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October 4, 2024

Sixty North Gold Mining Ltd.
6120 185A St.
Surrey, BC V3S 7P9

Attention: Dave R. Webb

File Number	MV2020L2-0002
Type of Operation	CLASS B – Mining and Milling
Location	Discovery Lake, NT

Dear Dave R. Webb,

An inspection of the above noted operation was conducted on September 19, 2024 by Water Resource Officer Nahum Lee. Enclosed is a copy of the Water Use Inspection Report.

If you have any questions, please contact me at 867-767-9187 ex.24187.

Sincerely,

Nahum Lee
Water Resource Officer
Environment and Climate Change
North Slave Region

Cc: Scott Stewart – North Slave Regional Superintendent – ECC
Clint Ambrose – North Slave Regional Manager of Resource Management – ECC
Karine Gignac – North Slave Regional Resource Management Officer – ECC
Wendy Bidwell – Senior Water Resource Officer – ECC
Rick Walbourne – Director, Water Regulatory – ECC
Angela Love – MVLWB
Heather Scott – MVLWB



WATER USE INSPECTION REPORT

LICENCE #:	MV2022L2-0002	EXPIRY DATE:	October 15th, 2027
LICENCEE:	Sixty North Gold Mining Ltd.	PREVIOUS INSPECTION:	July 5th, 2024
COMPANY REP:	Dave R. Webb	INSPECTION DATE:	September 19th, 2024

WATER SUPPLY

Source:	Discovery Lake	Quantity Used (m ³):	91
Owner/Operator:	Sixty North Mining Ltd.	Meter Reading:	N/A

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

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

Water Supply Comments:

The camp and fuel storage area are shown from the air (Photo 1). Discovery Lake as seen in Photo 2, supplies the water for use at the dry and the kitchen. No concerns were identified with the freshwater intake system as the camp was closed for freeze up. The August SNP report indicated that 91m³ of freshwater were used during the summer program.

WASTE DISPOSAL - SEWAGE

Disposal Method		Pit Privy					
Mechanical	N	Camp Sump	Y	Natural Water Body	N	Wetland Treatment	N
Continuous Discharge	N	Intermittent Discharge	Y	Seasonal Discharge	N	Land Spread	N
Accelerated Biological	N	Other	Outhouse				

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

Discharge Quality	A	Decant Process & Structures	A	Discharge Measurement Device	N/A
Freeboard	N/A	Sludge Disposal Method	N/A		
Periods Of Discharge				SNP Samples Collected	
Effluent Discharge Rates					

Sewage Comments:

Sewage is managed using honey buckets. No concerns were found with sewage management as the camp was closed for freeze up.

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WASTE DISPOSAL – Mine Water

Disposal Method							
Tailings Pond	N	Natural Lake	N	Underground	N	Other	Minewater Settling Pond

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

Conveyance Lines	A	Runoff Diversion	A	Dams, Dykes	A
Freeboard	A	Seepages	N/I	Dyke Inspection	A
Erosion	A	Pond Treatment	N/A	Construction	A
Periods Of Discharge				SNP Samples Collected	

Tailings Comments:

The settling pond was nearing capacity at the time of discharge (Photo 3).

WASTE DISPOSAL – MINING – OTHER

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

Ore & Waste Rock Stockpiles	A	Chemical Storage	N/A
Ground Water Discharge	N/I	Mine Water Discharge	N/A

Mining-Other Comments:

Some potentially mineralized material has been stored on top of tin siding from the old burnt camp. The tin was used to segregate potential ore from waste country rock (Photo 4).

WASTE DISPOSAL – SOLID WASTE

Disposal Method		Removal					
Open Dump	N	Landfill	N	Burn & Landfill	N	Underground	N
Offsite Removal	Y	Other	Burn				
Owner / Operator	Sixty North Mining Ltd.						

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

Runoff Diversion	N/A	SNP Samples Collected	N/A
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Solid Waste Comments:

Most solid waste will be removed from site for proper disposal. Any clean wooden material and cardboard can be burned onsite. No concerns were noted with waste disposal methods during the inspection. Waste materials from the fire have been sorted and segregated for removal from site. They are currently stockpiled in the quarry (Photo 5&6).

SURVEILLANCE NETWORK PROGRAM

Samples Collected Licencee	SNP Samples had already been collected by Sixty North		
Samples Collected ENR	N/A		
Signs Posted: SNP	Some SNP Signage was present.	Warning	

Surveillance Network Program Comments:

SNP reporting has not been consistent. Please ensure reports are submitted monthly to an Inspector and the Board. Please ensure signage is placed at all active SNP Stations. While reviewing the most recent SNP Report submitted by the licensee, the Inspector noted some omissions. The lab reports are missing results for three parameters for which there are EQC's in the licence. These parameters are cyanide, oil and grease, and radium-226. The licensee must ensure that these parameters are included in future reports.

Ammonia levels at SNP-08 and SNP-09 are much higher than the Effluent Quality Criteria of 5.9mg/L outlined in the licence. The levels for these two stations are 177mg/L and 368mg/L respectively. Presumably, the ammonia levels are a result of recycling mine-water. The ammonia levels in Discovery Lake at SNP-12 are much lower 0.0556mg/L.

Given the very low volume of water in the settling pond and the fact that there is not currently a discharge, the Inspector sees no immediate threat to the environment. The settling pond does, however, appear to be reaching it's capacity.

GENERAL CONDITIONS/REPORTS/PLANS

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

C &R Plan	A*	Records & Reporting	A	Final Report	N/A
Waste Management Plan	A	Engagement Plan	A	Contingency Plan	A
Geochemical Characterization Plan	A	Spills	A	Tailings Management Plan	A*
Structure Description and Construction Plans	A	Water and Groundwater Management and Monitoring Program	A*	Annual Report	A

General Condition Comments:

The Inspector will remind the licensee that prior to the transport of milling equipment to the Mon Property, additional security must be posted as per Schedule 2 of the licence.

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A minimum of 90 days prior to milling activities being initiated, as per Part F, Condition 5, a Water and Groundwater Management and Monitoring Program must be submitted and approved by the Board.

A minimum of 90 days prior to milling activities being initiated, as per Part F, Condition 6, a Tailings Management Plan must be submitted and approved by the Board.

NON-COMPLIANCE/VIOLATIONS OF ACT OR LICENCE

Part A, Condition 2 of Annex A – Surveillance Network Program

Non-Compliance: SNP reporting has not been consistent according to the information available on the public registry.

Recommendation: SNP reports must be submitted monthly to the Board and an Inspector.

Inspector's Signature: _____

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INSPECTION IMAGES

Figure 1 – Mon Property Camp and fuel storage.



Figure 2 – Mon Property portal, waste rock storage pile and mine water settling pond.



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Figure 3 – Mine water settling pond.



Figure 4 – Mineralized materials stored on repurposed tin from burned camp trailers.



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Figure 5 – Waste from burned camp is stored for off-site disposal during winter road.



Figure 6 – Waste stored in quarry on site.



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