



WATER LICENCE INSPECTION FORM

☒ Original
☐ Follow-Up Report

Licensee		Licensee Representative	
Lupin Mines Incorporated (LMI)		Dave Vokey	
Licence No. / Expiry		Representative's Title	
2AM-LUP2032			
Land / Other Authorizations		Land / Other Authorizations	
Date of Inspection		Inspector	
2021 October 10		Baba Pedersen	
Activities Inspected			
<input checked="" type="checkbox"/> Camp	<input type="checkbox"/> Drilling	<input type="checkbox"/> Mining	<input type="checkbox"/> Construction
<input type="checkbox"/> Roads/Hauling	<input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Other: Security Reduction	<input checked="" type="checkbox"/> Reclamation
<input type="checkbox"/> Fuel Storage			

Conditions:		A - Acceptable	C - Concern	U - Unacceptable	NA – Not Applicable	NI – Not Inspected	
Water Use		Condition	Comment	Site Conditions		Condition	Comment
Intake/Screen				Water Management Structures			
Flow Measure. Device		A		Culverts / Bridges			
Source:				Drainage		A	
Water Use:		A		Erosion / Sediment			
Recirculation (y / n)				Mitigation Measures		A	
				Reclamation Activities		C	All
				Materials Storage		A	
Waste Disposal				Signage			
Waste Water		A					
Solid Waste		A		Monitoring			
Hazardous Waste		A		Sample Collection / Analysis		A	
*The number in the comments field will correspond with specific comments provided below.							
Samples taken by Inspector:		Location(s):					
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No							

SECTION 1	<input checked="" type="checkbox"/> Comments (s. __)	<input type="checkbox"/> Non-Compliance with Act or Licence (s. __)	<input type="checkbox"/> Action Required (s. __)
<p>On Sunday October 10, 2021, I, Baba Pedersen, Resource Management and Water Resource Officer with Crown-Indigenous Relations and Northern Affairs Canada, the Writer of this Report, did Inspect the Holder (Lupin Mines Incorporated) of Water Licence number 2AM-LUP2032 issued for the Reclamation of the Lupin Mine Site located at approximately N 65* 46' and W 111* 14' in the Kitikmeot Region of the Territory of Nunavut.</p> <p>Upon arrival to the site, the Inspector was accompanied by Vincent Okonkwo, CIRNAC Senior Environmental Assessment Specialist, Thomas Milks with DST Englobe (Contractor for CIRNAC), and Dave Vokey with Discovery Mining Services (Contractor for Lupin Mines Inc).</p> <p>The Purpose of the Inspection was the following;</p> <ol style="list-style-type: none">To Inspect Terms and Conditions pertaining to the Water License stated above and additionally to ensure that the Licensee is abiding by named Terms and Conditions within the License Permit.To follow up on the progress made by Discovery Mining Services/LMI on the Reclamation plans for 2021 and specifically the list of Items provided by Karyn Lewis from LMI to Baba Pedersen with CIRNAC in an email dated October 2, 2021. <p>Due to the ongoing global Covid-19 Pandemic situation, this was a very unique Inspection process. The Inspector flew in to the site on an Air Charter, which is the only accessible means of travel to and from the mine site during the summer months. Recommended health guidelines including social distancing in response to the pandemic were respected the entire time the Inspector was on the ground at the Lupin Site. At NO Time did any named parties including the 2 Pilots of the Charter Flight come into direct contact with anyone working at the Lupin Site</p>			
SECTION 2	<input checked="" type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
<p>The following is a list of Specific Locations Observed and Observations Made during this Inspection;</p> <p>1 Water Consumption</p> <p>Dave Vokey provided the Inspector with a Print Out of the YTD Water Use.</p> <p>As of this date they have used 942.84 Cubic Meters which is well within the Allowable Limit of 250,025 Cubic Meters</p> <p>2 Spill Way on Divider Dike (Photo 1)</p> <p>The Construction of a Spillway through the Divider Dike has been completed.</p> <p>Drainage is from Cell 4 into the Chain Lakes then into Pond 1</p> <p>3 K-Dam (Photos 2 & 3)</p> <p>The Slope Repair Work has been Completed</p>			



4 Pond 2 (Photo 4)

The Pond 2 Water Level is now at Closure Elevation

5 Cell 3 (Photos 5 & 6)

The Cell 3 Cover is now Complete

6 Drainage Ditch from Cell 3 into Cell 4 (Photos 7 & 8)

The Lined Drainage Ditch for the Overflow Spillway from Cell 3 going into the Upstream End of Cell 4 at approximately N 65° 43' 08.2" and W 111° 16' 35.6" is Complete

7 Exposed Tailings in Cell 4 (Photo 9)

Dave Vokey showed the Inspector where there are still some Exposed Tailings (covered in Snow) in the North West Corner of Cell 4 as seen from where the Inspector was standing on the L-Dam at approximately N 65° 43' 21.7" and W 111° 16' 40.7"

8 Covered Tailings in Inlet of Cell 4 (Photos 10 & 11)

Dave Vokey showed the Inspector an Inlet in Cell 4 where they have Placed and Covered Exposed Tailings with a minimum of 1 Meter of Fill. Photos are from where the Inspector was standing at approximately N 65° 43' 26.4" and W 111° 16' 42.6"

9 J-Dam Syphons from Pond 1 into Pond 2 (Photos 12 & 13)

The Inspector saw the Syphons over J-Dam where Water is pumped from Pond 1 into Pond 2.
Eventually they will construct a Spill Way at this location

10 Outflow Channel Between Cell 5 and Pond 1 (Photos 14, 15 & 16)

They have Completed the Outflow Channel between Cell 5 (on the left) and Pond 1 (on the right), Water Flow is from Left to Right

11 Cell 5 (Photos 17 & 18)

Cell 5 is now Complete, Stantec will have a Final Report within 2 Months.

They are now focused on the N-Dam from now until they close for this season within 1 week

12 M-Dam Repairs (Photo 19)

The Repairs to the M-Dam (under snow on right hand side) were Completed on October 5th, Thomas Milks from DST Englobe has photos of the repair work taken on Oct 5th.

13 Filling In Cell N which is Part of Cell 5 (Photo 20)

Lots of Heavy Equipment was actively Filling In Cell N (which is Part of Cell 5) while I was on Site.
This is their Main Project until Closure for the Season within 1 Week

14 Explosives Building (Photo 21)

The Explosives Building, way off in the distance, is now Empty. The access road was not passable on this day due to snow drifts.
Thomas Milks with DST Englobe has photos of this from earlier in the season

15 Crown Pillar Area (Photos 22 & 23)

The Crown Pillar Area has been Drilled and Blasted then Filled with Contaminated Soils. Approximately 4 to 5 Meters Deep of Fill will be added next year as part of the Capping Process in this entire area.
This photo was taken from approximately N 65° 45' 51.4" and W 111° 14' 03.3"

16 Excavated Main Tank Farm Area (Photo 24)

All Contaminated Soil from the Main Tank Farm has been Removed, they still need to refill the hole with Clean Gravel

17 West Zone of Crown Pillar Area (Photos 25 & 26)

The West Zone of the Crown Pillar area still needs to be Drilled and Blasted, then this is where all remaining Contaminated Soils will be placed next year

18 Portal Area (photo 27)

The Portal has been Cut Down and the Hole has been Filled.
They still need to add approximately 1 to 2 Meters of Fill across the Top as part of the overall Cap.

19 Excavation # 9 Storage Garage Area (Photo 28)

All Contaminated Soil has been Removed, and the Area has been Cleaned and Approved to be Back Filled

20 Excavation # 16 Mill Area and Arsenic Excavation (Photo 29)

All Contaminated Soil has been Removed, and the Area has been Cleaned and Approved to be Back Filled

21 Excavations # 22 & # 23 (Photo 30)

They plan to put Rock Fill in to make area flush with the ground this week.
The Concrete Floors have had Holes punched through and the area will be covered next year

22 Excavations # 15 & # 12 Burn Pit & Contaminated Materials Pile Area (Photo 31)

All Contaminated Soil has been Removed, and the Area has been Cleaned and is waiting to be Back Filled

23 Excavation # 13 Old Bone Yard (Photo 32)

All Contaminated Soil has been Removed, and the Area has been Cleaned and is waiting to be Back Filled

24 Land Fill Area (Photos 33 & 34)

The Land Fill Area is still in Use and still needs to be Covered after all items have been placed within before project completion

25 Excavations # 17 & # 18 Satellite Tank Farm (Photo 35)

This area has been Started but it is not Completed yet

26 Excavation # 20 Contaminated Area from Old Spill where 3 Sea Cans were Stored (Photo 36)

All Contaminated Soil has been Removed, and the Area has been Cleaned and is waiting to be Back Filled



27 Waste Oil Burn Container (Photo 37)

This Season’s Plan was to Burn Off all Used Oils from the Old Powerhouse that has been Stored in the 2 Orange Tanks in the background of Photo # 37. 17 Cubes (each Cube is 1000 Liters) have been Removed and Burned Off from the Tank on the Right, it is now Empty. They are now Burning Off the Product in the 2nd Tank which is on the Left.

28 Contaminated Soil Stock Pile (Photo 38)

This is where All Contaminated Soils are being Stored prior to be being placed in the Crown Pillar Areas.
So far this year they have placed 1,400 Loader Bucket Loads into the Crown Pillar Area.

SECTION 3	<input checked="" type="checkbox"/> Comments	<input type="checkbox"/> Non-Compliance with Act or Licence	<input type="checkbox"/> Action Required
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While on the ground at the Lupin Site, Mr. Vokey was informed that the purpose of this Inspection is to verify that the Reclamation Work claimed to having being Completed, actually has been Completed. Also that this Inspection is only one of the requirements under Schedule C of this Water License, LMI must still provide All Other Conditions as per the Water License as it pertains to Security. For those that do make any decisions regarding Reclamation Security, this Inspection Report is one of many tools that the deciding authorities will use to make their decisions. The Inspector stresses this fact to anyone reading this report as well.

The Inspector’s main concern are the Timelines of this Reclamation Project. We are now at the end of Year 2 of an originally planned 2 Year Project. From my observations, this Project is far from completion. In my opinion, the Contractor, Discovery Mining Services is doing a thorough job. I believe the Timelines put forward by Lupin Mines Incorporated have been optimistic.

Licensee or Representative	Inspector’s Name
	Baba Pedersen
Signature	Signature
	Signed Original on File
Date	Date
	2021 October 25

Office Use Only:	Follow-up report to be issued by Inspector	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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cc. CIRNAC, Manager Field Operations, justin.hack@canada.ca
Nunavut Water Board, Manager of Licensing, Gjoa Haven, licensing@nwb-oen.ca



PHOTO LOG

Date	Camera	Inspector	Authorization
2021 October 10	Nikon CoolPix W300	Baba Pedersen	2AM-LUP2032
Photo Log # DSCN0565			
Photo 1			
			
Description: Spill Way across Divider Dike			
Photo Log # DSCN0569			
Photo 2			
			
Description: Completed Slope Repair on K-Dam, View 1			

Photo Log # DSCN0570

Photo 3



Description: Completed Slope Repair on K-Dam, View 2

Photo Log # DSCN0573

Photo 4



Description: Pond 2 is now at Closure Elevation



Photo Log # DSCN0575

Photo 5



Description: Cell 3, View 1

Photo Log # DSCN0578

Photo 6



Description: Cell 3, View 2



Photo Log # DSCN0580

Photo 7



Description: Drainage Ditch Overflow Spill Way from Cell 3 into Cell 4, View 1

Photo Log # DSCN0582

Photo 8



Description: Drainage Ditch Overflow Spill Way from Cell 3 into Cell 4, View 2



Photo Log # DSCN0598

Photo 9



Description: Exposed Tailings (under Snow Cover) in North West Corner of Cell 4

Photo Log # DSCN0606

Photo 10



Description: Tailings that have been Covered with at least 1 Meter of Fill located in an Inlet from Cell 4, View 1



Photo Log # DSCN0607

Photo 11



Description: Tailings that have been Covered with at least 1 Meter of Fill located in an Inlet from Cell 4, View 2

Photo Log # DSCN0620

Photo 12



Description: Syphons over J-Dam from Pond 1 into Pond 2, View 1



Photo Log # DSCN0624

Photo 13



Description: Syphons over J-Dam from Pond 1 into Pond 2, View 2

Photo Log # DSCN0640

Photo 14



Description: Out Flow Channel between Cell 5 (on the left) and Pond 1 (on the right), Water Flow is from Left to Right – View 1



Photo Log # DSCN0641

Photo 15



Description: Out Flow Channel between Cell 5 (on the left) and Pond 1 (on the right), Water Flow is from Left to Right – View 2

Photo Log # DSCN0642

Photo 16



Description: Out Flow Channel between Cell 5 (on the left) and Pond 1 (on the right), Water Flow is from Left to Right – View 3



Photo Log # DSCN0646

Photo 17



Description: Cell 5 is now Completed – View 1

Photo Log # DSCN0648

Photo 18



Description: Cell 5 is now Completed – View 2



Photo Log # DSCN0656

Photo 19



Description: Location where Repairs were Completed on the M-Dam (covered in snow)

Photo Log # DSCN0666

Photo 20



Description: Crews Filling In Cell N (which is part of Cell 5)



Photo Log # DSCN0679

Photo 21



Description: Explosives Storage Buildings as seen from a distance due to access road not usable on this day from snow drifting

Photo Log # DSCN0703

Photo 22



Description: Crown Pillar Area after being Drilled and Blasted then Filled with Contaminated Soils – View 1



Photo Log # DSCN0710

Photo 23



Description: Crown Pillar Area after being Drilled and Blasted then Filled with Contaminated Soils – View 2

Photo Log # DSCN0718

Photo 24



Description: Excavated Main Tank Farm Area



Photo Log # DSCN0727

Photo 25



Description: The West Zone of the Crown Pillar Area which will be Drilled, Blasted and Filled with Contaminated Soils next year – View 1

Photo Log # DSCN0729

Photo 26



Description: The West Zone of the Crown Pillar Area which will be Drilled, Blasted and Filled with Contaminated Soils next year – View 2



Photo Log # DSCN0735

Photo 27



Description: The Portal Area

Photo Log # DSCN0741

Photo 28



Description: Excavation Area # 9 where a Storage Garage used to be

Photo Log # DSCN0751

Photo 29



Description: Excavation Area # 16 where the Mill was and also the site of an Arsenic Excavation

Photo Log # DSCN0755

Photo 30



Description: Excavation Areas # 22 & # 23, Concrete Floors have had Holes Punched through



Photo Log # DSCN0763

Photo 31



Description: Excavation Areas # 12 & # 15 where the Contaminated Materials Storage Area and Burn Pit were located

Photo Log # DSCN0766

Photo 32



Description: The Old Bone Yard Area



Photo Log # DSCN0770

Photo 33



Description: Land Fill Area – View 1

Photo Log # DSCN0772

Photo 34



Description: Land Fill Area – View 2



Photo Log # DSCN0776

Photo 35



Description: Excavation Areas # 17 & # 18 where the Satellite Tank Farm was located

Photo Log # DSCN0778

Photo 36



Description: Excavation Area # 20 which was Contaminated from an Old Oil Spill where 3 Sea Cans were located



Photo Log # DSCN0784

Photo 37



Description: The Waste Oil Burn Container Area in Active Use

Photo Log # DSCN0796

Photo 38



Description: The Contaminated Soils Stock Pile which still has to be placed into the West Zone of the Crown Pillar Area next year