluent Testing Station was constructed in 2022 to help manage effluent from the Mine Haul Road and Deposit (Photo 18 and Photo 19).
19	Mitigate impacts to natural water flow	Several culverts and ditches were observed along the Tote Road with riprap being installed in order to better control the flow of water during freshet. Some of the culverts observed were also being repaired in response to the Order from the Department of Fisheries and Oceans Canada (Photo 45, Photo 47, Photo 48, Photo 49, Photo 58, and Photo 60). While at the culverts at KM 80, it was noted that the road surface was spongy when walking on it, indicating a potential void. Baffinland personnel accompanying NIRB staff immediately requested site staff to investigate (Photo 50). Following the NIRB visit, it was later determined that the culvert pipes had all collapsed in the beneath the road. See the *CV-216 By-Pass Culvert Crossing Design Brief* Appendix A prepared by Nunami Stantec for Baffinland and submitted to the Nunavut Water Board (NIRB File No. 357441) for photos.
Landforms, Geology and Geomorphology, Soils and Permafrost		
26 (related to 43)	Erosion Management	NIRB staff observed riprap along the Tote Road to control water and prevent erosion.
28	Permafrost monitoring	NIRB staff observed the monitoring that is occurring at site for various dam structures and other large site infrastructure.
Freshwater Aquatic Environment including Biota and Habitat		
46	Freshwater Aquatic Environment – Drainage	Baffinland has either appropriate drainage and/or lined berms for fuel storage and maintenance facility areas, sewage, wastewater, and/or other facilities responsible for site generated water or site contact water.
Terrestrial Wildlife Habitat and Waste Management		
52	Deterring caribou from pits and other hazardous areas	Caribou deterrents were not observed around the site or Deposit; however, recent sightings have been documented along the Tote Road and surrounding areas. While caribou remain absent from the immediate site, Baffinland continues

T&C	Topic	Site Observations
		to enforce protocols for documenting and reporting collisions or mortalities. Mitigation measures, including the Caribou Decision Tree, are actively used to guide responses based on caribou presence and proximity to infrastructure.
57	Wildlife reporting-incidentals	Wildlife observations are tracked at site and logs are located at various locations to fill in. Should wildlife be observed reports are made to the Environment Department as per the Terrestrial Environment Management and Monitoring Plan (TEMMP).
64	Prevent human-carnivore interactions	All food waste is incinerated from the kitchen including cardboard that stored food. Only clean cardboard and wood is burnt separately at both the Milne Port and Mine Site. The landfill is surrounded by metal fencing, and it is maintained to both limited windblown debris as well as animal interactions at site infrastructure. Camp accommodation and facilities are also maintained with skirting around the buildings to limit wildlife contact with the buildings.
Socio-Economic		
143	Employee family contacts	Baffinland has phones in each of its rooms to allow everyone to stay in contact with their families as well as internet access for all personnel on site.
Culture, Resources and Land Use		
165	Emergency shelter	Emergency shelters were observed along the Tote Road.

The following sections summarize observations from the 2025 site visit to the Mary River Project. Each subsection highlights site-specific updates related to infrastructure, environmental management, and compliance with Project Certificate requirements. Photos taken during the visit are included to illustrate key features and site conditions.

3.1 Mary River Mine Site

Photo 3: Aerial View of Deposit No. 1 (2024)

Photo 4: Westward View of Pit Benches for Deposit No. 1 from Communication Tower

Photo 5: Pit Water Collection

Photo 6: Seacans with unhinged door near Communication Tower and unsecured metal items. Baffinland personnel indicated seacans were not supposed to be at the location and would be removed.

Photo 7: Lined Treatment Cell (Geotube Pond) next to the WRSF Water Treatment Plant

Photo 8: Seacans adjacent to the Geotube Pond observed to be unsecured

Photo 9: Lined Surface Water Management Pond (MS-08 Pond) next to Waste Rock Storage Facility

Photo 10: KM 106 Ore Stockpile

Photo 11: Ore Stockpile looking northwest from Communication Tower

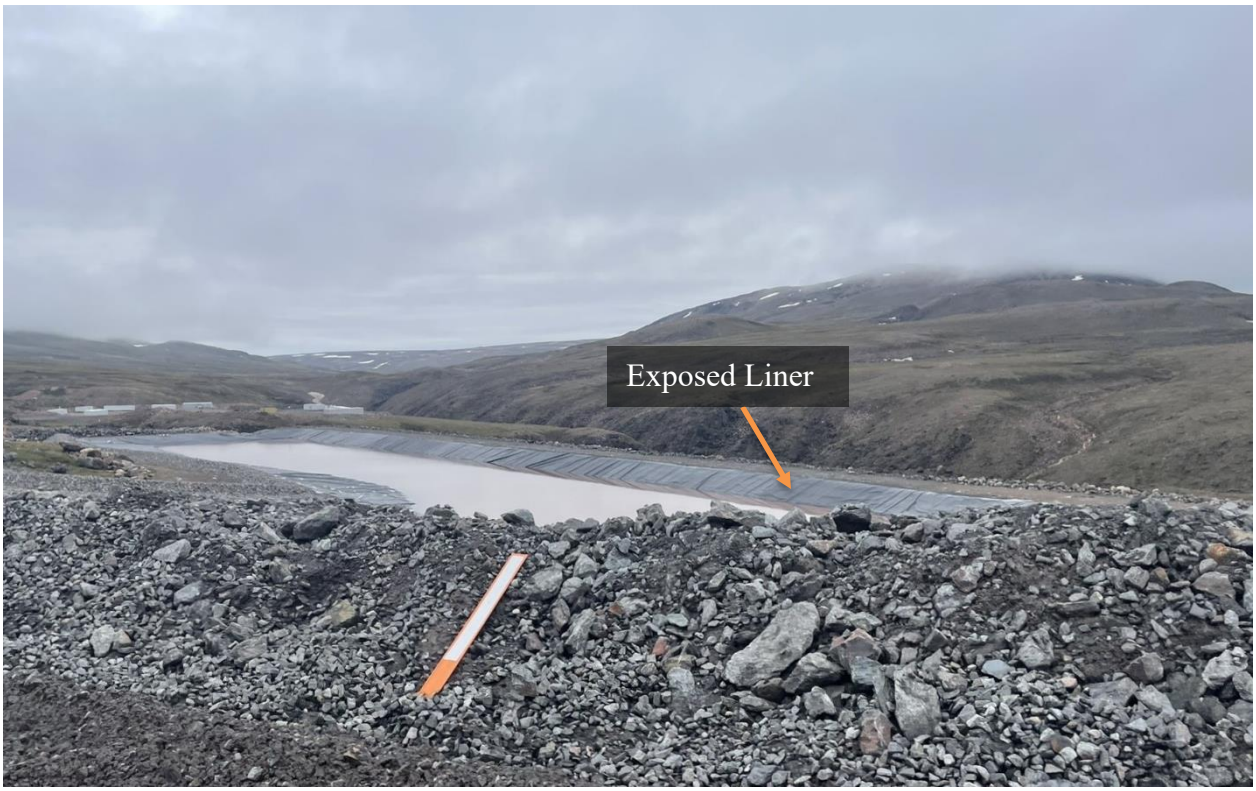


Photo 12: Surface Water Pond (MS-07) adjacent to KM 106 Stockpile Area

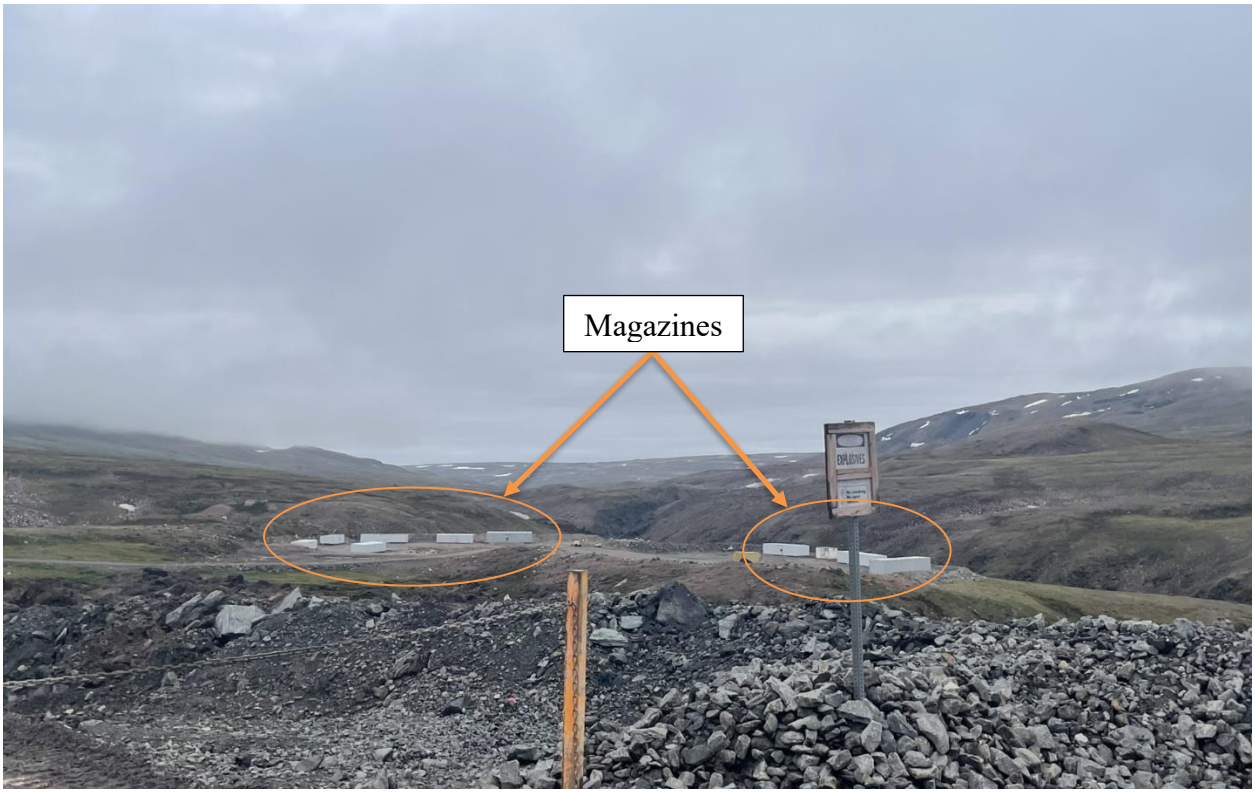


Photo 13: Explosives Storage Area

Photo 14: One (1) of the culverts along the Haul Road

Photo 15: Runaway Lane on the Haul Road

Photo 16: KM 105 Construction Materials Laydown Area

Photo 17: Drainage along the Haul Road

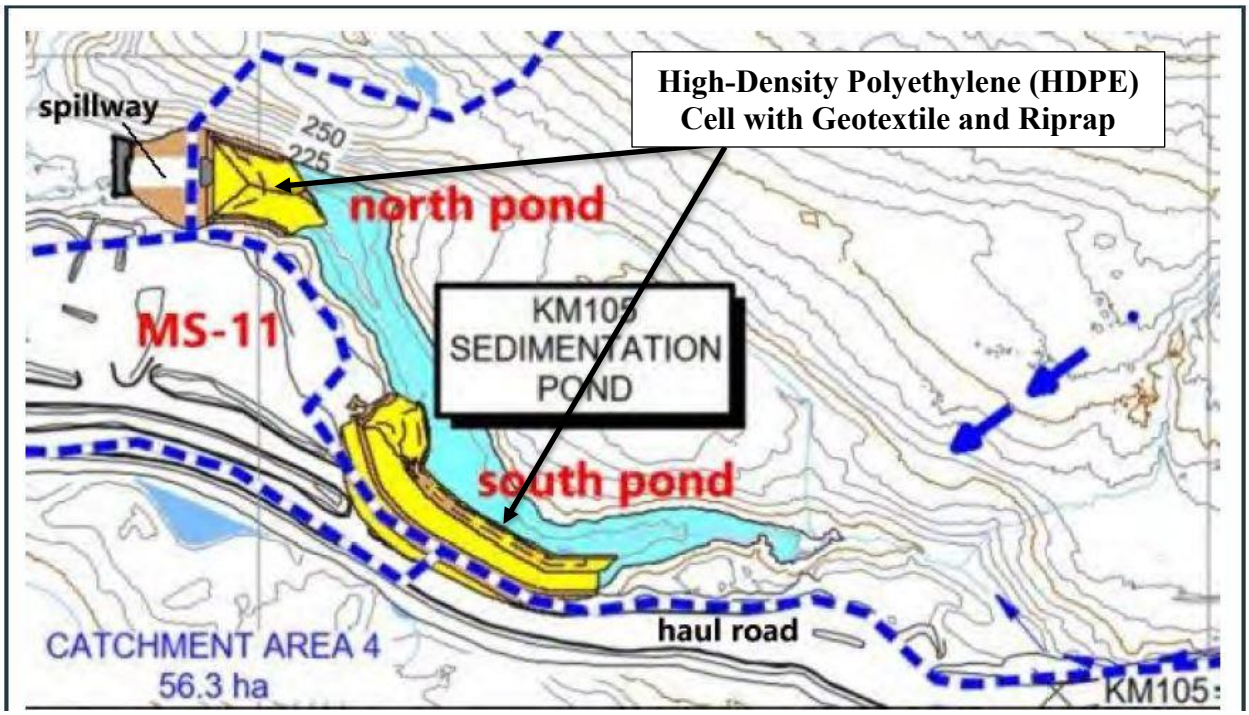


Photo 18: Km 105 Sedimentation Pond and Dam Design Drawings - Knight Piésold Ltd. 2021 (from Baffinland's Annual Geotechnical Inspection Report – 2024)

Photo 19: Waterlines for Dam at KM105

KM 105 Dam

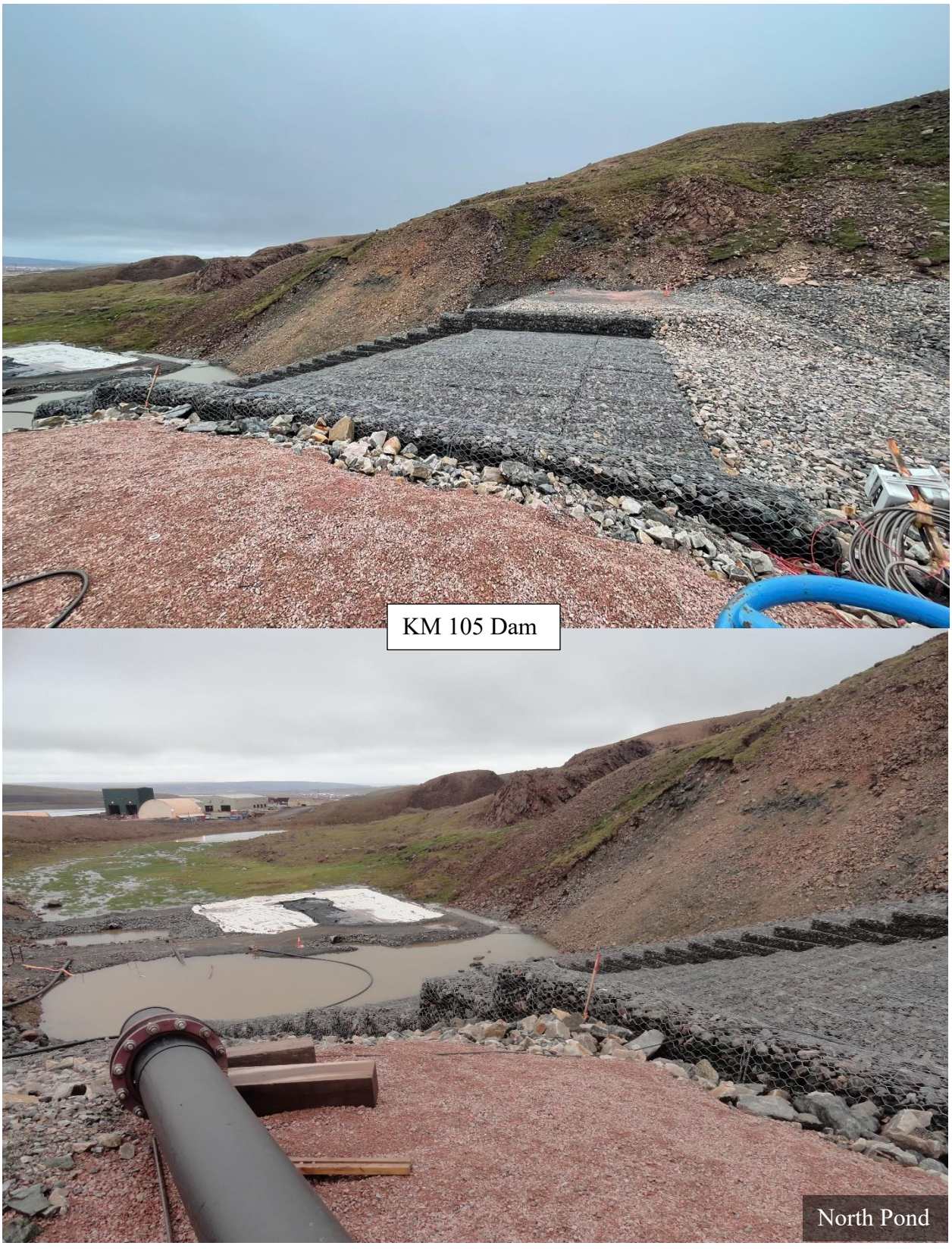


Photo 20: KM 105 Dam and Sedimentation Pond

Photo 21: Mine Site Tankfarm (MS-03) (2024)

Photo 22: Mine Site Tankfarm (MS-03) (2025)

Photo 23: Chain link fence and secondary containment around Fuel tank at MS-03B

Photo 24: Crusher Pad

Photo 25: Surface Water Management Pond (SM-06) adjacent to the Crusher Pad

Photo 26: Water Monitoring Well (installed in April 2025)

Photo 27: Uncontained Hazardous Material at New Monitoring Well Site

Photo 28: Communication and Monitoring Tower

Photo 29: Main Landfill Facility

Photo 30: Building materials and equipment debris, mostly metal, outside Landfill gate

Photo 31: New landfarm cells constructed near the main Landfill Facility

Photo 32: Treated water outlet with passive filtration at Water Discharge Area

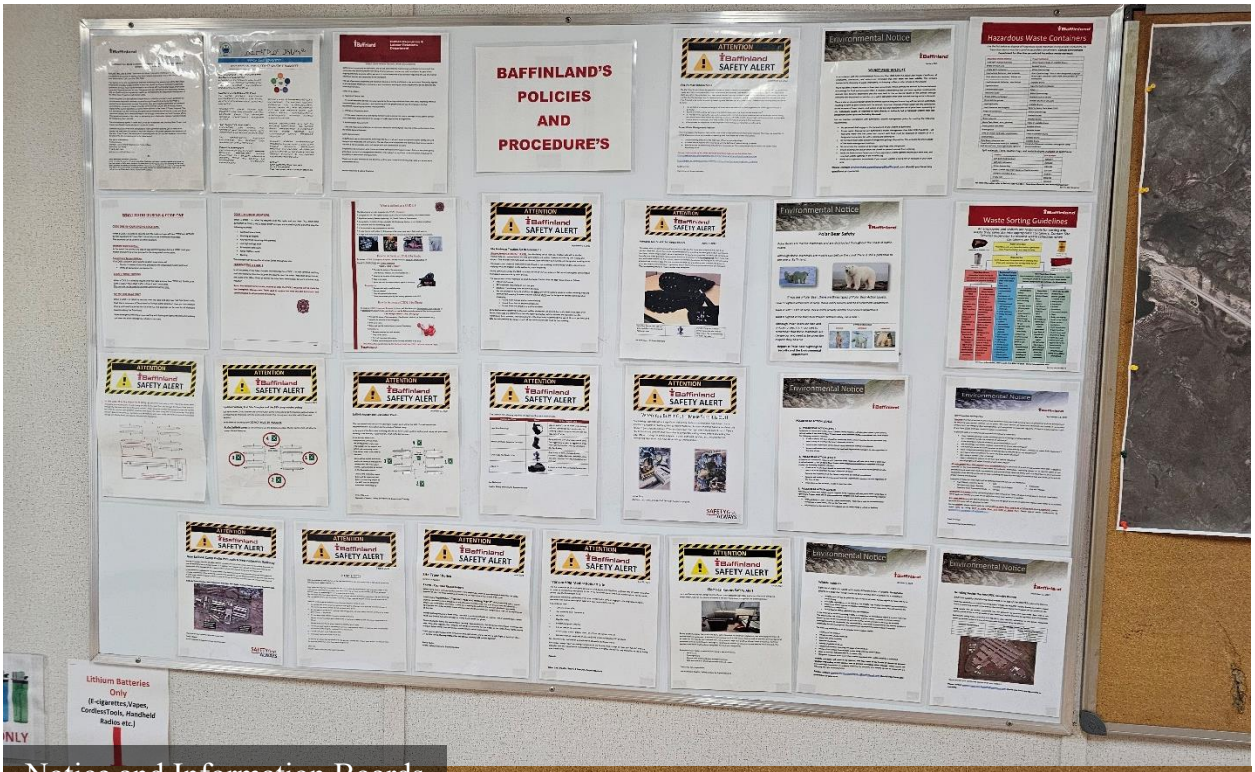
Photo 33: Former Treated Water Discharge Area beside current discharge

Photo 34: Mary River Incinerator Building

Photo 35: Aerial View of Mine Site Western Zone-Exploration Camp Polishing Waste Stabilization (PWS) Ponds, Hazardous Waste Berm (HWB) Storage Cells

Photo 36: Aerial View of Camp Lake and Water Intake Jetty

Photo 37: Aerial view of Mary River Airstrip



Notice and Information Boards

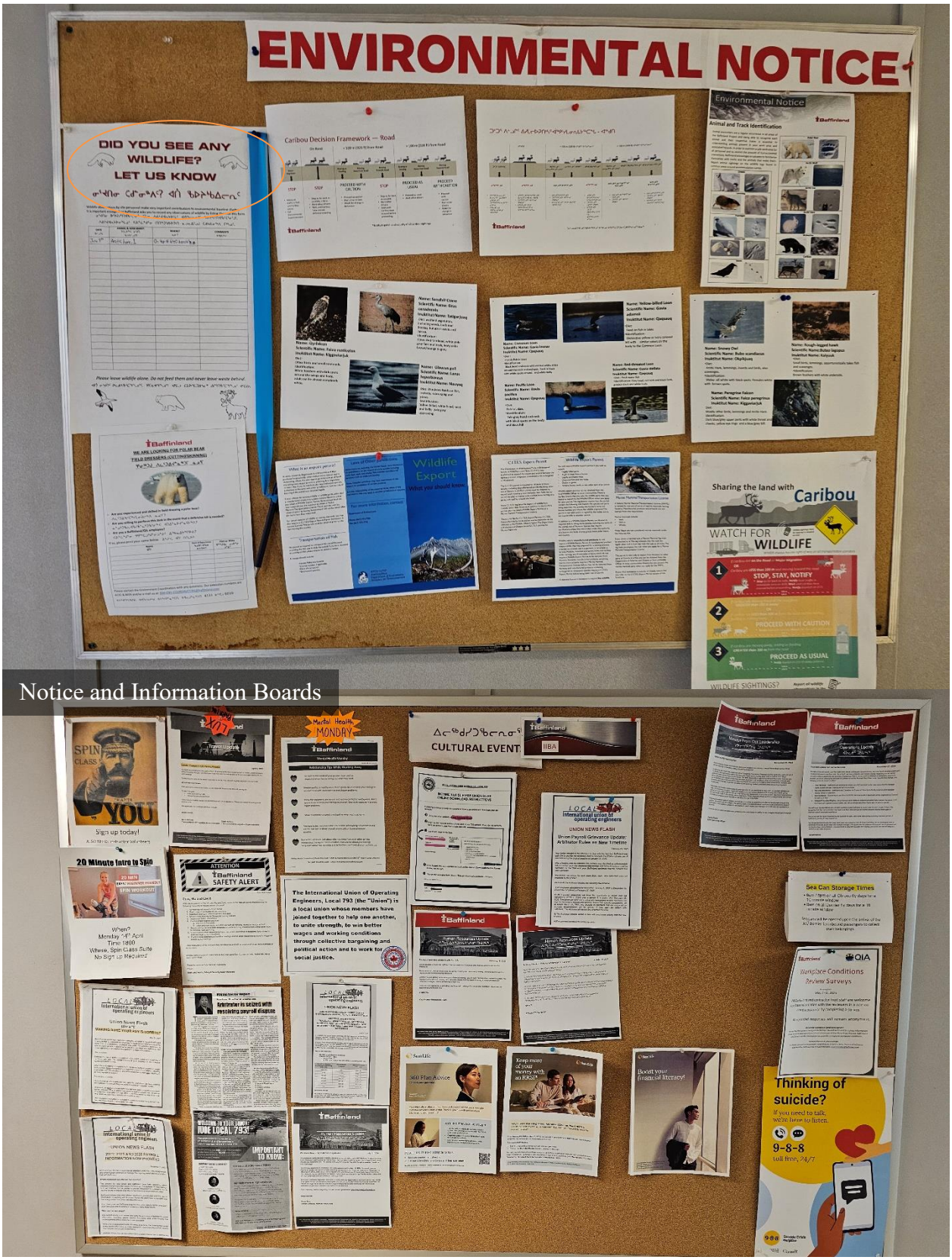


Photo 38: Notice and Information Boards at the Sailivik Camp

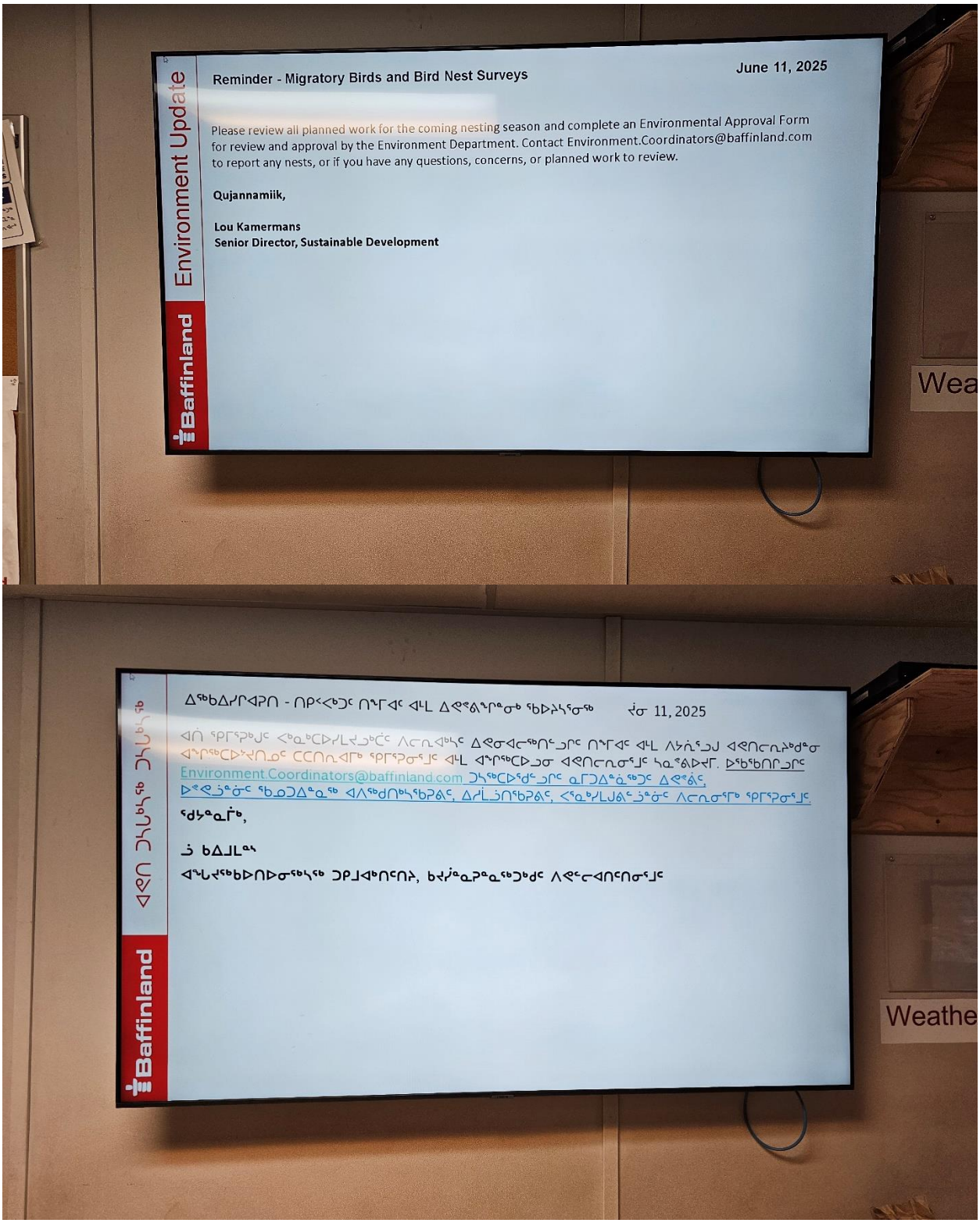


Photo 39: Environmental updates in English and Inuktitut

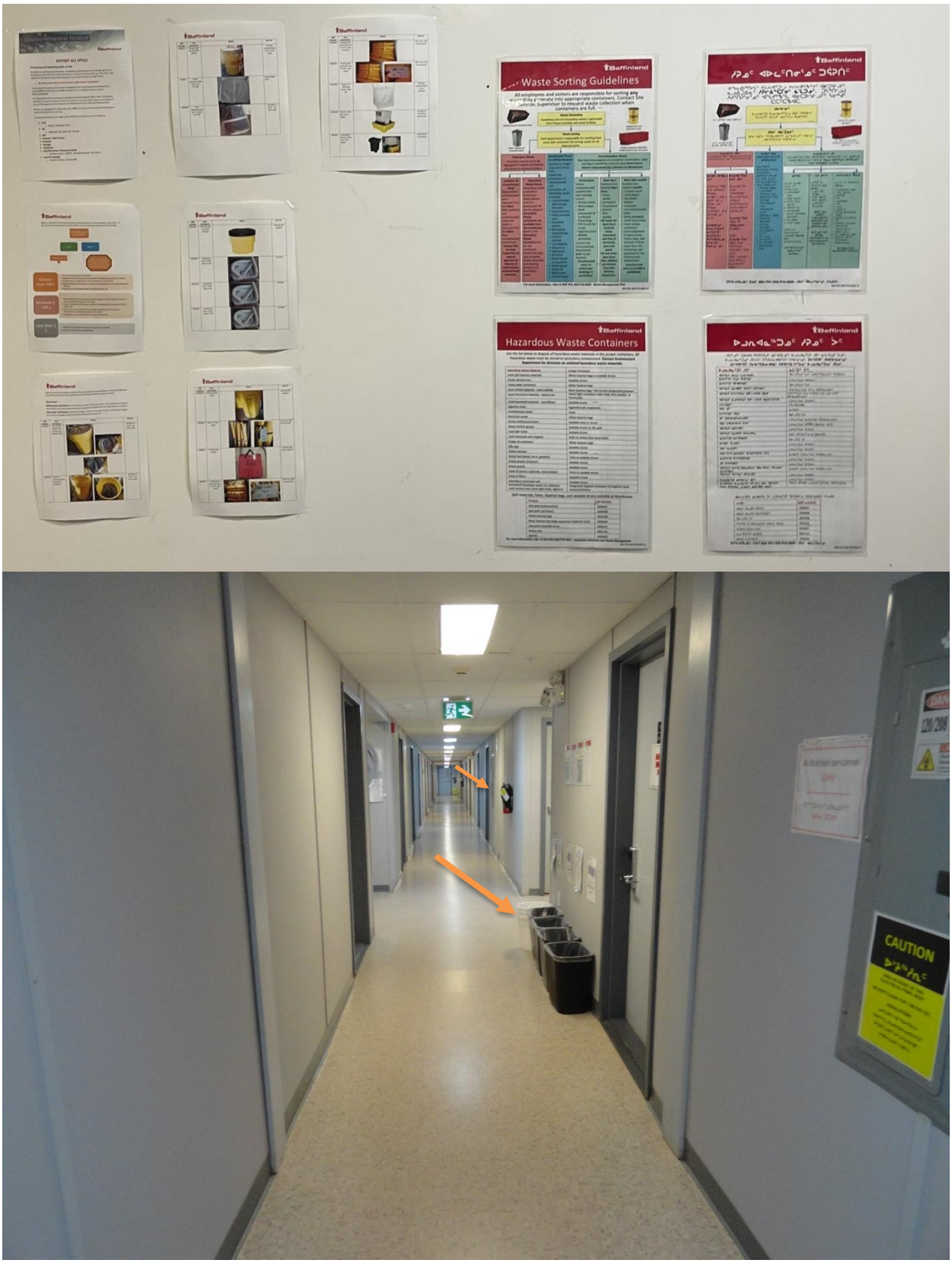


Photo 40: Waste sorting guidelines, bins, and fire extinguisher in Camp Hallway

Photo 41: Cafeteria

Photo 42: Gym

3.2 Tote Road

Photo 43: Open air burning of waste at KM 98

Photo 44: Fire-damaged Tanker on Tote Road. Staff reported the fire was due to an electrical failure

Photo 45: KM94 culverts observed to be clear and functional

Photo 46: Erosion fence with silt build-up and deterioration at KM 89. Note extreme mudiness of the Tote Road.

Photo 47: Culverts at KM 85


Looking South
Looking Southwest

Photo 48: Culvert Inlet at KM80 (Looking South) requiring Replacement; hydraulic fluid spill observed.

Photo 49: Culvert Outlet at KM80 (looking north) with hydraulic fluid spill

A hydraulic fluid leak at KM80 had not yet been completely cleaned up, with hydrocarbon sheen observed on both sides of the road outside of containment booms. Absorption pads were also observed scattered in the water on both sides of the road, inside and outside of the containment booms. Bafffinland environmental staff found that a spill kit container on scene had been left open, likely allowing wind to pick up and scatter the pads. The container was closed preventing further wind-blown scattering.

While inspecting the culvert, water levels on both sides of the road prevented NIRB staff from observing the interior of the culverts. While walking on the road above the culverts, NIRB staff noted that the road surface was soft and spongy, with air and water being forced to the surface when pressure was applied, indicating a possible void beneath the road surface. This was brought to the attention of Baffinland staff and they immediately called for the road maintenance personnel to inspect the site.

The week following the NIRB site visit, it was confirmed that all the culverts had collapsed in the middle below the road. See the *CV-216 By-Pass Culvert Crossing Design Brief* Appendix A prepared by Nunami Stantec for Baffinland and submitted to the Nunavut Water Board (NIRB File No. 357441) for photos and additional information.

Photo 50: Road Surface at KM80 showing a soft, spongy surface

Photo 51: KM80 Bridge with adjacent pump and Spill Kit

Photo 52: Ongoing culverts replacement work

Photo 53: Arctic fox near KM 79

Photo 54: Passive dust sampler and "Disc Style" passive dust sampler from NRCan Study at KM 79.5

Photo 55: Canada Geese

Photo 56: Functioning culvert with adjacent silt fence in poor condition: sagging and sediment buildup noted

Photo 57: Area of September 2024 Washout After >1:1000-Year Rainfall Event; culverts replaced through Emergency Remediation

Photo 58: Culverts at KM 36 in good condition

Photo 59: Arctic foxes near Tote Road

Photo 60: Culvert construction material laydown

Photo 61: Explosives Magazines near Blasting Area KM 7

3.3 Milne Port Site

Photo 62: Communication Tower and Welcome Sign

Photo 63: Landfarm (MP-04)

Photo 64: MP-04A Contaminated Snow Disposal Cell

Photo 65: Laydown Pad north of Landfarm

Photo 66: Laydown Pad north of Landfarm; several open seacans contained barrels and used rugs, with ravens observed flying in and out

Photo 67: Incinerator Building and Hazardous Waste Storage outside Incinerator Building

Photo 68: Fuel tankfarm: tanks in secondary containment with perimeter fencing and vehicle fuel module

Photo 69: Ore Pad

Photo 70: Ore Pad view from helicopter

Photo 71: Ore Stockpile Sedimentation Pond West

Photo 72: Ore Stockpile Sedimentation Pond North

Photo 73: Bulk Fuel Module

Photo 74: Ship Loader (One operational, second under construction)

Photo 75: Sea ice conditions at Milne Inlet

Photo 76: Aerial view of Milne Port Site (2025)

4 CONCLUSION

During the July 2025 site visit, NIRB and Baffinland staff discussed the ongoing operations of the Mary River Project under Project Certificate No. 005, Amendment No. 5. The site appeared generally well-maintained, with adequate environmental protection measures and procedures in place consistent with the Project Certificate and approved Management Plans. Active air monitoring and the dust suppressant trial at the Crusher Facility were discussed. NIRB looks forward to updates on the effectiveness of these measures in reducing dust emissions.

NIRB staff identified the following specific areas for improvement:

- Totes containing hazardous waste was observed stored outside of secondary containment. Baffinland staff acknowledged the issue and committed to corrective action. NIRB expects this to be closely monitored moving forward.

- Collapsed culverts at KM 80 of the Tote Road, which were not known at the time of the visit, require urgent, and long-term repair. This, along with ongoing road maintenance challenges following the 2024 rainfall event and soft road conditions north of the mine site, raises concerns about the long-term viability of the road for heavy ore transport.

- Silt curtains were found deteriorated at multiple locations along the Tote Road, and in some cases were full of sediment, reducing their effectiveness in controlling runoff and protecting nearby water bodies.

- Seacans containing potentially hazardous materials were observed with doors open at the Milne Port site, with ravens flying in and out. This poses both environmental and wildlife risks and indicates a need for improved seacan management.

- Exposed liners were noted at surface water management ponds, which may compromise containment integrity and should be addressed.

The observations made at the site visit inform the overall compliance of Mary River Project Certificate No. 005 and Board recommendations provided within the NIRB's *Mary River Project 2024-2025 Monitoring Report.*

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Title: Monitoring Officer
Date: September 25, 2025
Signature: 

Reviewed by: Keith Morrison
Title: Manager, Project Monitoring
Date: September 25, 2025
Signature: