



Baffinland Iron Mines Corporation

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Project #: OMGM2212-2023

Annual Geotechnical Inspections – 2023 Report 2.
APPENDIX "A" - Mary River Mine Complex - Photographs
Figure 12 to Figure 51



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2.0 Mary River Mine Complex

2.1 Polishing/Wastewater Stabilization Pond Berms (3 PWS ponds)



Figure 12: Historic aerial image of the layout of the three PSW ponds with robust, stable berms.



Figure 13: PWS pond #1. Well-maintained, stable perimeter berm and intact liner at the pond.



Figure 14: PWS pond #2 with stable, well-maintained berms and liner. – A section of the liner is visible in the pond above the water (yellow circle), which does not pose a risk to the integrity of the liner.



Figure 15: Robust, stable perimeter berms around PWS pond #3

2.2 Hazardous Waste Disposal Cell Berms (HWB-1 to HWB-7)

a) HWB-1



Figure 16: View of HWB-1 – Currently this cell is not in use. It appears that the liner is intact in this cell.

b) HWB-2



Figure 17: View of the robust, stable berms around HWB-2. The presence of water in the cell indicates good liner performance.

c) HWB-3 and HWB-4



Figure 18: View of stable berms and a few stored fuel barrels in HWB-3.



Figure 19: View of stable berms around the HWB-4 cell, with fuel barrels on wooden pallets stored in the cell. The shipping container and debris that were visible in June in this cell, have been removed.

d) HWB-5



Figure 20: View of HWB-5 – Currently this cell is not in use.

e) HWB-6



Figure 21: View of the north-east corner of the cell, where the berm required maintenance.



Figure 22: View of the north-east corner cell HWB-6 one day after the initial inspection. Note that the problem with the berm had been rectified by site services (all boulders have been removed).

f) HWB-7



Figure 23: View of the stable berm around the HWB-7 cell, with an old fuel tank and oil filled plastic containers stored in the cell. The ponding water indicates good liner performance.

2.3 MS-06, MS-07, MS-08, and MS-11 Surface Water Management Ponds and Ditches

a) MS-06 – Surface Water Management Pond Adjacent to the Crushing Facility



Figure 24: View of the discharge end of the recently cleaned culvert, draining the collected surface water from the crusher area to the MS-06 pond.

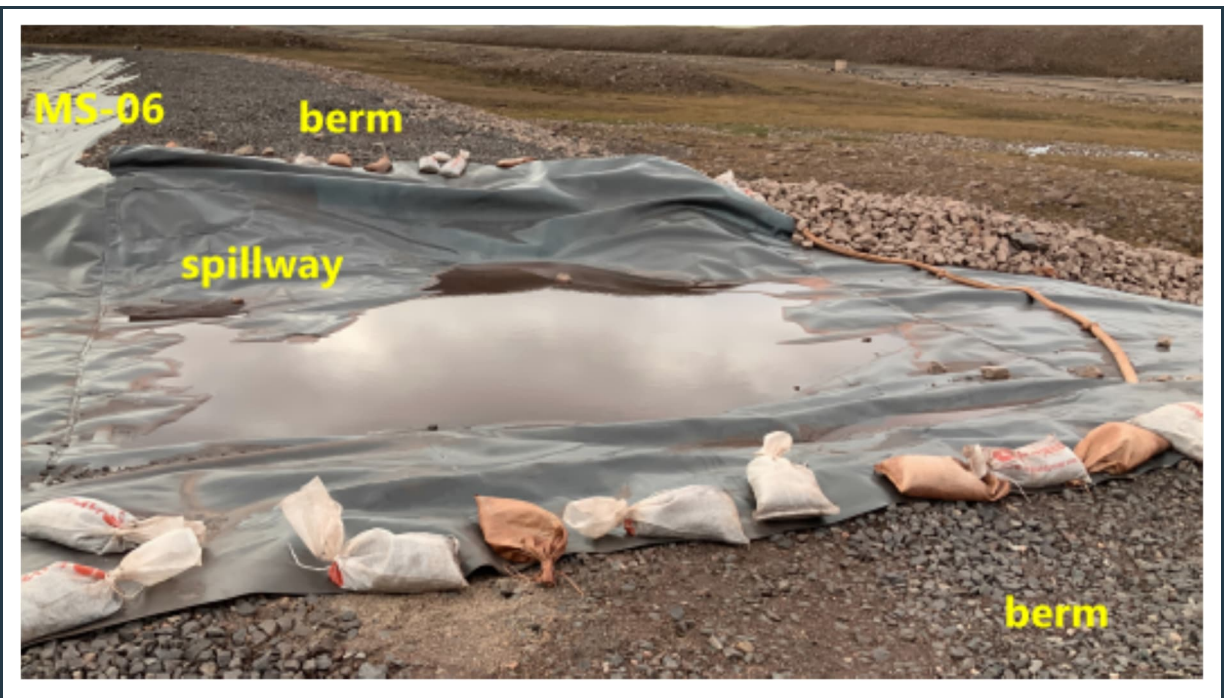


Figure 25: View of the robust, stable berm around the MS-06 pond, with the liner at the spillway recently fixed by the placement of more sandbags against potential uplift.



Figure 26: View of the side-ditch and culvert leading to the MS-06 pond. Based on field observation, the culvert requires cleaning (removal of trapped silt and sand from the pipe).

b) MS-07 – Surface Water Management Pond Adjacent to the new KM106 ore storage



Figure 27: View of the robust, stable berms and intact liner at the MS-07 surface-water management pond.

c) MS-08 pond and drainage ditches next to the waste rock facility

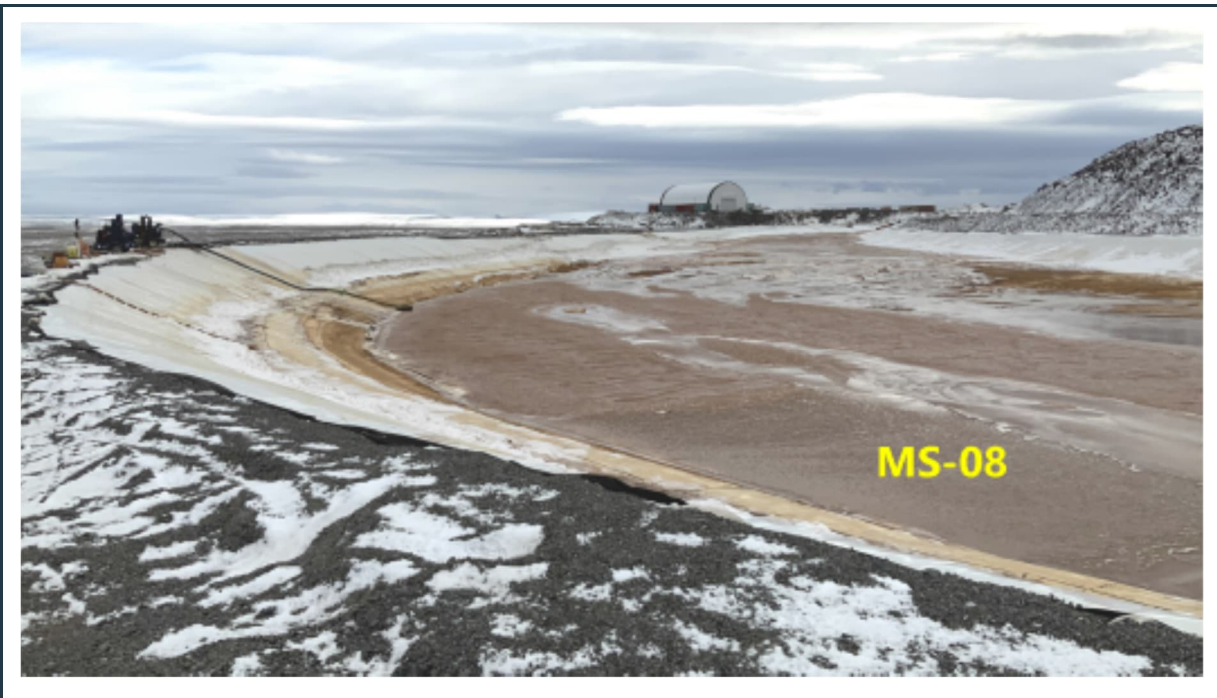


Figure 28: View of the stable, robust berm and intact liner at the MS-08 pond.

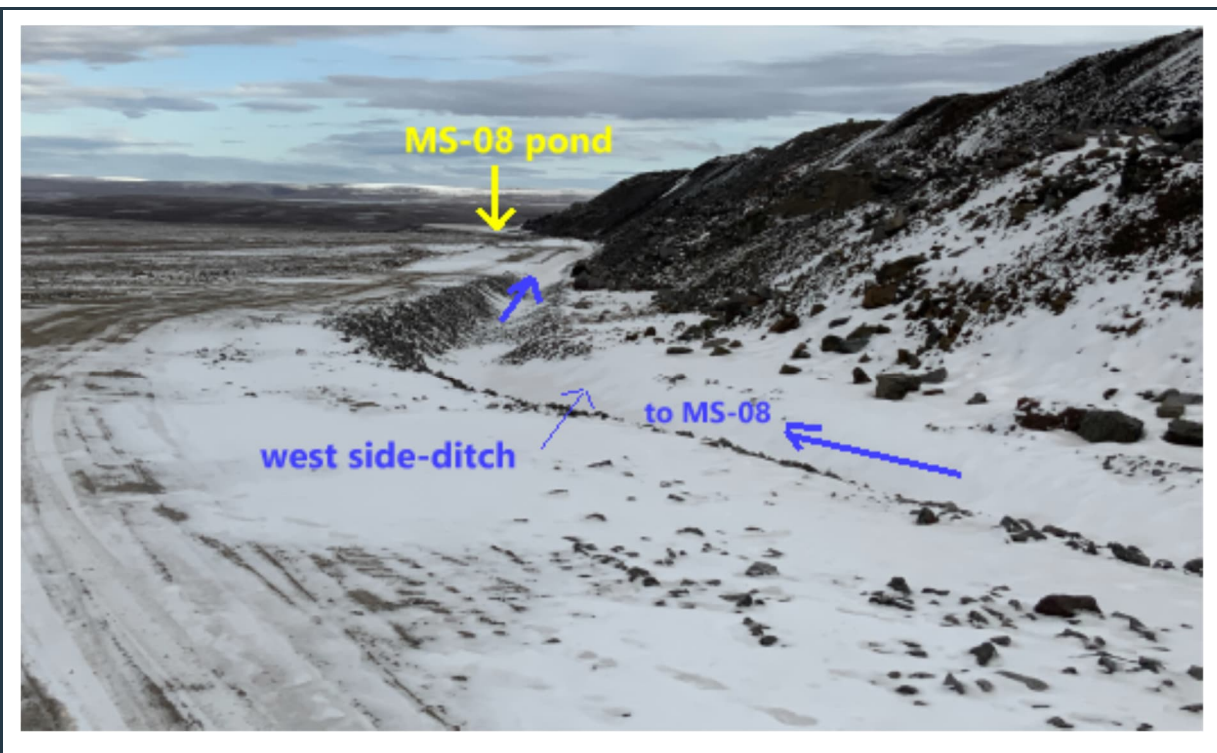


Figure 29: View of the well-maintained drainage ditch around the west side of the waste rock facility, leading to the MS-08 pond. There was already some snow in the ditch in September.

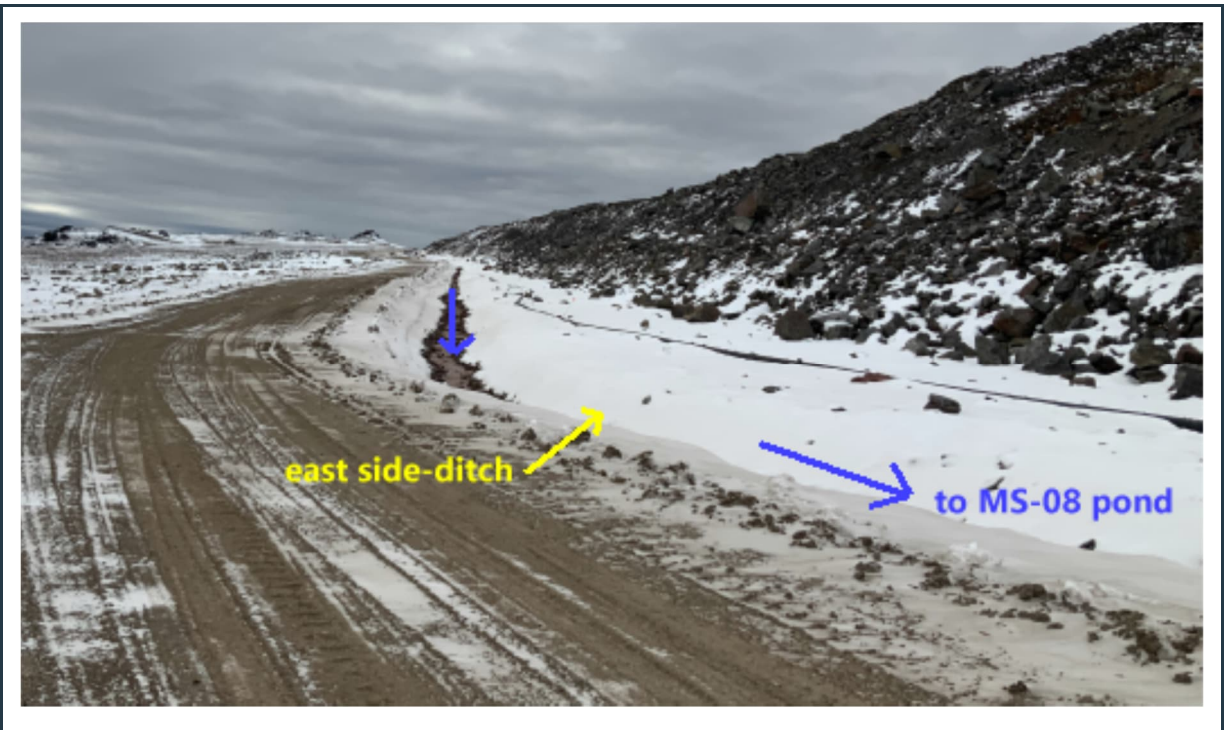


Figure 30: View of the well-maintained drainage ditch around the east side of the waste rock facility, leading to the MS-08 pond. There was already some snow in the ditch in September.



Figure 31: View of the perimeter berm around the geotube pond. A small section of the liner at the south-west section of the berm (yellow circle) is still damaged and will require repair.

d) MS-11 surface water management pond at KM105, with emergency spillway.



Figure 32: View of the north part of the MS-11 pond at KM105. Note the ongoing geotechnical investigation at the base of the pond.



Figure 33: View of the robust and stable emergency spillway (gabion baskets and blankets filled with crushed rock) at KM105. Note the lined, compacted pad that will support geotubes at that location.



Figure 34: View of the loosely filled liner anchor trench along the road next to the south MS-11 pond's slope. The open gaps do not appear to be related to slope movements, but they should be backfilled and regraded to minimize water infiltration into the ground next to the slope.

2.4 Generator Fuel Berm



Figure 35: View of the stable berm around the "fuel bladder" cell. The ponding water in the cell indicates good liner performance.

2.5 Fuel Farm Berms

a) Jet-fuel Tank Farm



Figure 36: View of the well-maintained sand and gravel berm and access ramp at the lined jet-fuel storage facility. Ponding water in the cell indicates good liner performance.

b) MS-03 Diesel Fuel Tank Farm



Figure 37: Well-maintained, stable berm around the MS-03 diesel fuel farm, with some ponding water, which is indication of good liner performance. Note the rock fill on the downstream slope.

c) MS-03B New Fuel Tank Farm

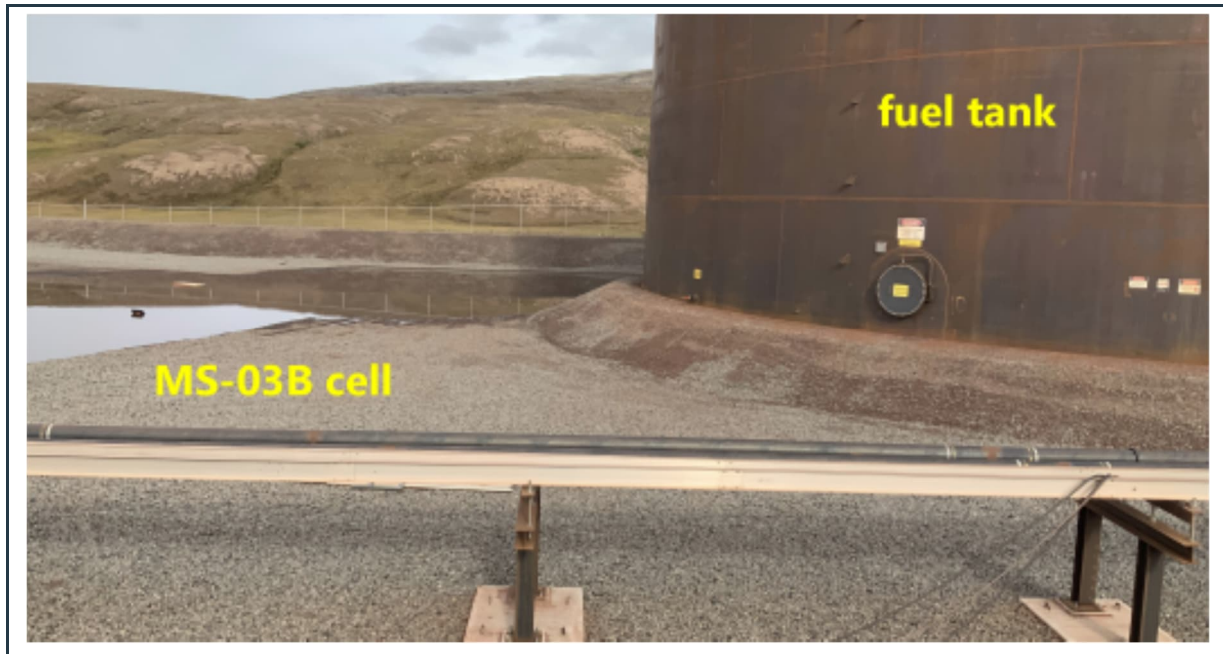


Figure 38: View of the well-maintained stable berm and interior granular fill over the liner at the new fuel tank farm. Note the ponding water in the cell, indicating good liner performance.

2.6 Solid Waste Landfill Facility and New Landfarm Cells

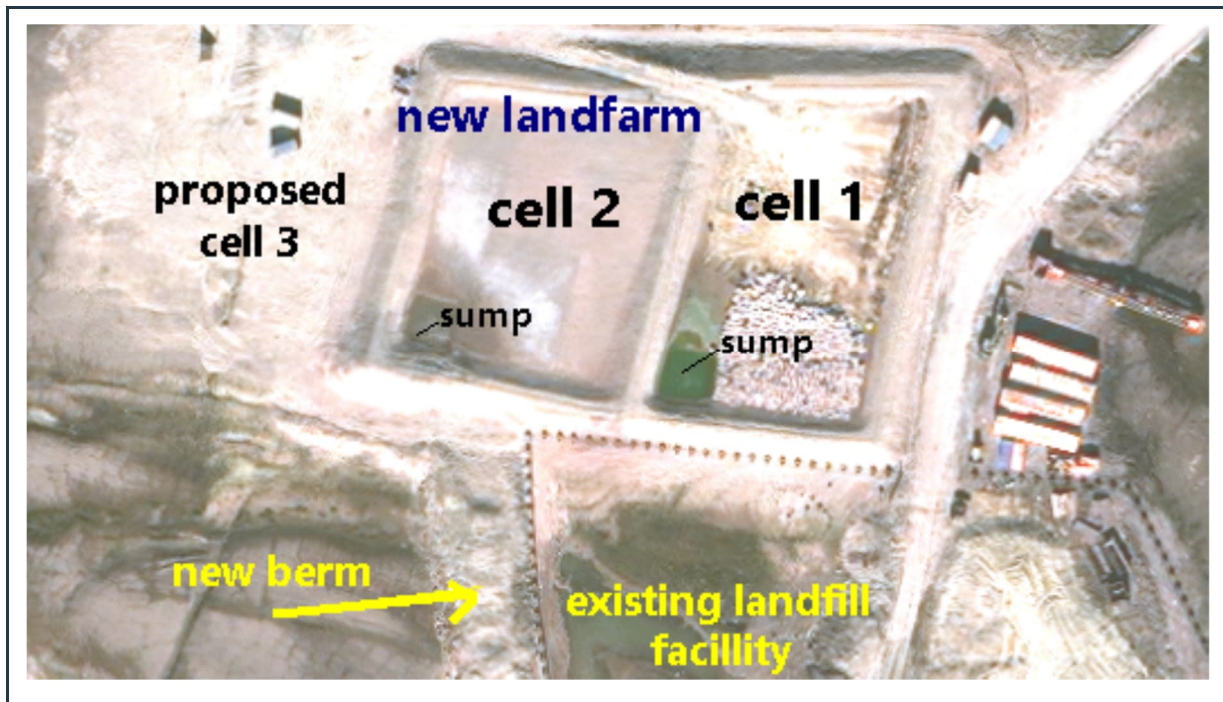


Figure 39: Satellite view of the solid waste landfill facility and the adjacent two, recently constructed landfarm cells (1 and 2). Cell 3 is proposed for construction in the future.



Figure 40: View of soil cover over non-hazardous solid waste in the fenced-in, gated landfill facility.



Figure 41: View of a section of the stable berm at the landfarm's Cell 1. Note that the settled anchor trench on the crest of the berm has been regraded and the exposed liner covered by Site Services, as specified in our earlier report (June 2023).



Figure 42: View of the currently empty cell-2 at the new landfarm. Note that the previously exposed liner has been covered and the anchor trench filled as specified in our earlier report.

2.7 Camp Lake Settling Check Dams and Berms



Figure 43: View of the upgraded Camp Lake check dams and new gabion wall along the road to the lake.



Figure 44: View of the new check-dam and riprap cover adjacent to Camp Lake to capture suspended solids potentially eroding from the airfield area and to prevent siltation in the lake.

2.8 Rock Fill Slope at the Water Discharge Area



Figure 45: View of the stable rockfill riprap slope at the water discharge area.

2.9 Rock Quarries and KM106 Ore Stockpile Area

a) QMR2 Rock Quarry



Figure 46: View of the stable rock face at the upper quarry level with protective boulders placed along the toe and crest of the rock cut. No activity is currently carried out in this quarry.



Figure 47: Drainage problems still exist at the first quarry level. Surface drainage shall be rectified.



Figure 48: Erosion problem still exists along the edge of the access road to the quarry.

b) D1Q1 Rock Quarry

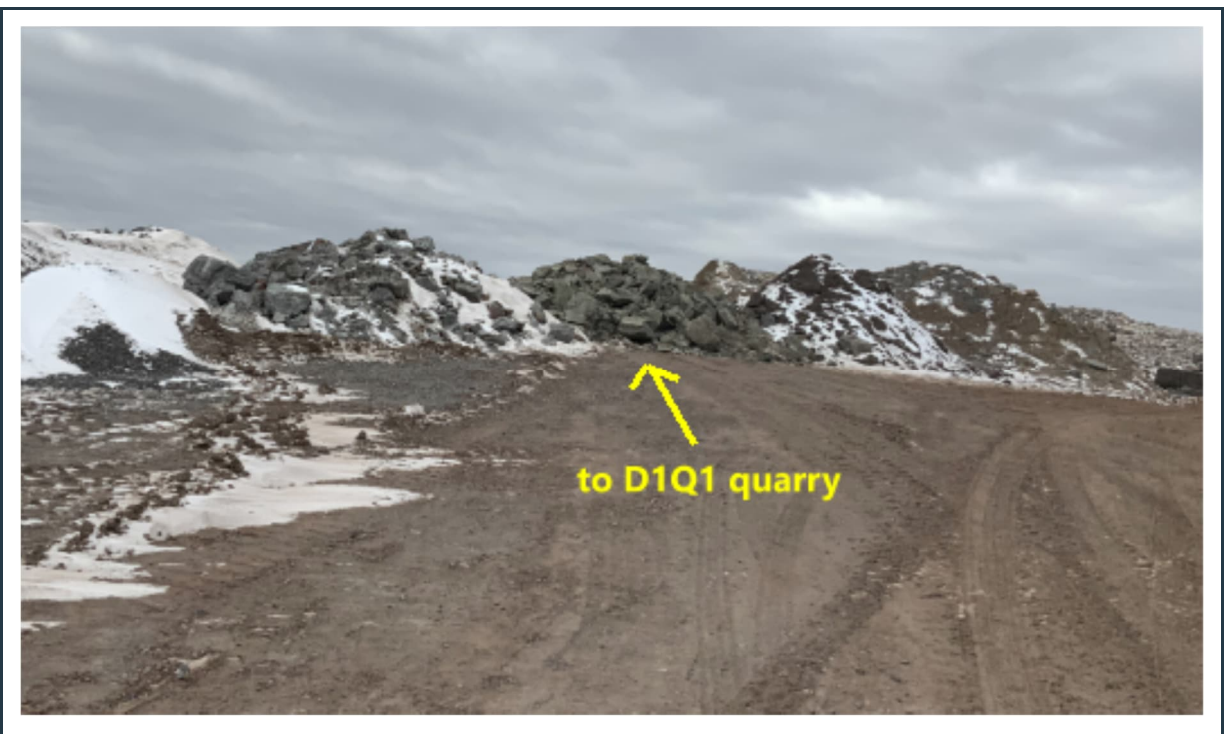


Figure 49: No activity is currently carried out in this quarry and the access road is blocked by rockfill.

c) KM106 Ore Stockpile area



Figure 50: View of the new drainage ditch south of the KM-106 ore stockpile area, collecting local run-off (yellow arrows).



Figure 51: View of the new drainage ditch and sump (under construction) south of the ore stockpile area. Placement of riprap is required on the slopes of the sump as well.