

NUNAVUT WATER BOARD
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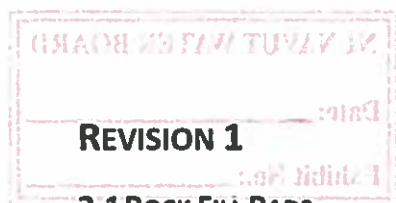


DORIS NORTH MINE
INTERIM CLOSURE AND RECLAMATION PLAN

HOPE BAY, NUNAVUT

ADDENDUM

September 2016



REVISION 1

3.1 ROCK FILL PADS

The reclamation objective is to ensure long-term physical and chemical stability and to protect the permafrost. Leachate emanating from rock fill pads must be safe for the environment.

Two broad options were considered: removing the pads or reclaiming them in place. The chosen option was to leave the rock fill in place and regrade the pads to ensure positive drainage and prevent ponding, of water. All pads were constructed of non-acid generating clean quarry rock, thus leachate quality is not a concern. Since construction the underlying vegetation has died and the permafrost will have aggraded into the rock fill, removal of the pads is not practical because it would accelerate permafrost degradation due to lack of well-established vegetation. Active revegetation of the rock fill pads is not practical because the rock fill pads cannot support vegetation, however it is fully expected that lichens will colonise the rock surface in time.

Any area, where prolonged ponding has been observed during the operational period, will be excavated to restore drainage and thereby prevent ongoing ponding.

3.2 AIRSTRIP AND ALL-WEATHER ROADS

These facilities were built by placing Run-of-Quarry (ROQ) rock in lifts directly on tundra, thus they are very similar to the rock fill pads, albeit they were designed for a different purpose. The objective for the reclamation of these facilities is the same as for the rock fill pads (see Section 3.1).

The airstrip and all-weather roads will be left in place as a permafrost protection measure, as described in Section 3.1. The surface will be crowned or graded to prevent permanent ponding. The bridges and the arch culvert will be removed for safety as there will be no long term monitoring of these structures. Roads will be breached in areas where their presence has blocked natural surface water drainage allowing the natural surface water drainage paths to be re-established.

Any area, where prolonged ponding has been observed during the operational period, will be excavated to restore drainage and thereby prevent ongoing ponding.