4. The Licensee shall carry out weekly inspections of all water management structures during periods of flow and maintain records of the inspections and findings, for review upon the request of the Board.

5. The Licensee shall implement measures to prevent the generation and deposition of dust and/or sediment into Water arising from road use.

PART E: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall discharge all Tailings into the Tailings Containment Area, underground as Backfill or to other locations in accordance with the *Guide to the Management of Tailings Facilities* (Mining Association of Canada September 1998), or as otherwise approved by the Board in writing.

2. The discharge from the Tailings Containment Area at Monitoring Station LUP-10 shall commence no sooner than July 15 of any calendar year unless otherwise approved by the Board in writing.

3. The discharge rate from the Tailings Containment Area shall not exceed 70,000 cubic metres per day, unless otherwise approved by the Board in writing.

4. The Licensee shall provide at least ten (10) days notice to the Inspector prior to any planned Discharge from any facilities. The notice shall include an estimated volume proposed for Discharge and the receiving location.

5. All Effluent discharged from the Tailings Containment Area shall not exceed the following effluent quality limits at Monitoring Program station LUP-10:

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
Total Arsenic	0.50	1.00
Total Copper	0.15	0.30
Total Cyanide	0.80	1.60
Total Lead	0.10	0.20
Total Nickel	0.20	0.40
Total Zinc	0.40	0.80
Total Suspended Solids	15	30
Oil and Grease	Visual sheen	
The Waste discharged shall have a pH between 6.0 and 9.5		

6. The Tailings Containment Area shall be constructed, operated and maintained to engineering standards such that:

a. A freeboard limit of 1.0 metre shall be maintained at all times or as recommended by a Geotechnical Engineer and as approved by the Board in writing;

b. Seepage from the Tailings Containment Area is minimized;

c. Any Seepage that occurs is collected and returned immediately to the Tailings Containment Area;

d. Erosion of constructed facilities is addressed immediately;

e. The solids fraction of the mill Tailings shall be permanently contained within the Tailings Containment Area or underground as Backfill;

f. Weekly inspections of the dam(s), Tailings line(s), and catchment basin(s) shall be carried out and records of these inspections shall be kept for review upon the request of an Inspector, or as otherwise approved by the Board. More frequent inspections shall be performed at the request of an Inspector; and

g. An inspection of the Tailings Containment Area shall be carried out annually during ice free, open water conditions by a Geotechnical Engineer. The Engineer's report shall be submitted to the Board within sixty (60) days following the inspection, and shall include a covering letter from the Licensee outlining an implementation plan to respond to the Engineer's recommendations.

7. The Licensee shall discharge all Sewage to the Sewage Lakes Disposal Facilities or as otherwise approved by the Board in writing.

8. All Effluent discharged from the Sewage Lakes Disposal Facilities shall not exceed the following effluent quality limits at Monitoring Program monitoring station LUP-14:

Parameter	Maximum Concentration of Any Grab Sample (mg/L)
Total Arsenic	0.05
Total Copper	0.20
Total Lead	0.05
Total Nickel	0.30
Total Zinc	0.50
Total Suspended Solids	35
BOD_5	30
Faecal Coliform	1000 colony forming units/100 mL
Oil and Grease	Visual sheen
The Waste discharged shall have a pH between 6.0 and 9.5	

9. All Effluent discharged from the Bulk Fuel Storage Facility at Monitoring Program station LUP-27 shall not exceed the following effluent quality limits

Parameter	Maximum Average Concentration (mg/L)	Maximum Concentration of Any Grab Sample (mg/L)
pH	6.0. – 9.0	
Total Suspended Solids (TSS)	15.0	30
Total Oil and Grease	5.0 and no visible sheen	10
Total Ammonia	2.0	4.0
Total Lead	0.01	0.02
Benzene	0.37	-
Toluene	0.002	-
Ethyl Benzene	0.090	-

10. The Licensee shall confirm compliance with Effluent quality limits in Part E, Items 5, 8 and 9 prior to Discharge.

11. The Licensee shall Discharge all Minewater to the Tailings Containment Area or to the Sewage Lakes Disposal Facilities, except as specified in Part E, Item 12.

12. The Licensee shall submit to the Board for approval, a proposal for the disposal of Minewater should a location other that those specified in Part E, Item 11 be considered. The proposal shall describe options for the Discharge of Minewater, data on the quantity and quality of the Minewater, and the options for Minewater treatment and disposal.

13. The proposal specified in Part E, Item 12, shall be implemented as approved by the Board in writing.

14. The Licensee shall remove from the project site, all hazardous Wastes generated through the course of the Operation, for disposal at an approved hazardous waste disposal facility.

15. The Licensee shall maintain records of all Waste backhauled and confirmation of proper disposal through the use of Waste manifest tracking systems and registration with the Government of Nunavut, Department of Environment.

PART F: CONDITIONS APPLYING TO MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out Modifications provided that such Modifications are consistent with the terms of this Licence and the following requirements are met:

NWB Tools

Damien Côté <damien.cote@nwb-oen.ca>

URGENT: 140704 2AM-LUP0914 NWB's Response to Amendment Request for Lupin Mine

Eva Paul <Eva.Paul@aandc-aadnc.gc.ca> Tue, Aug 19, 2014 at 8:04 AM
To: klewis@elginmining.com, licensing@nwb-oen.ca, megan.porter@nwb-oen.ca, phyllis.beaulieu@nwb-oen.ca, robin.ikkutisluk@nwb-oen.ca
Cc: gfriesen@elginmining.com, pdowney@elginmining.com, damien.cote@nwb-oen.ca, david.hohnstein@nwb-oen.ca, sean.joseph@nwb-oen.ca, Teresa@shoresjardine.com, slines@tlaconsultants.ca

Hello Mr. Downey,

I was working in the area on August 17 2014 and conducted an opportunistic visit of the Lupin Site. Of particular concern were the water levels, and specifically at the Lower Sewage Lagoon (LSL). During my July visit there was somewhat less than one meter of freeboard at the LSL, however there has been significant rainfall in the area since then.

This week, from the air it appeared that water was bypassing the end of the berm at the lower end of the LSL. On the ground, it was determined that there is less than 0.5 meter freeboard in places, and the water is very close to running around the end of the berm as it did in 2012. It was not flowing at the time of my visit, but it is possible that it did during the rain storm of the last couple of days, and it is also possible that water is seeping past the berm through the active layer.

I would recommend that you take steps to prevent the accidental discharging of waste from this facility. That said, it is noted that water samples taken in June determined that the LSL is in compliance with discharge criteria as prescribed by the Licence.

I would also recommend that the contractors at site be reminded that no discharges to the Sewage Lagoon are permitted under the temporary "~Approval without a Licence". Mr. Carter was not aware of that fact when I discussed it with him. I do not believe there has yet been a discharge to the lagoon, however Mr. Carter was of the impression that it was appropriate to do so if the tank were to become full. I understand Mr. Friesen is due on site shortly; please ensure that he reviews the terms of the current authorization (8WLC-LUP1415) with personnel on site.

Regards,

Eva Paul
Water Resources Officer | Agente des ressources en eau
Aboriginal Affairs and Northern Development Canada | Affaires autochtones et Développement du Nord Canada
Nunavut Regional Office | Bureau régional du Nunavut
Building 969, PO Box 2200 | Édifice 969, CP 2200
Iqaluit, NU X0A 0H0
Phone | Tél. : 867-975-4548
Cell | Mobile: 867-222-6490
Fax | Téléc. : 867-979-6445
Eva.Paul@aandc-aadnc.gc.ca

>>> Karyn Lewis <klewis@elginmining.com> 8/18/2014 6:57:09 PM >>>
[Quoted text hidden]

WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee	Licensee Representative
LMI / Elgin Mining	George Friesen
Licence No. / Expiry	**Representative's Title**
2AM-LUP0914 – Expired	
Land / Other Authorizations	**Land / Other Authorizations**
8WLC-LUP1415	76E/14-1, -2, -10 and 76E/11-3
Date of Inspection	**Inspector**
15/07/2014	Eva Paul

Activities Inspected

☒ Camp ☐ Drilling ☒ Mining ☐ Construction ☒ Reclamation ☒ Fuel Storage
☒ Roads/Hauling ☒ Other: Tailings ☐ Other:

Conditions: **A - Acceptable** **C - Concern** **U - Unacceptable** **NA – Not Applicable** **NI – Not Inspected**

Water Use	Condition	Comment	Site Conditions	Condition	Comment	Haz/Mat Management	Condition	Comment
Intake/Screen	NA		Water Management Structures	U	3	Storage	C	3
Flow Measure. Device	NA		Culverts / Bridges	A		Spills	U	6
Source:	NA		Drainage	A		Spill Plan	U	6
Water Use:	NA		Erosion / Sediment	C	4			
Recirculation (y /n)	NA		Mitigation Measures	U	5	**Administrative**		
			Reclamation Activities	U	5	Records	NI	
			Materials Storage	A		Reports	U	7
Waste Disposal			Signage	NI		Plans	U	7
Waste Water	C	1				Notifications	A	
Solid Waste	A		**Monitoring**			**Other**		
Hazardous Waste	C	2	Sample Collection / Analysis	A				

**The number in the comments field will correspond with specific comments provided below.*

Samples taken by Inspector:	Location(s):
☐ Yes ☒ No	

SECTION 1 ☒ **Comments** (s.1) ☒ **Non-Compliance with Act or Licence** (s.2) ☒ **Action Required** (s.3)

Lupin Mine is currently inactive and the site empty. No water use or deposit of waste is currently permitted under the Type A water licence, which is expired and pending renewal. An Approval without a Licence ('Approval') has been issued in the meanwhile, to permit LMI to undertake work necessary to maintain the site. Mr. Friesen met me on site for the inspection, with Mr. Shawn Carter who will be conducting work at site this summer in partnership with Delta Engineering.

1. There was approximately one meter freeboard in the lower sewage lagoon. Mr. Friesen indicated that the level was lower than it was during his June visit, however, this level will have to be monitored. Mr. Friesen indicated that sample results from the June visit were compliant for discharge; however LMI is not currently authorized to discharge under the Approval.
2. There is no great reduction in hazardous waste on-site compared to the 2012 inspection. It does not appear from the 2013 monthly reports that any hazardous waste was backhauled in 2013. Hazardous waste should be a priority for backhaul.
3. Barrels of fuel marked 'WSC' were noted at the main water intake. These barrels were within 5 m of the water and not in containment. Tailings Containment Area (TCA) did not show any obvious faults aside from erosion. Tears are visible in the liner of the main tank farm. The satellite tank farm (STF) berm appears to be leaking; heavy staining is showing around the base (outside the berm) but the upper part of the banks are clean, indicating that it has not overflowed as was thought in 2012. This leads me to believe that the contamination is seeping from the bottom outward. Numerous barrels were noted at the shacks down the road from the quarry. There is a steady flow from Upper Sewage Lagoon to the Lower Sewage Lagoon (LSL) through a collapsed and rusted culvert. The creek downstream from the LSL discharge is exhibiting signs of impact from the discharge. It appears that an ice lens has formed under the active layer, and the active layer is being washed out. This may be due to ponding, or another effect of the discharge. In addition, there is a long crack in the dam that contains the lower sewage lagoon.
4. TCA road at Dam 6 is washed out. Mr. Friesen reported that this is a recurring problem.
5. The uncovered tailings remain an outstanding issue. No work has been conducted to cover the tailings despite repeated instruction to do so. No mitigation measures have been implemented to prevent windblown tailings/cover from impacting the tundra. Historic experiments to grow vegetation on the tailings cover near Dam 6 appear to have been successful; this could be implemented on other areas of covered tailings to aid in the encapsulation.
6. Spill reported in 2012 from the STF was not cleaned up; in fact it appears to have worsened. As such, the spill plan is not being implemented. Currently, nothing is being done to ensure that the uncovered tailings do not become windblown from the TCA, nor has the material that has already been blown from the TCA (documented in 2012) been returned to the TCA. Elevated levels of arsenic where noted in the samples taken outside the TCA and reported to LMI in a follow-up report in 2012.
7. Compliance Plan submitted in 2012 was not approved by the Inspector. This was discussed with Mr. Vokey of LMI in November 2012; however the changes that were discussed were never incorporated into the plan nor was the plan updated with the NWB. There are a number of items that were not reflected accurately in the plan. Commitments that were made in the plan have not

or in response to the 2012 inspection report have not been completed. Inspector's instruction to cover the exposed tailings has been repeatedly postponed. Annual reports do not adequately address Inspector's concerns from the 2012 Inspection Report.

SECTION 2	☐ Comments	☒ Non-Compliance with Act or Licence	☐ Action Required

Part E Item 6(e): Failure to contain mill tailings permanently within the TCA.
Part E Item 14: Failure to remove hazardous wastes from site.
Part H Item 4: Failure to provide adequate secondary containment.
Part H Item 8(a): Failure to implement the Spill Contingency Plan with respect to spill from the STF and the TCA.
Part I Item 9: Failure to conduct progressive reclamation, including cover of tailings and revegetation.

SECTION 3	☐ Comments	☐ Non-Compliance with Act or Licence	☒ Action Required

1. Water level of the lower sewage lagoon is to be monitored following rain events or at least monthly. Discharge may only occur with a valid licence in place.
2. An updated inventory of hazardous waste is to be submitted to the inspector and reported in the Annual Report.
3. All new hazardous waste is to be backhauled in the year it is created to prevent further accumulation of waste, and a portion of the historic waste. Quantities and type of waste backhauled is to be reported in the Annual Report.
4. A geotechnical inspection is to be conducted on all engineered water management structures, including but not limited to: Main and Satellite Tank Farms, Upper and Lower Sewage Lagoon, and waste containment areas. The engineer's report is to be submitted to the NWB and to the Inspector by October 31 2014, accompanied by a plan and timelines to implement the engineer's recommendations.
5. The uncovered tailings shall be covered according to the engineer's specifications and any applicable operating plan, and tailings/cover blown out of the TCA is to be replaced in the TCA and permanently encapsulated. This is to be completed and a report submitted to the Inspector by October 31 2014.
6. All contaminated material from around the STF is to be removed as per the Spill Contingency Plan. An investigation as to the origin of the contamination is to be undertaken, and the STF berm is to be assessed by a qualified engineer. A report is to be submitted to the Inspector by October 31 2014 demonstrating a) the engineer's findings, b) that the spill is cleaned up and c) that the necessary work to prevent further contamination has been completed.

Licensee or Representative	Inspector's Name
-	Eva Paul
Signature	**Signature**
-	Sent electronically
Date	**Date**
-	August 5, 2014

Office Use Only: Follow-up report to be issued by Inspector ☐ Yes ☐ No

Attached: Appendix 1 - Photos of Inspection

CC: Phyllis Beaulieu, Manager of Licensing, NWB
Erik Allain, Manager of Field Operations, AANDC
Baba Pedersen, Resource Management Officer – Kitikmeot Region, AANDC

Appendix 1: 2AM-LUP0914 PHOTOS OF INSPECTION, July 15 2014

Figure 1. Lupin Mine Site from the air July 15 2014. Main tank farm in the foreground.

Figure 2. Aerial view of the dam at Lower Sewage Lagoon (LSL).

Figure 3. Crack in the dam at LSL.

Figure 4. Main tank farm (MTF) and Hazardous Waste Storage.

Figure 5. Barrels left near the lake at the water intake. Barrels were left by Water Survey Canada without authorization.

Figure 6. Rips visible in the exposed liner at the MTF.

Figure 7. Satellite Tank (STF) Farm from the air. Heavy staining visible within and without.

Figure 8. Staining outside the STF berm.

Figure 9. Barrels noted at shack past the quarry.

Figure 10. Steady flow seen through rusted culvert from the Upper Sewage Lagoon to the Lower Sewage Lagoon.

Figure 11. Permafrost degradation noted at discharge from LSL.

Figure 12. Ice lens forming at discharge from LSL. Closeup of Figure 11.

Figure 13. Recurring wash-out location at Dam 6. Aerial view in Figure 17.

Figure 14. Dark patch shows the area of tailings still uncovered.

Figure 15. Material deposited outside the TCA.

Figure 16. Material deposited outside the TCA.

Figure 17. Growing vegetation cover near Dam 6. Recurring washouts also visible on left, resulting in deposit to water.

Figure 18. Barrel leaking in the 'Third Party' fuel berm.