



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee		Licensee Representative	
Lupin Mines Inc		Karyn Lewis/ Pat Downey	
Licence No. / Expiry		Representative's Title	
2AM-LUP09/14 (expired and amended)		Consultant/ Owner	
Land / Other Authorizations		Land / Other Authorizations	
8WLC-LUP1516			
Date of Inspection		Inspector	
20-23/08/2015		A. Keim	
Activities Inspected			
<input checked="" type="checkbox"/> Camp	<input type="checkbox"/> Drilling	<input type="checkbox"/> Mining	<input type="checkbox"/> Construction
<input checked="" type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Other: Water Discharge	<input type="checkbox"/> Reclamation	<input checked="" type="checkbox"/> Fuel Storage
		<input type="checkbox"/> Other: Municipal	

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	A		
Flow Measure. Device	NA			Culverts / Bridges	A			Spills	U		5
Source:	NA			Drainage	NA			Spill Plan	U		5
Water Use:	NA	1		Erosion / Sediment	U	3					
Recirculation (y /n)	NA			Mitigation Measures	U	4		Administrative			
				Reclamation Activities	U	4		Records			
				Materials Storage	NA			Reports	NI		
Waste Disposal				Signage	NI			Plans	NI		
Waste Water	U	1						Notifications	NI		
Solid Waste	A			Monitoring		Other					
Hazardous Waste	U	2		Sample Collection / Analysis	NI			Inspection report compliance	U		6
								Compliance with issued Direction	U		6
*The number in the comments field will correspond with specific comments provided below.											
Samples taken by Inspector:			Location(s): Soil samples were collected from one area outside the tailings impoundment to look for signs of wind dispersion of uncovered tailings.								
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											

SECTION 1	<input checked="" type="checkbox"/> Comments (s.1-2)	<input checked="" type="checkbox"/> Non-Compliance with Act or Licence (s.3)	<input type="checkbox"/> Action Required (s.4)
<p>A compliance inspection was conducted between the dates of August 20th and August 23rd, 2015 at the Lupin Mines site. The Inspection also facilitate the scheduled Geotechnical Site Investigation scheduled by AANDC to inform future interventions on behalf of the Government of Canada with respect to renewal and amendments to the current Type A license issued to Lupin Mines Inc (LMI).</p> <p>At the time of the Inspection it was noted that the Licensee’s Emergency Amendment to the Type A license had expired. The Licensee had applied for and was issued an Authority without a license to conduct water use and waste disposal associated with inspection and maintenance activities that were required under the Type A and by a Direction issued to LMI by an Inspector. The Direction, issued on September 8th, 2014 to LMI requires the Licensee to:</p> <ul style="list-style-type: none">• Maintain the Sewage Lake at a level consistent with safe operation• Implement the recommendations contained within the 2014 Geotechnical Engineer’s Report <p>Additionally, a subsequent Direction, issued on July 22nd, 2015 was also in effect at the time of the Inspection.</p> <p>This direction related to the Tailings Containment Area (TCA), Treatment of Wastewater/ Contact water within the TCA and the discharge of this waste water, following treatment, into the environment to allow for the continued safe operation of the TCA. The work to be done and which was approved under the second Direction was outlined in the Tailings Facility 2015 Work Plan submitted to the Inspector of record and the Board.</p> <p>The Inspector was accompanied to site by AANDC staff member Jonathan Mesher of the Water Resources Unit of AANDC and both Mr. Patrick Harrison and Mr. Barry Cook of ARCADIS Canada Inc , who were acting on AANDC’s behalf to conduct the required geotechnical site investigation to better inform AANDC’s future submission with respect to this file and that of the Ulu Gold Project, also inspected during this period.</p> <p>The Inspector and staff arrived on site on the morning of August 21st, 2015 after not being able to attend the site due to poor weather on the date of August 20th, 2015. The team arrived on site at 08:30 the morning of the 21st, unloaded two 4 Wheeler ATV vehicles brought on the plane to facilitate the inspection of the site and then met with LMI officials and their consultants from SRK within the Lupin Mines office buildings on site. These offices were located immediately adjacent to the original Bunk Houses and were used originally when the mine was in operation prior to the current Care and Maintenance phase.</p> <p>Present at the initial meeting were; Mr. Pat Downey, President and CEO of LMI, Ms. Karyn Lewis of LMI and Bonito Capital Corp, Mr. Alvin Tong, SRK Consulting, Mr. Fred Wilke, Discovery Mining Services and Ms. Andrea Bowie also of SRK. The Inspector, Andrew Keim, AANDC Water Resources Unit representative, Mr. Jonathan Mesher and both Mr. Cook and Mr. Harrison of Arcadis on behalf</p>			

of AANDC.

Mr. Downey opened the initial meeting with a statement regarding the Use of water and deposit of wastes on site being undertaken in compliance with the issued Direction, a site safety briefing and an overview of the camp and on-going operations. It was stated that all wastes were being transported back to Yellowknife on back haul flights with Air Tindi, however this was later retracted after AANDC staff visited the Incinerator and found it being used. This was clearly just an oversight.

Following introductions, Mr. Dowey questioned what AANDC planned to do on site. The Inspector informed Mr. Downey that the purpose of the Inspection was a compliance inspection and a complete geotechnical site inspection and closure cost estimate review. The Inspector explained that the inspection will require AANDC to review all aspects of the site and include access to buildings and other infrastructure.

At this point AANDC staff and the Inspector were politely asked to wait in the conference room while LMI staff had an opportunity to review this information and seek advice.

During the time Mr. Downey was seeking advice a short visit to the site where the Lower Sewage Lagoon Berm is located was coordinated by Ms. Lewis. The Inspector noted the large blue tank where sewage and grey water is stored pending the completion of work required under the initial Direction and prior to discharge to the Lower lagoon lake. Also documented were the syphons and pumps installed across the berm road and used to bring down the water level within the Lower lagoon lake. The work to reinforce and bring the roadway up to grade was also noted. This work was not yet completed but as confirmed by on site staff the work was scheduled to be completed before the end of August 2015. A photo of the Pump meter located on the syphon was taken however it was stated by LMI staff that the meter was not accurate and was not always working. A final volume estimate would be provided by SRK following completion of the work. This is work that is required to be completed for LMI to come into compliance with the issued 2014 Direction.

Following this, AANDC staff returned to the camp to meet with Mr. Downey.

Upon our return to the Board room, AANDC staff were informed of the following, read by Mr. Downey;

“You have told me that you are here to conduct a visit for the purpose of the reclaim estimate, not an inspection. We are not consenting to this visit. We will let you in if you tell us that you have the legal authority to enter without our consent. Our cooperation with your visit should not be interpreted as consenting to this visit in any way.

We are disappointed that no notice was provided, that you have been secretive about your scope of work and the people visiting the site.”

The Inspector then clarified to Mr. Downey that this indeed was a compliance inspection and that the purpose of the inspection is to collect information on actual site conditions and status of compliance with the now expired Water license and the issued Directions. The information collected with respect to the status of LMI’s compliance with the issued authorizations, the issued Directions and the observed site conditions will ultimately inform AANDC’s future submissions related to the site. Mr. Downey was also informed that LMI’s cooperation was appreciated.

Following this the Site Inspection was undertaken.

On August 21st and 22nd the Inspector (A. Keim) and Mr. Barry Cook of Arcadis inspected the following areas: The lower sewage lagoon and water management structures, the upper sewage lagoon and water management structures, the dock , the fresh water intake, the winter haul road up to site from Contwoyto lake, the old overflow tailings discharge containment area, the Haz mat storage area, the main bulk fuel storage tank farm, the 3rd party storage site (fuel drums 300+) , the Satellite Tank Farm, the tailings impoundment areas and both the internal and external water management structures, The explosives storage area, the Quarry and the Esker site.

On August 21st and 22nd , Mr. Jonathan Mesher of AANDC and Mr. Harrison of Arcadis Canada Inc, accompanied by Karyn Lewis of LMI and Fred Wilke of Discovery Mining Services conducted an inspection on all buildings and infrastructure located on site.

SECTION 2	<input checked="" type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
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1. Water Usage and Waste Water:

Water for the camp is pumped into a tank on a trailer that his hauled up to camp from the lake. This is done daily. Camp Water usage records were requested and subsequently provided via e-mail following the Inspection by Karyn Lewis of LMI. Wastewater is hauled in a tank down to the Sewage lakes and stored in a large blue water tank on the shoreline. This is in compliance with the Direction issued to LMI in 2014.

The Inspector did not identify any issues that required actions to be undertaken by LMI with respect to water usage or waste discharge from camp activities.

2. Hazardous Waste:

The Haz Mat storage area site is located adjacent to the large bulk fuel storage area. The area is lined and the liner was visible in a number of locations. Obvious signs of staining and leaks were present throughout the area. Some erosion was noted on the slope off the pad and this was brought to the attention of LMI officials.

It is unclear how much (if any) hazardous waste has been shipped off site to date. Waste and back haul records were not available for review at the time of the Inspection but were to be provided to the Inspector following the inspection. To date these records have not been provided.

During the period of Inspection there were approximately 40 metal waste oil cubes, 200 45 gallon barrels of assorted waste oil and other lubricants plus approximately 50 5 gallon pails of drill oil.

3. Water Management Structures/ Erosion

Between August 21st and 22nd , 2015 Mr. Barry Cook of Arcadis Canada Inc., the Inspector and Mr. Alvin Tong of SRK Consulting visited all water management structures within the foot print of the Lupin Mine site property. The following were identified during

this inspection:

- A wash out of Dam 3 (tailings impoundment area) was identified and the Licensee committed to addressing this through the construction of a saddle dam, reinforcement of the berm in the wash out location, and a regrading of the run-off ditch to prevent melt water accumulation at this point prior to the end of the 2015 field season.
- Work on raising the level of the roadway/berm wall at the foot of the lower sewage lagoon lake was as yet unfinished however work to complete the final lifts and compaction were on the work plan to be addressed prior to the end of the 2015 field season.
- Erosion and wind/water scour were identified as present on internal water management/ containment berms (Dams M and K) within the Lupin Mine footprint during the period of Inspection. These were photographed and documented by the Inspector. Work on Internal Dam M had not yet undertaken by the licensee.
- While work had been undertaken at the Lower Sewage Lake, the berm had not yet been brought up to final grade and evidence of erosion at the south end was still visible and was documented.

3. Mitigation and Reclamation Activities :

During the dates of Inspection (August 21st and 22nd), spills identified in earlier inspections remained as initially reported.

Staff from LMI stated that they had continued to back haul wastes from site to Yellowknife on returning charter flights. A copy of the manifests of hazardous and other wastes sent off site was requested during the period of inspection. This was not available at that time but was to be provided to the inspector.

No other proactive progressive reclamation activities were identified during this period.

Work to treat the contact water within the tailings containment area was on-going during the period of Inspection. This work is required during the 2015 year to prevent damage to the facility as no treatment or decanting within the facility has been undertaken in a number of years. The resulting accumulation of contaminated contact water has resulted in a risk to the integrity of the Water Management structures in place. As the Licensee does not have a current water license the activities are being undertaken under the authority of an Inspector’s Direction issued pursuant to Section 87 of the Nunavut Water and Nunavut Surface Rights Tribunal Act.

During the Inspection of the Tailings containment areas it was identified by the Inspector that areas within the facility contained tailings that were not covered by either granular material or water. These exposed tailings may pose a danger to the environment if they are transported outside the containment areas. This has been identified on numerous inspections of the site going back a number of years and to date there appears to have been no work undertaken to address this by LMI.
While on site the consultant, Mr. Barry Cook collected a number of surface samples both inside the tailings containment area and adjacent in an effort to determine if uncovered tailings are being ejected outside the containment area. Mr. Tong of SRK collected duplicate samples for the licensee at the same time.

4. Spills:

During the Inspection the following were noted:

- Within the Bulk Fuel Storage area there were signs of staining and of past spills.
- The Haz mat storage area showed evidence of past spills and staining
- The satellite tank farm was highly contaminated with free product and emulsified fuel/ oil noted within the berm. This contamination had been identified on previous inspections and work to delineate the extent of the spread of contamination and remediate the spill was to have been undertaken. When questions regarding these activities Mr. Downey of LMI indicated that LMI had not undertaken any further work on the contamination pending the construction of a land farm and since the license had expired the only work that could be conducted on site was under the terms of the Inspector’s Direction(s) he could not proceed with this work until a new license was issued.

SECTION 3	<input type="checkbox"/> Comments	<input checked="" type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
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5. Compliance

During the period of the inspection the Licensee was found to be conducting operations without the benefit of a water license. The current authorization in place for the site is an Authority without a License 8WLC-LUP-1516. That covers activities associated with the camp and not the rest of the site.

Other activities noted on site have been ordered under the authority of an Inspector’s Direction to ensure both the safety and security of the site and to reduce the risk of detrimental effects to the environment if the work is not completed.

The Licensee was found to be undertaking work that was required under the direction and no other progressive reclamation or other activities on site.

PHOTO LOG

Date	Camera	Inspector	Authorization
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Figure 1 Lower sewage lagoon lake -berm wall remedial work



Figure 2 Berm wall - lower sewage lake with syphons installed

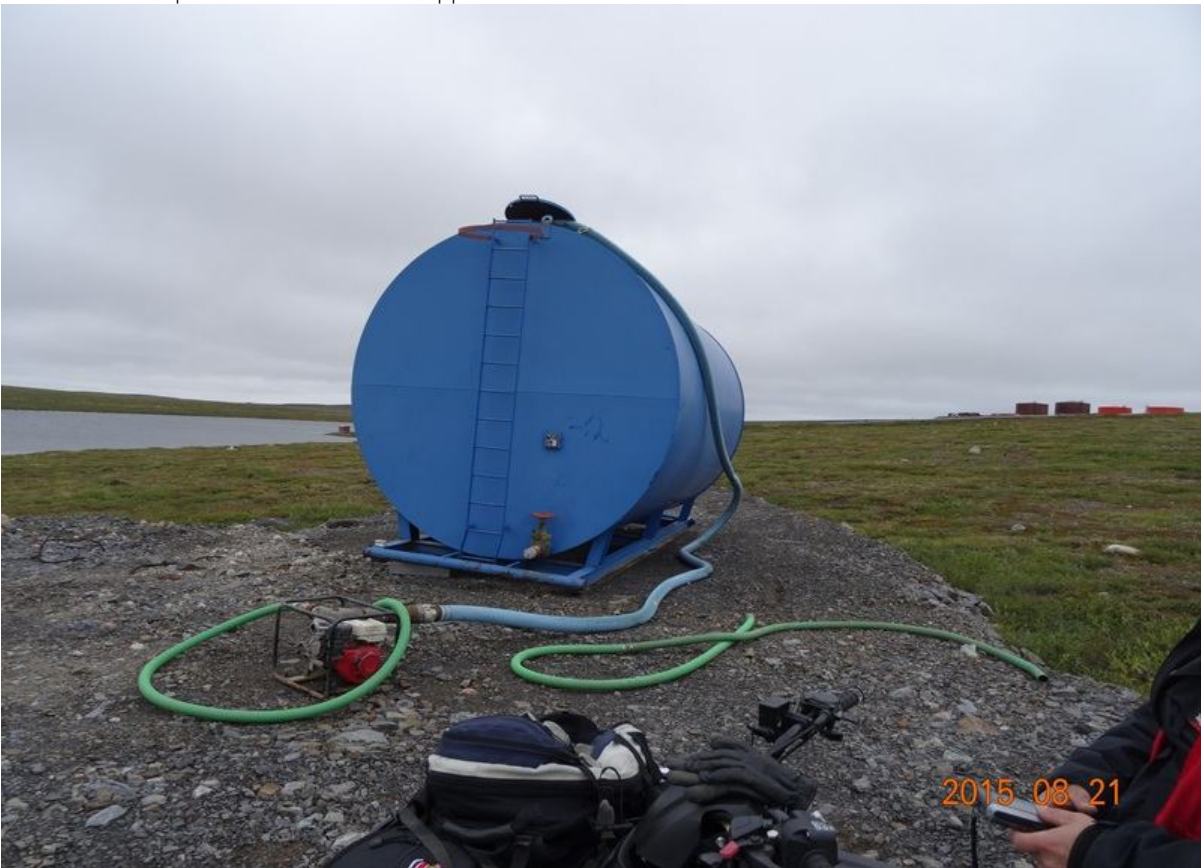


Figure 3 Sewage holding tank to be used pending completion of the required work



Figure 4 Tailings over flow area adjacent to lower sewage lake. Recently been decanted by the Licensee



Figure 5 Pumping station at tailings overflow area.. Dump Pond Station



Figure 6 Cubes of waste oil within the Haz Mat storage area



Figure 7 Barrels of waste oil and other waste fluids in Haz Mat Storage Area



Figure 8 Main bulk fuel tank farm. evidence of work on berm walls



Figure 9 Hose attached to 5 million litre tank within the bulk fuel containment area



Figure 10 Bulk fuel containment area - painted tanks



Figure 11 Bulk Fuel tank farm - evidence of work on berm walls.



Figure 12 Satellite tank farm - free product and staining from previous spills



Figure 13 Satellite tank farm free product and emulsified oil on surface of water



Figure 14 Satalitte tank farm - surface staining



Figure 15 Drainage and flow from back side of Bulk Fuel storage tank farm berm



Figure 16 Back side of Bulk Fuel Storage tank farm.

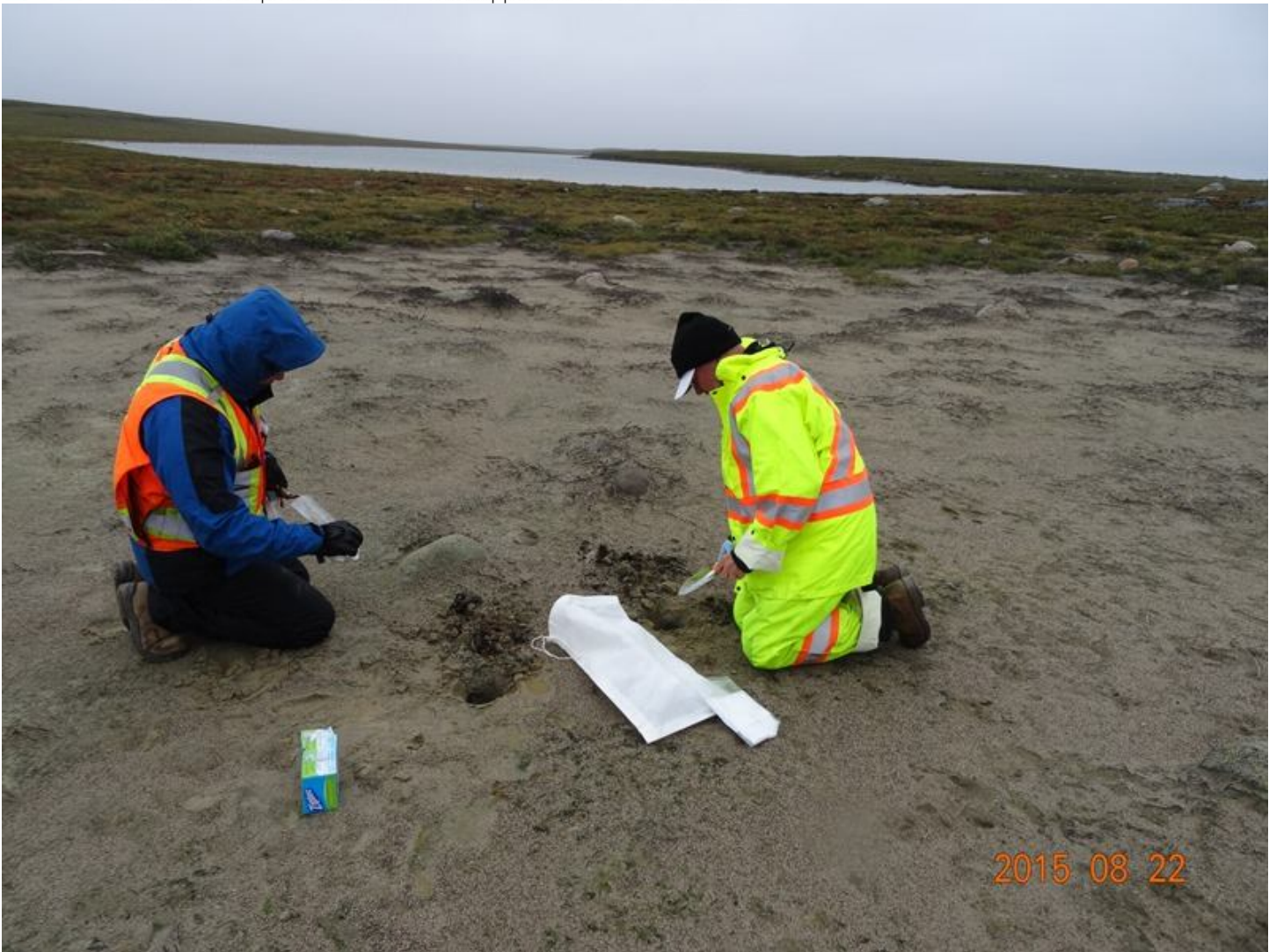


Figure 17 Site of soil sample collection



Figure 18 close up of duplicate samples collected by Consultants



Figure 19 Contact water from within the tailings containment area - Lye mixing station on berm wall



Figure 20 Mixing station



Figure 21 Erosion at Berm M



Figure 22 Water / surf scour and erosion of berm walls within the TCA.



Figure 23 Berm wall less than 1 meter of free board as required by License



Figure 24 Wash out at Dam 3



Figure 25 Wash out at Dam 3 (2)

Licensee or Representative	Inspector's Name
	Andrew Keim
Signature	Signature
	Original On File
Date	Date
	October 30, 2015

Office Use Only:	Follow-up report to be issued by Inspector	<input type="checkbox"/> Yes <input type="checkbox"/> No
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