

In AEM's response to the KIA dated September 24, 2025 it is stated that *"Heat will only be generated from daily mining activities."* The deepest portion of the proposed Pump underground development will be very close to the deepest extent of known permafrost. The heat generated by the daily mining activities still has a reasonable possibility to cause permafrost degradation, with the formation of "cryopeg (talik) zones" that could intersect the permafrost boundary below the planned underground workings. In addition, the intersection of "cryopeg (talik) zones" with the several bedrock faults (ie. Regional Pyke Fault and inferred faults PU-NW-1, PU-ENE-1, PU-ENE-2, PU-EW-2 AND PU-APO) could enhance permafrost degradation. Please confirm whether the updated permafrost and hydrogeology modeling takes the KIA's concerns into account.



- i) The use of the “West Alignment” only accounts for the impact Pump 2 open pit (926,338 m<sup>3</sup>) has on the permafrost. Has the impact on permafrost degradation of the volumes of open pits Pump 1, 3 and 4 (3,915,320 m<sup>3</sup>) been considered for the storage of saline water during underground operations?
- ii) The current thermal and hydrogeological studies are based on wide-spaced borehole data. Has the installation of a West Bay Well in the Pump area been considered to ensure a more robust understanding of the permafrost? This would also provide additional information on the monitoring of the groundwater quality and the vertical hydraulic gradients during the underground operations.

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