



Meliadine Gold Project
NWB 2AM-MEL1631
July 2020 Monthly Report

Prepared for:
Nunavut Water Board

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SECTION 1 • BACKGROUND

As required under Part I, Item 10 of 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 July 2020.

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 Agnico's monthly water usage in June 2020

	Monthly Usage (m ³)
Camp and Mill (MEL-11)	25,379.05
Construction – Batch Plant (MEL-26 – A8)	0
Dust suppression	0
Total July	25,397.05
Year to date 2020	212,412,18

2.2 DEWATERING ACTIVITIES

Dewatering of the Lake H-19 and H-20 started August 17th 2019 and stopped October 5th 2019.

2.3 MELIADINE DISCHARGE

Discharge from the EWTP into Meliadine Lake via the Final Discharge Point (MEL-14) started June 5th 2020, a total of 366,094 m³ was discharged throughout the month.

2.4 MELVIN BAY DISCHARGE

Discharge to sea via the Final Discharge Point (MEL-26) started August 1st 2019 and stopped October 11th 2019.

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 in July 2020.

2.6 SEWAGE TREATMENT PLANT

In July 2020, 4,176 m³ of treated wastewater was discharged into CP1. The majority of the sludge is disposed of in the WRSF.

2.7 CONTAINMENTS

Discharged from the Itivia fuel containment facility (Station Mel-25) started June 27th and approximately 2,816.10 m³ was discharged through the month.

2.8 MONITORING ANALYTICAL DATA

In July 2020, samples related to the water Licence were taken. See below the analytical results from these monitoring stations. No exceedances occurred in July 2020.

MEL -11	Sample Date	7/1/2020	7/5/2020
Parameter	Unit		
Field Measured			
pH	pH units	7.58	-
Conductivity	uS/cm	100.7	-
Temperature	°C	7.2	-
Dissolved oxygen	mg/L	10.33	-
Dissolved oxygen	%	86.7	-
Conventional Parameters			
pH	pH units	-	7.02
Specific conductivity	umhos/cm	-	99
Hardness, as CaCO ₃ (D)	mg/L	-	26.6
Hardness, as CaCO ₃ (T)	mg/L	-	27.3
Total alkalinity, as CaCO ₃	mg/L	-	20
Total dissolved solids	mg/L	-	105
Total suspended solids	mg/L	-	1
Total organic carbon	mg/L	-	3.9
Dissolved organic carbon	mg/L	-	4.2
Turbidity	NTU	-	0.4
Major Ions			
Bicarbonate, as CaCO ₃	mg/L	-	20
Calcium	mg/L	-	8.12
Carbonate, as CaCO ₃	mg/L	-	< 1.0
Chloride	mg/L	-	14
Cyanide	mg/L	-	< 0.0050
Magnesium	mg/L	-	1.53

Potassium	mg/L	-	1.06
Sodium	mg/L	-	6.01
Sulphate	mg/L	-	5.6
Silica	mg/L	-	0.73
Cyanide (free)	mg/L	-	< 0.0010
Cyanide (WAD)	mg/L	-	< 0.0010
Nutrients and Chlorophyll a			
Nitrate	mg/L	-	< 0.10
Nitrite	mg/L	-	< 0.010
Nitrate + nitrite	mg/L	-	< 0.10
Total ammonia	mg/L	-	< 0.050
Total Kjeldahl nitrogen	mg/L	-	0.28
Total phosphorus	mg/L	-	0.034
Orthophosphate	mg/L	-	< 0.010
Total Metals			
Aluminum	mg/L	-	0.008
Antimony	mg/L	-	< 0.00050
Arsenic	mg/L	-	0.00052
Barium	mg/L	-	0.0095
Beryllium	mg/L	-	< 0.00010
Bismuth	mg/L	-	< 0.0010
Boron	mg/L	-	< 0.05
Cadmium	mg/L	-	< 0.000010
Calcium	mg/L	-	8.36
Chromium	mg/L	-	< 0.0010
Cobalt	mg/L	-	< 0.00020
Copper	mg/L	-	0.00099
Iron	mg/L	-	0.052
Lead	mg/L	-	< 0.00020
Lithium	mg/L	-	< 0.0020
Magnesium	mg/L	-	1.57

Manganese	mg/L	-	0.0106
Mercury	mg/L	-	< 0.00001
Molybdenum	mg/L	-	< 0.0010
Nickel	mg/L	-	0.001
Potassium	mg/L	-	1.07
Selenium	mg/L	-	< 0.00010
Silicon	mg/L	-	0.307
Silver	mg/L	-	< 0.000020
Sodium	mg/L	-	6.22
Strontium	mg/L	-	0.0464
Sulphur	mg/L	-	< 3
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
Zirconium	mg/L	-	< 0.00010
Dissolved Metals			
Aluminum	mg/L	-	0.0043
Antimony	mg/L	-	< 0.00050
Arsenic	mg/L	-	0.00047
Barium	mg/L	-	0.0093
Beryllium	mg/L	-	< 0.00010
Bismuth	mg/L	-	< 0.0010
Boron	mg/L	-	< 0.05
Cadmium	mg/L	-	< 0.000010
Chromium	mg/L	-	< 0.0010
Cobalt	mg/L	-	< 0.00020
Copper	mg/L	-	0.00089
Iron	mg/L	-	0.023

Lead	mg/L	-	< 0.00020
Lithium	mg/L	-	< 0.0020
Manganese	mg/L	-	0.0026
Mercury	mg/L	-	< 0.00001
Molybdenum	mg/L	-	< 0.0010
Nickel	mg/L	-	< 0.0010
Selenium	mg/L	-	< 0.00010
Silicon	mg/L	-	0.284
Silver	mg/L	-	< 0.000020
Strontium	mg/L	-	0.0489
Sulphur	mg/L	-	< 3.0
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
Zirconium	mg/L	-	< 0.00010
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)-BTX	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
Reached baseline at C50	ug/L	-	YES

MEL-12	Sample Date	7/1/2020	7/5/2020
Parameter	Unit		
Field Measured			
pH	pH units	6.84	-
Conductivity	uS/cm	2311	-
Temperature	°C	11	-
Dissolved oxygen	mg/L	10.55	-
Dissolved oxygen	%	97.9	-
Conventional Parameters			
pH	pH units	-	7.62
Specific conductivity	umhos/cm	-	2200
Hardness, as CaCO ₃ (D)	mg/L	-	483
Hardness, as CaCO ₃ (T)	mg/L	-	485
Total alkalinity, as CaCO ₃	mg/L	-	51
Total dissolved solids	mg/L	-	1520
Total suspended solids	mg/L	-	12
Total organic carbon	mg/L	-	8.1
Turbidity	NTU	-	4.2
Major Ions			
Calcium	mg/L	-	137
Chloride	mg/L	-	570
Cyanide	mg/L	-	< 0.0050
Fluoride	mg/L	-	< 0.10
Magnesium	mg/L	-	34.2
Potassium	mg/L	-	14.7
Sodium	mg/L	-	210
Sulphate	mg/L	-	110
Nutrients and Chlorophyll a			

Nitrate	mg/L	-	12.7
Nitrite	mg/L	-	0.118
Nitrate + nitrite	mg/L	-	12.8
Total ammonia	mg/L	-	3.6
Total phosphorus	mg/L	-	0.078
Orthophosphate	mg/L	-	0.013
Total Metals			
Aluminum	mg/L	-	0.319
Antimony	mg/L	-	< 0.00050
Arsenic	mg/L	-	0.0232
Barium	mg/L	-	0.0712
Beryllium	mg/L	-	< 0.00010
Bismuth	mg/L	-	< 0.0010
Boron	mg/L	-	0.218
Cadmium	mg/L	-	0.000033
Calcium	mg/L	-	138
Chromium	mg/L	-	< 0.0010
Cobalt	mg/L	-	0.00157
Copper	mg/L	-	0.00257
Iron	mg/L	-	0.479
Lead	mg/L	-	0.00337
Lithium	mg/L	-	0.062
Magnesium	mg/L	-	34.1
Manganese	mg/L	-	0.507
Mercury	mg/L	-	< 0.00001
Molybdenum	mg/L	-	0.0021
Nickel	mg/L	-	0.005
Potassium	mg/L	-	14.8
Selenium	mg/L	-	0.00024
Silicon	mg/L	-	0.95
Silver	mg/L	-	< 0.000020

Sodium	mg/L	-	217
Strontium	mg/L	-	2.46
Sulphur	mg/L	-	37.7
Thallium	mg/L	-	0.00003
Tin	mg/L	-	< 0.0050
Titanium	mg/L	-	< 0.0050
Uranium	mg/L	-	0.00107
Vanadium	mg/L	-	< 0.0050
Zinc	mg/L	-	0.0119
Zirconium	mg/L	-	0.00015
Dissolved Metals			
Aluminum	mg/L	-	0.114
Antimony	mg/L	-	< 0.00050
Arsenic	mg/L	-	0.0117
Barium	mg/L	-	0.0694
Beryllium	mg/L	-	< 0.00010
Bismuth	mg/L	-	< 0.0010
Boron	mg/L	-	0.225
Cadmium	mg/L	-	0.000028
Chromium	mg/L	-	< 0.0010
Cobalt	mg/L	-	0.00133
Copper	mg/L	-	0.00163
Iron	mg/L	-	0.0245
Lead	mg/L	-	0.00031
Lithium	mg/L	-	0.0662
Manganese	mg/L	-	0.436
Mercury	mg/L	-	< 0.00001
Molybdenum	mg/L	-	0.002
Nickel	mg/L	-	0.0042
Selenium	mg/L	-	0.00021
Silicon	mg/L	-	0.69

Silver	mg/L	-	< 0.000020
Strontium	mg/L	-	2.57
Sulphur	mg/L	-	39.4
Thallium	mg/L	-	0.000026
Tin	mg/L	-	< 0.0050
Titanium	mg/L	-	< 0.0050
Uranium	mg/L	-	0.00104
Vanadium	mg/L	-	< 0.0050
Zinc	mg/L	-	0.0069
Zirconium	mg/L	-	< 0.00010

MEL-14	Sample Date	Monthly Average	7/1/2020	7/5/2020	7/12/2020	7/19/2020	7/21/2020	7/26/2020
Parameter	Unit							
Field Measured								
pH	pH units	7.0825	6.99	-	7.77	6.56	-	7.01
Conductivity	uS/cm	2209.25	2303	-	2015	2233	-	2286
Temperature	°C	15.00	11.2	-	16.8	15.5	-	16.5
Dissolved oxygen	mg/L	15.87	9.08	-	14.93	18.1	-	21.36
Dissolved oxygen	%	79.25	83.4	-	-	-	-	75.1
Conventional Parameters								
pH	pH units	7.25	-	7.25	7.29	7	7.18	7.52
Specific conductivity	umhos/cm	2300.00	-	2300	2000	2300	2400	2500
Hardness, as CaCO3 (D)	mg/L	486.60	-	488	426	500	488	531
Hardness, as CaCO3 (T)	mg/L	508.50	-	530	426	517	-	561
Total alkalinity, as CaCO3	mg/L	32.20	-	37	26	23	29	46
Total dissolved solids	mg/L	1150.00	-	-	1000	1100	1200	1300

Total dissolved solids	mg/L	1470.00	-	1510	1370	1430	1700	1340
Total suspended solids	mg/L	4.80	-	5	5	5	5	4
Volatile TSS	mg/L	4.00	-	-	-	4	-	-
Total organic carbon	mg/L	6.20	-	5.8	5.2	5.4	-	8.4
Dissolved organic carbon	mg/L	5.65	-	5.1	4.7	5.2	-	7.6
Turbidity	NTU	0.86	-	0.9	0.9	1	0.8	0.7
Dissolved Oxygen	mg/L	9.56	-	9.52	9.73	9.16	-	9.81
Major Ions								
Bicarbonate, as CaCO ₃	mg/L	32.00	-	36	26	23	29	46
Calcium	mg/L	138.20	-	138	121	141	140	151
Carbonate, as CaCO ₃	mg/L	0.5000	-	< 1,0	< 1,0	< 1,0	< 1,0	< 1,0
Chloride	mg/L	566.00	-	570	500	530	630	600
Cyanide	mg/L	0.0046	-	< 0,0050	< 0,0050	0.011	-	< 0,0050
Fluoride	mg/L	0.0500	-	-	< 0,10	< 0,10	< 0,10	< 0,10
Magnesium	mg/L	34.50	-	34.9	30.1	36.2	33.8	37.5
Potassium	mg/L	15.36	-	14.9	13.2	16.1	15.7	16.9
Sodium	mg/L	219.80	-	209	194	235	218	243
Sulphate	mg/L	118.00	-	110	110	120	120	130
Silica	mg/L	1.18	-	1.5	1.1	1.3	1.1	0.9
Cyanide (free)	mg/L	0.0020	-	0.0035	0.0012	0.0021	-	0.0012
Cyanide (WAD)	mg/L	0.0019	-	0.0014	0.001	0.0033	-	0.002
Nutrients and Chlorophyll a								
Nitrate	mg/L	11.88	-	13	10.2	11.7	12.1	12.4
Nitrite	mg/L	0.3192	-	0.108	0.249	0.387	0.397	0.455
Nitrate + nitrite	mg/L	12.18	-	13.1	10.5	12	12.5	12.8
Total ammonia	mg/L	1.47	-	3.4	1.7	0.76	0.69	0.79
Total Kjeldahl nitrogen	mg/L	2.48	-	4.2	2.2	1.9	-	1.6
Total phosphorus	mg/L	0.0340	-	0.057	0.025	0.032	-	0.022

Orthophosphate	mg/L	0.0050	-	< 0,010	< 0,010	< 0,010	< 0,010	< 0,010
Biochemical Oxygen Demand, 5 Day	mg/L	1.00	-	< 2	< 2	< 2	-	< 2
Total Metals								
Aluminum	mg/L	0.59450	-	0.65	0.559	0.442	-	0.727
Antimony	mg/L	0.00125	-	< 0,00050	< 0,00050	0.00051	-	0.004
Arsenic	mg/L	0.00444	-	0.00541	0.00459	0.00357	-	0.00419
Barium	mg/L	0.07200	-	0.0711	0.0605	0.0737	-	0.0827
Beryllium	mg/L	0.00006	-	< 0,00010	< 0,00010	< 0,00010	-	< 0,00020
Bismuth	mg/L	0.00063	-	< 0,0010	< 0,0010	< 0,0010	-	< 0,0020
Boron	mg/L	0.26050	-	0.247	0.221	0.25	-	0.324
Cadmium	mg/L	0.00002	-	0.000029	0.000019	0.000018	-	0.000021
Calcium	mg/L	144.75000	-	151	120	148	-	160
Chromium	mg/L	0.00063	-	< 0,0010	< 0,0010	< 0,0010	-	< 0,0020
Cobalt	mg/L	0.00112	-	0.00133	0.00097	0.00105	-	0.00113
Copper	mg/L	0.00129	-	0.00131	0.0013	0.00103	-	0.0015
Iron	mg/L	0.06925	-	0.097	0.063	0.054	-	0.063
Lead	mg/L	0.00020	-	0.00041	< 0,00020	< 0,00020	-	< 0,00040
Lithium	mg/L	0.06753	-	0.0699	0.0581	0.0664	-	0.0757
Magnesium	mg/L	35.60000	-	37.1	30.5	35.9	-	38.9
Manganese	mg/L	0.18085	-	0.455	0.0678	0.0756	-	0.125
Mercury	mg/L	0.00004	-	< 0,00010	< 0,00010	< 0,00010	-	< 0,00001
Molybdenum	mg/L	0.00258	-	0.0022	0.0025	0.0026	-	0.003
Nickel	mg/L	0.00378	-	0.0043	0.0032	0.0031	-	0.0045
Potassium	mg/L	15.57500	-	15.7	13.3	16	-	17.3
Selenium	mg/L	0.00025	-	0.00023	0.00021	0.00024	-	0.0003
Silicon	mg/L	0.57475	-	0.753	0.491	0.562	-	0.493
Silver	mg/L	0.00001	-	< 0,000020	< 0,000020	< 0,000020	-	< 0,000040

Sodium	mg/L	227.00000	-	226	197	235	-	250
Strontium	mg/L	2.56750	-	2.65	2.19	2.64	-	2.79
Sulphur	mg/L	40.65000	-	41.7	35.9	40.4	-	44.6
Thallium	mg/L	0.00003	-	0.00003	0.000025	0.000027	-	0.000026
Tin	mg/L	0.00313	-	< 0,0050	< 0,0050	< 0,0050	-	< 0,01
Titanium	mg/L	0.00313	-	< 0,0050	< 0,0050	< 0,0050	-	< 0,01
Uranium	mg/L	0.00030	-	0.00019	0.00017	< 0,00010	-	0.00054
Vanadium	mg/L	0.00313	-	< 0,0050	< 0,0050	< 0,0050	-	< 0,01
Zinc	mg/L	0.00313	-	< 0,0050	< 0,0050	< 0,0050	-	< 0,01
Zirconium	mg/L	0.00006	-	< 0,00010	< 0,00010	< 0,00010	-	< 0,00020
Dissolved Metals								
Aluminum	mg/L	0.12345	-	0.0776	0.206	0.0632	-	0.147
Antimony	mg/L	0.00041	-	< 0,00050	< 0,00050	0.0005	-	0.00063
Arsenic	mg/L	0.00340	-	0.00356	0.00343	0.00308	-	0.00351
Barium	mg/L	0.07000	-	0.0685	0.0594	0.0734	-	0.0787
Beryllium	mg/L	0.00005	-	< 0,00010	< 0,00010	< 0,00010	-	< 0,00010
Bismuth	mg/L	0.00050	-	< 0,0010	< 0,0010	< 0,0010	-	< 0,0010
Boron	mg/L	0.24100	-	0.236	0.211	0.251	-	0.266
Cadmium	mg/L	0.00002	-	0.000029	0.000013	0.000015	-	0.000019
Chromium	mg/L	0.00050	-	< 0,0010	< 0,0010	< 0,0010	-	< 0,0010
Cobalt	mg/L	0.00107	-	0.00127	0.00095	0.00103	-	0.00102
Copper	mg/L	0.00115	-	0.00111	0.00118	0.00098	-	0.00132
Iron	mg/L	0.03546	-	0.0441	0.0289	0.0338	0.0422	0.0283
Lead	mg/L	0.00010	-	< 0,00020	< 0,00020	< 0,00020	-	< 0,00020
Lithium	mg/L	0.06580	-	0.0698	0.0603	0.0652	-	0.0679
Manganese	mg/L	0.14920	-	0.436	0.0568	0.071	0.0622	0.12
Mercury	mg/L	0.00004	-	< 0,00010	< 0,00010	< 0,00010	-	< 0,00001

Molybdenum	mg/L	0.00255	-	0.002	0.0025	0.0026	-	0.0031
Nickel	mg/L	0.00348	-	0.0039	0.0029	0.0031	-	0.004
Selenium	mg/L	0.00021	-	0.00019	0.0002	0.00022	-	0.00024
Silicon	mg/L	0.52425	-	0.674	0.492	0.517	-	0.414
Silver	mg/L	0.00001	-	< 0,000020	< 0,000020	< 0,000020	-	< 0,000020
Strontium	mg/L	2.56000	-	2.6	2.27	2.63	-	2.74
Sulphur	mg/L	39.35000	-	39.7	34.1	40.4	-	43.2
Thallium	mg/L	0.00003	-	0.000026	0.000026	0.000025	-	0.000023
Tin	mg/L	0.00250	-	< 0,0050	< 0,0050	< 0,0050	-	< 0,0050
Titanium	mg/L	0.00250	-	< 0,0050	< 0,0050	< 0,0050	-	< 0,0050
Uranium	mg/L	0.00016	-	< 0,00010	0.00012	< 0,00010	-	0.00045
Vanadium	mg/L	0.00250	-	< 0,0050	< 0,0050	< 0,0050	-	< 0,0050
Zinc	mg/L	0.00250	-	< 0,0050	< 0,0050	< 0,0050	-	< 0,0050
Zirconium	mg/L	0.00005	-	< 0,00010	< 0,00010	< 0,00010	-	< 0,00010
Volatile Organics								
Benzene	mg/L	-	-	< 0,00020	< 0,00020	< 0,00020	-	< 0,00020
Ethylbenzene	mg/L	-	-	< 0,00020	< 0,00020	< 0,00020	-	< 0,00020
Toluene	mg/L	-	-	< 0,00020	< 0,00020	< 0,00020	-	< 0,00020
Xylenes	mg/L	-	-	< 0,00040	< 0,00040	< 0,00040	-	< 0,00040
m,p-Xylenes	mg/L	-	-	< 0,00040	< 0,00040	< 0,00040	-	< 0,00040
o-Xylene	mg/L	-	-	< 0,00020	< 0,00020	< 0,00020	-	< 0,00020
F1 (C6-C10)-BTEX	mg/L	-	-	< 0,025	< 0,025	< 0,025	-	< 0,025
F1 (C6-C10)	mg/L	-	-	< 0,025	< 0,025	< 0,025	-	< 0,025
F2 (C10-C16)	mg/L	-	-	< 0,1	< 0,1	< 0,1	-	< 0,1

F3 (C16-C34)	mg/L	-	-	< 0,2	< 0,2	< 0,2	-	< 0,2
F4 (C34-C50)	mg/L	-	-	< 0,2	< 0,2	< 0,2	-	< 0,2
Reached baseline at C50	ug/L	-	-	YES	YES	YES	-	YES
Toxicity								
Daphnia 48 h static acute test - LC50	%	-	-	> 100	> 100	> 100	-	> 100
Daphnia 48 h Static Acute Test - EC50	%	-	-	> 100	> 100	> 100	-	> 100
LC50 (96h) - Rainbow Trout	%	-	-	> 100	> 100	> 100	-	> 100
Radionuclides								
Radium-226	Bq/l	0.0053	-	< 0,0050	< 0,0050	0.01	-	0.006

MEL-15	Sample Date	7/8/2020
Parameter	Unit	
Field Measured		
pH	pH units	7.76
Conductivity	uS/cm	87.6
Temperature	°C	14.4
Dissolved oxygen	mg/L	10.52
Dissolved oxygen	%	103.9
Conventional Parameters		
pH	pH units	7.59
Specific conductivity	umhos/cm	82
Hardness, as CaCO3 (D)	mg/L	30.1
Hardness, as CaCO3 (T)	mg/L	31.4
Total alkalinity, as CaCO3	mg/L	28
Total dissolved solids	mg/L	30
Total suspended solids	mg/L	1
Total organic carbon	mg/L	3.7

Dissolved organic carbon	mg/L	3.6
Turbidity	NTU	0.4
Major Ions		
Bicarbonate, as CaCO ₃	mg/L	28
Calcium	mg/L	10.2
Carbonate, as CaCO ₃	mg/L	< 1.0
Chloride	mg/L	5.6
Cyanide	mg/L	< 0.0050
Magnesium	mg/L	1.14
Potassium	mg/L	0.696
Sodium	mg/L	2.63
Sulphate	mg/L	2.2
Silica	mg/L	0.31
Cyanide (free)	mg/L	0.0019
Cyanide (WAD)	mg/L	< 0.0010
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Nitrate + nitrite	mg/L	< 0.10
Total ammonia	mg/L	0.2
Total Kjeldahl nitrogen	mg/L	0.19
Total phosphorus	mg/L	< 0.020
Orthophosphate	mg/L	< 0.010
Total Metals		
Aluminum	mg/L	0.005
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00119
Barium	mg/L	0.0115
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05

Cadmium	mg/L	< 0.000010
Calcium	mg/L	10.6
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00067
Iron	mg/L	0.116
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Magnesium	mg/L	1.2
Manganese	mg/L	0.0157
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium	mg/L	0.735
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.136
Silver	mg/L	< 0.000020
Sodium	mg/L	2.63
Strontium	mg/L	0.0525
Sulphur	mg/L	< 3
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
Zirconium	mg/L	< 0.00010
Dissolved Metals		
Aluminum	mg/L	< 0.0030
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00082

Barium	mg/L	0.0105
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00052
Iron	mg/L	0.0494
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0076
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.123
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0503
Sulphur	mg/L	< 3.0
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
Zirconium	mg/L	< 0.00010

MEL-16	Sample Date	7/8/2020
Parameter	Unit	
Field Measured		
pH	pH units	7.74
Conductivity	uS/cm	91.5
Temperature	°C	18
Dissolved oxygen	mg/L	10.12
Dissolved oxygen	%	107.1
Conventional Parameters		
pH	pH units	7.44
Specific conductivity	umhos/cm	86
Hardness, as CaCO ₃ (D)	mg/L	31
Hardness, as CaCO ₃ (T)	mg/L	30.8
Total alkalinity, as CaCO ₃	mg/L	21
Total dissolved solids	mg/L	55
Total suspended solids	mg/L	2
Total organic carbon	mg/L	3.5
Dissolved organic carbon	mg/L	3.1
Turbidity	NTU	0.5
Major Ions		
Bicarbonate, as CaCO ₃	mg/L	21
Calcium	mg/L	10.1
Carbonate, as CaCO ₃	mg/L	< 1.0
Chloride	mg/L	11
Cyanide	mg/L	< 0.0050
Magnesium	mg/L	1.38
Potassium	mg/L	0.777
Sodium	mg/L	2.4
Sulphate	mg/L	1.7
Silica	mg/L	0.2

Cyanide (free)	mg/L	0.0014
Cyanide (WAD)	mg/L	< 0.0010
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Nitrate + nitrite	mg/L	< 0.10
Total ammonia	mg/L	0.13
Total Kjeldahl nitrogen	mg/L	0.14
Total phosphorus	mg/L	< 0.020
Orthophosphate	mg/L	< 0.010
Total Metals		
Aluminum	mg/L	0.0133
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00366
Barium	mg/L	0.0173
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	10
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00088
Iron	mg/L	0.189
Lead	mg/L	0.00037
Lithium	mg/L	< 0.0020
Magnesium	mg/L	1.39
Manganese	mg/L	0.0091
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010

Potassium	mg/L	0.788
Selenium	mg/L	< 0.00010
Silicon	mg/L	< 0.1
Silver	mg/L	< 0.000020
Sodium	mg/L	2.4
Strontium	mg/L	0.0518
Sulphur	mg/L	< 3
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
Zirconium	mg/L	< 0.00010
Dissolved Metals		
Aluminum	mg/L	0.0051
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00259
Barium	mg/L	0.0175
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00079
Iron	mg/L	0.086
Lead	mg/L	< 0.00020
Lithium	mg/L	< 0.0020
Manganese	mg/L	0.0036
Mercury	mg/L	< 0.00001

Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Selenium	mg/L	< 0.00010
Silicon	mg/L	< 0.1
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0518
Sulphur	mg/L	< 3.0
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
Zirconium	mg/L	< 0.00010

MEL-17	Sample Date	7/8/2020
Parameter	Unit	
Field Measured		
pH	pH units	7.37
Conductivity	uS/cm	252.8
Temperature	°C	17.7
Dissolved oxygen	mg/L	98
Dissolved oxygen	%	104.1
Conventional Parameters		
pH	pH units	7.86
Specific conductivity	umhos/cm	240
Hardness, as CaCO ₃ (D)	mg/L	84.6
Hardness, as CaCO ₃ (T)	mg/L	85.1
Total alkalinity, as CaCO ₃	mg/L	56
Total dissolved solids	mg/L	145

Total suspended solids	mg/L	2
Total organic carbon	mg/L	9.3
Dissolved organic carbon	mg/L	8.8
Turbidity	NTU	0.8
Major Ions		
Bicarbonate, as CaCO ₃	mg/L	56
Calcium	mg/L	28.6
Carbonate, as CaCO ₃	mg/L	< 1.0
Chloride	mg/L	33
Cyanide	mg/L	< 0.0050
Magnesium	mg/L	3.23
Potassium	mg/L	2.27
Sodium	mg/L	8.99
Sulphate	mg/L	4.1
Silica	mg/L	1.2
Cyanide (free)	mg/L	< 0.0010
Cyanide (WAD)	mg/L	< 0.0010
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Nitrate + nitrite	mg/L	< 0.10
Total ammonia	mg/L	0.079
Total Kjeldahl nitrogen	mg/L	0.57
Total phosphorus	mg/L	< 0.020
Orthophosphate	mg/L	< 0.010
General Organics		
Total oil and grease	mg/L	< 0.50
Total Metals		
Aluminum	mg/L	0.0042
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00108

Barium	mg/L	0.027
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	28.7
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00112
Iron	mg/L	0.342
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0056
Magnesium	mg/L	3.27
Manganese	mg/L	0.0761
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	0.0017
Potassium	mg/L	2.28
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.516
Silver	mg/L	< 0.000020
Sodium	mg/L	9.13
Strontium	mg/L	0.239
Sulphur	mg/L	< 3
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
Zirconium	mg/L	< 0.00010

Dissolved Metals		
Aluminum	mg/L	< 0.0030
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00097
Barium	mg/L	0.0265
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00106
Iron	mg/L	0.214
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0056
Manganese	mg/L	0.0461
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	0.0017
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.514
Silver	mg/L	< 0.000020
Strontium	mg/L	0.236
Sulphur	mg/L	< 3.0
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
Zirconium	mg/L	< 0.00010

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

MEL-18	Sample Date	7/8/2020
Parameter	Unit	
Field Measured		
pH	pH units	6.94
Conductivity	uS/cm	121
Temperature	°C	15.5
Dissolved oxygen	mg/L	98
Dissolved oxygen	%	9.65
Conventional Parameters		
pH	pH units	7.47
Specific conductivity	umhos/cm	110
Hardness, as CaCO ₃ (D)	mg/L	39
Hardness, as CaCO ₃ (T)	mg/L	40.2
Total alkalinity, as CaCO ₃	mg/L	26
Total dissolved solids	mg/L	65
Total suspended solids	mg/L	1
Total organic carbon	mg/L	3.2
Dissolved organic carbon	mg/L	2.9
Turbidity	NTU	0.3
Major Ions		
Bicarbonate, as CaCO ₃	mg/L	26

Calcium	mg/L	12.9
Carbonate, as CaCO ₃	mg/L	< 1.0
Chloride	mg/L	15
Cyanide	mg/L	< 0.0050
Magnesium	mg/L	1.63
Potassium	mg/L	0.802
Sodium	mg/L	3.15
Sulphate	mg/L	3.8
Silica	mg/L	0.17
Cyanide (free)	mg/L	0.0012
Cyanide (WAD)	mg/L	< 0.0010
Nutrients and Chlorophyll a		
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Nitrate + nitrite	mg/L	< 0.10
Total ammonia	mg/L	< 0.050
Total Kjeldahl nitrogen	mg/L	0.23
Total phosphorus	mg/L	< 0.020
Orthophosphate	mg/L	< 0.010
Total Metals		
Aluminum	mg/L	0.0047
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00256
Barium	mg/L	0.0153
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05
Cadmium	mg/L	< 0.000010
Calcium	mg/L	13.3
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020

Copper	mg/L	0.00069
Iron	mg/L	0.15
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0057
Magnesium	mg/L	1.67
Manganese	mg/L	0.0151
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Potassium	mg/L	0.837
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.149
Silver	mg/L	< 0.000020
Sodium	mg/L	3.22
Strontium	mg/L	0.1
Sulphur	mg/L	< 3
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
Zirconium	mg/L	< 0.00010
Dissolved Metals		
Aluminum	mg/L	< 0.0030
Antimony	mg/L	< 0.00050
Arsenic	mg/L	0.00196
Barium	mg/L	0.0148
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	< 0.05

Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Cobalt	mg/L	< 0.00020
Copper	mg/L	0.00059
Iron	mg/L	0.073
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0058
Manganese	mg/L	0.004
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	< 0.0010
Selenium	mg/L	< 0.00010
Silicon	mg/L	0.137
Silver	mg/L	< 0.000020
Strontium	mg/L	0.0968
Sulphur	mg/L	< 3.0
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
Zirconium	mg/L	< 0.00010

MEL-20	Sample Date	7/7/2020
Parameter	Unit	
Field Measured		
pH	pH units	8.21
Conductivity	uS/cm	1046

Temperature	°C	9.1
Dissolved oxygen	mg/L	8.6
Dissolved oxygen	%	76
Conventional Parameters		
pH	pH units	7.69
Hardness, as CaCO ₃ (D)	mg/L	174
Hardness, as CaCO ₃ (T)	mg/L	173
Total alkalinity, as CaCO ₃	mg/L	50
Total dissolved solids	mg/L	470
Total suspended solids	mg/L	14
Turbidity	NTU	10
Major Ions		
Calcium	mg/L	47.6
Chloride	mg/L	160
Cyanide	mg/L	0.0059
Fluoride	mg/L	< 0.10
Magnesium	mg/L	13.3
Potassium	mg/L	7.51
Sodium	mg/L	92.5
Sulphate	mg/L	110
Nutrients and Chlorophyll a		
Nitrate	mg/L	4.05
Nitrite	mg/L	0.05
Nitrate + nitrite	mg/L	4.1
Total ammonia	mg/L	4.1
Total phosphorus	mg/L	0.11
Orthophosphate	mg/L	0.044
Total Metals		
Aluminum	mg/L	0.0198
Antimony	mg/L	0.00064
Arsenic	mg/L	0.132

Barium	mg/L	0.0285
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	0.113
Cadmium	mg/L	< 0.000010
Calcium	mg/L	47.8
Chromium	mg/L	< 0.0010
Cobalt	mg/L	0.00249
Copper	mg/L	0.00592
Iron	mg/L	0.029
Lead	mg/L	0.00033
Lithium	mg/L	0.0028
Magnesium	mg/L	13.1
Manganese	mg/L	0.115
Mercury	mg/L	< 0.00010
Molybdenum	mg/L	0.0039
Nickel	mg/L	0.0101
Potassium	mg/L	7.36
Selenium	mg/L	0.00108
Silicon	mg/L	0.799
Silver	mg/L	< 0.000020
Sodium	mg/L	94.9
Strontium	mg/L	0.315
Sulphur	mg/L	38.2
Thallium	mg/L	< 0.000010
Tin	mg/L	< 0.0050
Titanium	mg/L	< 0.0050
Uranium	mg/L	0.00269
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	0.0001

Dissolved Metals		
Aluminum	mg/L	0.203
Antimony	mg/L	0.00063
Arsenic	mg/L	0.152
Barium	mg/L	0.0337
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	0.114
Cadmium	mg/L	0.00002
Chromium	mg/L	< 0.0010
Cobalt	mg/L	0.00343
Copper	mg/L	0.00801
Iron	mg/L	0.38
Lead	mg/L	0.00516
Lithium	mg/L	0.0034
Manganese	mg/L	0.215
Mercury	mg/L	< 0.00010
Molybdenum	mg/L	0.0038
Nickel	mg/L	0.0142
Selenium	mg/L	0.00112
Silicon	mg/L	1.17
Silver	mg/L	< 0.000020
Strontium	mg/L	0.333
Sulphur	mg/L	40.6
Thallium	mg/L	0.000012
Tin	mg/L	< 0.0050
Titanium	mg/L	0.0094
Uranium	mg/L	0.00276
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	0.00068

MEL-21	Sample Date	7/7/2020
Parameter	Unit	
Field Measured		
pH	pH units	7.3
Conductivity	uS/cm	3512
Temperature	°C	6.4
Dissolved oxygen	mg/L	6.72
Dissolved oxygen	%	55.5
Conventional Parameters		
pH	pH units	7.76
Hardness, as CaCO ₃ (D)	mg/L	966
Hardness, as CaCO ₃ (T)	mg/L	902
Total alkalinity, as CaCO ₃	mg/L	110
Total dissolved solids	mg/L	1790
Total suspended solids	mg/L	5
Turbidity	NTU	2.2
Major Ions		
Calcium	mg/L	308
Chloride	mg/L	810
Cyanide	mg/L	< 0.0050
Fluoride	mg/L	0.15
Magnesium	mg/L	47.6
Potassium	mg/L	20.5
Sodium	mg/L	203
Sulphate	mg/L	230
Nutrients and Chlorophyll a		
Nitrate	mg/L	1.6
Nitrite	mg/L	0.011
Nitrate + nitrite	mg/L	1.61

Total ammonia	mg/L	0.52
Total phosphorus	mg/L	< 0.020
Orthophosphate	mg/L	0.018
Total Metals		
Aluminum	mg/L	0.0571
Antimony	mg/L	0.0022
Arsenic	mg/L	0.0756
Barium	mg/L	0.144
Beryllium	mg/L	< 0.00020
Bismuth	mg/L	< 0.0020
Boron	mg/L	0.45
Cadmium	mg/L	0.000112
Calcium	mg/L	290
Chromium	mg/L	< 0.0020
Cobalt	mg/L	0.00949
Copper	mg/L	0.0071
Iron	mg/L	0.14
Lead	mg/L	0.00213
Lithium	mg/L	0.254
Magnesium	mg/L	43.4
Manganese	mg/L	0.594
Mercury	mg/L	< 0.00010
Molybdenum	mg/L	0.015
Nickel	mg/L	0.0468
Potassium	mg/L	19.4
Selenium	mg/L	0.0004
Silicon	mg/L	2.89
Silver	mg/L	< 0.000040
Sodium	mg/L	197
Strontium	mg/L	4.13
Sulphur	mg/L	76

Thallium	mg/L	< 0.000020
Tin	mg/L	< 0.01
Titanium	mg/L	< 0.01
Uranium	mg/L	0.00591
Vanadium	mg/L	< 0.01
Zinc	mg/L	< 0.01
Zirconium	mg/L	0.00056
Dissolved Metals		
Aluminum	mg/L	0.0083
Antimony	mg/L	0.0024
Arsenic	mg/L	0.0684
Barium	mg/L	0.156
Beryllium	mg/L	< 0.00020
Bismuth	mg/L	< 0.0020
Boron	mg/L	0.512
Cadmium	mg/L	0.000123
Chromium	mg/L	< 0.0020
Cobalt	mg/L	0.0105
Copper	mg/L	0.00739
Iron	mg/L	0.015
Lead	mg/L	0.0005
Lithium	mg/L	0.299
Manganese	mg/L	0.659
Mercury	mg/L	< 0.00010
Molybdenum	mg/L	0.0164
Nickel	mg/L	0.0517
Selenium	mg/L	0.00038
Silicon	mg/L	3.06
Silver	mg/L	< 0.000040
Strontium	mg/L	4.53
Sulphur	mg/L	83.8

Thallium	mg/L	< 0.000020
Tin	mg/L	< 0.01
Titanium	mg/L	< 0.01
Uranium	mg/L	0.00675
Vanadium	mg/L	< 0.01
Zinc	mg/L	< 0.01
Zirconium	mg/L	0.00036

MEL-22	Sample Date	7/7/2020	7/19/2020
Parameter	Unit		
Field Measured			
pH	pH units	7.75	7.81
Conductivity	uS/cm	3864	4654
Temperature	°C	14.2	17
Dissolved oxygen	mg/L	6.69	9.33
Dissolved oxygen	%	66.5	-
Conventional Parameters			
pH	pH units	7.8	7.81
Specific conductivity	umhos/cm	3600	4700
Hardness, as CaCO ₃ (D)	mg/L	807	1080
Hardness, as CaCO ₃ (T)	mg/L	756	1010
Total alkalinity, as CaCO ₃	mg/L	83	83
Total dissolved solids	mg/L	2050	3280
Total suspended solids	mg/L	3	10
Total organic carbon	mg/L	8.7	11
Turbidity	NTU	0.6	0.5
Major Ions			
Calcium	mg/L	233	306
Chloride	mg/L	980	1300
Cyanide	mg/L	< 0.0050	< 0.0050
Fluoride	mg/L	< 0.10	< 0.10

Magnesium	mg/L	54.6	75.7
Potassium	mg/L	25.3	32.5
Sodium	mg/L	346	471
Sulphate	mg/L	150	190
Nutrients and Chlorophyll a			
Nitrate	mg/L	15.4	15.5
Nitrite	mg/L	0.457	0.717
Nitrate + nitrite	mg/L	15.8	16.3
Total ammonia	mg/L	8.5	6.8
Total phosphorus	mg/L	< 0.020	< 0.020
Orthophosphate	mg/L	< 0.010	< 0.010
Total Metals			
Aluminum	mg/L	0.0157	0.212
Antimony	mg/L	< 0.0010	< 0.0010
Arsenic	mg/L	0.00578	0.00534
Barium	mg/L	0.0698	0.0832
Beryllium	mg/L	< 0.00020	< 0.00020
Bismuth	mg/L	< 0.0020	< 0.0020
Boron	mg/L	0.302	0.343
Cadmium	mg/L	0.000043	0.000079
Calcium	mg/L	218	292
Chromium	mg/L	< 0.0020	< 0.0020
Cobalt	mg/L	0.00096	0.00134
Copper	mg/L	0.003	0.0031
Iron	mg/L	0.043	0.457
Lead	mg/L	< 0.00040	< 0.00040
Lithium	mg/L	0.12	0.174
Magnesium	mg/L	51.6	69
Manganese	mg/L	0.148	0.191
Mercury	mg/L	< 0.00010	< 0.00001
Molybdenum	mg/L	0.0043	0.0054

Nickel	mg/L	0.0114	0.0158
Potassium	mg/L	24.3	31.1
Selenium	mg/L	0.00026	0.0003
Silicon	mg/L	1.05	0.977
Silver	mg/L	< 0.000040	< 0.000040
Sodium	mg/L	348	450
Strontium	mg/L	4.11	6.26
Sulphur	mg/L	51.2	63.6
Thallium	mg/L	0.000056	0.000067
Tin	mg/L	< 0.01	< 0.01
Titanium	mg/L	< 0.01	< 0.01
Uranium	mg/L	0.00234	0.0036
Vanadium	mg/L	< 0.01	< 0.01
Zinc	mg/L	< 0.01	< 0.01
Zirconium	mg/L	< 0.00020	< 0.00020
Dissolved Metals			
Aluminum	mg/L	0.0055	< 0.015
Antimony	mg/L	0.00067	< 0.0025
Arsenic	mg/L	0.00541	0.0037
Barium	mg/L	0.0728	0.086
Beryllium	mg/L	< 0.00010	< 0.00050
Bismuth	mg/L	< 0.0010	< 0.0050
Boron	mg/L	0.329	0.373
Cadmium	mg/L	0.000052	< 0.000050
Chromium	mg/L	< 0.0010	< 0.0050
Cobalt	mg/L	0.00097	0.0012
Copper	mg/L	0.00297	0.0031
Iron	mg/L	0.0252	0.028
Lead	mg/L	< 0.00020	< 0.0010
Lithium	mg/L	0.137	0.182
Manganese	mg/L	0.153	0.177

Mercury	mg/L	< 0.00010	< 0.00001
Molybdenum	mg/L	0.0045	0.0053
Nickel	mg/L	0.0116	0.0176
Selenium	mg/L	0.00025	< 0.00050
Silicon	mg/L	1.19	0.712
Silver	mg/L	< 0.000020	< 0.00010
Strontium	mg/L	4.7	5.74
Sulphur	mg/L	56.3	67
Thallium	mg/L	0.000064	0.000074
Tin	mg/L	< 0.0050	< 0.025
Titanium	mg/L	< 0.0050	< 0.025
Uranium	mg/L	0.00253	0.00351
Vanadium	mg/L	< 0.0050	< 0.025
Zinc	mg/L	< 0.0050	< 0.025
Zirconium	mg/L	< 0.00010	< 0.00050

MEL-23	Sample Date	7/7/2020
Parameter	Unit	
Field Measured		
pH	pH units	8.07
Conductivity	uS/cm	1342
Temperature	°C	15.2
Dissolved oxygen	mg/L	6.59
Dissolved oxygen	%	67.7
Conventional Parameters		
pH	pH units	7.93
Hardness, as CaCO ₃ (D)	mg/L	187
Hardness, as CaCO ₃ (T)	mg/L	180
Total alkalinity, as CaCO ₃	mg/L	110

Total dissolved solids	mg/L	655
Total suspended solids	mg/L	10
Turbidity	NTU	6.3
Major Ions		
Calcium	mg/L	42.8
Chloride	mg/L	250
Cyanide	mg/L	< 0.0050
Fluoride	mg/L	0.19
Magnesium	mg/L	19.5
Potassium	mg/L	14.9
Sodium	mg/L	157
Sulphate	mg/L	68
Nutrients and Chlorophyll a		
Nitrate	mg/L	4.43
Nitrite	mg/L	0.103
Nitrate + nitrite	mg/L	4.53
Total ammonia	mg/L	2.5
Total phosphorus	mg/L	0.026
Orthophosphate	mg/L	< 0.010
Total Metals		
Aluminum	mg/L	0.472
Antimony	mg/L	0.00316
Arsenic	mg/L	0.0141
Barium	mg/L	0.0544
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	0.481
Cadmium	mg/L	0.000012
Calcium	mg/L	41.3
Chromium	mg/L	0.0012
Cobalt	mg/L	0.00179

Copper	mg/L	0.00423
Iron	mg/L	0.736
Lead	mg/L	0.00121
Lithium	mg/L	0.0273
Magnesium	mg/L	18.6
Manganese	mg/L	0.0799
Mercury	mg/L	< 0.00010
Molybdenum	mg/L	0.0111
Nickel	mg/L	0.0216
Potassium	mg/L	14.4
Selenium	mg/L	0.00057
Silicon	mg/L	2.48
Silver	mg/L	< 0.000020
Sodium	mg/L	156
Strontium	mg/L	0.444
Sulphur	mg/L	23.5
Thallium	mg/L	0.000018
Tin	mg/L	< 0.0050
Titanium	mg/L	0.0222
Uranium	mg/L	0.00602
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	0.00138
Dissolved Metals		
Aluminum	mg/L	0.0177
Antimony	mg/L	0.00339
Arsenic	mg/L	0.0104
Barium	mg/L	0.0508
Beryllium	mg/L	< 0.00010
Bismuth	mg/L	< 0.0010
Boron	mg/L	0.525

Cadmium	mg/L	< 0.000010
Chromium	mg/L	< 0.0010
Cobalt	mg/L	0.00129
Copper	mg/L	0.00362
Iron	mg/L	0.0233
Lead	mg/L	< 0.00020
Lithium	mg/L	0.0288
Manganese	mg/L	0.0577
Mercury	mg/L	< 0.00010
Molybdenum	mg/L	0.0115
Nickel	mg/L	0.0215
Selenium	mg/L	0.00055
Silicon	mg/L	1.56
Silver	mg/L	< 0.000020
Strontium	mg/L	0.475
Sulphur	mg/L	25.2
Thallium	mg/L	0.000014
Tin	mg/L	< 0.0050
Titanium	mg/L	< 0.0050
Uranium	mg/L	0.00622
Vanadium	mg/L	< 0.0050
Zinc	mg/L	< 0.0050
Zirconium	mg/L	0.00025

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 April 7th 2020 the landfill contained approximately 18,661 m³ of material.

In July 2020 no contaminated soil was transferred to the Type A Landfarm as a result of spills cleanup.

3.2 ORE

Approximately 130,093 tonnes of ore were processed through the Mill in July 2020.

3.3 WASTE ROCK STORAGE FACILITY

In July 2020, a total of 36,670 tonnes of waste rock was removed in the mine development process. 4,117 tonnes were used as underground dry rockfill. No waste was stockpiled for progressive closure cover.

3.4 TAILINGS

102,064 dry tonnes of filtered tailings were sent to the Tailing Storage Facility in July 2020. 28,029 tonnes of tailings were used for paste underground backfill.

SECTION 4 SPILL MANAGEMENT

4.1 INTERNAL AND REPORTABLE SPILLS

All spills reported internally (8) are listed in the table 4.1 and were managed according to Agnico'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. No reportable spills occurred in July 2020.

Table 4.1: Summary of Agnico's Spill Reports in July 2020

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
Wednesday, July 08, 2020 10:00:00 AM	Non-contaminated water	90.00	Road near the mill	During a test of a new waterline there was a leaking joint (the waterline ran from CP1 to the Mill).	The pumping was stopped, and the leak was repaired.

Saturday, July 11, 2020 10:00:00 AM	Coolant	40.00	OP2	A radiator busted.	Equipment was shut down, spill pads were installed under loader, material was picked up and disposed of adequately.
Sunday, July 12, 2020 4:00:00 PM	Hydraulic Oil	20.00	OP2 pad	A hydraulic hose busted on boom of WA500 loader.	Equipment was shut off and spill pads were put under the loader. The material was picked up and disposed of adequately and the hose was replaced.
Monday, July 20, 2020 11:30:00 PM	Hydraulic Oil	40.00	OP2 pad waste pile	A hydraulic hose blew on a WA500 loader.	Equipment was shut down and repaired. Spill pads were put on the ground to control spill, picked up and disposed of adequately.
Tuesday, July 21, 2020 1:30:00 PM	Fuel	10.00	Discovery camp	While fueling the overpack for the drill from the fuel bell, the pump was shut down and the hose left on the overpack hole which emptied a bit by gravity.	Sand was dug to recover all the fuel. Material picked up and disposed of adequately.
Wednesday, July 22, 2020 12:00:00 AM	Hydraulic Oil	30.00	Batch Plant	A hydraulic Hose busted on the haul truck.	The operator stopped the equipment and put some spill kit underneath the spill. The spill was collected, and contaminated material was brought to the KCG shop. Reparation was done right away.
Sunday, July 26, 2020 2:30:00 PM	Coolant	20.00	P2 area	A coolant hose busted on an articulate truck.	Spill pads were used, material cleaned-up and disposed of adequately.
Wednesday, July 29, 2020 4:00:00 PM	Hydraulic Oil	10.00	OP2 muck pile	Will testing scoop in muck pile, an o-ring busted on a tilt cylinder hose.	Absorbent pads were used, material was cleaned-up and disposed of adequately.