



MAR – APR 2024
Snap Lake Mine
Closure & Reclamation Activities
Summary
MAY 2024

Acronyms

- ❖ AEMP – Aquatic Effects Monitoring Program
- ❖ EQC – Effluent Quality Criterion
- ❖ MS Monitoring Station
- ❖ SNP – Surveillance Network Program
- ❖ TDS – Total Dissolved Solids
- ❖ WEMP – Wildlife Effects Monitoring Program
- ❖ WTP – Water Treatment Plant
- ❖ WISP West Influent Storage Pond
- ❖ EISP East Influent Storage Pond
- ❖ MS Monitoring Station



Outline

1. Mine Update
2. SNP Reports
3. Water Management
4. Monitoring
5. Site Inspections
6. Incidents at the Site
7. Water Licence and Land Use Permit Updates
8. EA Updates
9. SLEMA's Activities



1. Mine Update

- On March 1, 2022, De Beers began activities associated with the Closure Phase, as described in the Final Closure and Reclamation Plan and as it was authorized by the corresponding Land Use Permit and Water Licence
- In February 2024, Met-Nuna maintained a reduced crew on site for the maintenance and winter road construction.
- In March 2024, Met-Nuna maintained a reduced crew on site for the maintenance and winter road operations. Some drilling and blasting of EISP and demolition of NorthwesTel infrastructure was complete. Fuel was transported into site by 27 Super B Trains in March without incident.



2. SNP Reports

- Summary of mine closure and reclamation activities in February 2024 and March 2024:
- ✓ From December 2023 to January 2024, De Beers maintained a reduced site crew to conduct maintenance operations at site.
- ✓ Winter road construction and operation took place in March.
- ✓ Wildlife monitoring continued on site.
- ✓ Limited closure activities took place on site.



3. Water/ Waste Management at Site

- Fresh water extraction from Snap Lake and sewage collection and treatment are routinely performed at the Site
- In February and March, De Beers did not discharge effluent water to the underground or Snap Lake; details of the discharges are shown in Table 3.1



3.1 Water & Wastewater Management at Site

Table 3.1: SUMMARY OF MONTHLY QUANTITIES OF WATER AND WASTEWATER MANAGED AT SITE FOR YEAR 2023-2024

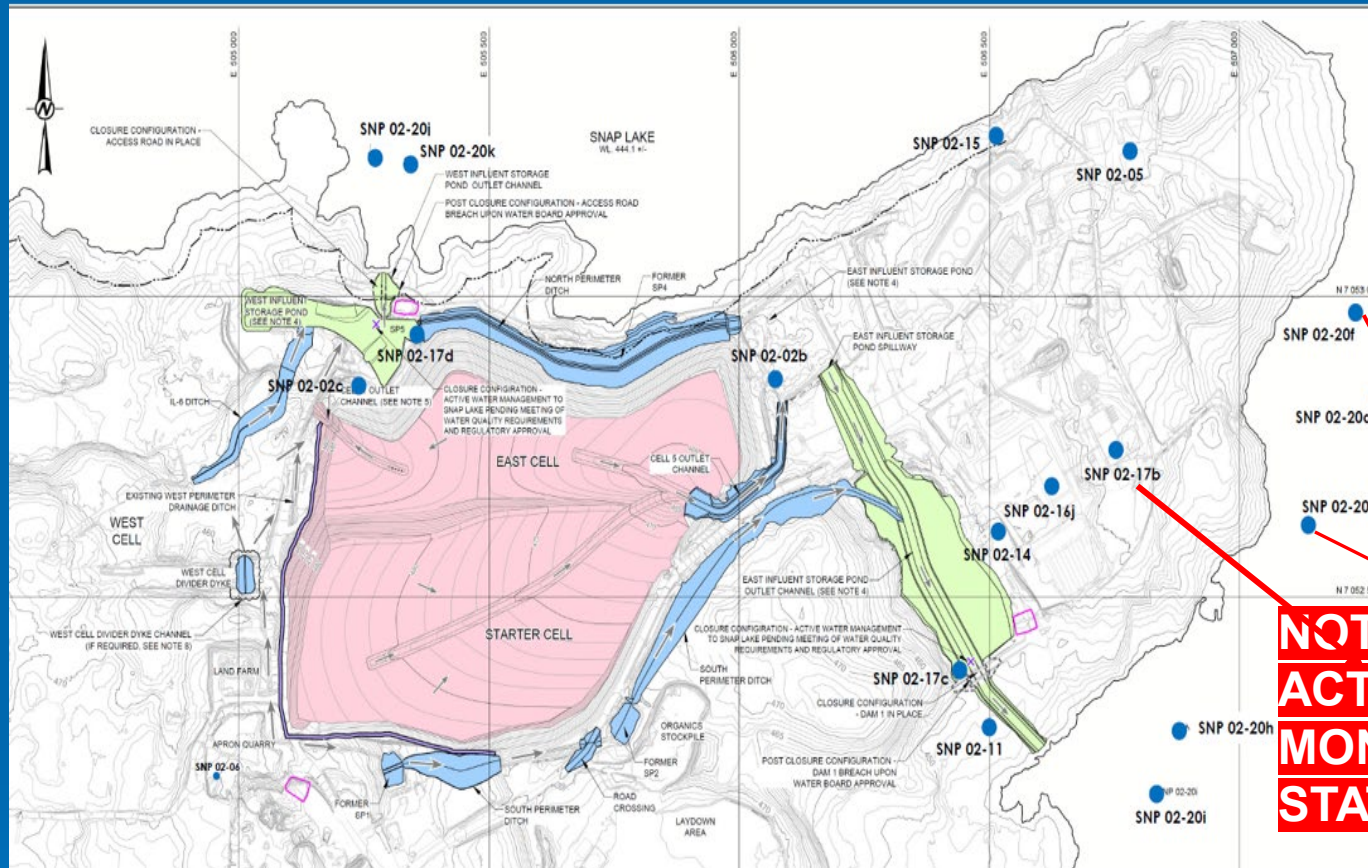
Water/	Apr m3	May m3	Jun m3	Jul m3	Aug m3	Sep m3	Oct m3	Nov m3	Dec m3	Jan m3	Feb m3	Mar m3
Fresh water (Snap L)	995	395	879	858	607	918	902	630	577	371	459	606
Sewage	200	599	562	632	584	562.8	588	444	168	107	117	248
Effluent to Snap Lake	-	-	-	-	-	32,981	2,409	-	-	-		
Water to Under ground		15,704	7,392	15,560	7,703	8,396	5,590	-	-	-		
Ww to North Pile	279*	-	-	-	-	-	-	-	-	-		

Ww: wastewater

*liquid wastes discharged to the West Influent Storage Pond (ISP)



4. MONITORING STATIONS (MS)



LEGEND	
	NORTH PILE INFLUENT STORAGE PONDS DETAILED DESIGN (SEE NOTE 4)
	NORTH PILE CLOSURE COVER DETAILED DESIGN (SEE NOTE 5)
	NORTH PILE SURFACE WATER MANAGEMENT FOR CLOSURE DESIGN (SEE NOTE 6)
	NORTH PILE PROCESSED KIMBERLITE TOE BERM DETAILED DESIGN (SEE NOTE 7)
	-470- AUGUST 2019 EXISTING GROUND CONTOURS
	50 m SHORELINE OFFSET
	FUTURE CONSTRUCTION
	FLOW DIRECTION
	POTENTIAL EROSION PROTECTION MAINTENANCE STOCKPILE LOCATION
	SNP SAMPLING STATION



4. SNP MONITORING

2023 SUMMARY OF WATER MONITORING

The following table has been updated to reflect the new configuration.

Monitoring Station	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
02-02c West ISP	N	✓	✓	✓	✓	✓	✓	N	N	N	N	N
02-05 Run off Rock Pad	N	✓	✓	N	N	✓	N	N	N	N	N	N
02-06 Runoff Quarry	N	N	N	N	N	N	N	N	N	N	N	N
02-14 WMP	N	✓	✓	✓	P	N	✓	N	N	N	N	N
02-15 Water Intake	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓ = Monitoring Completed

N: Not monitored, frozen condition, or no discharge

P: Partially Completed, Insufficient Water for August 15 Sampling



4. SNP MONITORING

2023 SUMMARY OF WATER MONITORING

Monitoring Station	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
02-16i Sewage Effluent	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
02-17c Discharge from EISP	N	N	N	N	N	N	N	N	N	N	N	N
02-17d Discharge from WISP	N	N	N	N	N	✓	✓	N	N	N	N	N
02-20h 02-20i EISP dc in Snap Lake	N	N	N	N	N	N	N	N	N	N	N	N
02-20j 02-20k WISP dc in Snap Lake	N	N	N	N	N	✓	N	N	N	N	N	N

✓ = Monitoring Completed

N: Not monitored, frozen condition, or no discharge



4.1 WATER MONITORING

TDS IN SNAP LAKE:

The following data correspond to no longer active Monitoring Stations in Snap Lake Monitoring Stations SNP 2-20 d, e, and f

Monitoring Stations

SNP 2-20d, SNP 2-20e, and SNP 2-20f were in Snap Lake, located at 200 m from the diffuser where the effluent is discharged, on the edge of the mixing zone around the diffuser



4.1 WATER MONITORING

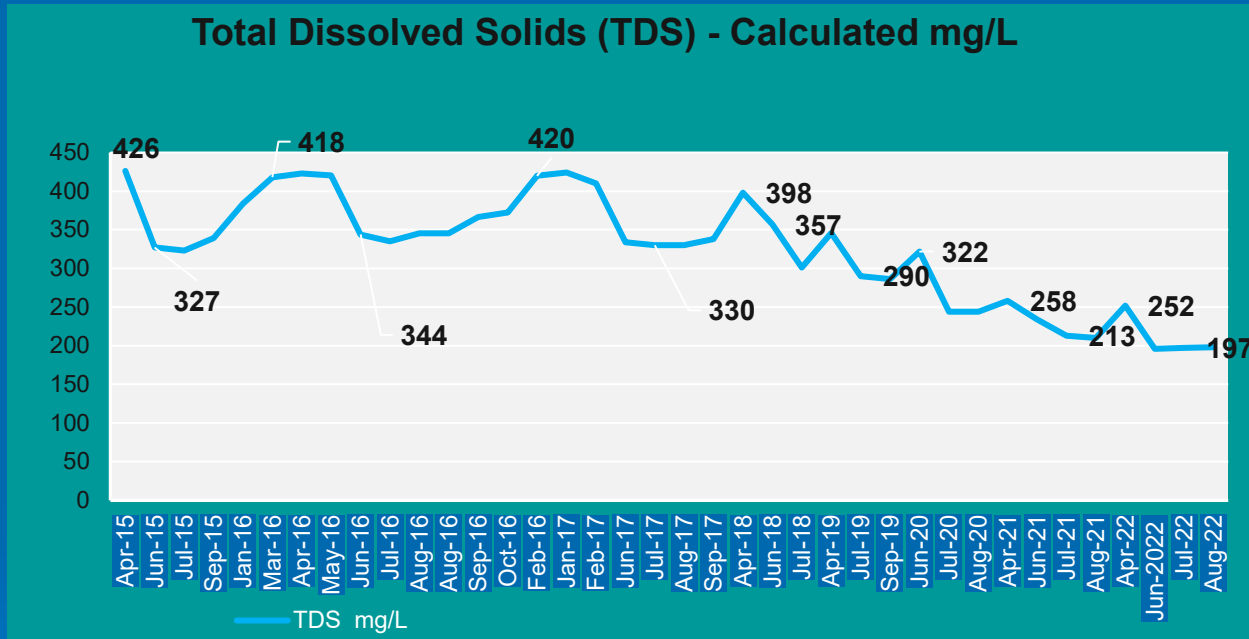
TDS IN SNAP LAKE:

TDS data from 2015, the year that the Mine entered Care and Maintenance, up to 2022 show a decrease of TDS in Snap Lake as follows:



4.1 WATER MONITORING

TDS RESULTS AT SNP 2-20d



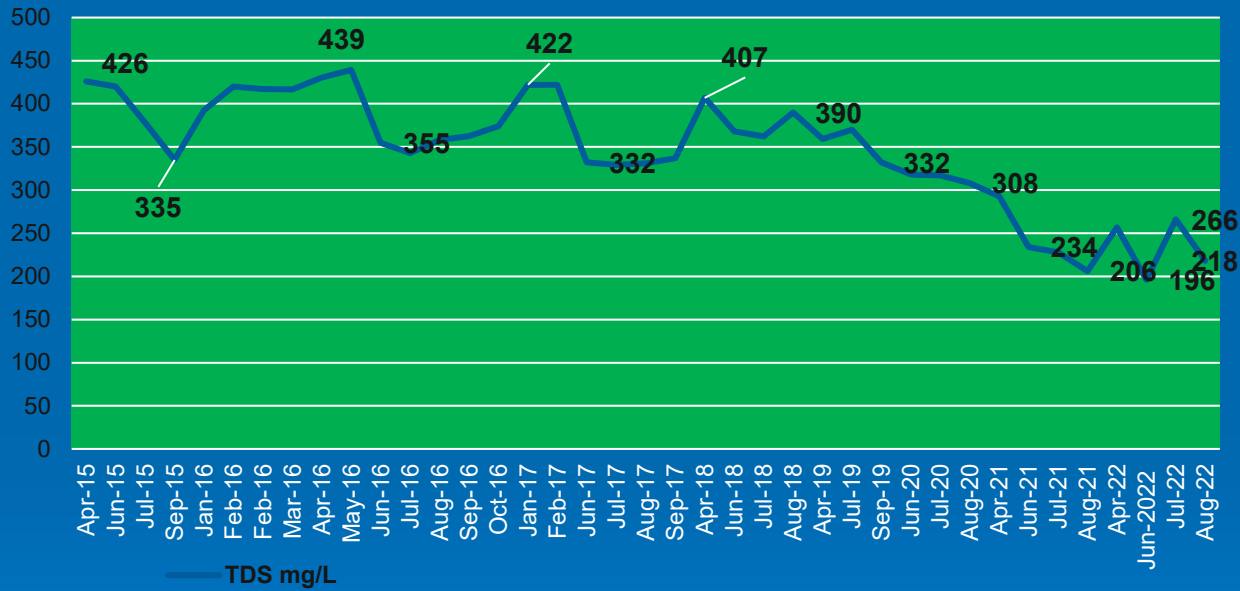
SNP2-20d	Apr-15	Apr-22
TDS mg/L	426	252



4.1 WATER MONITORING

TDS RESULTS AT SNP 2-20e

Total Dissolved Solids - Calculated (TDS) mg/L

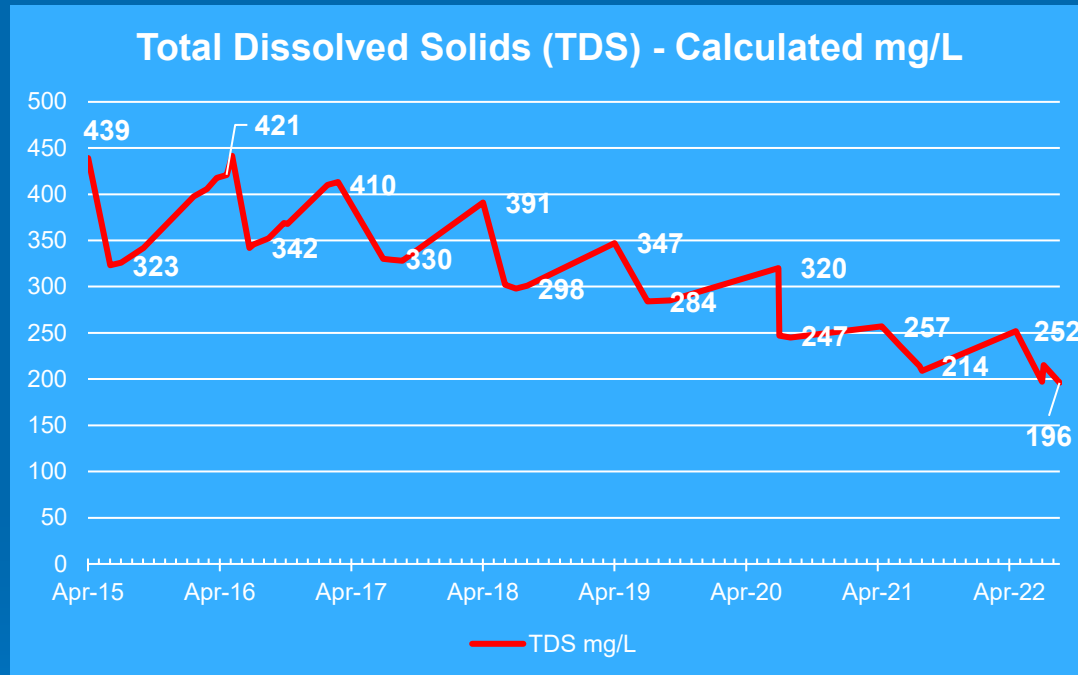


SNP2-20e	Apr-15	Apr-22
TDS mg/L	426	257



4.1 WATER MONITORING

TDS RESULTS AT SNP 2-20f



SNP2-20f	Apr-15	Apr-22
TDS mg/L	439	252



4.1 WATER MONITORING

TDS IN SNAP LAKE:

On September 16, 2023 De Beers began discharging the effluent. The effluent was discharged through the West Influent Storage Pond (WISP) to the Northwest Arm of Snap Lake. The Monitoring Stations to be sampled in Snap Lake, as per MVLWB Water Licence, are SNP 02-20 J and K in the Northwest Arm of Snap Lake. These are two stations located on the edge of the mixing zone 200 meters from the West Influent Storage Pond Discharge location.

The TDS calc. reported at these two stations were 160mg/L on September 19. The effluent discharge stopped on October 1. No samples have been collected at this station since September 19.



5. Water Licence & LUP Inspection Reports

During this period, the following Inspection was conducted at Snap Lake by Inspector Tom Bradbury, Resource Management Officer III

- Land Use Permit Inspection on February 20, 2024
- Land Use Permit Inspection on March 14, 2024
- Land Use Permit Inspection on March 20, 2024

The following summary is extracted from the Inspector's Inspection Report. The inspection report can be found [here](#). The Inspector found no notable concerns during the inspections.



6. INCIDENTS AT SITE

- No incidents at site were reported



7. MVLWB Regulatory Updates

- **Final Closure and Reclamation Plan (FCRP) Version 1.4 – Revisions Required**
 - On March 11, 2024 the MVLWB sent a letter to De Beers outlining revisions required for FCRP Version 1.5.
 - SLEMA reviewed the required revisions pertaining to our comments on FCRP Version 1.4. Based on our review, SLEMA sent a letter to the MVLWB on March 27, notifying that further public review of FCRP Version 1.5 would not be necessary based on the commitments made by De Beers during Version 1.4 review.

