24 April 2023

De Beers Canada Inc.
Suite 300 – 1601 Airport Road NE
Airport Corporate Centre
Calgary, AB T2E 6Z8

Water Licence
MV2019L2-0004

Attn: Ms. Michelle Peters,

Re: March GNWT Department of Lands Water Licence Inspection

A water licence inspection was conducted on March 30, 2023 at the Snap Lake Diamond Mine by Tom Bradbury, Resource Management Officer III. The GNWT Lands Inspector was accompanied by Erik Talbot (General Superintendent).

As per the noted Water Licence and applicable Land Use Permits granted in accordance with the *Waters Act* and the *Mackenzie Valley Resource Management Act*, please be advised that the attached Inspection Report is part of the Public Registry and is intended to keep all interested parties informed of the manner in which Licence requirements are being met.

This report provides comments based on general observations and highlights any concerns or items that should be addressed by the Licensee. Attached is the full Inspection Report along with related site photographs.

The following areas were inspected and the details of the findings are included in the attached report:

- Perimeter Sumps/Construction
- Laydown 1
- Mechanical Shop Parking
- Fuel Transfer
- Spur Road

There were minor concerns noted, however, significant improvements overall.

If you have any questions or concerns please contact the undersigned at (867) 446-9187 extension 24196 or cell at (867) 446-4487.

Thank you for your cooperation.

Sincerely,



Tom Bradbury
Resource Management Officer III
GNWT-Department of Lands
North Slave Region
tom_bradbury@gov.nt.ca

Cc:

Michelle Peters – Closure Manager, De Beers
Chris Petrovic – Senior Project Manager, Nuna Logistics
Gary Sodhi – Project Manager, Nuna Logistics
Jacqueline Ho – Regulatory Specialist, Mackenzie Valley Land and Water Board
Sonia Aredes – Environmental Analyst, Snap Lake Environmental Monitoring Agency



INDUSTRIAL WATER USE INSPECTION REPORT

INSPECTION DATE: March 30, 2023 **COMPANY REP : Michelle Peters**

LICENSEE: De Beers Canada Inc. **LICENCE #: MV2019L2-0004**

Water Licence Expiry: June 13, 2035

WATER SUPPLY

Source: Snap Lake (Fresh Water Intake) **Quantity Used:** Cubic meters utilized through **Meter rdg:**

Indicate: A - Acceptable U - Unacceptable NA - Not Applicable NI - Not Inspected

Intake Facilities	N/I	Storage Structures	A	Treatment Systems	A	Recycling	N/I
Flow Meas. Device	N/I	Conveyance Lines	A	Pumping Stations	A	Modifications	N/I

WASTE DISPOSAL

Indicate: A - Acceptable U - Unacceptable N/A - Not Applicable N/I - Not Inspected

Tailings:	Tailings Pond	A	Natural Lake	N/A	Underground	N/A		
Sewage:	Sewage Treat.	A	Tailings pond	N/A	Natural Water	N/A		
	Continuous Discharge	N/A	Inter. Discharge	N/I				
Solid Waste:	Open Dump	N/A	Landfill	A	Burn & Bury	A	Underground	N/A

Discharge Quality	A	Conveyance Lines	A	Disch. Meas. Dev.	N/I	Freeboard	A
Decant Structures	N/I	Pond Treatment	N/A	Dams, Dykes	A	Seepages	A
Dyke Inspections	N/I	Runoff Diversion	N/I	Erosion	N/I	Spills	A

GENERAL CONDITIONS

Indicate: A – Acceptable; U – Unacceptable; N/A – Not Applicable; N/I – Not Inspected; * – Cautionary Remark

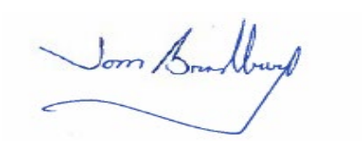
Ore & Waste Rock Stockpiles	A	Records & Reporting	A	Surv. Net. Prog.	A
Geotechnical Inspection	N/I	Posting, Signage	A	Contingency Plan	N/I
Reclamation Activities	A	New Construction	A	Fuel Storage	A
Mine Water Discharge	A	Chemical Storage	A	Annual Report	A

Licensee Representative's Title: Ms. Michelle Peters – Closure Manager

Licensee Representative's Signature: Inspection issues discussed with Nuna Logistics representatives.

Inspector's Name: Tom Bradbury

Inspector's Signature



April 24, 2023

Comments Section on Specific Aspects Inspected:

Waste Management Area

- Materials were actively being moved off site through the month of March.
- Some materials that were being staged for loading have been removed.
- Materials that remain are mainly waste oil and will be consumed on site.
- The remainder of materials will be removed on the next winter road.

Temporary Hazardous Waste Area

- Material stored at this location were mainly hazardous.
- All materials earmarked for removal have been successfully transported off site.
- Materials that are stored in this area going forward will be shipped off site during the next winter road season.

Water Management Pond/East Influent Storage Pond

- Rip-rap is being placed in the former Water Management Pond.
- The rip–rap is being placed in different sized increments. Firstly, 75 mm sized rip-rap as transitionary material, then 150 mm (6 inch) is placed on the top, as per design (Photo 1).

South Ditch

- Sloping continues, while placement of rip-rap (150 ml) will occur in the next phase of construction (Photo 2).

Tank Farms/Fuel Transfer

- Nuna Logistics successfully reached the quantity of fuel expected.
- Currently there is a total of just over 3.5 million litres of diesel at site.
- The fuel is located in the 330,000 litre tank farm, the separate 85,000 litre tanks, and the B-trains that will be used to transfer fuel where required, as the larger tanks are drawn down. The B-trains will also remain on site for the eventual demolishing and disposal of the tank farm.
- During the inspection there were a series of minor stains observed, as nozzles were dripping diesel outside containment (Photos 3-5).
- The diesel was observed dripping from the surrounding metal brackets and dripping to the surrounding snow-covered ground.
- The area needs to be cleaned, the hydrocarbon contained snow must be removed and placed in containment or remediated, and the nozzles should be repaired and placed in better suited containment to avoid further spillage.
- There were a number of spill related containment present and contaminated materials in the catchment, however, it was not successful at containing all leakage.

Laydown 1

- Significant improvement in this area! Consistency is expected going forward.
- Drip catching equipment was being used for the vehicles present and available for use in the empty areas (Photo 6).
- There were some very minor stains observed but personnel were actively working in the area to scrape up any stains present (Photo 7).
- Heavy equipment was actively working in the area to allow access to the fill material (Photos 8-9). As previously noted, this material will be used across site as required.
- Most of the material that remains in the logistics yard will be disposed of on site.

Mechanical Shop Parking Area

- This area was quite busy, however, significant improvement was noted regarding the placement of drip catchment.
- Every parked vehicle had a drip tray (Photos 10-12).
- The previously noted spill had been cleaned up and no further hydrocarbon staining was noted.
- Consistency is expected going forward.

Demolition and Disposal Process

During the inspection a meeting was requested to better understand the process of demolition and disposal of buildings and materials. The Inspector met with representatives of QM (sub-contractor for MetNuna) and De Beers to capture the steps involved in assessing a building for its contents to the eventual burying of materials in earmarked cells of the North Pile. The following steps have been summarized from the meeting:

- Once a job has been awarded (building identified to be demolished) a phased approach occurs whereby a "Building Demolition Verification Checklist" (attachment 1) is implemented.
- If necessary, power is isolated to only the parts of the building that still require electricity.
- A decommissioning checklist ensures such things as lightbulbs, oils, batteries, glycol and mercury are properly removed before the building is demolished.
- Cladding is separated, along with large motors, while large piping may need to be reduced in size for more efficient disposal to landfill.
- A photo log is used to illustrate the steps completed for each building demolished as part of the process.
- The final part of the checklist form involves sign off between DeBeers, MetNuna, and QM for "Transfer of Area/Building to QM".
- Once the building has been demolished MetNuna will inspect the debris using a form called the "Demolition Waste Sizing" (Attachment 2).
- This process involves marking piles with spray paint for sizing, providing the location of the waste pile, and determining the destination for the waste in the cells of the North Pile, while ensuring the waste is benign, and therefore will not cause any negative environmental impacts once buried.
- Pictures are included on the form pertaining to each inspected pile of waste.
- Once the waste sizing process is completed all parties must sign off, with a De Beers representative providing final approval.
- The disposal process involves burying the waste in the earmarked cells (cell 1 and cell 2) of the North Pile.
- The design for waste disposal includes a capacity of 95,000 cubic metres for the two cells, while maintaining a +/- discrepancy of 15%.
- Cell 3 remains a contingency in the event cell 1 and 2 do not provide enough capacity, as per Golder design parameters

Miscellaneous

- The private company Lenmark extracted 107 loads of materials for the purposes of secondary sales, which would have normally been disposed of on site.
- The Yellowknife based company Precision North Recycling were able to salvage 14 loads of materials, mostly in the form of scrap metals, which would have otherwise been earmarked for disposal on site.
- Nuna Logistics removed 31 loads of materials, including hazardous wastes, which were stored in the Temporary Hazardous Waste Storage Area.
- The spur road is now closed and a close-out inspection was performed on March 30, and a report was sent to De Beers, Nuna, and Snap Lake regulators on April 4, 2023.



Photo 1 – Former Water Management Pond/Influent Storage Pond – Rip-rap placement.

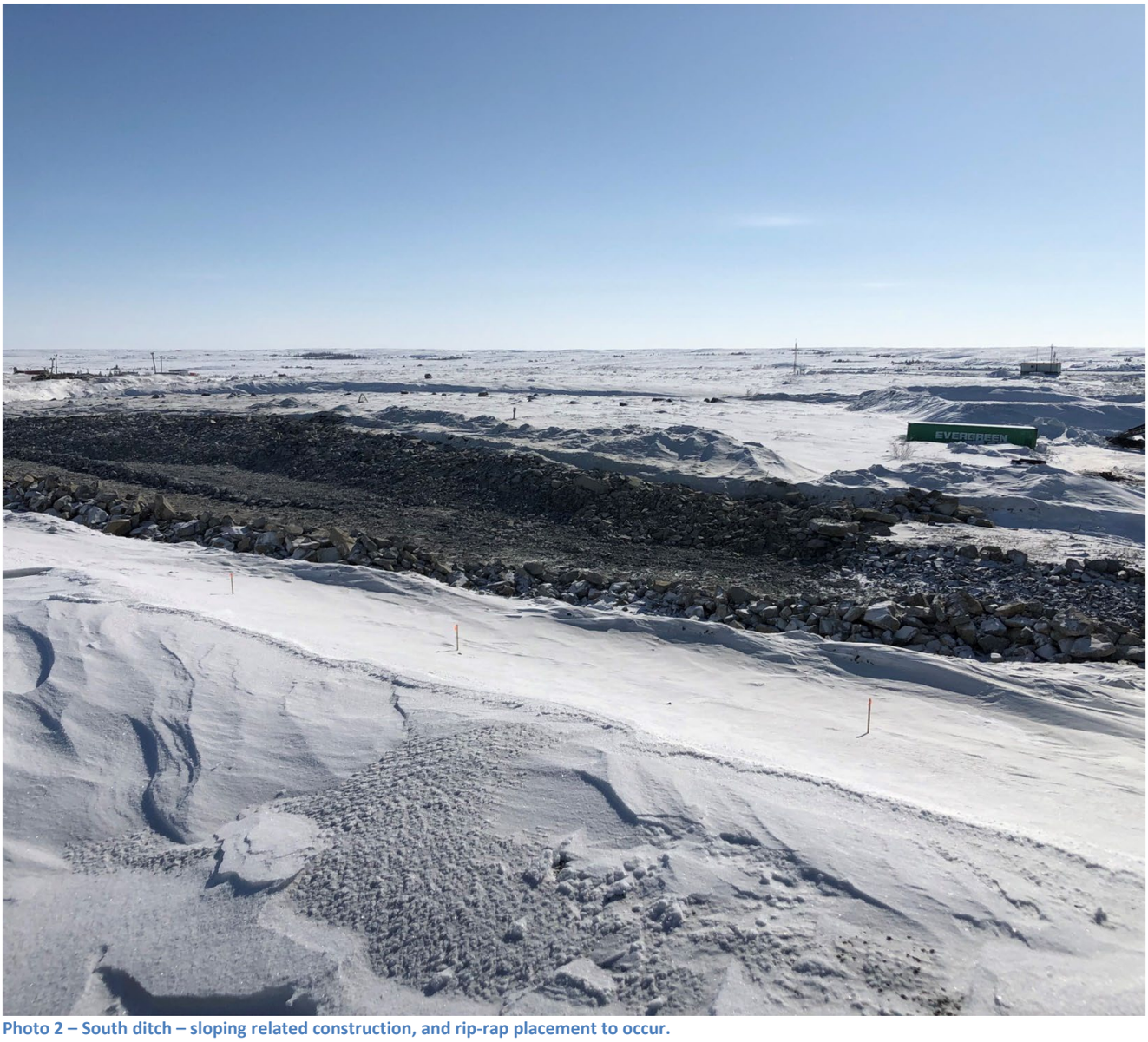


Photo 2 – South ditch – sloping related construction, and rip-rap placement to occur.



Photo 3 – Fuel Transfer Area – Minor staining (1).



Photo 4 – Fuel Transfer Area – Minor staining (2).



Photo 5 – Fuel Transfer Area – dripping nozzle.



Photo 6 – Laydown 1 – Drip tray available for use.



Photo 7 – Laydown 1 – Ground being scraped for clean-up purposes.



Photo 8 – Laydown 1 – Heavy equipment working to access granular material.



Photo 9 – Laydown 1 – Material to be used as fill across site.



Photo 10 – Mechanical Shop Parking Area – Absrobants in use.



Photo 11 – Mechanical Shop Parking Area – Spill tray in use.



Photo 12 – Mechanical Shop Parking Area – Spill tray in use.

RESPOND. RECLAIM. RENEW.

Building Demolition Verification Checklist

Date:	Job No. 214724
Area/Building Description:	

Decommissioning Checklist

Lights Removed		NA
Glycol Lines Drained		NA
Batteries/Capacitors Removed		NA
ACM (None)		NA
Oils Removed		NA
Mercury – Switches Removed		NA
PCB's (None)		NA
Wildlife (None)		NA

Other:

Comments:

MQM HAS DECOMMISSIONED AS PER FCRP

MQM Supervisor Signature:

Date:

Demolition Checklist

Lock Out Tag Out / Isolation		NA
LOTO/Isolation location:		NA
How system was isolated:		NA
System Start Up/Bump Test		NA

MQM Supervisor Signature:
Date:

MetNuna Signature:
Date:

De Beers Signature:
Date:

Names of Persons Placing Locks on system:

Electrical Air Gap or Disconnects (600V or 5KV)		NA

Electrician Signature:

Date:

Mechanical Air Gap		NA
Structural Air Gap		NA
Stored Energy		NA
Water & Sewer Lines Emptied & Disconnected		NA

Comments:

Transfer of Area/Building to QM

DeBeers Signature:	**Date:**
MetNuna Signature:	**Date:**
MQM Signature:	**Date:**

Demolition Completed (Pending Approval of Attached Punchlist)

Punch List Required – NA or Yes (Attached)

DeBeers Signature:	**Date:**
MetNuna Signature:	**Date:**
MQM Signature:	**Date:**

Building Demolition Verification Checklist

PHOTO LOG	
Area/Building Description:	Job No. 214724

Material Inventory and Management

Date:	Job No. 214724

Area/Building Description:

Material	Quantity	End Location

DEMOLITION WASTE SIZING
NLLQC 077

PROJECT: SNAP LAKE MINE CLOSURE	**DATE:**	
CONTRACTOR: METNUNA JV	**ITP #: SLMC-ITP-003**	
CONTRACT No.: 4210014	**Act. #: 2.12**	**Seq. #:**
CWP: 5030B01 **STRUCTURE/LOCATION:**		
REFERENCE DRAWINGS:	**REV.:**	
AREA / STATIONS INSPECTED:		

CHECKLIST	**YES**	**NO**	**N/A**
Material has been processed as per Appendix 1 "Proposed 600 mm Processing Specification Change"	☐	☐	☐

Punchlist (if Required)	Completed (Initial)	Date

Comments:

APPROVAL TO PLACE DEMOLITION WASTE MATERIAL

	DE BEERS QA REPRESENTATIVE – Conditional Approval – Perimeter of waste pile		
	Print Name	**Signature**	**Date**

	METNUNA JV QC REPRESENTATIVE		
	Print Name	**Signature**	**Date**

	DE BEERS QA REPRESENTATIVE – Final Approval – Reviewed oversize reduction		
	Print Name	**Signature**	**Date**

Photos of Demolition Waste Piles:

Attachment 2