

Environmental Protection Operations Directorate
Prairie & Northern Region
5019 52nd Street, 4th Floor
P.O. Box 2310
Yellowknife, NT X1A 2P7

ECCC File: 6100 000 009/011
NWB File: 2AM-LUP2032



November 4, 2024

via email at: licensing@nwb-oen.ca

Richard Dwyer
Manager of Licensing
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU X0B 1J0

Dear Richard Dwyer:

RE: 2AM-LUP2032 – Lupin Mines Incorporated (LMI) – Lupin Mine – 2021, 2022 & 2023 Annual Reports, Proponent Responses to Comments

Environment and Climate Change Canada (ECCC) has reviewed the information submitted to the Nunavut Water Board (NWB) regarding the above-mentioned Proponent responses to ECCC's comments, regarding the 2021-2023 Annual Reports for Lupin Mine.

ECCC provides expert information and knowledge to project assessments on subjects within the department's mandate, including climate change, air quality, water quality, biodiversity, environmental preparedness and emergencies. This work includes reviewing proponent characterization of environmental effects and proposed mitigation measures. We provide advice to decision-makers regarding a proponent's characterization of environmental effects, the efficacy of their proposed mitigation activities, and may suggest additional mitigation measures. Any comments received from ECCC in this context does not relieve the proponent of its obligations to respect all applicable federal legislation.

The following comments are provided:

1. Water Quality Monitoring Data

Reference(s)

- Summary of Monitoring Program (Type A Water Licence 2AM-LUP2032, Schedule J), Item 1 (g): Tabular Summaries of all data generated under the "Monitoring Program"., 2AM-LUP2032 Lupin Mine Site 2023 Annual Report, April 30, 2024
- Section 3.5: Surface Water Sampling, Appendix A: Geotechnical Inspection Report, 2AM-LUP2032 Lupin Mine Site 2023 Annual Report, April 30, 2024



- Appendix C: Water Sampling Laboratory Results, Appendix A: Geotechnical Inspection Report, 2AM-LUP2032 Lupin Mine Site 2023 Annual Report, April 30, 2024
- Response to Technical Review of 2021, 2022, and 2023 Annual Reports for the Lupin Mine, Project: Water Licence No: 2AM-LUP2032, September 27, 2024

Comment

Item 1 (g) of the 2023 Annual Report is supposed to provide a summary of all data generated under the “monitoring program” (Schedule J of the Water Licence). However, this table does not provide a summary of the monitoring data, instead only summarizes the stations and their monitoring requirements.

It is acknowledged that no discharge occurred in 2023 and therefore some monitoring locations would not be active, but not all monitoring location requirements are tied to discharge (e.g. LUP-EL-01, LUP-BL-01, and LUP-LSL-01).

In addition, the 2023 Geotechnical Inspection Report indicates that samples were taken as part of the inspection in September 2023, but also that post-freshet samples were collected in July 2023 as stipulated by the Water Licence. The 2023 Annual Report does not provide a summary of the July sampling, does not indicate which monitoring locations were sampled, and does not provide the laboratory results of the July sampling. The laboratory data sheets provided in Appendix C of the 2023 Geotechnical Inspection Report only include data from the September sampling.

In the Response to Technical Review document from September 27, 2024, the response provided only addresses the portion of the comment related to errors and omissions in the geotechnical inspection report. The response does not address the recommendation for clarity on overall monitoring, nor a summary of the monitoring data from 2023.

ECCC Recommendation(s)

ECCC reiterates the first two original recommendations, in that the Proponent also:

1. Clarify which monitoring locations were sampled in 2023; and
2. Provide a summary of all water quality monitoring data from the 2023 sampling period and the laboratory result data sheets.

2. Water Quality Sampling

Reference(s)

- Section 3.5: Surface Water Sampling, Appendix A: Geotechnical Inspection Report, 2AM-LUP2032 Lupin Mine Site 2023 Annual Report, April 30, 2024
- Appendix C: Water Sampling Analysis, Appendix A: Geotechnical Inspection Report, 2AM-LUP2032 Lupin Mine Site 2023 Annual Report, April 30, 2024
- Response to Technical Review of 2021, 2022, and 2023 Annual Reports for the Lupin Mine, Project: Water Licence No: 2AM-LUP2032, September 27, 2024

Comment

Section 3.5 of the 2023 Geotechnical Inspection Report describes the surface water quality sampling completed as part of the inspection and notes that,

“Fifteen water quality samples and concurrent field parameter readings were collected on September 15 and 16th, 2023 to identify TCA in-situ conditions. For the past three years, surface water samples were collected earlier in the season by Stantec as part of post-freshet sampling stipulated by the Water Licence. Although post-freshet samples were collected in July 2023, surface water samples were also collected during the DSI to allow for experienced personnel to be onsite to target potential items of concern previously identified by the greater Lupin Technical Team.”

The September water quality monitoring program included 5 locations: Pond 2, Pond 1, cell 4, Cell 4 NW corner seep, and Cell N seeps. The field water sampling results are summarized in Table 3-2 and full laboratory data reports for this monitoring is provided in Appendix C. As noted in the report, the intent of this monitoring was to “identify TCA in-situ conditions” and to “target potential items of concern previously identified.” However, no summary or interpretation of the monitoring results are provided as part of the submission.

In the Response to Technical Review document from September 27, 2024, it is acknowledged that the sampling referenced is not a requirement of the licence, and is instead to inform ongoing site management. However, monitoring results from targeted monitoring of areas of concern is valuable to include as it aids in overall understanding of site conditions for all reviewers.

ECCC Recommendation(s)

ECCC recommends that that consideration be given to inclusion of all sampling results, included targeted monitoring, in future annual reports.

If you need more information, please contact Stephinie Mallon at Stephinie.Mallon@ec.gc.ca.

Sincerely,

Stephinie Mallon
Acting Senior Environmental Assessment Officer

cc: Eva Walker, Head, Environmental Assessment North (NT and NU)