AGNICO EAGLE
MELIADINE

Meliadine Gold Mine
NWB 2AM-MEL1631
May 2022 Monthly Report

Prepared for:
Nunavut Water Board

Prepared by:
Agnico Eagle Mines Limited – Meliadine Division

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SECTION 1 • BACKGROUND

As required under Part I, Item 9 of amended Type A Water License 2AM-MEL1631, this report documents the water management and monitoring activities at the mine site and provides a summary of spills/actions for the month of May 2022.

SECTION 2 • WATER MANAGEMENT

2.1 WATER USAGE

Table 2.1 details monthly water usage approved under Water License 2AM-MEL1631:

Table 2.1: Summary of the monthly water usage in May 2022

	Monthly Usage (m^3)
Camp, Mill, Dust suppression (MEL-11)	41,343
Dust suppression (water obtained along AWAR/Meliadine River)	0
Total May	41,343
Year to date 2022	**190,311**

2.2 DEWATERING ACTIVITIES

No dewatering activities took place during the month.

2.3 MELIADINE DISCHARGE

No discharge to Meliadine Lake occurred during the month.

2.4 MELVIN BAY DISCHARGE

No discharge to Melvin Bay occurred during the month.

2.5 SEEPAGE AND RUNOFF FROM THE LANDFILL AND LANDFARM

The 2AM-MEL1631 landfill and landfarm were commissioned in November 2017. No seepage or runoff was observed during the month.

2.6 SEWAGE TREATMENT PLANT

Approximately 4,632 m^3 of treated wastewater was discharged into CP1 during the month. Approximately 6.6 m^3 of sludge was removed during the month. The sludge is either disposed of in WRSF1 or WRSF3.

2.7 CONTAINMENTS

No discharge from the Itivia fuel containment facility (Station Mel-25) occurred during the month.

2.8 MONITORING ANALYTICAL DATA

Twelve (12) samples related to the Water Licence were taken during the month. The analytical results from those sampling events are presented in Appendix. One exceedance occurred in May 2022.

While conducting a routine inspection on May 8th, surface runoff water was observed at sampling station MEL-SR16 located on the south side of the Explo road. A sample was collected for laboratory analysis to assess the Total Suspended Solids (TSS) concentration. Turbidity field readings were also taken. Laboratory results were received on May 25th and a concentration of 110 mg/L TSS was measured, exceeding the Type A Water Licence criteria of 100 mg/L in a grab sample. MEL-SR16, as the other MEL-SR sampling locations, is being closely monitored for TSS and mitigations measures are put in place as needed (such as straw logs installations). During and after this event, straw logs and wood chips were deployed upstream and downstream to reduce the transport of sediment in the tundra.

On May 10th, while conducting a routine inspection, surface water runoff was observed south of Itivia at sampling station MEL-SR1. Straw and wood chips logs were immediately deployed to mitigate the transport of sediment further downstream. Water sample and field readings were taken after these measures were implemented. Turbidity field readings showed results indicative (but not confirmatory) - that TSS concentrations could exceed the NWB Water Licence 2AM-MEL1631 criteria, and the potential exceedance was reported via the NT-NU 24-hour spill report line. Laboratory results were received May 25th and a concentration of 14 mg/L was measured at MEL-SR1, indicating there was no exceedance of the Type A Water Licence criteria.

SECTION 3 • MATERIAL MANAGEMENT

3.1 LANDFILL / LANDFARM

The volume of material placed into the landfill is evaluated through periodic surveys. According to the most recent survey done on May 4th, 2022, the landfill contained approximately 22,119 m³ of material.

Approximately 1.5 m^3 of contaminated material was put into the Type A Landfarm during the month. According to the most recent survey done on May 9th, 2022, the Landfarm A contained approximately 402.3 m³ of material.

3.2 ORE

Approximately 151,344 tonnes of ore were processed through the Mill during the month.

3.3 WASTE ROCK STORAGE FACILITY

A total of 76,291 tonnes of waste rock was removed in the underground mine development process during the month while 376,920 tonnes of waste rock were removed from open pit mining. 29,750 tonnes were used as underground dry rockfill.

3.4 TAILINGS

111,013 dry tonnes of filtered tailings were sent to the Tailing Storage Facility during the month. 40,331 tonnes of tailings were used for paste underground backfill.

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

Spills reported internally (23) are listed in the table 4.1 and were managed according to Agnico Eagle's spill contingency plan. Spills were contained and cleaned up, contaminated material was disposed of in an appropriate manner, and the clean-up actions were monitored closely by the Environment Department. Six (6) reportable spills and one (1) exceedance occurred during the month (Refer to the gray shading in Table 4.1).

Table 4.1: Summary of Agnico Eagle's Spill Reports in May 2022

Date and time of occurrence	If material not listed in dropdown or more details, enter here	Estimated quantity (l)	Exact location of incident	Description of incident	Describe immediate corrective actions
Sunday, May 01, 2022 3:00:00 AM	Hydraulic oil	10.00	Outside maintenance shop	Oil spill occurred on a tractor when moving it into the maintenance shop.	Spill pads were used and disposed of according to procedure.
Wednesday, May 04, 2022 8:00:00 AM	Oil	2.00	Itivia Parking	A loader was leaking oil. A secondary containment was used but was not placed right and oil spilled on the ground.	Spill pads were used. Contaminated materials were put in a Quadrex Bag.
Wednesday, May 04, 2022, 10:30:00 AM	Drilling Recirculation Water	75.00	B38	During an environmental inspection of the Orbit Garant drill rigs located on waterbody B38, a worker identified that 75 L of drilling recirculation water had overflowed from the decantation tank to the surface of the ice.	The cleanup of the spill was completed as part of the final site cleanup as all drilling operations were complete at the site. During the drill site cleanup all impacted snow and ice was removed and sent to the drill cuttings disposal area with the remaining drill cuttings.
Thursday, May 05, 2022 12:00:00 AM	Hydraulic oil	50.00	SP4 crusher pad	A hose was damaged on the crusher. The crushing team had removed the hose and closed the hydraulic tank valves and caught	Spill pads were used and the contaminated soil was recovered; contaminated materials were disposed of in a Quadrex bag.

				the residual oil in 20L bucket until it stopped dripping. When workers checked at the end of the shift, it was not dripping anymore. They left a secured 20L pail to catch any residual drip. When they returned the next morning, the bucket had overfilled and oil had trickled down to the frozen ground on a 2 square meter surface.	
Thursday, May 05, 2022 6:30:00 AM	Transmission Fluid	2.00	MSB parking	Surveyor was doing his pre-op inspection at start of shift, noticed transmission fluid leaking from bottom of truck.	Immediately called his supervisor and used the spill kit in his truck to cover the spill. The contaminated material was disposed in a Quatrex bag
Sunday, May 08, 2022 12:00:00 AM	TSS Exceedance	110 mg/L	Surface runoff Explo road (MEL-SR16)	While conducting a routine inspection, surface runoff water was observed at sampling station MEL-SR16 located on the south side of the Explo road. A sample was collected for laboratory analysis to assess the Total Suspended Solids (TSS) concentration. Turbidity field readings were also taken. Laboratory results were received on May 25th and a concentration of 110 mg/L TSS was measured, exceeding the Type A Water Licence criteria of 100 mg/L in a grab sample.	MEL-SR16, as the other MEL-SR sampling locations, is being closely monitored for TSS and mitigations measures are put in place as needed (such as straw logs installations). During and after this event, straw logs and wood chips were deployed upstream and downstream to reduce the transport of sediment in the tundra.
Sunday, May 08, 2022 7:30:00 AM	Saline water	800 L	Haul Road north of Tiri 2	While transferring water from Saline Pond 1 to Tiriganiaq Open Pit 2,	The spill occurred in the catchment of Tirganiaq Open Pit

				approximately 800 L of contact saline water was spilled onto the Haul Road due to a damaged pipe that had been struck by a grader when it was conducting routine maintenance of the Haul Road.	2; the spilled water will report to the pit.
Tuesday, May 10, 2022 12:00:00 AM	TSS potential Exceedance	14 mg/L	MEL SR1	While conducting a routine inspection, surface water runoff was observed south of Itivia at sampling station MEL-SR1. Water sample and field readings were taken after these measures were implemented. Turbidity field readings showed results indicative (but not confirmatory) - that TSS concentrations could exceed the NWB Water Licence 2AM-MEL1631 criteria, and the potential exceedance was reported via the NT-NU 24-hour spill report line. Laboratory results were received May 25th and a concentration of 14 mg/L was measured at MEL-SR1, indicating there was no exceedance of the Type A Water Licence criteria.	Straw and wood chip logs were installed to mitigate sediment transport.
Wednesday, May 11, 2022 10:30:00 AM	Unthreaded Sewage Water	15.00	C-wing Lift station 63º 2’22.93’’N, 92º 13’ 32.66’’W.	An overflow of the sewage storage tank at C-wing of the Main camp resulted in a spill of 15 L of sewage to the industrial pad. The Sewage Treatment Plant (STP) was operated by a new employee. He did	The spill was contained to the local area. The STP operator used a bucket that he installed underneath location of the spill. All the material was vacuumed with the Vacuum truck and

				not know that he had to empty the C wing lift station.	discharged back in the lift station.
Thursday, May 12, 2022 11:30:00 AM	Oil	10.00	Portal 2	Oil was found on the side of a sea can at the Portal 2	Spill kit was used to clean-up the spill, contaminated materials were disposed of according to procedure.
Thursday, May 12, 2022 2:30:00 PM	Oil	5.00	Black Start generator enclosure	The generator was leaking oil. Oil coated the floor in the generator enclosure and dripped between the floor panels onto the ground outside.	The Generator was shut down, and spill tray was placed under the generator enclosure where the oil was leaking. Contaminated snow was placed in the contaminated Snow cell, Waste oil pumped in a tote and rags was disposed in an oily solid quatrex bag.
Tuesday, May 13, 2022 8:00:00 AM	Various Substance	Unknown	Lake A8	On May 13th 2022, CIRNAC and Agnico Eagle conducted an inspection on lake A8. During the inspection, materials related to drilling operations were observed on the lake ice, and identified as a spill: waste around the shore, diesel was smelled, drill cuttings, drill casing and other grey/black/yellow materials.	After the inspection, Orbit Garant, Exploration Geology, and Environment began a collaborative effort to clean up lake A8 and the shore of lake A8 by conducting daily clean-ups.
Saturday, May 14, 2022 3:00:00 AM	Fuel	20.00	MSB parking lot	Worker started his pickup and let it warm up. When he went back, fuel was leaking on the ground.	Pick up was shut off. Spill was contained with spill pads. Contaminated material was disposed in the land farm.

Saturday, May 14, 2022 4:00:00 AM	Hydraulic oil	25.00	Construction office	Loader was leaking hydraulic oil.	Loader was stopped and parked. Spill was cleaned and contaminated soil was put in drums for disposal as hazmat.
Saturday, May 14, 2022 6:00:00 PM	Hydraulic oil	80.00	Portal 1 at the dome 3	A worker was transferring hydraulic oil from the tote to the fuel truck tank. He left without stopping the transfer, causing a spill of 80L.	Spill kit was used and contaminated materials disposed according to procedure.
Sunday, May 15, 2022 4:00:00 PM	Biosolids	10.00	STP Parking Lot	Sucker truck parked in an angle and was full, but the sight glass wasn't showing that it was full due to the slope. The valve leaked because there was no vacuum on the truck.	A bucket was installed underneath the hose to prevent larger spill.
Monday, May 16, 2022 4:00:00 PM	Liquid bio-solids	75.00	S-E side of STP	While attempting to wash the membranes, a mix of chlorine and water was improperly measured resulting in foam being created which overflowed the tank.	Wash process was stopped and air flow shut off. Vacuum truck was dispatched to pick up spilled product. All the spilled material was reintroduced in the MSB lift station.
Tuesday, May 17, 2022 8:00:00 AM	Fuel	10.00	541110 E 6988610 N	The fuel tank on a sled had hole at the bottom of the front wall. The snow inside the sled melted and the floor was dirty with fuel. The water mixed with fuel went out directly on ground.	The drillers installed a drip pan under the hole. Contaminated soil was recovered.
Saturday, May 21, 2022 6:00:00 AM	Engine Oil	1.00	Tiri-1	Tower light leaked engine oil on the ground.	The tower light stopped when it ran out of oil. The contaminated material was recovered and

					brought to the Landfarm.
Saturday, May 21, 2022 10:00:00 AM	Fuel	3.00	Dion Dome	Fuel leaked out of frost fighter while it was in operation.	Frost fighter has been removed from location for inspection of fuel tank. Spill pads were used to clean the area and was disposed in the appropriate bin.
Tuesday, May 24 2022	Various Substance	Unknown	B38	During a post drilling visual inspection materials related to drilling operations were observed on lake B38.	Orbit Garant, Exploration Geology, and Environment began a collaborative effort to clean up lake B38 and the shore of lake B38 by conducting several clean-ups.
Sunday, May 29, 2022 8:30:00 AM	Ammonium Nitrate	10.00	Conveyor Door or Emulsion Plant 63º 2' 38.96''N, 92º 15' 22.11''W.	The emulsion plant operator was loading the emulsion plant with 1000kg bags of ammonium nitrate. During this task the operator hit the right side of the loading door with an ammonium nitrate bag causing a tear and a spill of 100 kg of ammonium nitrate.	The spilled emulsion was recovered and placed in boreholes in the blast pattern of Tiriganiaq Open Pit 1.

Appendix – Monitoring Analytical Data

MEL-11		5/15/2022
		MEL-11
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.52
Turbidity	**NTU**	0.3
Specific conductivity	**umhos/cm**	160
Hardness, as CaCO3	**mg/L**	40.2
Total alkalinity, as CaCO3	**mg/L**	32
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	32
TDS	**mg/L**	265
TDS, calculated	**mg/L**	78
TSS	**mg/L**	1
Total organic carbon	**mg/L**	4.4
Dissolved organic carbon	**mg/L**	4.4
WQ03- Major Ions		
Chloride	**mg/L**	22
Cyanide	**mg/L**	< 0.00050
Cyanide (free)	**mg/L**	0.0042
Cyanide (WAD)	**mg/L**	< 0.00050
Silica	**mg/L**	0.46
Sulfate	**mg/L**	8.4
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	0.45
Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.25
Total phosphorus	**mg/L**	< 0.020
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0037
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00072
Barium	**mg/L**	0.0139
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00123
Iron	**mg/L**	0.034
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020

Manganese	**mg/L**	0.0095
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	0.0011
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Strontium	**mg/L**	0.0741
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Aluminum	**mg/L**	< 0.0030
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00071
Barium	**mg/L**	0.0146
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium (Dissolved)	**mg/L**	13.2
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00113
Iron	**mg/L**	0.0149
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Magnesium (Dissolved)	**mg/L**	2.35
Manganese	**mg/L**	0.0013
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	0.0010
Potassium (Dissolved)	**mg/L**	1.48
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Sodium (Dissolved)	**mg/L**	9.55
Strontium	**mg/L**	0.0795
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050

WQ10- Volatile Organics		
Benzene	**mg/L**	< 0.00020
Ethylbenzene	**mg/L**	< 0.00020
Toluene	**mg/L**	< 0.00020
Xylenes	**mg/L**	< 0.00040
m,p-Xylenes	**mg/L**	< 0.00040
o-Xylene	**mg/L**	< 0.00020
F1 (C6-C10)-BTEX	**mg/L**	< 0.025
F1 (C6-C10)	**mg/L**	< 0.025
F2 (C10-C16)	**mg/L**	< 0.1
F3 (C16-C34)	**mg/L**	< 0.2
F4 (C34-C50)	**mg/L**	< 0.2

MEL-15		5/29/2022
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.15
Turbidity	**NTU**	1.0
Specific conductivity	**umhos/cm**	120
Hardness, as CaCO3	**mg/L**	39.1
Hardness, as CaCO3 (dissolved)	**mg/L**	37.4
Total alkalinity, as CaCO3	**mg/L**	37
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	37
TDS	**mg/L**	100
TDS, calculated	**mg/L**	65
TSS	**mg/L**	2
Total organic carbon	**mg/L**	5.2
Dissolved organic carbon	**mg/L**	4.1
WQ03- Major Ions		
Chloride	**mg/L**	10
Cyanide	**mg/L**	< 0.00050
Cyanide (free)	**mg/L**	0.0029
Cyanide (WAD)	**mg/L**	0.00051
Silica	**mg/L**	0.63
Sulfate	**mg/L**	8.9
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	0.081
Nitrate (as N)	**mg/L**	0.23
Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.47

Total phosphorus	**mg/L**	0.019
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.102
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00932
Barium	**mg/L**	0.0146
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00129
Iron	**mg/L**	0.167
Lead	**mg/L**	0.00028
Lithium	**mg/L**	< 0.0020
Manganese	**mg/L**	0.0341
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	0.0015
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Strontium	**mg/L**	0.0660
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Aluminum	**mg/L**	0.0083
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00799
Barium	**mg/L**	0.0130
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium (Dissolved)	**mg/L**	12.6
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00095
Iron	**mg/L**	0.0340
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Magnesium (Dissolved)	**mg/L**	1.41

Manganese	**mg/L**	0.0272
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	0.0012
Potassium (Dissolved)	**mg/L**	2.15
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Sodium (Dissolved)	**mg/L**	6.48
Strontium	**mg/L**	0.0646
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050

MEL-16		5/29/2022
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	6.87
Turbidity	**NTU**	0.3
Specific conductivity	**umhos/cm**	63
Hardness, as CaCO3	**mg/L**	22.1
Total alkalinity, as CaCO3	**mg/L**	14
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	14
TDS	**mg/L**	70
TDS, calculated	**mg/L**	31
TSS	**mg/L**	1
Total organic carbon	**mg/L**	3.2
Dissolved organic carbon	**mg/L**	2.5
WQ03- Major Ions		
Chloride	**mg/L**	8.0
Cyanide	**mg/L**	< 0.00050
Cyanide (free)	**mg/L**	0.0034
Cyanide (WAD)	**mg/L**	0.00070
Silica	**mg/L**	0.15
Sulfate	**mg/L**	2.2
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	< 0.10

Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.30
Total phosphorus	**mg/L**	0.010
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0119
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.0101
Barium	**mg/L**	0.0143
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00081
Iron	**mg/L**	0.081
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Manganese	**mg/L**	0.0215
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Strontium	**mg/L**	0.0351
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Aluminum	**mg/L**	0.0048
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00898
Barium	**mg/L**	0.0148
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium (Dissolved)	**mg/L**	7.49
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00082
Iron	**mg/L**	0.0430
Lead	**mg/L**	< 0.00020

Lithium	**mg/L**	< 0.0020
Magnesium (Dissolved)	**mg/L**	0.997
Manganese	**mg/L**	0.0205
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Potassium (Dissolved)	**mg/L**	0.916
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Sodium (Dissolved)	**mg/L**	2.29
Strontium	**mg/L**	0.0363
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050

MEL-17		5/29/2022
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.07
Turbidity	**NTU**	0.6
Specific conductivity	**umhos/cm**	110
Hardness, as CaCO3	**mg/L**	40.3
Total alkalinity, as CaCO3	**mg/L**	26
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	26
TDS	**mg/L**	75
TDS, calculated	**mg/L**	60
TSS	**mg/L**	1
Total organic carbon	**mg/L**	5.1
Dissolved organic carbon	**mg/L**	4.4
WQ03- Major Ions		
Chloride	**mg/L**	13
Cyanide	**mg/L**	0.00091
Cyanide (free)	**mg/L**	0.0037
Cyanide (WAD)	**mg/L**	0.0011
Silica	**mg/L**	0.51
Sulfate	**mg/L**	9.1
WQ04- Nutrients and Chlorophyll a		

Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	< 0.10
Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.35
Total phosphorus	**mg/L**	0.009
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0085
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00150
Barium	**mg/L**	0.0151
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00076
Iron	**mg/L**	0.170
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Manganese	**mg/L**	0.0607
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	0.0012
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Strontium	**mg/L**	0.0841
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Aluminum	**mg/L**	0.0045
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00140
Barium	**mg/L**	0.0140
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium (Dissolved)	**mg/L**	13.3
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00083

Iron	**mg/L**	0.119
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	< 0.0020
Magnesium (Dissolved)	**mg/L**	1.80
Manganese	**mg/L**	0.0572
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	0.0013
Potassium (Dissolved)	**mg/L**	1.31
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Sodium (Dissolved)	**mg/L**	5.09
Strontium	**mg/L**	0.0911
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050

MEL-18		5/29/2022
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	6.81
Turbidity	**NTU**	0.8
Specific conductivity	**umhos/cm**	44
Hardness, as CaCO3	**mg/L**	16.8
Total alkalinity, as CaCO3	**mg/L**	14
Carbonate, as CaCO3	**mg/L**	< 1.0
Bicarbonate, as CaCO3	**mg/L**	14
TDS	**mg/L**	80
TDS, calculated	**mg/L**	20
TSS	**mg/L**	1
Total organic carbon	**mg/L**	2.5
Dissolved organic carbon	**mg/L**	1.8
WQ03- Major Ions		
Chloride	**mg/L**	3.7
Cyanide	**mg/L**	0.00102
Cyanide (free)	**mg/L**	0.0034
Cyanide (WAD)	**mg/L**	0.0010
Silica	**mg/L**	0.069

Sulfate	**mg/L**	< 0.50
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	< 0.050
Nitrate (as N)	**mg/L**	< 0.10
Nitrite (as N)	**mg/L**	< 0.010
Total Kjeldahl nitrogen	**mg/L**	0.17
Total phosphorus	**mg/L**	0.005
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0068
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00246
Barium	**mg/L**	0.0080
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00081
Iron	**mg/L**	0.300
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	0.0022
Manganese	**mg/L**	0.0469
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Strontium	**mg/L**	0.0416
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Aluminum	**mg/L**	< 0.0030
Antimony	**mg/L**	< 0.00050
Arsenic	**mg/L**	0.00193
Barium	**mg/L**	0.0081
Beryllium	**mg/L**	< 0.00010
Boron	**mg/L**	< 0.050
Cadmium	**mg/L**	< 0.000010
Calcium (Dissolved)	**mg/L**	5.70

Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00069
Iron	**mg/L**	0.198
Lead	**mg/L**	< 0.00020
Lithium	**mg/L**	0.0026
Magnesium (Dissolved)	**mg/L**	0.686
Manganese	**mg/L**	0.0470
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	< 0.0010
Nickel	**mg/L**	< 0.0010
Potassium (Dissolved)	**mg/L**	0.508
Selenium	**mg/L**	< 0.00010
Silver	**mg/L**	< 0.000020
Sodium (Dissolved)	**mg/L**	1.16
Strontium	**mg/L**	0.0429
Thallium	**mg/L**	< 0.000010
Tin	**mg/L**	< 0.0050
Titanium	**mg/L**	< 0.0050
Uranium	**mg/L**	< 0.00010
Vanadium	**mg/L**	< 0.0050
Zinc	**mg/L**	< 0.0050

MEL-20		5/29/2022
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.40
Turbidity	**NTU**	3.0
Hardness, as CaCO3	**mg/L**	163
Hardness, as CaCO3 (dissolved)	**mg/L**	169
Total alkalinity, as CaCO3	**mg/L**	61
TDS	**mg/L**	510
TDS, calculated	**mg/L**	530
TSS	**mg/L**	10
WQ03- Major Ions		
Chloride	**mg/L**	150
Cyanide	**mg/L**	0.0494
Fluoride	**mg/L**	< 0.10
Silica	**mg/L**	1.3
Sulfate	**mg/L**	140
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	5.1

Nitrate (as N)	**mg/L**	5.59
Nitrite (as N)	**mg/L**	0.080
Total phosphorus	**mg/L**	0.037
Orthophosphate (P)	**mg/L**	0.041
WQ06- Total Metals		
Aluminum	**mg/L**	0.275
Arsenic	**mg/L**	0.231
Barium	**mg/L**	0.0219
Cadmium	**mg/L**	0.000025
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.0208
Iron	**mg/L**	0.644
Lead	**mg/L**	0.00775
Manganese	**mg/L**	0.148
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	0.0072
Nickel	**mg/L**	0.0088
Selenium	**mg/L**	0.00112
Silver	**mg/L**	0.000036
Thallium	**mg/L**	0.000010
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	48.5
Magnesium (Dissolved)	**mg/L**	11.5
Potassium (Dissolved)	**mg/L**	9.12
Sodium (Dissolved)	**mg/L**	113

MEL-21		5/29/2022
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.47
Turbidity	**NTU**	8.9
Hardness, as CaCO3	**mg/L**	127
Total alkalinity, as CaCO3	**mg/L**	63
TDS	**mg/L**	295
TDS, calculated	**mg/L**	290
TSS	**mg/L**	19
WQ03- Major Ions		
Chloride	**mg/L**	71
Cyanide	**mg/L**	0.0504
Fluoride	**mg/L**	< 0.10

Silica	**mg/L**	1.5
Sulfate	**mg/L**	73
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	1.6
Nitrate (as N)	**mg/L**	1.62
Nitrite (as N)	**mg/L**	0.046
Total phosphorus	**mg/L**	0.030
Orthophosphate (P)	**mg/L**	0.028
WQ06- Total Metals		
Aluminum	**mg/L**	0.337
Arsenic	**mg/L**	0.226
Barium	**mg/L**	0.0155
Cadmium	**mg/L**	0.000011
Chromium	**mg/L**	0.0013
Copper	**mg/L**	0.0296
Iron	**mg/L**	1.03
Lead	**mg/L**	0.00842
Manganese	**mg/L**	0.0524
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	0.0048
Nickel	**mg/L**	0.0054
Selenium	**mg/L**	0.00056
Silver	**mg/L**	0.000037
Thallium	**mg/L**	< 0.000010
Zinc	**mg/L**	0.0053
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	36.2
Magnesium (Dissolved)	**mg/L**	6.57
Potassium (Dissolved)	**mg/L**	5.51
Sodium (Dissolved)	**mg/L**	49.0

MEL-22		5/29/2022
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.47
Turbidity	**NTU**	0.7
Hardness, as CaCO3	**mg/L**	552
Total alkalinity, as CaCO3	**mg/L**	70
TDS	**mg/L**	1260
TDS, calculated	**mg/L**	1200
TSS	**mg/L**	2

WQ03- Major Ions		
Chloride	**mg/L**	530
Cyanide	**mg/L**	0.00122
Fluoride	**mg/L**	< 0.10
Silica	**mg/L**	1.3
Sulfate	**mg/L**	170
WQ04- Nutrients and Chlorophyll a		
Ammonia Nitrogen (as N)	**mg/L**	1.6
Nitrate (as N)	**mg/L**	4.05
Nitrite (as N)	**mg/L**	0.064
Total phosphorus	**mg/L**	0.015
Orthophosphate (P)	**mg/L**	< 0.010
WQ06- Total Metals		
Aluminum	**mg/L**	0.0289
Arsenic	**mg/L**	0.00388
Barium	**mg/L**	0.0477
Cadmium	**mg/L**	0.000040
Chromium	**mg/L**	< 0.0010
Copper	**mg/L**	0.00238
Iron	**mg/L**	0.076
Lead	**mg/L**	0.00024
Manganese	**mg/L**	0.424
Mercury	**mg/L**	< 0.00001
Molybdenum	**mg/L**	0.0032
Nickel	**mg/L**	0.0134
Selenium	**mg/L**	0.00032
Silver	**mg/L**	< 0.000020
Thallium	**mg/L**	0.000023
Zinc	**mg/L**	< 0.0050
WQ07- Dissolved Metals		
Calcium (Dissolved)	**mg/L**	162
Magnesium (Dissolved)	**mg/L**	33.6
Potassium (Dissolved)	**mg/L**	15.7
Sodium (Dissolved)	**mg/L**	192

MEL-25		5/16/2022
Parameter	**Unit**	
WQ02- Conventional Parameters		
pH	**pH units**	7.73
TSS	**mg/L**	3
WQ04- Nutrients and Chlorophyll a		

Ammonia Nitrogen (as N)	**mg/L**	< 0.050
WQ05- General Organics		
Total oil and grease	**mg/L**	< 0.50
WQ06- Total Metals		
Arsenic	**mg/L**	0.00119
Copper	**mg/L**	0.00382
Lead	**mg/L**	0.00037
Nickel	**mg/L**	0.0041
WQ10- Volatile Organics		
Benzene	**mg/L**	< 0.00020
Ethylbenzene	**mg/L**	< 0.00020
Toluene	**mg/L**	< 0.00020
Xylenes	**mg/L**	< 0.00040
m,p-Xylenes	**mg/L**	< 0.00040
o-Xylene	**mg/L**	< 0.00020
F1 (C6-C10)-BTEX	**mg/L**	< 0.025
F1 (C6-C10)	**mg/L**	< 0.025
F2 (C10-C16)	**mg/L**	< 0.1
F3 (C16-C34)	**mg/L**	< 0.2
F4 (C34-C50)	**mg/L**	< 0.2

MEL-SR1	**MEL-SR MAX GRAB (WSEEP/RO)**	**MEL-SR MAX MEAN (WSEEP/RO)**	**Sample date**	5/10/2022	5/14/2022
			Sample type		
Parameter			**Unit**		
WQ01- Field Measured					
Turbidity			**NTU**	79	14.6
WQ02- Conventional Parameters					
pH	9.5	9.5	**pH units**	7.33	7.68
Turbidity			**NTU**	29	1.7
Hardness, as CaCO3			**mg/L**	78.5	89.1
Total alkalinity, as CaCO3			**mg/L**	59	69
TDS			**mg/L**	160	125
TDS, calculated			**mg/L**	140	140
TSS	100	50	**mg/L**	14	8
WQ03- Major Ions					
Chloride			**mg/L**	34	29
Cyanide			**mg/L**	0.00083	0.00119
Fluoride			**mg/L**	< 0.10	< 0.10
Silica			**mg/L**	1.1	1.1
Sulfate			**mg/L**	17	22
WQ04- Nutrients and Chlorophyll a					
Ammonia Nitrogen (as N)			**mg/L**	0.86	0.12

Nitrate (as N)			**mg/L**	0.13	< 0.10
Nitrite (as N)			**mg/L**	0.016	< 0.010
Total phosphorus			**mg/L**	0.075	0.042
Orthophosphate (P)			**mg/L**	< 0.010	< 0.010
WQ05- General Organics					
Total oil and grease			**mg/L**	1.2	< 0.50
WQ06- Total Metals					
Aluminum			**mg/L**	1.16	0.155
Arsenic			**mg/L**	0.00361	0.00149
Barium			**mg/L**	0.0313	0.0198
Cadmium			**mg/L**	0.000037	0.000021
Chromium			**mg/L**	0.0065	< 0.0010
Copper			**mg/L**	0.0133	0.0169
Iron			**mg/L**	1.81	0.274
Lead			**mg/L**	0.00134	0.00069
Manganese			**mg/L**	0.138	0.148
Mercury			**mg/L**	< 0.00001	< 0.00001
Molybdenum			**mg/L**	0.0013	0.0012
Nickel			**mg/L**	0.0071	0.0033
Selenium			**mg/L**	0.00012	< 0.00010
Silver			**mg/L**	< 0.000020	< 0.000020
Thallium			**mg/L**	0.000023	< 0.000010
Zinc			**mg/L**	0.0246	0.0241
WQ07- Dissolved Metals					
Calcium (Dissolved)			**mg/L**	22.7	29.8
Magnesium (Dissolved)			**mg/L**	4.14	4.14
Potassium (Dissolved)			**mg/L**	7.05	4.06
Sodium (Dissolved)			**mg/L**	16.3	14.0

MEL-SR11	**MEL-SR MAX GRAB (WSEEP/RO)**	**MEL-SR MAX MEAN (WSEEP/RO)**	**Sample date**	5/10/2022
			Sample type	
Parameter			**Unit**	
WQ01- Field Measured				
Turbidity			**NTU**	33.5
WQ02- Conventional Parameters				
pH	9.5	9.5	**pH units**	7.50
Turbidity			**NTU**	1.9
Hardness, as CaCO3			**mg/L**	31.8
Total alkalinity, as CaCO3			**mg/L**	26
TDS			**mg/L**	75
TDS, calculated			**mg/L**	59
TSS	100	50	**mg/L**	3

WQ03- Major Ions				
Chloride			**mg/L**	20
Cyanide			**mg/L**	< 0.00050
Fluoride			**mg/L**	< 0.10
Silica			**mg/L**	0.33
Sulfate			**mg/L**	1.7
WQ04- Nutrients and Chlorophyll a				
Ammonia Nitrogen (as N)			**mg/L**	0.060
Nitrate (as N)			**mg/L**	0.16
Nitrite (as N)			**mg/L**	< 0.010
Total phosphorus			**mg/L**	0.044
Orthophosphate (P)			**mg/L**	< 0.010
WQ05- General Organics				
Total oil and grease			**mg/L**	2.5
WQ06- Total Metals				
Aluminum			**mg/L**	0.181
Arsenic			**mg/L**	0.00238
Barium			**mg/L**	0.0100
Cadmium			**mg/L**	0.000016
Chromium			**mg/L**	0.0013
Copper			**mg/L**	0.00271
Iron			**mg/L**	0.341
Lead			**mg/L**	0.00046
Manganese			**mg/L**	0.0154
Mercury			**mg/L**	< 0.00001
Molybdenum			**mg/L**	< 0.0010
Nickel			**mg/L**	< 0.0010
Selenium			**mg/L**	< 0.00010
Silver			**mg/L**	< 0.000020
Thallium			**mg/L**	< 0.000010
Zinc			**mg/L**	0.0081
WQ07- Dissolved Metals				
Calcium (Dissolved)			**mg/L**	9.51
Magnesium (Dissolved)			**mg/L**	1.94
Potassium (Dissolved)			**mg/L**	1.83
Sodium (Dissolved)			**mg/L**	8.28

MEL-SR16	MEL-SR MAX GRAB (WSEEP/RO)	MEL-SR MAX MEAN (WSEEP/RO)	Sample date	5/8/2022
			Sample type	
Parameter			Unit	
WQ02- Conventional Parameters				
pH	9.5	9.5	**pH units**	7.25
Turbidity			**NTU**	35
Hardness, as CaCO3			**mg/L**	127
Hardness, as CaCO3 (dissolved)			**mg/L**	127
Total alkalinity, as CaCO3			**mg/L**	69
TDS			**mg/L**	235
TDS, calculated			**mg/L**	220
TSS	100	**50**	**mg/L**	**110**
WQ03- Major Ions				
Chloride			**mg/L**	68
Cyanide			**mg/L**	0.00136
Fluoride			**mg/L**	< 0.10
Silica			**mg/L**	1.6
Sulfate			**mg/L**	28
WQ04- Nutrients and Chlorophyll a				
Ammonia Nitrogen (as N)			**mg/L**	0.48
Nitrate (as N)			**mg/L**	0.75
Nitrite (as N)			**mg/L**	0.030
Total phosphorus			**mg/L**	0.30
Orthophosphate (P)			**mg/L**	0.090
WQ05- General Organics				
Total oil and grease			**mg/L**	2.6
WQ06- Total Metals				
Aluminum			**mg/L**	1.78
Arsenic			**mg/L**	0.0322
Barium			**mg/L**	0.0533
Cadmium			**mg/L**	0.000042
Chromium			**mg/L**	0.0047
Copper			**mg/L**	0.0109
Iron			**mg/L**	4.30
Lead			**mg/L**	0.00900
Manganese			**mg/L**	0.216
Mercury			**mg/L**	< 0.00001
Molybdenum			**mg/L**	0.0018
Nickel			**mg/L**	0.0077
Selenium			**mg/L**	0.00014
Silver			**mg/L**	< 0.000020
Thallium			**mg/L**	0.000039
Zinc			**mg/L**	0.0133
WQ07- Dissolved Metals				
Calcium (Dissolved)			**mg/L**	40.9
Magnesium (Dissolved)			**mg/L**	5.96
Potassium (Dissolved)			**mg/L**	18.2
Sodium (Dissolved)			**mg/L**	17.3