
HAMMOND REEF GOLD PROJECT RESPONSE TO COMMENTS ON FINAL EIS/EA

COMMENT – T-36

Source: Canadian Environmental Assessment Agency

Summary of Comment

The Proponent states “For seepage from the TMF natural degradation of cyanide is expected to occur as the water migrates from the TMF to the nearest receiver (Lizard Lake).”

Proposed Action

Explain why only Lizard Lake is identified as being impacted by seepage from the Tailings Management Facility. There are other water bodies in the immediate area including API 37, API 47, API 48, API 2, API 8, as well as the wetlands and lake south of API 7 and north of API 43 that drains into Lizard Lake which could potentially be affected by seepage.

Reference to EIS

Hammond Reef Gold Project Site Water Quality TSD S 4.2.3 Material Usage.

Response

The TMF conceptual design takes advantage of high ground and bedrock around much of the perimeter which minimizes construction costs. The selection of Lizard Lake as the potential receiver for seepage was based on a review of existing mapping of site topography, catchment areas as provided in the Hydrology TSD, Figure TC-7 (Site Watersheds), and bedrock outcrops as identified during site visits.

Based on this review, primary drainage pathways were identified as occurring towards Lizard Lake to the east, and Marmion Basin to the southwest. Other nearby waterbodies are primarily located outside of the TMF watershed and are bounded by high ground, which consists of substantial bedrock outcrop. There is only one location (AP#8) which is within the upstream catchment of Lizard Lake, however it is considered that, given its location, there would be little potential for seepage, and that assessment of Lizard Lake is appropriately conservative for evaluation potential for impact on the east side of the TMF, prior to all waters discharging to Marmion Basin. All waters, including those from Lizard Lake and upstream locations are already considered within the total discharge applied to Marmion Basin. Concentrations for each potential point source were considered as described in IR-MOE-NR-GW-16 located in Appendix 1.IV of the Final EIS/EA Report. The direct discharge of these concentrations into a water body is not expected to have negative aquatic impacts.

Additional drilling, modeling and monitoring will be completed during the design and operational phases. Additional mitigation of seepage to smaller water bodies if necessary will be determined during the detailed design phase. Options for additional mitigation measures include additional ditching or pumping back of water to the TMF.