

## Appendix 20 : 2020 Water Quality Management and Optimization Plan Tabular Results

MEL-02-05	Sample Date	6/7/2020	7/23/2020	8/22/2020	9/12/2020
	FIELD SDG	C0E3698	C0I2652	COM1558	COO0852
Parameter	Unit				
<b>Field Measured</b>					
pH	pH units	6.95	7.7	7.58	87.5
Conductivity	uS/cm	101.6	86	84.6	98.2
Temperature	°C	0.13	13.7	12.4	11.53
Dissolved oxygen	mg/L	16.49	11.17	10.4	7.55
Dissolved oxygen	%	115.1	108.7	97.5	8.3
Turbidity	NTU	0	-	-	-
<b>Conventional Parameters</b>					
pH	pH units	7.21	7.09	7.37	7.18
Specific conductivity	umhos/cm	120	88	86	88
Hardness, as CaCO3 (D)	mg/L	34.9	24.6	24.5	24.5
Hardness, as CaCO3 (T)	mg/L	35.1	24.3	25	24.4
Total alkalinity, as CaCO3	mg/L	27	17	16	17
Total dissolved solids (MAXX_TDSCAL)	mg/L	60	40	41	40
Total dissolved solids (SM2540C)	mg/L	35	35	80	50
Total suspended solids	mg/L	1	1	1	< 1
Total organic carbon	mg/L	3.8	2.9	3	2.9
Dissolved organic carbon	mg/L	3.6	2.9	2.9	2.7
Turbidity	NTU	0.6	0.5	0.2	0.2
<b>Major Ions</b>					
Bicarbonate, as CaCO3	mg/L	27	17	16	17
Calcium	mg/L	10.9	7.63	7.58	7.61
Carbonate, as CaCO3	mg/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	16	11	12	11
Cyanide	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Magnesium	mg/L	1.85	1.36	1.34	1.34
Potassium	mg/L	1.34	0.931	0.959	0.954
Sodium	mg/L	7.31	5.36	5.42	5.41
Sulphate	mg/L	5.9	3.6	4.6	3
Silica	mg/L	0.56	0.31	0.27	0.26
Cyanide (free)	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cyanide (WAD)	mg/L	< 0.0010	0.001	< 0.0010	< 0.0010
<b>Nutrients and Chlorophyll a</b>					
Nitrate	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	< 0.050	< 0.050	0.076	0.14
Total Kjeldahl nitrogen	mg/L	0.19	0.16	0.13	0.16
Total phosphorus	mg/L	< 0.020	< 0.020	< 0.020	< 0.020
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
<b>Total Metals</b>					
Aluminum	mg/L	0.0032	0.0045	0.0042	0.0037
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.00043	0.00048	0.00047	0.00039
Barium	mg/L	0.0159	0.0082	0.0082	0.0078
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium	mg/L	11	7.54	7.72	7.61
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Copper	mg/L	0.00108	0.00087	0.00092	0.00079
Iron	mg/L	0.098	0.027	0.017	0.016
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium	mg/L	1.85	1.33	1.38	1.32
Manganese	mg/L	0.0011	0.0044	0.0042	0.0034
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Potassium	mg/L	1.4	0.916	0.993	0.946
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	0.257	0.162	0.156	0.15
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	7.09	5.17	5.39	5.37
Strontium	mg/L	0.0644	0.0417	0.0431	0.0425
Sulphur	mg/L	< 3	< 3	< 3	< 3
Thallium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.00001
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
<b>Dissolved Metals</b>					
Aluminum	mg/L	< 0.0030	0.0037	< 0.0030	< 0.003
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.0005
Arsenic	mg/L	0.00043	0.00044	0.00042	0.00036
Barium	mg/L	0.0127	0.0082	0.0079	0.0079
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.0001
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.001
Boron	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	0.000026	< 0.000010	< 0.000010	< 0.00001
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.001
Cobalt	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.0002
Copper	mg/L	0.00118	0.00106	0.0008	0.00074
Iron	mg/L	0.0094	0.0145	0.0063	< 0.005
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.0002
Lithium	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.002
Manganese	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.001
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.001
Nickel	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	0.234	0.131	0.143	0.134
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	0.0554	0.0404	0.0418	0.0421
Sulphur	mg/L	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.00001
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010

MEL-03-02	Sample Date	6/7/2020	7/25/2020	8/22/2020	9/12/2020
	FIELD SDG	C0E3698	C0I2652	COM1558	COO0852
Parameter	Unit				
<b>Field Measured</b>					
pH	pH units	7.34	7.6	7.61	7.57
Conductivity	uS/cm	35.2	69.8	74.5	76.9
Temperature	°C	0.06	11.3	12	8.1
Dissolved oxygen	mg/L	17.84	11.49	10.6	11.63
Dissolved oxygen	%	123.5	104.1	98.1	98.3
Turbidity	NTU	0	-	-	-
<b>Conventional Parameters</b>					
pH	pH units	7.18	7.31	7.35	7.31
Specific conductivity	umhos/cm	61	73	76	78
Hardness, as CaCO3 (D)	mg/L	16.5	21.6	22.2	22.3
Hardness, as CaCO3 (T)	mg/L	19	20.5	22.2	22.1
Total alkalinity, as CaCO3	mg/L	12	16	16	16
Total dissolved solids (MAXX_TDSCAL)	mg/L	29	33	36	34
Total dissolved solids (SM2540C)	mg/L	30	50	70	40
Total suspended solids	mg/L	1	< 1	< 1	1
Total organic carbon	mg/L	2.2	2.2	2.4	2.4
Dissolved organic carbon	mg/L	2.1	2.1	2.4	2.3
Turbidity	NTU	1.2	0.1	0.1	0.2
<b>Major Ions</b>					
Bicarbonate, as CaCO3	mg/L	12	16	16	16
Calcium	mg/L	5.09	6.8	6.94	6.97
Carbonate, as CaCO3	mg/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	7.8	7.6	9.2	8.9
Cyanide	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Magnesium	mg/L	0.933	1.12	1.18	1.2
Potassium	mg/L	0.695	0.841	0.883	0.904
Sodium	mg/L	3.61	4.33	4.52	4.53
Sulphate	mg/L	3	3	4	2.2
Silica	mg/L	0.18	0.2	0.21	0.22
Cyanide (free)	mg/L	< 0.0010	< 0.0010	< 0.0010	0.0014
Cyanide (WAD)	mg/L	< 0.0010	0.0011	< 0.0010	< 0.0010
<b>Nutrients and Chlorophyll a</b>					
Nitrate	mg/L	0.11	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	0.11	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	< 0.050	< 0.050	0.17	0.28
Total Kjeldahl nitrogen	mg/L	0.18	0.12	0.1	0.18
Total phosphorus	mg/L	0.025	< 0.020	< 0.020	< 0.020
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
<b>Total Metals</b>					
Aluminum	mg/L	0.0066	0.0036	0.0037	0.0041
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.00109	0.00023	0.0003	0.00026
Barium	mg/L	0.0109	0.0075	0.0077	0.0076
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	0.00002	< 0.000010	< 0.000010	< 0.000010
Calcium	mg/L	5.94	6.47	6.93	6.92
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	0.00077	0.00088	0.00074	0.00072
Iron	mg/L	0.073	0.013	0.012	0.012
Lead	mg/L	0.00022	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium	mg/L	1	1.05	1.19	1.17
Manganese	mg/L	0.0026	0.0029	0.0026	0.0021
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Potassium	mg/L	0.801	0.81	0.887	0.878
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	< 0.1	0.111	0.121	0.127
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	3.84	4.14	4.42	4.45
Strontium	mg/L	0.0307	0.0317	0.0348	0.035
Sulphur	mg/L	< 3	< 3	< 3	< 3
Thallium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.0066	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
<b>Dissolved Metals</b>					
Aluminum	mg/L	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.001	0.00023	0.00027	0.00024
Barium	mg/L	0.0076	0.0073	0.0076	0.0075
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	0.00002	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	0.0007	0.00064	0.00066	0.00065
Iron	mg/L	0.0115	< 0.0050	< 0.0050	< 0.0050
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L	0.0026	< 0.0010	< 0.0010	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	< 0.1	< 0.1	0.118	0.117
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	0.0244	0.0316	0.0343	0.0336
Sulphur	mg/L	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	0.0062	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010

MEL-04-05	Sample Date	6/7/2020	7/25/2020	8/22/2020	9/12/2020
	FIELD_SDG	COE3698	COJ2652	COM1558	COO0852
Parameter	Unit				
<b>Field Measured</b>					
pH	pH units	-	7.6	7.64	7.57
Conductivity	uS/cm	-	71.6	74.3	76.8
Temperature	°C	-	12.6	12.6	8.9
Dissolved oxygen	mg/L	-	11.14	10.29	11.28
Dissolved oxygen	%	-	104.9	96.7	97.4
Turbidity	NTU	-	-	-	-
<b>Conventional Parameters</b>					
pH	pH units	7.37	7.37	7.38	7.32
Specific conductivity	umhos/cm	92	74	76	76
Hardness, as CaCO3 (D)	mg/L	27.2	21.8	22.4	21.8
Hardness, as CaCO3 (T)	mg/L	27	21.4	21.9	22
Total alkalinity, as CaCO3	mg/L	24	16	16	16
Total dissolved solids (MAXX_TDSCAL)	mg/L	46	34	36	34
Total dissolved solids (SM2540C)	mg/L	40	50	65	25
Total suspended solids	mg/L	1	< 1	1	1
Total organic carbon	mg/L	2.6	2.2	2.4	2.4
Dissolved organic carbon	mg/L	2.6	2.1	2.4	2.1
Turbidity	NTU	0.1	0.1	0.2	0.2
<b>Major Ions</b>					
Bicarbonate, as CaCO3	mg/L	24	16	16	16
Calcium	mg/L	8.56	6.77	6.99	6.8
Carbonate, as CaCO3	mg/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	11	8.4	9	8.7
Cyanide	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Magnesium	mg/L	1.42	1.18	1.21	1.16
Potassium	mg/L	1.12	0.854	0.898	0.890
Sodium	mg/L	5.45	4.31	4.57	4.49
Sulphate	mg/L	4.4	2.9	4	2.4
Silica	mg/L	0.3	0.24	0.21	0.33
Cyanide (free)	mg/L	0.0026	< 0.0010	< 0.0010	< 0.0010
Cyanide (WAD)	mg/L	< 0.0010	0.0011	< 0.0010	< 0.0010
<b>Nutrients and Chlorophyll a</b>					
Nitrate	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	0.15	< 0.050	0.1	0.16
Total Kjeldahl nitrogen	mg/L	0.15	0.17	< 0.10	0.14
Total phosphorus	mg/L	< 0.020	< 0.020	< 0.020	< 0.020
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
<b>Total Metals</b>					
Aluminum	mg/L	< 0.0030	0.0033	0.0043	0.0034
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.00023	0.00025	0.00028	0.00026
Barium	mg/L	0.0097	0.0073	0.0076	0.0076
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium	mg/L	8.53	6.7	6.9	6.89
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	0.00093	0.00069	0.00077	0.00069
Iron	mg/L	< 0.01	0.013	0.012	< 0.01
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium	mg/L	1.39	1.13	1.13	1.16
Manganese	mg/L	< 0.0010	0.0028	0.0027	0.0023
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Potassium	mg/L	1.11	0.842	0.877	0.872
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	0.135	0.113	0.123	0.129
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	5.13	4.32	4.37	4.45
Strontium	mg/L	0.0444	0.0333	0.034	0.0348
Sulphur	mg/L	< 3	< 3	< 3	< 3
Thallium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
<b>Dissolved Metals</b>					
Aluminum	mg/L	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.00027	0.00021	0.00026	0.00023
Barium	mg/L	0.0094	0.0074	0.0077	0.0076
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	0.000013	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	0.00078	0.00067	0.00068	0.00067
Iron	mg/L	< 0.0050	0.0082	< 0.0050	< 0.0050
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L	< 0.0010	0.0012	< 0.0010	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	0.13	< 0.1	0.117	0.118
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	0.0394	0.032	0.0339	0.0339
Sulphur	mg/L	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010

MEL-05-04	Sample Date	6/7/2020	7/23/2020	8/23/2020	9/12/2020
	FIELD_SDG	C0E3698	C0I2652	COM1558	COO0852
Parameter	Unit				
<b>Field Measured</b>					
pH	pH units	7.43	7.96	7.72	-
Conductivity	uS/cm	93.5	77	80.1	-
Temperature	°C	0.05	14.1	11.8	-
Dissolved oxygen	mg/L	18.1	11.2	10.02	-
Dissolved oxygen	%	126	109.2	92.5	-
Turbidity	NTU	0	-	-	-
<b>Conventional Parameters</b>					
pH	pH units	7.4	7.43	7.43	7.38
Specific conductivity	umhos/cm	100	80	80	81
Hardness, as CaCO3 (D)	mg/L	31.2	24.2	24	23.3
Hardness, as CaCO3 (T)	mg/L	30.7	23.3	24	22.7
Total alkalinity, as CaCO3	mg/L	26	18	18	18
Total dissolved solids (MAXX_TD5CAL)	mg/L	52	37	39	36
Total dissolved solids (SM2540C)	mg/L	40	40	75	45
Total suspended solids	mg/L	1	1	< 1	1
Total organic carbon	mg/L	3	2.3	2.4	2.4
Dissolved organic carbon	mg/L	2.7	2.3	2.5	2.1
Turbidity	NTU	0.2	0.1	0.2	0.2
<b>Major Ions</b>					
Bicarbonate, as CaCO3	mg/L	26	18	17	18
Calcium	mg/L	9.84	7.7	7.56	7.36
Carbonate, as CaCO3	mg/L	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	12	8.6	9.7	8.8
Cyanide	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Magnesium	mg/L	1.6	1.22	1.24	1.19
Potassium	mg/L	1.23	0.879	0.924	0.904
Sodium	mg/L	6.05	4.49	4.68	4.49
Sulphate	mg/L	4.9	3.1	4.2	2.3
Silica	mg/L	0.32	0.23	3.1	0.27
Cyanide (free)	mg/L	0.0029	< 0.0010	< 0.0010	< 0.0010
Cyanide (WAD)	mg/L	< 0.0010	0.001	< 0.0010	< 0.0010
<b>Nutrients and Chlorophyll a</b>					
Nitrate	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	< 0.10	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	< 0.050	< 0.050	0.051	0.075
Total Kjeldahl nitrogen	mg/L	0.11	0.13	0.18	0.14
Total phosphorus	mg/L	< 0.020	< 0.020	< 0.020	< 0.020
Orthophosphate	mg/L	< 0.010	< 0.010	< 0.010	< 0.010
<b>Total Metals</b>					
Aluminum	mg/L	< 0.0030	0.0039	0.0054	0.0035
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.00029	0.00027	0.00032	0.00027
Barium	mg/L	0.0114	0.0084	0.008	0.0076
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium	mg/L	9.75	7.39	7.58	7.12
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	0.00109	0.00073	0.00072	0.0007
Iron	mg/L	< 0.01	0.011	0.011	< 0.01
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium	mg/L	1.55	1.18	1.23	1.19
Manganese	mg/L	< 0.0010	0.0026	0.0029	0.0024
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Potassium	mg/L	1.22	0.864	0.905	0.876
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	0.149	0.118	0.146	0.134
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	5.51	4.38	4.53	4.42
Strontium	mg/L	0.0486	0.0345	0.0353	0.0346
Sulphur	mg/L	< 3	< 3	< 3	< 3
Thallium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
<b>Dissolved Metals</b>					
Aluminum	mg/L	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Antimony	mg/L	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	0.00028	0.00023	0.00028	0.00028
Barium	mg/L	0.0109	0.0081	0.0078	0.0078
Beryllium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	0.00082	0.00066	0.00068	0.00073
Iron	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Lead	mg/L	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Mercury	mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Selenium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	0.134	< 0.1	0.135	0.137
Silver	mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	0.0443	0.0339	0.0354	0.0349
Sulphur	mg/L	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	< 0.00010	< 0.00010	< 0.00010	< 0.00010



MEL-13-01		Sample Date		7/29/2020		
Parameter	Unit	MDL	Equipment Blank	Duplicate	Original	RPD (N/FD)
<b>Conventional Parameters</b>						
pH	pH units	-	6.02	7.4	7.35	0.68
Specific conductivity	umhos/cm	1.0	10	110	100	9.52
Hardness, as CaCO3 (D)	mg/L	0.5	1.17	28.4	28.2	0.71
Hardness, as CaCO3 (T)	mg/L	0.5	1.16	28.1	27.8	1.07
Total alkalinity, as CaCO3	mg/L	1.0	1	16	16	0.00
Total dissolved solids (MAXX TDSCAL)	mg/L	1	4	51	49	4.00
Total dissolved solids (SM2540C)	mg/L	10	10	65	60	8.00
Total suspended solids	mg/L	1	1	1	1	0.00
Total organic carbon	mg/L	0.40	0.4	3.4	3.3	2.99
Dissolved organic carbon	mg/L	0.40	0.4	3.1	4	25.35
Turbidity	NTU	0.10	0.2	0.2	0.3	40.00
<b>Major Ions</b>						
Bicarbonate, as CaCO3	mg/L	1.0	1	16	16	0.00
Calcium	mg/L	0.050	0.293	8.62	8.63	0.12
Carbonate, as CaCO3	mg/L	1.0	1	1	1	0.00
Chloride	mg/L	1.0	2.7	18	16	11.76
Cyanide	mg/L	1.0	0.005	0.005	0.005	0.00
Fluoride	mg/L	0.10	0.1	0.1	0.1	0.00
Magnesium	mg/L	0.050	0.108	1.66	1.62	2.44
Potassium	mg/L	0.050	0.05	1.09	1.1	0.91
Sodium	mg/L	0.050	0.855	7.33	7.28	0.68
Sulphate	mg/L	1.0	1	5.4	5.1	5.71
Silica	mg/L	0.05	0.05	0.33	0.39	16.67
Cyanide (free)	mg/L	0.0010	0.0015	0.001	0.001	0.00
Cyanide (WAD)	mg/L	0.0010	0.001	0.001	0.001	0.00
<b>Nutrients and Chlorophyll a</b>						
Nitrate	mg/L	0.10	0.1	0.1	0.1	0.00
Nitrite	mg/L	0.010	0.01	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.10	0.1	0.1	0.1	0.00
Total ammonia	mg/L	0.050	0.077	0.17	0.15	12.50
Total Kjeldahl nitrogen	mg/L	0.1	0.1	0.24	0.24	0.00
Total phosphorus	mg/L	0.020	0.02	0.02	0.02	0.00
Orthophosphate	mg/L	0.010	0.01	0.01	0.01	0.00
<b>Total Metals</b>						
Aluminum	mg/L	0.0030	0.0139	0.0061	0.0066	7.87
Antimony	mg/L	0.00050	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.00010	0.00014	0.00044	0.00044	0.00
Barium	mg/L	0.0010	0.001	0.0086	0.0084	2.35
Beryllium	mg/L	0.00010	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.0010	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.000010	0.00001	0.00001	0.00001	0.00
Calcium	mg/L	0.05	0.285	8.61	8.5	1.29
Chromium	mg/L	0.0010	0.001	0.001	0.001	0.00
Cobalt	mg/L	0.00020	0.0002	0.0002	0.0002	0.00
Copper	mg/L	0.00050	0.0005	0.00084	0.00081	3.64
Iron	mg/L	0.01	0.04	0.031	0.031	0.00
Lead	mg/L	0.00020	0.00033	0.0002	0.0002	0.00
Lithium	mg/L	0.0020	0.002	0.002	0.002	0.00
Magnesium	mg/L	0.05	0.11	1.61	1.6	0.62
Manganese	mg/L	0.0010	0.001	0.007	0.0068	2.90
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.0010	0.001	0.001	0.001	0.00
Nickel	mg/L	0.0010	0.001	0.001	0.001	0.00
Potassium	mg/L	0.05	0.05	1.05	1.06	0.95
Selenium	mg/L	0.00010	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.15	0.157	4.56
Silver	mg/L	0.000020	0.00002	0.00002	0.00002	0.00
Sodium	mg/L	0.05	0.788	6.92	6.81	1.60
Strontium	mg/L	0.0010	0.0042	0.0575	0.0585	1.72
Sulphur	mg/L	3	3	3	3	0.00
Thallium	mg/L	0.000010	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.0050	0.005	0.005	0.005	0.00
Titanium	mg/L	0.0050	0.005	0.005	0.005	0.00
Uranium	mg/L	0.00010	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.0050	0.005	0.005	0.005	0.00
Zinc	mg/L	0.0050	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.00010	0.0001	0.0001	0.0001	0.00
<b>Dissolved Metals</b>						
Aluminum	mg/L	0.0030	0.003	0.003	0.0032	6.45
Antimony	mg/L	0.00050	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.00010	0.0001	0.00044	0.00044	0.00
Barium	mg/L	0.0010	0.001	0.0082	0.0083	1.21
Beryllium	mg/L	0.00010	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.0010	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.000010	0.01	0.01	0.01	0.00
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00
Cobalt	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Copper	mg/L	0.0002	0.0002	0.0008	0.00076	5.13
Iron	mg/L	0.005	0.005	0.0098	0.0112	13.33
Lead	mg/L	0.0002	0.2	0.2	0.2	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00
Manganese	mg/L	0.001	0.001	0.001	0.001	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.001	0.001	0.00
Nickel	mg/L	0.001	0.001	0.001	0.001	0.00
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.135	0.136	0.74
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Strontium	mg/L	0.0010	0.004	0.0606	0.0596	1.66
Sulphur	mg/L	3.0	3	3	3	0.00
Thallium	mg/L	0.000010	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.0050	0.005	0.005	0.005	0.00
Titanium	mg/L	0.0050	0.005	0.005	0.005	0.00
Uranium	mg/L	0.00010	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.0050	0.005	0.005	0.005	0.00
Zinc	mg/L	0.0050	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.00010	0.0001	0.0001	0.0001	0.00
% Exceedance*						0%

Footnotes:

RPD = Relative Percent Difference; MDL: Mean Detection Limit

\* Percentage of parameters exceeding the QAQC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

MEL-13-07		Sample Date	6/7/2020	7/12/2020	7/19/2020	7/22/2020	7/25/2020	8/2/2020	8/9/2020	8/15/2020	8/23/2020	8/29/2020	9/5/2020	9/13/2020	9/20/2020	9/27/2020	10/4/2020
Parameter		FIELD SDG	CD3719	CDH7928	CD5506	CD1491	CD16850	CD1881	CDK5587	CDL2964	CDM1555	CDM9232	CDN3419	CDQ0905	CDQ8529	CDP7113	CDQ4196
Unit																	
Field Measured																	
pH	pH units	-	6.88	-	7.58	7.67	7.5	7.69	-	7.62	7.66	7.57	7.57	7.55	7.87	7.61	
Conductivity	uS/cm	-	124.6	-	118.7	108.1	111.6	104.9	-	114.3	108.1	111.4	123.5	114.6	110.6	115.4	
Temperature	°C	-	5.58	-	12.2	15.2	14.7	16.4	-	12.2	12.2	12.2	10.9	8.1	5.7	4.8	3.3
Dissolved oxygen	%	-	14.05	-	11.35	10.47	10.32	7.75	-	9.71	10.88	10.29	11.27	98.6	12.85	13.31	
Dissolved oxygen	%	-	113.5	-	105.8	104.5	101.7	99.6	-	90.6	101.3	93	95.4	-	99.9	99.6	
Conventional Parameters																	
pH	pH units	7.33	7.23	7.27	7.39	7.3	7.45	7.37	7.26	7.32	7.26	7.31	7.49	7.41	7.33	7.17	
Specific conductivity	umhos/cm	110	130	110	110	110	110	110	110	110	110	110	160	120	140	120	
Hardness, as CaCO3 (D)	mg/L	31.1	32.2	28.8	29.5	28.6	30.2	28.8	28.1	30.2	29.1	28.8	38.1	32	33.5	30.7	
Hardness, as CaCO3 (T)	mg/L	29.3	31.8	28	31	28	29	29.3	28.6	30	29.8	28.5	38.1	31.9	33.5	31.5	
Total alkalinity, as CaCO3	mg/L	23	17	15	16	16	17	16	23	17	17	18	22	21	20	18	
Total dissolved solids MAXX 540C	mg/L	35	62	95	115	65	153	40	60	95	70	80	80	80	70	50	
Total dissolved solids MAXX TDS-CAL	mg/L	55	55	51	54	50	53	52	60	54	53	52	78	61	66	57	
Total suspended solids	mg/L	2	2	1	1	1	2	1	2	1	2	2	2	2	2	2	
Total organic carbon	mg/L	3.5	-	3.4	3.3	3.3	3.3	3.3	3.3	3.4	3.5	3.3	3.5	3.4	3.5	3.4	
Dissolved organic carbon	mg/L	3.5	2.8	2.8	2.9	3.1	4.1	3.3	3.4	3.4	3	3.2	3.1	3.2	3.1	3.2	
Turbidity	NTU	0.4	0.3	0.3	0.4	0.4	0.5	0.4	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.4	
Major Ions																	
Bicarbonate, as CaCO3	mg/L	23	17	15	16	16	17	16	23	17	17	18	22	21	20	18	
Calcium	mg/L	9.64	9.64	8.78	8.99	8.7	9.3	8.79	8.56	9.1	8.81	8.78	11.4	9.6	121	9.21	
Carbonate, as CaCO3	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Chloride	mg/L	16	23	17	19	17	17	17	17	18	18	17	28	21	23	20	
Cyanide	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Magnesium	mg/L	1.71	1.98	1.67	1.73	1.66	1.67	1.66	1.63	1.8	1.73	1.68	2.31	1.96	2.06	1.88	
Potassium	mg/L	1.22	1.15	1.08	1.12	1.09	1.1	1.07	1.07	1.11	1.09	1.11	1.45	1.12	1.25	1.15	
Sodium	mg/L	6.69	9.22	7.5	7.77	7.29	7.36	7.18	7.1	7.82	7.48	7.36	11.6	8.87	9.74	8.36	
Sulphate	mg/L	6	6	5.3	5.1	5.2	5.4	5.4	5.4	5.4	5.4	5.4	6	4.9	6.3	7.1	
Silica	mg/L	0.53	0.58	0.49	0.47	0.31	0.28	0.28	0.32	0.28	0.32	0.3	0.24	0.29	0.25	0.19	
Cyanide (free)	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Cyanide (WAD)	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Nutrients and Chlorophyll a																	
Nitrate	mg/L	<0.10	0.24	0.12	0.16	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.19	<0.10	0.12	<0.10
Nitrite	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate + nitrite	mg/L	<0.10	0.24	0.12	0.16	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.19	<0.10	0.12	<0.10
Total ammonia	mg/L	0.19	<0.050	<0.050	<0.050	<0.050	0.11	<0.050	0.13	0.11	0.55	<0.050	<0.050	<0.050	<0.050	<0.050	
Total Kjeldahl nitrogen	mg/L	0.25	0.31	0.27	0.2	0.17	0.16	0.17	0.2	0.2	0.24	0.24	0.24	0.23	0.25	0.21	
Total phosphorus	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	
Orthophosphate	mg/L	-	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	
Total Metals																	
Aluminum	mg/L	0.017	0.012	0.0089	0.0085	0.0061	0.0059	0.0061	0.0068	0.0065	0.0065	0.0066	0.0184	0.0082	0.0244	0.0056	
Antimony	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Arsenic	mg/L	0.00064	0.00055	0.00053	0.00048	0.00046	0.00049	0.00049	0.00054	0.00061	0.00054	0.00054	0.00057	0.00052	0.00072	0.00048	
Barium	mg/L	0.0095	0.0092	0.009	0.0095	0.0088	0.0087	0.0089	0.0081	0.0088	0.0105	0.0081	0.0096	0.0084	0.0086	0.0087	
Beryllium	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Bismuth	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Boron	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Cadmium	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Calcium	mg/L	9.63	9.49	8.49	8.4	8.53	8.91	8.89	8.62	9.1	9.13	8.65	11.4	9.61	9.99	9.47	
Chromium	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Cobalt	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Copper	mg/L	0.00173	0.00109	0.00183	0.00085	0.00094	0.00078	0.00089	0.00124	0.00087	0.0009	0.00084	0.00086	0.00083	0.00089	0.00094	
Iron	mg/L	0.038	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	0.042	
Lead	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Lithium	mg/L	<0.0020	0.0021	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	
Magnesium	mg/L	1.57	1.96	1.64	1.84	1.63	1.64	1.72	1.72	1.76	1.71	1.68	2.4	1.92	2.07	1.91	
Manganese	mg/L	0.0022	0.015	0.0117	0.0104	0.0071	0.0072	0.0084	0.0093	0.0095	0.0096	0.0093	0.0092	0.0093	0.0094	0.0094	
Mercury	mg/L	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	
Molybdenum	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Nickel	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Potassium	mg/L	1.11	1.14	1.04	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Selenium	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Silicon	mg/L	0.264	0.266	0.232	0.232	0.153	0.144	0.166	0.173	0.17	0.162	0.146	0.158	0.133	0.145	0.107	
Silver	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	</



MEL-13-10	Sample Date	7/12/2020	7/19/2020	7/22/2020	7/29/2020	8/2/2020	8/9/2020	8/15/2020	8/23/2020	8/29/2020	9/5/2020	9/13/2020	9/20/2020	9/27/2020	10/4/2020
Parameter	FIELD_SDG	COH7928	COJ5506	COJ1491	COJ6850	COJ8381	COJ5587	COJ2964	COJ1555	COJ9232	COJ3419	COJ0905	COJ8529	COJ7113	COJ4196
Unit	Unit														
WQTC01-Field Measured															
pH	pH units	6.99	-	7.61	7.78	7.54	7.73	-	7.67	7.73	7.62	7.76	7.68	7.77	7.79
Conductivity	uS/cm	124.4	-	110.8	106.6	109.4	105.6	-	109.4	108.2	111.2	128.5	116.1	111	115.3
Temperature	°C	5.81	-	12.3	15.1	14.7	16.3	-	12.2	12.1	10.8	8.1	5.7	4.8	3.3
Dissolved oxygen	mg/L	13.95	-	11.34	10.48	10.33	9.74	-	9.81	10.93	10.37	11.2	12.52	12.83	13.31
Dissolved oxygen	%	113.3	-	106.1	104.3	101.9	99.4	-	91.5	101.6	93.7	94.8	99.5	99.6	99.6
WQTC02-Conventional Parameters															
pH	pH units	7.2	7.3	7.4	7.37	7.43	7.34	7.38	7.34	7.26	7.22	7.24	7.3	7.37	7.21
Specific conductivity	umhos/cm	130	110	110	110	110	110	110	110	120	110	150	130	120	120
Hardness, as CaCO3 (D)	mg/L	33.5	28.7	28.7	28.6	29.9	28.8	28.1	29.3	32.1	29	35.2	32.8	29.8	30.6
Hardness, as CaCO3 (T)	mg/L	33.1	28.7	32.9	28.6	29	30.5	28.2	29.3	35.2	28.9	35.9	31.7	30.4	31.6
Total alkalinity, as CaCO3	mg/L	16	16	17	16	17	17	17	17	17	17	18	18	20	17
Total dissolved solids SM2540C	mg/L	75	75	110	70	55	52	51	95	70	55	100	60	75	75
Total dissolved solids MAXX TDSCAL	mg/L	64	52	52	51	52	50	75	52	59	51	68	61	57	57
Total suspended solids	mg/L	2	1	1	1	1	1	1	1	3.3	3.5	2	2	<1	2
Total organic carbon	mg/L	3.4	3.4	3.3	3.5	3.3	3.1	3.3	3.5	2	2	3.3	3.3	3.5	3.4
Dissolved organic carbon	mg/L	2.9	2.9	2.9	3.1	3	3.2	3.4	3.3	3.1	3.3	3.1	3.1	3.3	3
Turbidity	NTU	0.3	0.3	0.4	0.4	0.4	0.5	0.3	0.2	0.3	0.3	0.3	0.4	0.3	0.3
WQTC03-Major Ions															
Bicarbonate, as CaCO3	mg/L	16	16	17	16	17	17	17	17	17	16	18	18	20	17
Calcium	mg/L	9.98	8.71	8.71	8.72	9.17	8.77	8.51	8.82	9.56	8.91	10.5	9.9	8.96	9.18
Carbonate, as CaCO3	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloride	mg/L	23	17	17	17	17	17	17	17	21	17	25	22	19	20
Cyanide	mg/L	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Fluoride	mg/L	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium	mg/L	2.08	1.7	1.69	1.65	1.69	1.67	1.67	1.76	1.99	1.63	2.19	1.97	1.81	1.87
Potassium	mg/L	1.18	1.1	1.13	1.08	1.09	1.06	1.07	1.08	1.2	1.09	1.27	1.15	1.15	1.14
Sodium	mg/L	9.81	7.65	7.54	7.21	7.11	7.17	7.05	7.46	8.94	7.28	10.5	9.05	8.22	8.29
Sulphate	mg/L	6.8	5.3	5.1	5.4	5.4	6.3	5.4	5.8	6	4.8	7.8	6.3	5.7	6.3
Silica	mg/L	0.55	0.51	0.49	0.31	0.33	0.3	0.31	0.28	0.33	0.3	0.23	0.26	0.24	0.19
Cyanide (free)	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Cyanide (WAD)	mg/L	<0.0010	<0.0010	0.001	<0.0010	0.0012	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
WQTC04-Nutrients and Chlorophyll a															
Nitrate	mg/L	0.25	0.13	0.14	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	<0.10	<0.10
Nitrite	mg/L	<0.010	<0.010	<0.010	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Nitrate + nitrite	mg/L	0.25	0.13	0.14	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	<0.10	<0.10
Total ammonia	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	0.09	0.055	0.097	0.071	<0.050	<0.050	<0.050	<0.050	<0.050
Total Kjeldahl nitrogen	mg/L	0.34	0.28	0.14	0.2	0.2	0.18	0.17	0.15	0.22	0.27	0.23	0.2	0.23	0.22
Total phosphorus	mg/L	<0.020	<0.020	<0.020	<0.020	0.04	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Orthophosphate	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
WQTC05-Total Metals															
Aluminum	mg/L	0.0118	0.0103	0.0077	0.0071	0.0061	0.006	0.0058	0.0054	0.01	0.0059	0.0171	0.0078	0.0058	0.0044
Antimony	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Arsenic	mg/L	0.00054	0.00055	0.00049	0.00044	0.00052	0.00049	0.00051	0.00057	0.00057	0.00055	0.00062	0.0005	0.00047	0.00048
Barium	mg/L	0.0093	0.009	0.0093	0.0087	0.0088	0.0092	0.0082	0.0085	0.0091	0.0082	0.0095	0.0083	0.0085	0.0087
Beryllium	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cadmium	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Calcium	mg/L	9.92	8.71	10.3	8.76	8.91	9.29	8.48	8.9	10.5	8.72	10.7	9.54	9.08	9.47
Chromium	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Cobalt	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Copper	mg/L	0.00083	0.00105	0.00135	0.00088	0.00081	0.00093	0.00084	0.00089	0.00092	0.00086	0.00095	0.00082	0.00097	0.00093
Iron	mg/L	0.036	0.046	0.042	0.033	0.032	0.026	0.029	0.034	0.026	0.028	0.029	0.019	0.018	0.016
Lead	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Lithium	mg/L	0.0023	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0022	<0.0020	0.0021	<0.0020	<0.0020	<0.0020
Magnesium	mg/L	2.03	1.68	1.78	1.64	1.65	1.76	1.71	1.71	2.16	1.72	2.21	1.92	1.87	1.93
Manganese	mg/L	0.0173	0.0117	0.0099	0.0071	0.0074	0.0068	0.0068	0.0068	0.0068	0.0069	0.0068	0.0067	0.0067	0.0069
Mercury	mg/L	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Molybdenum	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Nickel	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Potassium	mg/L	1.16	1.08	1.1	1.09	1.1	1.12	1.1	1.08	1.29	1.1	1.35	1.11	1.13	1.16
Selenium	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Silicon	mg/L	0.272	0.252	0.258	0.151	0.149	0.17	0.174	0.166	0.169	0.146	0.15	0.136	0.12	0.107
Silver	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Sodium	mg/L	9.62	7.28	7.78	7.09	7.13	7.56	7.62	7.28	9.94	7.53	10.7	8.73	8.32	8.64
Strontium	mg/L	0.089	0.0621	0.0689	0.0603	0.0645	0.0668	0.0581	0.0614	0.0826	0.0567	0.0725	0.0661	0.0665	0.0665
Sulphur	mg/L	<3	<3	<3	<3										

Parameter	Sample Date		7/19/2020			8/23/2020			9/5/2020		
	Unit	MDL	Duplicata	Original	RPD (N/FD)	Duplicata	Original	RPD (N/FD)	Duplicata	Original	RPD (N/FD)
<b>Conventional Parameters</b>											
pH	pH units	-	7.3	7.27	0.41	7.33	7.32	0.14	7.38	7.31	0.95
Specific conductivity	umhos/cm	1.0	110	110	0.00	110	110	0.00	110	110	0.00
Hardness, as CaCO3 (D)	mg/L	0.50	27.9	28.8	3.17	30.1	30.2	0.33	28.4	28.8	1.40
Hardness, as CaCO3 (T)	mg/L	0.5	28.6	28	2.12	29.6	30	1.34	28.5	28.5	0.00
Total alkalinity, as CaCO3	mg/L	1.0	16	15	6.45	17	17	0.00	17	18	5.71
Total dissolved solids SM2540C	mg/L	10	60	95	45.16	90	95	5.41	95	50	62.07
Total dissolved solids MAXX TDSCAL	mg/L	1.0	51	51	0.00	54	54	0.00	51	52	1.94
Total suspended solids	mg/L	1	2	1	66.67	1	1	0.00	2	2	0.00
Total organic carbon	mg/L	0.40	3	3.4	12.50	3.6	3.4	5.71	3.4	3.3	2.99
Dissolved organic carbon	mg/L	0.40	3.2	2.8	13.33	3.3	3.4	2.99	3.1	3.2	3.17
Turbidity	NTU	0.1	0.4	0.3	28.57	0.3	0.2	40.00	0.3	0.3	0.00
<b>Major Ions</b>											
Bicarbonate, as CaCO3	mg/L	1.0	16	15	6.45	17	17	0.00	17	18	5.71
Calcium	mg/L	0.050	8.68	8.78	1.15	9.11	9.1	0.11	8.63	8.78	1.72
Carbonate, as CaCO3	mg/L	1.0	1	1	0.00	1.00	1	0.00	1	1	0.00
Chloride	mg/L	1.0	17	17	0.00	18	18	0.00	17	17	0.00
Cyanide	mg/L	0.0050	0.005	0.005	0.00	0.01	0.005	0.00	0.005	0.005	0.00
Fluoride	mg/L	0.10	0.1	0.1	0.00	0.10	0.1	0.00	0.1	0.1	0.00
Magnesium	mg/L	0.050	1.68	1.67	0.60	1.79	1.8	0.56	1.66	1.68	1.20
Potassium	mg/L	0.050	1.1	1.08	1.83	1.11	1.11	0.00	1.05	1.11	5.56
Sodium	mg/L	0.050	7.51	7.5	0.13	7.86	7.82	0.51	7.22	7.36	1.92
Sulphate	mg/L	1.0	5.4	5.3	1.87	6.0	6	0.00	5.0	4.9	2.02
Silica	mg/L	0.050	0.5	0.49	2.02	0.30	0.28	6.90	0.28	0.3	6.90
Cyanide (free)	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.00
Cyanide (WAD)	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.00
<b>Nutrients and Chlorophyll a</b>											
Nitrate	mg/L	0.10	0.13	0.12	8.00	0.10	0.1	0.00	0.1	0.1	0.00
Nitrite	mg/L	0.010	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.10	0.13	0.12	8.00	0.10	0.1	0.00	0.1	0.1	0.00
Total ammonia	mg/L	0.050	0.05	0.05	0.00	0.18	0.11	48.28	0.05	0.05	0.00
Total Kjeldahl nitrogen	mg/L	0.10	0.29	0.27	7.14	0.11	0.19	53.33	0.20	0.2	0.00
Total phosphorus	mg/L	0.020	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.00
Orthophosphate	mg/L	0.010	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.00
<b>Total Metals</b>											
Aluminum	mg/L	0.0030	0.0083	0.0089	6.98	0.0063	0.0065	3.12	0.0062	0.0066	6.25
Antimony	mg/L	0.00050	0.0005	0.0005	0.00	0.0005	0.0005	0.00	0.0005	0.0005	0.00
Arsenic	mg/L	0.00010	0.00052	0.00053	1.90	0.00061	0.00061	0.00	0.00052	0.00054	3.77
Barium	mg/L	0.0010	0.0088	0.009	2.25	0.0088	0.0088	0.00	0.0082	0.0081	1.23
Beryllium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.00010	0.00	0.0001	0.0001	0.00
Bismuth	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00
Cadmium	mg/L	0.000010	0.00001	0.00001	0.00	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Calcium	mg/L	0.05	8.42	8.49	0.83	8.96	9.1	1.55	8.63	8.63	0.00
Chromium	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.00
Cobalt	mg/L	0.00020	0.0002	0.0002	0.00	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Copper	mg/L	0.00050	0.00112	0.00183	48.14	0.00096	0.00087	9.84	0.00090	0.00084	6.90
Iron	mg/L	0.01	0.04	0.042	4.88	0.037	0.037	0.00	0.033	0.027	20.00
Lead	mg/L	0.00020	0.0002	0.0002	0.00	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Lithium	mg/L	0.0020	0.002	0.002	0.00	0.002	0.002	0.00	0.002	0.002	0.00
Magnesium	mg/L	0.05	1.68	1.64	2.41	1.77	1.76	0.57	1.69	1.68	0.59
Manganese	mg/L	0.0010	0.0115	0.0117	1.72	0.0094	0.0095	1.06	0.0069	0.0068	1.46
Mercury	mg/L	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Molybdenum	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.00
Nickel	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.00
Potassium	mg/L	0.05	1.04	1.04	0.00	1.1	1.1	0.00	1.09	1.1	0.91
Selenium	mg/L	0.00010	0.0001	0.0001	0.00	0.00	0.0001	0.00	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.239	0.232	2.97	0.169	0.17	0.59	0.145	0.146	0.69
Silver	mg/L	0.000020	0.00002	0.00002	0.00	0.00	0.00002	0.00	0.00002	0.00002	0.00
Sodium	mg/L	0.05	7.06	7.04	0.28	7.67	7.58	1.18	7.5	7.53	0.40
Strontium	mg/L	0.0010	0.0639	0.0616	3.67	0.0642	0.0651	1.39	0.0569	0.0577	1.40
Sulphur	mg/L	3	3	3	0.00	3.00	3	0.00	3	3	0.00
Thallium	mg/L	0.000010	0.00001	0.00001	0.00	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Tin	mg/L	0.0050	0.005	0.005	0.00	0.01	0.005	0.00	0.005	0.005	0.00
Titanium	mg/L	0.0050	0.005	0.005	0.00	0.01	0.005	0.00	0.005	0.005	0.00
Uranium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Vanadium	mg/L	0.0050	0.005	0.005	0.00	0.01	0.005	0.00	0.005	0.005	0.00
Zinc	mg/L	0.0050	0.005	0.005	0.00	0.01	0.005	0.00	0.005	0.005	0.00
Zirconium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001	0.00
<b>Dissolved Metals</b>											
Aluminum	mg/L	0.0030	0.0038	0.0033	14.08	0.0041	0.0053	25.53	0.003	0.003	0.00
Antimony	mg/L	0.00050	0.0005	0.0005	0.00	0.0005	0.0005	0.00	0.0005	0.0005	0.00
Arsenic	mg/L	0.00010	0.00043	0.00042	2.35	0.00053	0.00052	1.90	0.00048	0.00049	2.06
Barium	mg/L	0.0010	0.0088	0.0085	3.47	0.0085	0.0086	1.17	0.0081	0.0082	1.23
Beryllium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Bismuth	mg/L	0.0010	0.001	0.001	0.00	0.0010	0.001	0.00	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.00
Cadmium	mg/L	0.000010	0.01	0.00001	199.60	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Chromium	mg/L	0.0010	0.001	0.001	0.00	0.0010	0.001	0.00	0.001	0.001	0.00
Cobalt	mg/L	0.00020	0.0002	0.0002	0.00	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Copper	mg/L	0.00020	0.00086	0.00073	16.35	0.00085	0.00081	4.82	0.00077	0.00079	2.56
Iron	mg/L	0.0050	0.02	0.0174	13.90	0.0121	0.0076	45.69	0.0062	0.0064	3.17
Lead	mg/L	0.00020	0.2	0.0002	199.60	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Lithium	mg/L	0.0020	0.002	0.002	0.00	0.002	0.002	0.00	0.002	0.002	0.00
Manganese	mg/L	0.0010	0.0013	0.0015	14.29	0.001	0.001	0.00	0.001	0.001	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Molybdenum	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.00
Nickel	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.00
Selenium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.201	0.203	0.99	0.154	0.154	0.00	0.129	0.132	2.30
Silver	mg/L	0.000020	0.00002	0.00002	0.00	0.00002	0.00002	0.00	0.00002	0.00002	0.00
Strontium	mg/L	0.0010	0.0599	0.0604	0.83	0.0647	0.0647	0.00	0.0593	0.0571	3.78
Sulphur	mg/L	3.0	3	3	0.00	3.00	3	0.00	3	3	0.00
Thallium	mg/L	0.000010	0.00001	0.00001	0.00	0.00001	0.00001	0.00	0.00001	0.01	199.60
Tin	mg/L	0.0050	0.005	0.005	0.00	0.01	0.005	0.00	0.005	0.005	0.00
Titanium	mg/L	0.0050	0.005	0.005	0.00	0.01	0.005	0.00	0.005	0.005	0.00
Uranium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Vanadium	mg/L	0.0050	0.005	0.005	0.00	0.01	0.005	0.00	0.005	0.005	0.00
Zinc	mg/L	0.0050	0.005	0.0082	48.48	0.01	0.005	0.00	0.005	0.005	0.00
Zirconium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001	0.00
% Exceedance*					0%			0%			0%

Footnotes:

RPD = Relative Percent Difference; MDL: Mean Detection Limit

\* Percentage of parameters exceeding the QA/QC objectives for one sampling event which corresponds to grey shaded cells.

Bold values correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are within 10x the MDL.

Grey shaded cells correspond to a RPD higher than 20% and for which concentrations of parent and duplicate samples are above 10x the MDL.

Italic values correspond to a RPD higher than 20% and for which one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

Parameter	Sample Date		7/12/2020			8/9/2020			10/4/2020					
	Unit	MDL	Duplicate	Original	RPD (N/FD)	Duplicate	Original	RPD (N/FD)	Field Blank	Lab Blank	Duplicate	Original	RPD (N/FD)	RPD (FB/LB)
Conventional Parameters														
pH	pH units	-	7.17	7.2	0.42	7.33	7.34	0.14	5.89	-	7.22	7.21	0.14	-
Specific conductivity	umhos/cm	1.0	130	130	0.00	110	110	0.00	1.3	1	120	120	0.00	26.09
Hardness, as CaCO3 (D)	mg/L	0.50	34.7	33.5	3.52	29.0	28.8	0.69	0.5	-	30.9	30.6	0.98	-
Hardness, as CaCO3 (T)	mg/L	0.5	33	33.1	0.30	29.9	30.5	1.99	0.5	-	31.7	31.6	0.32	-
Total alkalinity, as CaCO3	mg/L	1.0	16	16	0.00	16	17	6.06	1	1	17	17	0.00	0.00
Total dissolved solids SM2540C	mg/L	10	65	75	14.29	45	52	15	10	10	65	75	14.29	0.00
Total dissolved solids MAXX_TDS-CAL	mg/L	1.0	65	64	1.55	51	50	1.98	1	-	57	57	0.00	-
Total suspended solids	mg/L	1	1	2	66.67	2	1	66.67	1	1	2	2	0.00	0.00
Total organic carbon	mg/L	0.40	-	-	-	3.2	3.1	3.17	0.4	0.4	3.5	3.4	2.90	0.00
Dissolved organic carbon	mg/L	0.40	2.9	2.9	0.00	3.2	3.2	0.00	0.4	0.4	3.0	3	0.00	0.00
Turbidity	NTU	0.1	0.3	0.3	0.00	0.4	0.5	22.22	0.1	0.1	0.4	0.3	28.57	0.00
Major Ions														
Bicarbonate, as CaCO3	mg/L	1.0	16	16	0.00	16	17	6.06	1	-	17	17	0.00	-
Calcium	mg/L	0.050	10.4	9.98	4.12	8.88	8.77	1.25	0.05	-	9.32	9.18	1.51	-
Carbonate, as CaCO3	mg/L	1.0	1	1	0.00	1	1	0.00	1	-	1	1	0.00	-
Chloride	mg/L	1.0	23	23	0.00	16	17	6.06	1	1	20	20	0.00	0.00
Cyanide	mg/L	0.0050	0.005	0.005	0.00	0.005	0.005	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Fluoride	mg/L	0.10	0.1	0.1	0.00	0.1	0.1	0.00	0.1	0.1	0.1	0.1	0.00	0.00
Magnesium	mg/L	0.050	2.13	2.08	2.38	1.67	1.67	0.00	0.05	-	1.84	1.87	1.62	-
Potassium	mg/L	0.050	1.22	1.18	3.33	1.09	1.06	2.79	0.05	-	1.14	1.14	0.00	-
Sodium	mg/L	0.050	10.2	9.81	3.90	7.27	7.17	1.39	0.05	-	8.28	8.29	0.12	-
Sulphate	mg/L	1.0	6.7	6.8	1.48	5.9	6.3	6.56	1	1	6.4	6.3	1.57	0.00
Silica	mg/L	0.050	0.57	0.55	3.57	0.28	0.3	6.90	0.05	0.05	0.20	0.19	5.13	0.00
Cyanide (free)	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Cyanide (WAD)	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Nutrients and Chlorophyll a														
Nitrate	mg/L	0.10	0.25	0.25	0.00	0.1	0.1	0.00	0.1	0.1	0.1	0.1	0.00	0.00
Nitrite	mg/L	0.010	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00
Nitrate + nitrite	mg/L	0.10	0.25	0.25	0.00	0.1	0.1	0.00	0.1	-	0.1	0.1	0.00	-
Total ammonia	mg/L	0.050	0.066	0.05	27.59	0.15	0.09	50.00	0.05	0.05	0.10	0.05	66.67	0.00
Total Kjeldahl nitrogen	mg/L	0.10	0.32	0.34	6.06	0.23	0.18	24.39	0.1	0.1	0.28	0.22	24.00	0.00
Total phosphorus	mg/L	0.020	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02	0.02	0.02	0.00	0.00
Orthophosphate	mg/L	0.010	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00
Total Metals														
Aluminum	mg/L	0.0030	0.0181	0.0118	42.14	0.0061	0.006	1.65	0.003	0.003	0.207	0.0044	191.67	0.00
Antimony	mg/L	0.00050	0.0005	0.0005	0.00	0.0005	0.0005	0.00	0.0005	0.0005	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.00067	0.00054	21.49	0.00051	0.00049	4.00	0.0001	0.0001	0.00051	0.00048	6.06	0.00
Barium	mg/L	0.0010	0.0094	0.0093	1.07	0.0090	0.0092	2.20	0.001	0.001	0.0087	0.0087	0.00	0.00
Beryllium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00010	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Boron	mg/L	0.05	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.000146	0.00001	174.36	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00001	0.00	-
Calcium	mg/L	0.05	9.82	9.92	1.01	9.99	9.29	2.18	0.05	-	9.57	9.47	1.95	-
Chromium	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.0002	0.00	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00050	0.00148	0.00083	56.28	0.00094	0.00093	1.07	0.0005	0.0005	0.00096	0.00093	3.17	0.00
Iron	mg/L	0.01	0.037	0.036	2.74	0.027	0.026	3.77	0.01	0.01	0.019	0.016	17.14	0.00
Lead	mg/L	0.00020	0.0002	0.0002	0.00	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Lithium	mg/L	0.0020	0.0023	0.0023	0.00	0.002	0.002	0.00	0.002	0.002	0.002	0.002	0.00	0.00
Magnesium	mg/L	0.05	2.05	2.03	0.98	1.75	1.76	0.57	0.05	-	1.9	1.93	1.57	-
Manganese	mg/L	0.0010	0.0191	0.0173	9.89	0.0078	0.008	2.53	0.001	0.001	0.0040	0.0039	2.53	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Molybdenum	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Nickel	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Potassium	mg/L	0.05	1.18	1.16	1.71	1.11	1.12	0.90	0.05	-	1.14	1.16	1.74	-
Selenium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Silicon	mg/L	0.1	0.267	0.272	1.86	0.166	0.17	2.38	0.189	0.1	0.109	0.107	1.85	61.59
Silver	mg/L	0.00020	0.00002	0.00002	0.00	0.00002	0.00002	0.00	0.00002	0.00002	0.00002	0.00002	0.00	0.00
Sodium	mg/L	0.05	9.72	9.62	1.03	7.38	7.56	2.41	0.05	-	8.66	8.64	0.23	-
Strontium	mg/L	0.0010	0.0886	0.089	0.45	0.0648	0.0668	3.04	0.001	0.001	0.0666	0.0665	0.15	0.00
Sulphur	mg/L	3	3	3	3	3	3	0.00	3	-	3	3	0.00	-
Thallium	mg/L	0.000010	0.000015	0.00001	40.00	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Tin	mg/L	0.0050	0.005	0.005	0.00	0.005	0.005	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Titanium	mg/L	0.0050	0.005	0.005	0.00	0.005	0.005	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Uranium	mg/L	0.00010	0.00018	0.0001	57.14	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Vanadium	mg/L	0.0050	0.005	0.005	0.00	0.005	0.005	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Zinc	mg/L	0.0050	0.005	0.005	0.00	0.005	0.005	0.00	0.005	0.005	0.005	0.005	0.00	0.00
Zirconium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Dissolved Metals														
Aluminum	mg/L	0.0030	0.0061	0.0063	3.23	0.003	0.003	0.00	0.003	0.003	0.003	0.003	0.00	0.00
Antimony	mg/L	0.00050	0.0005	0.0005	0.00	0.0005	0.0005	0.00	0.0005	0.0005	0.0005	0.0005	0.00	0.00
Arsenic	mg/L	0.00010	0.00048	0.00049	2.06	0.00046	0.00048	4.26	0.0001	0.0001	0.00046	0.00045	2.20	0.00
Barium	mg/L	0.0010	0.0095	0.0092	3.21	0.0088	0.0086	2.30	0.001	0.001	0.0087	0.0088	1.14	0.00
Beryllium	mg/L	0.00010	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.0001	0.00	0.00
Bismuth	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Boron	mg/L	0.05	0.05	0.05	0.00	0.05	0.05	0.00	0.05	0.05	0.05	0.05	0.00	0.00
Cadmium	mg/L	0.000010	0.00001	0.00001	0.00	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00001	0.00	0.00
Chromium	mg/L	0.0010	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001	0.001	0.001	0.00	0.00
Cobalt	mg/L	0.00020	0.0002	0.0002	0.00	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.0002	0.00	0.00
Copper	mg/L	0.00020	0.00082	0.00097	16.76	0.00084	0.00082	2.41	0.0002	0.0002	0.00079	0.00079	0.00	0.00
Iron	mg/L	0.0050	0.0137	0.0158										