



Water Resources Division
Resource Management Directorate
Nunavut Regional Office
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Your file - Votre référence
2AM-LUP2032
Our file - Notre référence
GCdocs # 95731145

June 23, 2021

Mr. Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0B 1J0
sent via e-mail: licensing@nwb-oen.ca

Re: Crown-Indigenous Relations and Northern Affairs Canada's reply to Lupin Mines Incorporated's response to our comments on the Post Closure Monitoring Plan for water licence No. 2AM-LUP2032 – Lupin Mine Project

Dear Mr. Dwyer,

Thank you for your June 16, 2021 invitation for reply to Lupin Mines Incorporated's (LMI) June 15, 2021 response to Crown-Indigenous Relations and Northern Affairs Canada's (CIRNAC) June 1, 2020 comments on the Post Closure Monitoring Plan (PCMP) (version 1, April 2021).

Six of LMI's responses address CIRNAC's concerns; three (3) through clarifications and explanations, and three (3) through commitments to provide addendums to Final Closure and Reclamation Plan (FCRP) and Post Closure Monitoring Plan (PCMP) in the next year annual report. Five (5) outstanding concerns have not been addressed by the licensee.

The water quality trigger to transition from active to passive Tailings Containment Area (TCA) discharge is CIRNAC's most significant concern which CIRNAC recommends the Nunavut Water Board (NWB) consider prior to plan approval.

Below are CIRNAC's reply to LMI's response to CIRNAC comments:

- 1. Water Quality in Tailings Containment Area (TCA)** – In comment R-01, CIRNAC recommended that prior to transitioning from active to passive TCA discharge, the licensee justify why the trigger for the transition does not include criteria for concentration of metals of concern.



In its response, the licensee stated that:

The trigger for the transition from active to passive closure does not include criteria for metals concentrations as the Lupin Mine site does not currently exceed metals criteria stipulated in the Water Licence. Further, discharge from Pond 2 has not previously required treatment for metals and has complied with MDMER limits for deleterious substances, including those established for arsenic, copper, lead, nickel, and zinc per Part 1 and Schedule 4 of the MDMER. There are no new sources for these metals in closure, and therefore no residual risk for metals contamination in the passive closure phase.

The licensee's response does not address CIRNAC's concern. The MDMER limits are for effluents from a mine, and according to the PCMP, the licensee hopes to achieve closed mine status in 2021. CCME protection of aquatic life water quality guidelines or site specific water quality objectives are more relevant for reclaimed sites that have reduced monitoring because there are no longer activities on site. CIRNAC continues to recommend the licensee justify why the trigger for the transition does not include criteria for concentration of metals of concern.

2. Geotechnical Monitoring – CIRNAC concerns were addressed

3. Community Consultation – In comment R-03, CIRNAC recommended that: Section 8 of the PCMP include a detailed plan for proposed community consultations including how the community will be notified, how materials understandable by the general public will be prepared, what times of year will be prioritized for maximum participation, as well as information contained in Schedule B, Item 1(i).

In its response, the licensee stated that they are not required to provide the summary of the consultation as part of the overall PCMP but has included an overview and believe they have met the water licence condition.

LMI has not yet provided the 2020 annual report, so CIRNAC is not able to determine if Part B, Item 20 of the water licence has been met. CIRNAC is expecting the following information as part of consultation summary referred in Schedule B, Item 1(i) and Schedule J, Item 1.

- List of community members and organizations in attendance;
- What concerns were raised by the community members;
- Which information was provided to the community members in attendance with regards to the status of reclamation and closure activities;
- How were the community notified about the meeting; and
- Schedule of upcoming events and information sessions.



CIRNAC's community consultation concern remains outstanding and CIRNAC recommends the consultation summary referred in the water licence be provided in the 2020 annual report.

4. **Visual Inspections of TCA Pond Perimeters** – Licensee is committed to continue visual inspection for signs of active oxidation and seepage during phase 2 monitoring.

This addresses CIRNAC's concern and we request this be added in a PCMP addendum.

5. **Schedule J Items Missing** – CIRNAC concerns were addressed.

6. **Duration of Passive Monitoring** – In comment R-06, CIRNAC recommended that: The PCMP support the proposed shorter passive monitoring period with evidence that permanent physical and chemical stability of the site could be determined in this timeframe.

In its response, stated that:

The Passive Closure Period (Phase 2) refers to the 5-year period following the completion of active reclamation work (2022 to 2026). Environmental monitoring will be conducted through Phase 2 to determine the success of the reclamation measures and confirm that the closure objectives have been achieved. The adaptive monitoring framework outlined in Section 6.2.6 allows for enhanced monitoring if closure objectives of physical stability, chemical stability, and future use and aesthetics are not met by the end of the passive closure period in 2026. In this case, an extended passive monitoring period would be considered depending on the magnitude and spatial extent of the concern. As per the response to KIA TC 2, 3, and 4 below, active monitoring will occur until the global closure objectives have been confirmed.

This response does not address CIRNAC concern as CIRNAC wanted the licensee to provide an evidence that permanent physical and chemical stability of the site could be achieved in 5 years. CIRNAC is of the opinion that permanent physical and chemical stability in the arctic cannot be demonstrated in such a short timeframe and requests the licensee provides evidence on how they intend to do so.

7. **Demolition Landfill Monitoring Wells** – CIRNAC concerns were addressed.

8. **Activity Schedule Unclear** – In comment R-08, CIRNAC recommended that: The PCMP be modified to include a schedule of activities with expected completion dates.



In its response, the Licensee stated that an updated schedule has been provided to CIRNAC and the schedule will also be provided with the Final Closure and Reclamation Plan (FCRP) addendum (s) as part of the Annual Report.

The updated version of the schedule provided does not address CIRNAC's concern, as the following details are missing from the schedule:

- Extent or degree the items planned in the 2020 schedule have been completed;
- Details on the time lines of work planned for 2021; and
- Duration of each activities.

However, on June 21, 2021, the Licensee provided more detailed schedule for the 2021 earthworks reclamation activities to CIRNAC field inspectors. It will be helpful if the Licensee incorporate this amount of detail into the FCRP addendum that will be submitted alongside the annual report.

9. Inadequate Figures – Licensee is committed to updating the PCMP figures on completion of the closure and reclamation activities. CIRNAC will comment further once the drawings become available.

10. Changes To General Monitoring – Licensee is committed to updating the wording in section 1.4 of the PCMP to reflect the water licence thus:

Wherein general monitoring is subject to change as per the water licence, Part J, Item 8, which states: Additional monitoring requirements may be requested by the Inspector (note: without approval of the Board); or Part J, Item 10, the Licensee shall submit to the Board for approval any requests for changes(s) to the Monitoring Program as outlined in Part J and Schedule J, including justification for the change(s). The NWB may modify the Monitoring Program under Schedule J without an Amendment to the Licence.

This addresses CIRNAC's concern and we request this be added in a PCMP addendum.

11. Thermistor Repair – The licensee is committed to repairing the damaged thermistors and including the results of the repairs in the annual report.

This addresses CIRNAC's concern and we request this be added in a PCMP addendum.



CIRNAC appreciates the opportunity to participate in this review. If there are any questions, please contact me at (867) 975-4738 or vincent.okonkwo@canada.ca and (867) 975-3876 or sarah.forte@canada.ca

Sincerely,

Vincent Okonkwo
Environment Assessment Coordinator