

Appendix 15

Meadowbank and Whale Tail 2020 Geotechnical Inspection Implementation Plan

2020 Meadowbank Annual Geotechnical Inspection Implementation Plan

Recommendation Number	Priority Level ⁽¹⁾	Location	Year ⁽²⁾	Recommendation	Action Plan/Follow-up	Status	Planned Completion Date	Completion Date
2018_MG_12	2	Baker Lake Fuel Farm	2018/2019	A hole in the exposed geomembrane (300 mm diameter hole) was observed at Baker Lake on the south southwestern corner of Tank 3 at the top of the slope. The hole in the geomembrane should be repaired to ensure a good performance of the retention basin. It is also recommended to cover the exposed area with geotextile and fill material to re-establish the liner protection.	Fill material was added to re-establish the liner protection. The hole will be repaired in Spring 2020. Update (2020): the hole has been repaired, the liner must be covered.	Ongoing	Spring 2021	-
2018_MG_20	3	Baker Lake Tank Farm	2018	Cover the exposed liner on northern side of Tank 5	To be done next summer. Update (2020): only northeastern corner of Tank 4 still has exposed liner to be covered.	Ongoing	Summer 2021	-
2018_MG_26	4	Stormwater Dike	2018	Asses whether the design criteria will still be met with different final tailings elevations on both sides of the dike (possible impact on seepage low and freezeback). Can be done by EoR but must be reviewed by designer.	Will be addressed in the update of the Engineering of the landform of the South Cell	Ongoing	2021	-
2018_MG_27	3	North Cell Internal Structure	2018	Verify capacity of North Cell to store design flood with the NCIS when updating the deposition plan.	Verification completed. With the actual cells configuration, we could store a 1:100 yr spring flood event.	Closed	-	May 2020
2019_MG_3	3	Bay Goose Dike and East Dike	2019	Assess the validity of the current instruments layout for monitoring of the dike's performance over an extended operation time (10 more years due to in-pit deposition). Install additional instruments if necessary.	It was evaluated by the designer that the instrumentation coverage is still adequate based on the instrumentation status maps prepared for MDRB #28.	Closed	-	Fall 2020
2019_MG_14	4	Other	2019	Since AEM is a member of the Mining Association of Canada, it is recommended that a tailings management audit be held in the framework of the Towards Sustainable Mining initiative.	Internal and external audit are completed by AEM as to comply with the TSM initiative. Latest internal audit was in 2019.	Closed	-	2019
2020_MG_1	2	North Cell Internal Structure	2020	Tension cracks in the fine filter (2+300 to 3+150) on the upstream slope and sloughing must be repaired to restore filter system. Channeling at the toe of the slope is contributing to the erosion: start capping as soon as possible as part of closure plan.	Geotech team is planning remediation works including capping the slope. Works not yet started.	Not started	Summer 2021	-
2020_MG_2	3	Central Dike	2020	Clean up debris on the liner: granular material (0+750) and cable at (0+900).	As tailings deposition is currently not ongoing in the South Cell this is a low priority item. The feasibility of doing this work will be assessed during freshet 2020.	Not started	Summer 2021	-
2020_MG_3	3	Baker Lake Fuel Farm	2020	Expose one small area of liner where animal burrows are present to verify that the animals don't damage the liner. Once this verification is done, no more investigation will be required even though new burrows appear.	Use hand shovel to avoid damaging liner during uncovering. To be done next summer.	Not started	Summer 2021	-
2020_MG_4	2	Baker Lake Fuel Farm	2020	Repair hole in liner at the southwestern corner of the containment cell of the Jet A fuel tanks.	Repair liner, no granular cover.	Not started	Summer 2021	-

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Recommendation Number	Priority Level ⁽¹⁾	Location	Year ⁽²⁾	Recommendation	Action Plan/Follow-up	Status	Planned Completion Date	Completion Date
2020_AG_1	3	Whale Tail Dike	2020	Investigate rapid warmup in the wall at 0+560 to identify a possible new seepage through the wall.	Instrumentation data analysis shows that there is a time lag between the lake temperature variations and the variations at 0+560, therefore the water ingress hypothesis was eliminated.	Closed	-	Fall 2020
2020_AG_2	3	Whale Tail Project Access Road	2020	Repair eroded sections of the road (km 174, 177) and settled east shoulder (km 176.5).	Material was added to repair the road in the damaged locations.	Completed	-	Summer 2020
2020_AG_3	3	Saline Ditch	2020	Clear obstructed culvert at the outlet of the ditch towards AP5 quarry.	Material that have partially filled the outlet will be removed with an excavator.	Not Started	Summer 2021	-
2020_AG_4	3	WTD Seepage Collection System	2020	Repair eroded sandy foundation of seacans at stations P1, P3 and P4 with non erodible material (e.g. rockfill).	All stations were repaired with suitable material	Completed	-	August 2020
2020_AG_5	4	Site road 22 (to Mammoth Lake)	2020	Install culvert beneath the road near the Mammoth Lake diffuser to avoid erosion of the road material.	Culverts have been installed underneath the road.	Completed	-	September 2020
2020_AG_6	4	Site road 24 (to the South Whale Tail Channel)	2020	Repair the deformed road surface (settlement and tension cracks) to re-establish rolling surface for inspection and maintainant of the South Whale Tail Channel.	The road has been repaired and re-surfaced.	Completed	-	June- August 2020
2020_AG_7	4	Site road 25 (WT WRSF)	2020	Add granular material and re-grade the road surface that is in a very rough state.	The road was re-surfaced.	Completed	-	June 2020