



Baffinland Iron Mines Corporation

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Project #: TC190307

Annual Geotechnical Inspections – 2020 Report 1.

APPENDIX "A" - Mary River Mine Complex - Photographs

Figure 7 to Figure 52



Table of Contents

	Page
1.0 Mary River Mine Complex.....	3
1.1 Polishing/Wastewater Stabilization Ponds (3 PWS ponds).....	3
1.2 Hazardous Waste Disposal Cells (HWB-1 to HWB-7).....	5
1.3 MS-06 and MS-08 Surface Water Collection Ponds and Ditches	10
1.4 Genset Berm	15
1.5 Fuel Farms.....	17
1.6 Solid Waste Disposal Area	19
1.7 CLSP Silt-sedimentation Check Dams and Berms.....	19
1.8 Water Discharge Area.....	20
1.9 Deposit-1 Pit Walls.....	21
1.10 Quarry Areas.....	22

1.0 Mary River Mine Complex

1.1 Polishing/Wastewater Stabilization Ponds (3 PWS ponds)

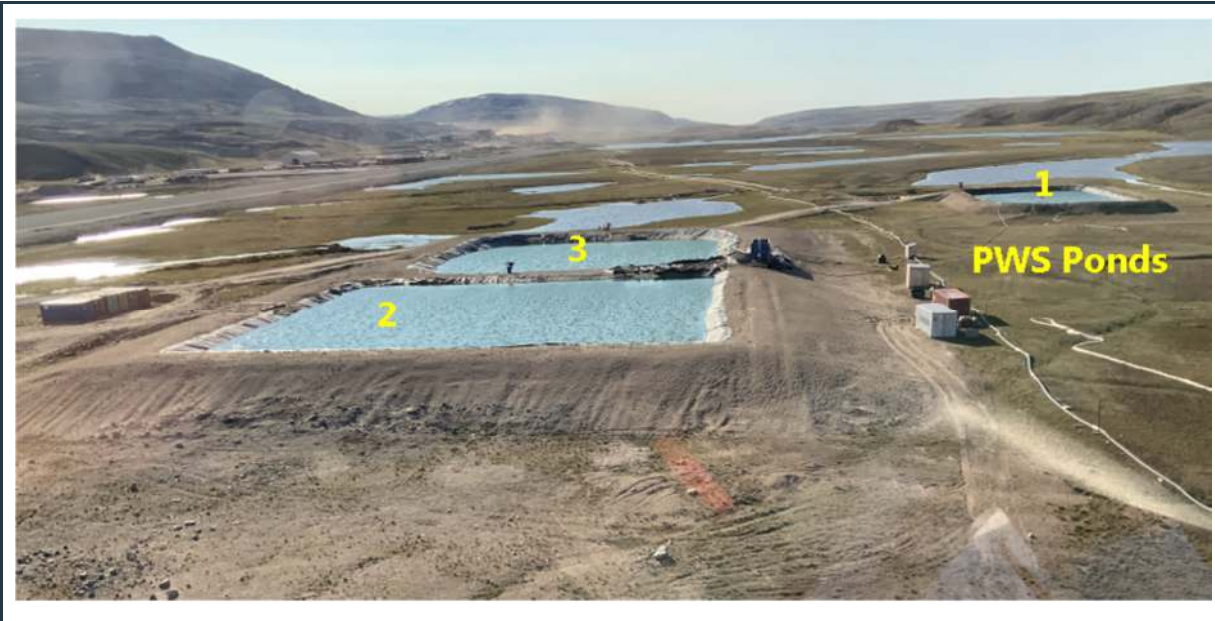


Figure 7: Aerial view of the three PWS ponds (this photo was taken in 2019)



Figure 8: PWS pond #1. Well maintained perimeter berm and liner (note some floating ice in the pond).



Figure 9: PWS pond #2 – Berm and liner in good condition. The water was recently lowered, and ice still visible in the pond.



Figure 10: PWS pond #3 – Timber/lumber debris visible on the crest. Note the loss of some finer berm material (sand) into the voids of rock fill. The "sinkhole" should be filled and the debris removed.



Figure 11: PWSP #2 and #3 – Untidy conditions at the water discharge point between ponds #2 and #3.

1.2 Hazardous Waste Disposal Cells (HWB-1 to HWB-7)

a) HWB-1



Figure 12: View of HWB-1 – Currently this cell is empty.

b) HWB-2



Figure 13: View of the stable berm at HWB-2. Other than some plastic, the cell is currently empty.

c) HWB-3 and HWB-4



Figure 14: View of stable berms and the stored fuel barrels in HWB-3.



Figure 15: View of HWB-4 next to HWB-3, with jetfuel barrels stored on wooden pallets.

d) HWB-5

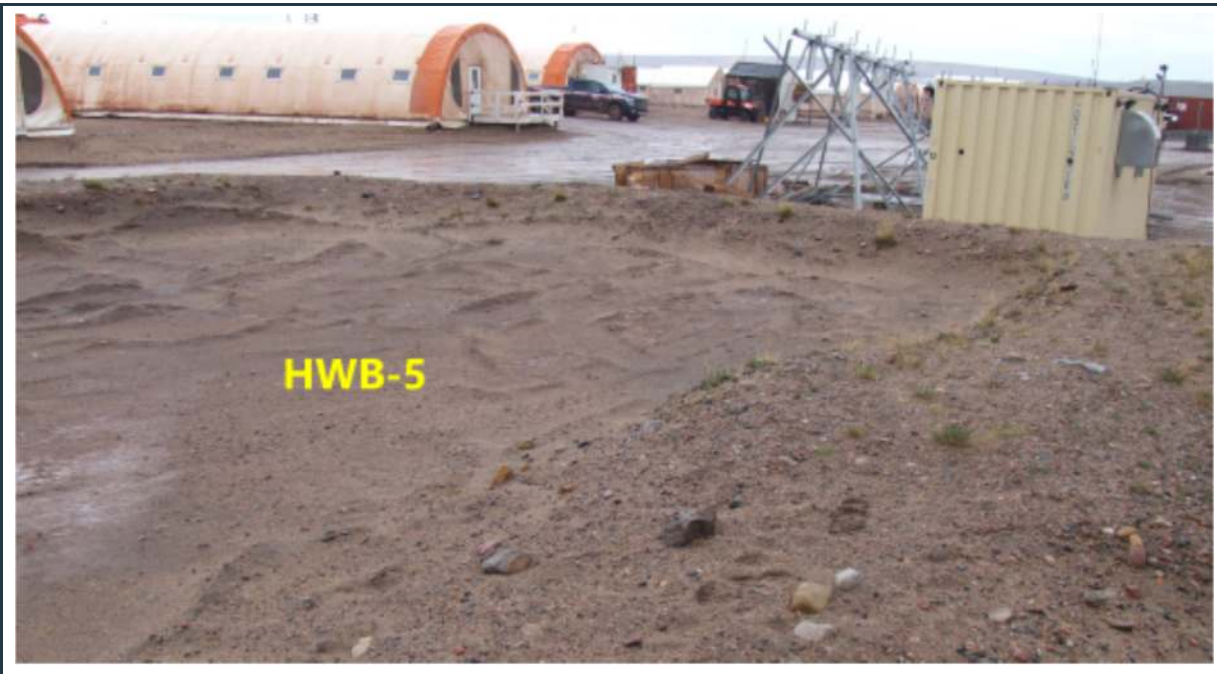


Figure 16: View of the HWB-5 cell, currently empty.

e) HWB-6



Figure 17: View of the recently upgraded stable berm around HWB-6.



Figure 18: View of HWB-6. Note the well maintained "floor" (protecting the liner) within the cell.

f) HWB-7



Figure 19: View of the large HWB-7, with only one fuel tank stored in this cell.



Figure 20: View of the stable berm around the HWB-7 cell.

1.3 MS-06 and MS-08 Surface Water Collection Ponds and Ditches

a) MS-06 – Surface Water Collection Pond Adjacent to the Crusher Pad



Figure 21: MS-06 surface-water collection pond with stable berms and intact liner.



Figure 22: Well maintained surface-water collection ditch around the crusher plant, leading to MS-06.



Figure 23: Damaged and clogged (silted) culvert in the ditch shown in Figure 22, near the MS-06 pond.



Figure 24: The other end (inlet) of the culvert shown in Figure 23.



Figure 25: Partially clogged inlet of a culvert, located under the access road next to the truck weighing scale. It drains surface-water from the crusher area to the MS-06 pond.

b) MS-08 Pond next to the waste rock facility



Figure 26: View of the recently completed enlarged MS-08 pond, downstream of the waste rock facility



Figure 27: View of the new, robust berm with shallow side-slopes around the MS-08 pond



Figure 28: Area of minor fine-soil migration into the underlying rock fill at the northern section of the berm. The geotextile should be rearranged and the hole filled with fine crushed aggregate.



Figure 29: Well-maintained drainage ditch along the east side of the waste rock facility



Figure 30: Well-maintained drainage ditch along the west side of the waste rock dump



Figure 31: Water treatment pond adjacent to the waste rock dump and MS-08

1.4 Genset Berm



Figure 32: View of the berm near the generator, with exposed geotextile and liner at a few locations.



Figure 33: View of slope deterioration at a section of the berm near the generators. Trucks bypassing ponding surface water on the road are “cutting” into the toe of the berm.



Figure 34: View of the south-east berm that needs to be repaired (raised and regraded). Note the exposed geotextile and liner that shall be covered with sand/gravel during berm rehabilitation.

1.5 Fuel Farms

a) Jetfuel Tank Farm



Figure 35: View of the well-maintained berm at the jetfuel storage cell.



Figure 36: View of the jetfuel farm's double berm system (note the additional crushed rock berm between the cell's perimeter berm and the tote road/parking lot).

b) MS-03 Diesel Fuel Tank Farm



Figure 37: View of the MS-03 diesel fuel tank farm. Note some floating debris that should be removed.

c) MS-03B New Fuel Tank Farm (Tank #5)



Figure 38: View of the recently completed fuel tank farm with well-constructed stable perimeter berms.

1.6 Solid Waste Disposal Area



Figure 39: Solid waste landfill facility (note the recently installed perimeter fence).

1.7 CLSP Silt-sedimentation Check Dams and Berms



Figure 40: CLSP check dams and berms, forming efficient silt sedimentation cells



Figure 41: Recently placed rip-rap in one of the cells to prevent erosion of the channel floor at the critical vertical drop in elevation along the chain of sedimentation cells.

1.8 Water Discharge Area



Figure 42: Minor crest/slope erosion (cobbles and boulders rolling down the slope) at the water discharge area. Placement of rock fill is required here to improve slope integrity and prevent erosion.

1.9 Deposit-1 Pit Walls



Figure 43: Stable pit-wall in the area of deposit-1.



Figure 44: Minor weathering and pit-wall erosion in the area of deposit-1.

1.10 Quarry Areas

a) QMR2 Quarry



Figure 45: View of QMR2 quarry with area that requires surface water control (yellow circle).

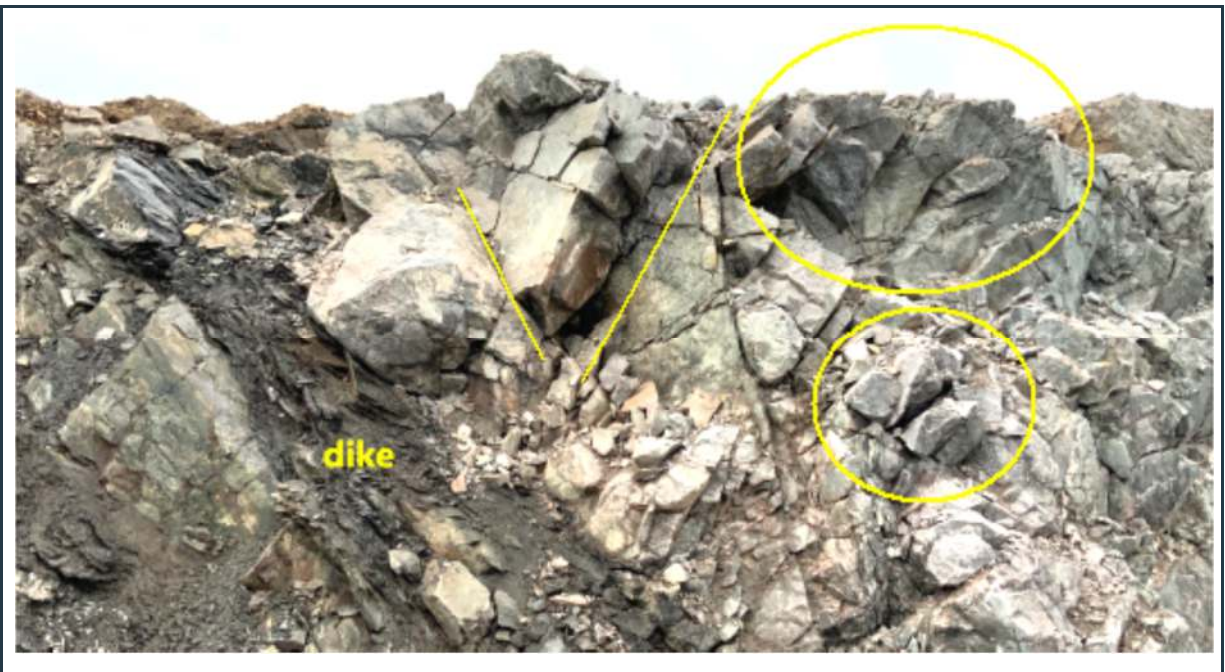


Figure 46: Potential hazards at one of the highwalls (weak dike, loose boulders and sliding wedge).



Figure 47: Area that requires improved surface water control at the main level of QMR2 quarry.



Figure 48: Surface water flowing from the quarry area along the road resulted in a failure of the edge of the access road leading to the quarry. Immediate repair was requested to prevent accidents.

b) D1Q1 quarry



Figure 49: View of the northern slope of the future D1Q1 quarry.

c) D1Q2 quarry



Figure 50: View of the southern section of the future D1Q2 quarry.



Figure 51: Existing culverts installed at the wrong place (yellow circles). New culvert required at the yellow arrow to prevent serious road problems in the future. Blue arrow indicates below grade seepage.



Figure 52: Ponding water at the edge of the future D1Q2 quarry. Culvert is required at the low point of the road and the road grade should be raised in the area above the culvert.

