Appendix H-3

Water Monitoring Stations Results

MEL-7	MEL-7 EFFLUENT QUALITY LIMITS	Sample Date	*2016 Average*	*2017 Average*	*2018 Average*	*Annual Average*	1/7/2019	1/16/2019	1/21/2019	1/28/2019	2/4/2019
		FIELD_SDG					B907259	B917141	B919476	B928272	B932370
Parameter		**Unit**									
Field Measured											
pH		pH units	-	***8.34***	-	***7.975***	-	-	-	-	-
Conductivity		uS/cm	-	***79.6***	-	***1289.5***	-	-	-	-	-
Temperature		°C	-	***14.6***	-	***8.55***	-	-	-	-	-
Dissolved oxygen		mg/L	-	-	-	***10.25***	-	-	-	-	-
Dissolved oxygen		%	-	-	-	***87.1***	-	-	-	-	-
Conventional Parameters											
pH	**6 - 9.5**	pH units	***7.09***	***7.23***	***7.39***	***7.03***	7.29	7.66	7.45	7.49	7.76
Specific conductivity		umhos/cm	-	***84.00***	-	***531.54***	-	-	-	-	-
Total alkalinity, as CaCO3		mg/L	-	***85.29***	***101.71***	***69.89***	63	250	260	220	220
Total suspended solids	100	mg/L	***6.08***	***6.22***	***4.64***	***5.83***	< 10	12	21	12	12
Volatile TSS		mg/L	-	-	-	***5.51***	< 10	12	20	12	10
Temperature		C	-	-	-	***8.27***	6	1	6	6.5	5
Nutrients											
Nitrate		mg/L	***19.67***	***22.10***	***23.22***	***15.49***	< 0.10	< 0.50	0.61	3.29	0.41
Nitrite		mg/L	***1.59***	***2.37***	***0.48***	***0.21***	0.019	0.838	0.058	0.174	0.049
Nitrate + nitrite		mg/L	***21.77***	***24.44***	***23.71***	***15.70***	< 0.10	1.19	0.67	3.46	0.46
Total ammonia		mg/L	***12.34***	***25.57***	***21.66***	***14.55***	0.83	44	48	40	41
Total Kjeldahl nitrogen		mg/L	***24.98***	***27.69***	***22.57***	***16.18***	2.5	45	51	41	44
Total phosphorus		mg/L	***12.38***	***12.15***	***9.64***	***7.43***	2.8	8.2	-	8.6	9.3
Biochemical Oxygen Demand, 5 Day	80	mg/L	***15.85***	***24.72***	***6.93***	***7.26***	7	14	28	19	19
Chemical oxygen demand		mg/L	-	***63.38***	***67.91***	***63.32***	68	120	150	110	110
General Organics											
Total oil and grease	5	mg/L	***16.66***	***1.05***	***1.07***	***1.05***	< 0.50	2.3	2.3	1.1	1.4
Total Metals											
Aluminum		mg/L	-	-	-	***0.031***	-	-	-	-	-
Antimony		mg/L	-	-	-	***0.001***	-	-	-	-	-
Arsenic		mg/L	-	-	-	***0.0021***	-	-	-	-	-
Barium		mg/L	-	-	-	***0.013***	-	-	-	-	-
Cadmium		mg/L	-	-	-	***0.0002***	-	-	-	-	-
Chromium		mg/L	-	-	-	***0.005***	-	-	-	-	-
Cobalt		mg/L	-	-	-	***0.001***	-	-	-	-	-
Copper		mg/L	-	-	-	***0.013***	-	-	-	-	-
Lead		mg/L	-	-	-	***0.001***	-	-	-	-	-
Manganese		mg/L	-	-	-	***0.087***	-	-	-	-	-
Molybdenum		mg/L	-	-	-	***0.001***	-	-	-	-	-
Nickel		mg/L	-	-	-	***0.0029***	-	-	-	-	-
Selenium		mg/L	-	-	-	***0.003***	-	-	-	-	-
Silver		mg/L	-	-	-	***0.001***	-	-	-	-	-
Sodium		mg/L	-	-	-	***23***	-	-	-	-	-
Zinc		mg/L	-	-	-	***0.18***	-	-	-	-	-
Toxicity											
Aerobic heterotrophic bacteria		CFU/mL	***100173***	***19475***	***5536***	***93423***	-	-	-	-	-
Escherichia coli		CFU/100mL	-	-	***2451***	***3347***	72	14000	400	20000	35000
Atypical colonies		CFU/100mL	-	-	***27253***	***1437***	-	-	-	-	-
Fecal Coliform	1000	CFU/100mL	***5***	***244***	***424***	***5426***	90	**11000**	400	**20000**	**38000**
Total Coliform		CFU/100mL	***19389***	***10143***	***6505***	***3762***	4900	-	< 10000	-	-

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-7	MEL-7 EFFLUENT QUALITY LIMITS	Sample Date	2/11/2019	2/18/2019	2/25/2019	3/4/2019	3/11/2019	3/18/2019	3/25/2019	4/1/2019
		FIELD_SDG	B941600	B944676	B952799	B959589	B967729	B972059		B987707
Parameter		Unit								
pH		pH units	-	-	-	-	-	-	-	-
Conductivity		uS/cm	-	-	-	-	-	-	-	-
Temperature		°C	-	-	-	-	-	-	-	-
Dissolved oxygen		mg/L	-	-	-	-	-	-	-	-
Dissolved oxygen		%	-	-	-	-	-	-	-	-
pH	**6 - 9.5**	pH units	7.56	7.69	7.61	7.28	7.42	7.55	-	7.73
Specific conductivity		umhos/cm	-	-	-	560	680	890	-	690
Total alkalinity, as CaCO3		mg/L	210	270	240	80	170	260	-	160
Total suspended solids	100	mg/L	6	11	8	6	9	7	-	4
Volatile TSS		mg/L	6	11	8	6	9	7	-	4
Temperature		C	8	5	5	4.5	9	6	8	10
Nitrate		mg/L	2.06	1.19	2.25	5.28	3.63	0.74	-	3.42
Nitrite		mg/L	0.079	0.074	0.1	0.124	0.142	0.076	-	0.655
Nitrate + nitrite		mg/L	2.14	1.27	2.35	5.4	3.77	0.81	-	4.07
Total ammonia		mg/L	37	41	38	4.3	28	47	-	27
Total Kjeldahl nitrogen		mg/L	40	44	40	5.8	32	52	-	29
Total phosphorus		mg/L	10	11	9.9	7.6	6.3	9.6	-	8.6
Biochemical Oxygen Demand, 5 Day	80	mg/L	22	15	13	6	15	13	-	32
Chemical oxygen demand		mg/L	92	110	96	73	97	110	-	64
Total oil and grease	5	mg/L	1.2	0.6	< 0.50	0.9	1.9	2.2	-	< 0.50
Aluminum		mg/L	-	-	-	-	-	-	-	-
Antimony		mg/L	-	-	-	-	-	-	-	-
Arsenic		mg/L	-	-	-	-	-	-	-	-
Barium		mg/L	-	-	-	-	-	-	-	-
Cadmium		mg/L	-	-	-	-	-	-	-	-
Chromium		mg/L	-	-	-	-	-	-	-	-
Cobalt		mg/L	-	-	-	-	-	-	-	-
Copper		mg/L	-	-	-	-	-	-	-	-
Lead		mg/L	-	-	-	-	-	-	-	-
Manganese		mg/L	-	-	-	-	-	-	-	-
Molybdenum		mg/L	-	-	-	-	-	-	-	-
Nickel		mg/L	-	-	-	-	-	-	-	-
Selenium		mg/L	-	-	-	-	-	-	-	-
Silver		mg/L	-	-	-	-	-	-	-	-
Sodium		mg/L	-	-	-	-	-	-	-	-
Zinc		mg/L	-	-	-	-	-	-	-	-
Aerobic heterotrophic bacteria		CFU/mL	-	-	-	-	-	-	-	-
Escherichia coli		CFU/100mL	3900	470	-	180	30	>60000	18000	1800
Atypical colonies		CFU/100mL	-	-	-	-	-	-	-	-
Fecal Coliform	1000	CFU/100mL	**3900**	470	100000	190	40	**>60000**	**19000**	**1800**
Total Coliform		CFU/100mL	90000	< 1000	-	600	300	-	30000	19000

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-7	MEL-7 EFFLUENT QUALITY LIMITS	Sample Date	4/15/2019	4/22/2019	4/29/2019	5/6/2019	5/13/2019	5/14/2019	5/16/2019	5/21/2019
		FIELD_SDG	B9A2581	B9A9530	B9B5811	B9C4999	B9D2426	B9D4589	B9D4575	B9D9160
Parameter		Unit								
pH		pH units	-	-	-	-	-	-	-	-
Conductivity		uS/cm	-	-	-	-	-	-	-	-
Temperature		°C	-	-	-	-	-	-	-	-
Dissolved oxygen		mg/L	-	-	-	-	-	-	-	-
Dissolved oxygen		%	-	-	-	-	-	-	-	-
pH	**6 - 9.5**	pH units	7.68	7.08	7.23	7.25	7.19	6.99	7.14	7.24
Specific conductivity		umhos/cm	550	390	410	470	450	440	420	420
Total alkalinity, as CaCO3		mg/L	90	22	35	38	32	26	35	34
Total suspended solids	100	mg/L	3	2	2	2	< 1	1	2	< 1
Volatile TSS		mg/L	3	1	2	2	< 1	1	2	< 1
Temperature		C	11.5	7.5	5	7	11.5	-	8.5	8
Nitrate		mg/L	6.15	11.2	13.5	15.1	14.5	15.3	12.4	10.9
Nitrite		mg/L	0.369	0.142	0.197	0.229	0.141	0.193	0.245	0.25
Nitrate + nitrite		mg/L	6.51	11.4	13.7	15.3	14.7	15.5	12.6	11.1
Total ammonia		mg/L	12	0.52	7.2	8.8	5	4	3.6	2.9
Total Kjeldahl nitrogen		mg/L	14	1.6	7.7	9	4.8	4.7	4.2	4.3
Total phosphorus		mg/L	8	4	4.5	6.8	6.1	5.7	7	6
Biochemical Oxygen Demand, 5 Day	80	mg/L	3	3	< 2	< 2	2	3	< 2	< 2
Chemical oxygen demand		mg/L	60	36	40	41	37	39	40	33
Total oil and grease	5	mg/L	0.9	< 0.50	< 0.50	4.8	1.4	< 0.50	< 0.50	1.6
Aluminum		mg/L	-	-	-	-	-	-	-	-
Antimony		mg/L	-	-	-	-	-	-	-	-
Arsenic		mg/L	-	-	-	-	-	-	-	-
Barium		mg/L	-	-	-	-	-	-	-	-
Cadmium		mg/L	-	-	-	-	-	-	-	-
Chromium		mg/L	-	-	-	-	-	-	-	-
Cobalt		mg/L	-	-	-	-	-	-	-	-
Copper		mg/L	-	-	-	-	-	-	-	-
Lead		mg/L	-	-	-	-	-	-	-	-
Manganese		mg/L	-	-	-	-	-	-	-	-
Molybdenum		mg/L	-	-	-	-	-	-	-	-
Nickel		mg/L	-	-	-	-	-	-	-	-
Selenium		mg/L	-	-	-	-	-	-	-	-
Silver		mg/L	-	-	-	-	-	-	-	-
Sodium		mg/L	-	-	-	-	-	-	-	-
Zinc		mg/L	-	-	-	-	-	-	-	-
Aerobic heterotrophic bacteria		CFU/mL	3200	500	6200	2500	700	-	5600	57000
Escherichia coli		CFU/100mL	< 2	< 10	14	< 2	< 2	-	2	< 2
Atypical colonies		CFU/100mL	1130	< 100	6700	4900	3900	-	9400	1020
Fecal Coliform	1000	CFU/100mL	< 2	< 10	56	< 2	< 2	-	4	< 2
Total Coliform		CFU/100mL	30	100	1300	< 100	< 100	-	< 100	< 10

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-7	MEL-7 EFFLUENT QUALITY LIMITS	Sample Date	5/27/2019	6/3/2019	6/10/2019	6/17/2019	6/24/2019	7/1/2019	7/8/2019	7/15/2019
		FIELD_SDG	B9E5348	B9F1414	B9G2481	B9G8648	B9H6698	B9I2723	B9I8673	B931479
Parameter		Unit								
pH		pH units	-	-	-	-	-	-	-	-
Conductivity		uS/cm	-	-	-	-	-	-	-	-
Temperature		°C	-	-	-	-	-	-	-	-
Dissolved oxygen		mg/L	-	-	-	-	-	-	-	-
Dissolved oxygen		%	-	-	-	-	-	-	-	-
pH	**6 - 9.5**	pH units	7.12	7.2	6.99	7.12	7	7.04	6.99	6.29
Specific conductivity		umhos/cm	330	410	400	490	320	390	440	330
Total alkalinity, as CaCO3		mg/L	25	44	26	28	23	27	24	7.5
Total suspended solids	100	mg/L	1	6	< 1	< 10	8	7	< 10	2
Volatile TSS		mg/L	1	6	< 1	< 10	8	7	< 10	5
Temperature		C	3	11	10	10	7.5	16	8	11
Nitrate		mg/L	9.1	8.86	12.2	17.1	10.6	13.4	15.5	15
Nitrite		mg/L	0.172	0.18	0.243	0.46	0.315	0.17	0.217	< 0.20
Nitrate + nitrite		mg/L	9.27	9.04	12.4	17.6	11	13.5	15.7	15
Total ammonia		mg/L	1.1	5.5	4.5	6.5	3.1	9.3	10	2.9
Total Kjeldahl nitrogen		mg/L	1.8	7.1	5.8	9.2	4.7	11	11	5.2
Total phosphorus		mg/L	4.3	5.7	5.6	8.6	6.3	6.2	7	4.7
Biochemical Oxygen Demand, 5 Day	80	mg/L	< 2	5	2	< 2	8	6	5	< 4.0
Chemical oxygen demand		mg/L	21	50	32	48	45	56	54	49
Total oil and grease	5	mg/L	0.8	< 0.50	< 0.50	< 0.50	< 0.50	0.9	1.2	< 3.0
Aluminum		mg/L	-	-	-	-	-	-	-	0.031
Antimony		mg/L	-	-	-	-	-	-	-	< 0.0010
Arsenic		mg/L	-	-	-	-	-	-	-	0.0021
Barium		mg/L	-	-	-	-	-	-	-	0.013
Cadmium		mg/L	-	-	-	-	-	-	-	< 0.00020
Chromium		mg/L	-	-	-	-	-	-	-	< 0.0050
Cobalt		mg/L	-	-	-	-	-	-	-	< 0.0010
Copper		mg/L	-	-	-	-	-	-	-	0.013
Lead		mg/L	-	-	-	-	-	-	-	0.001
Manganese		mg/L	-	-	-	-	-	-	-	0.087
Molybdenum		mg/L	-	-	-	-	-	-	-	< 0.0010
Nickel		mg/L	-	-	-	-	-	-	-	0.0029
Selenium		mg/L	-	-	-	-	-	-	-	< 0.0030
Silver		mg/L	-	-	-	-	-	-	-	< 0.0010
Sodium		mg/L	-	-	-	-	-	-	-	23
Zinc		mg/L	-	-	-	-	-	-	-	0.18
Aerobic heterotrophic bacteria		CFU/mL	200	700	< 100	600	< 100	300	50	30
Escherichia coli		CFU/100mL	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Atypical colonies		CFU/100mL	490	30	90	10	290	42	8	60
Fecal Coliform	1000	CFU/100mL	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Total Coliform		CFU/100mL	< 10	< 10	< 10	< 2	< 10	< 2	< 2	< 10

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-7	MEL-7 EFFLUENT QUALITY LIMITS	Sample Date	7/22/2019	7/28/2019	7/28/2019	7/29/2019	8/5/2019	8/12/2019	8/19/2019	9/9/2019
		FIELD_SDG	B9K5143			B9L0823	B9L8712	B9M5851	B9N1890	B9P4260
Parameter		Unit								
pH		pH units	-	7.86	8.09	-	-	-	-	-
Conductivity		uS/cm	-	1323	1256	-	-	-	-	-
Temperature		°C	-	9	8.1	-	-	-	-	-
Dissolved oxygen		mg/L	-	9.7	10.8	-	-	-	-	-
Dissolved oxygen		%	-	81	93.2	-	-	-	-	-
pH	**6 - 9.5**	pH units	6.4	-	-	6.96	6.89	7.04	7.26	6.97
Specific conductivity		umhos/cm	290	-	-	460	260	180	290	1200
Total alkalinity, as CaCO3		mg/L	5	-	-	22	14	14	27	25
Total suspended solids	100	mg/L	8	-	-	5	2	6	4	4
Volatile TSS		mg/L	7	-	-	4	2	5	3	4
Temperature		C	11.5	-	-	12	9	11	13	9
Nitrate		mg/L	14.5	-	-	19.1	10.4	4.63	7.69	38.6
Nitrite		mg/L	0.04	-	-	0.16	0.121	0.047	0.09	0.291
Nitrate + nitrite		mg/L	14.5	-	-	19.3	10.6	4.67	7.78	38.9
Total ammonia		mg/L	1.5	-	-	10	2.9	0.42	1.7	15
Total Kjeldahl nitrogen		mg/L	2.6	-	-	11	3.1	0.63	2.7	17
Total phosphorus		mg/L	5	-	-	5.6	3.3	1.5	3.4	8.6
Biochemical Oxygen Demand, 5 Day	80	mg/L	4	-	-	4	< 2	11	< 2	3
Chemical oxygen demand		mg/L	43	-	-	36	25	24	34	59
Total oil and grease	5	mg/L	-	-	-	< 0.50	< 0.50	0.8	0.7	1.7
Aluminum		mg/L	-	-	-	-	-	-	-	-
Antimony		mg/L	-	-	-	-	-	-	-	-
Arsenic		mg/L	-	-	-	-	-	-	-	-
Barium		mg/L	-	-	-	-	-	-	-	-
Cadmium		mg/L	-	-	-	-	-	-	-	-
Chromium		mg/L	-	-	-	-	-	-	-	-
Cobalt		mg/L	-	-	-	-	-	-	-	-
Copper		mg/L	-	-	-	-	-	-	-	-
Lead		mg/L	-	-	-	-	-	-	-	-
Manganese		mg/L	-	-	-	-	-	-	-	-
Molybdenum		mg/L	-	-	-	-	-	-	-	-
Nickel		mg/L	-	-	-	-	-	-	-	-
Selenium		mg/L	-	-	-	-	-	-	-	-
Silver		mg/L	-	-	-	-	-	-	-	-
Sodium		mg/L	-	-	-	-	-	-	-	-
Zinc		mg/L	-	-	-	-	-	-	-	-
Aerobic heterotrophic bacteria		CFU/mL	40	-	-	>3000	24	>3000	>3000	72000
Escherichia coli		CFU/100mL	< 2	-	-	< 2	< 2	0	< 2	< 2
Atypical colonies		CFU/100mL	10	-	-	1300	6	89	92	36
Fecal Coliform	1000	CFU/100mL	< 2	-	-	< 2	< 2	0	< 2	< 2
Total Coliform		CFU/100mL	< 10	-	-	< 100	< 2	0	< 2	< 2

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-7	MEL-7 EFFLUENT QUALITY LIMITS	Sample Date	9/16/2019	9/23/2019	9/30/2019	10/7/2019	10/14/2019	10/21/2019	11/4/2019	11/11/2019
		FIELD_SDG	B9Q2098	B9Q9407	B9R5845	B9S3432	B9S9627	B9T9008	B9V3468	B9W0761
Parameter		Unit								
pH		pH units	-	-	-	-	-	-	-	-
Conductivity		uS/cm	-	-	-	-	-	-	-	-
Temperature		°C	-	-	-	-	-	-	-	-
Dissolved oxygen		mg/L	-	-	-	-	-	-	-	-
Dissolved oxygen		%	-	-	-	-	-	-	-	-
pH	**6 - 9.5**	pH units	6.74	6.79	6.33	6.59	6.22	**5.98**	6.53	6.66
Specific conductivity		umhos/cm	1100	430	620	650	750	680	620	670
Total alkalinity, as CaCO3		mg/L	29	13	7.5	11	6.7	3.8	13	27
Total suspended solids	100	mg/L	5	9	4	4	3	4	9	3
Volatile TSS		mg/L	4	7	4	3	3	3	8	3
Temperature		C	10	8	6	9.5	11	5	5.5	6
Nitrate		mg/L	50.7	19.7	33.7	35.8	35.9	34.6	26.7	27.2
Nitrite		mg/L	0.503	0.216	0.227	0.289	0.246	0.187	0.221	0.221
Nitrate + nitrite		mg/L	51.2	19.9	34	36.1	36.2	34.8	26.9	27.4
Total ammonia		mg/L	23	0.87	8.7	5.5	12	12	12	20
Total Kjeldahl nitrogen		mg/L	24	2	11	7.9	11	16	15	21
Total phosphorus		mg/L	13	6.2	8.7	9.9	11	9.7	9.9	10
Biochemical Oxygen Demand, 5 Day	80	mg/L	5	4	< 2	2	< 2	< 2	5	15
Chemical oxygen demand		mg/L	74	52	67	49	52	50	75	98
Total oil and grease	5	mg/L	0.6	< 0.50	1.1	< 0.50	< 0.50	1.6	1.8	0.8
Aluminum		mg/L	-	-	-	-	-	-	-	-
Antimony		mg/L	-	-	-	-	-	-	-	-
Arsenic		mg/L	-	-	-	-	-	-	-	-
Barium		mg/L	-	-	-	-	-	-	-	-
Cadmium		mg/L	-	-	-	-	-	-	-	-
Chromium		mg/L	-	-	-	-	-	-	-	-
Cobalt		mg/L	-	-	-	-	-	-	-	-
Copper		mg/L	-	-	-	-	-	-	-	-
Lead		mg/L	-	-	-	-	-	-	-	-
Manganese		mg/L	-	-	-	-	-	-	-	-
Molybdenum		mg/L	-	-	-	-	-	-	-	-
Nickel		mg/L	-	-	-	-	-	-	-	-
Selenium		mg/L	-	-	-	-	-	-	-	-
Silver		mg/L	-	-	-	-	-	-	-	-
Sodium		mg/L	-	-	-	-	-	-	-	-
Zinc		mg/L	-	-	-	-	-	-	-	-
Aerobic heterotrophic bacteria		CFU/mL	> 300000	2400	2364	1727	4100	200	1545	1900
Escherichia coli		CFU/100mL	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Atypical colonies		CFU/100mL	18500	106	30	16	6	< 2	42	20
Fecal Coliform	1000	CFU/100mL	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Total Coliform		CFU/100mL	< 100	< 2	< 2	< 2	< 2	< 2	8	10

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-7	MEL-7 EFFLUENT QUALITY LIMITS	Sample Date	11/18/2019	11/25/2019	12/2/2019	12/11/2019	12/16/2019
		FIELD_SDG	B9W7213	B9X5940	B9Y1407	B9Z3092	B9Z6169
Parameter		Unit					
pH		pH units	-	-	-	-	-
Conductivity		uS/cm	-	-	-	-	-
Temperature		°C	-	-	-	-	-
Dissolved oxygen		mg/L	-	-	-	-	-
Dissolved oxygen		%	-	-	-	-	-
pH	**6 - 9.5**	pH units	6.65	**5.94**	**5.84**	7.21	7.45
Specific conductivity		umhos/cm	690	540	580	560	680
Total alkalinity, as CaCO3		mg/L	15	3.6	3.6	25	100
Total suspended solids	100	mg/L	9	2	3	6	7
Volatile TSS		mg/L	7	2	3	5	6
Temperature		C	7.5	11.5	10	9.5	-
Nitrate		mg/L	39.2	30.8	34.5	23.1	17.1
Nitrite		mg/L	0.253	0.089	0.181	0.155	0.237
Nitrate + nitrite		mg/L	39.4	30.9	34.7	23.2	17.4
Total ammonia		mg/L	17	7.2	13	14	24
Total Kjeldahl nitrogen		mg/L	19	8.2	13	14	29
Total phosphorus		mg/L	13	8.3	9.7	7.3	9.4
Biochemical Oxygen Demand, 5 Day	80	mg/L	3	< 2	< 2	8	7
Chemical oxygen demand		mg/L	59	56	37	95	110
Total oil and grease	5	mg/L	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aluminum		mg/L	-	-	-	-	-
Antimony		mg/L	-	-	-	-	-
Arsenic		mg/L	-	-	-	-	-
Barium		mg/L	-	-	-	-	-
Cadmium		mg/L	-	-	-	-	-
Chromium		mg/L	-	-	-	-	-
Cobalt		mg/L	-	-	-	-	-
Copper		mg/L	-	-	-	-	-
Lead		mg/L	-	-	-	-	-
Manganese		mg/L	-	-	-	-	-
Molybdenum		mg/L	-	-	-	-	-
Nickel		mg/L	-	-	-	-	-
Selenium		mg/L	-	-	-	-	-
Silver		mg/L	-	-	-	-	-
Sodium		mg/L	-	-	-	-	-
Zinc		mg/L	-	-	-	-	-
Aerobic heterotrophic bacteria		CFU/mL	< 100	10	818	1880	-
Escherichia coli		CFU/100mL	< 2	< 2	< 2	4	-
Atypical colonies		CFU/100mL	6	2	2	330	-
Fecal Coliform	1000	CFU/100mL	< 2	< 2	< 2	10	-
Total Coliform		CFU/100mL	2	< 2	< 2	140	-

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-7 QAQC	Sample Date	MDL	11/4/2019		
	FIELD_SDG		B9V3468		
	Sample		Duplicate	Original	RPD (%)
Parameter	**Unit**				
Conventional Parameters					
pH	pH units	-	6.51	6.53	0.31
Specific conductivity	umhos/cm	1	620	620	0.00
Total alkalinity, as CaCO3	mg/L	1	11	13	16.67
Total suspended solids	mg/L	1	9	9	0.00
Volatile TSS	mg/L	1	8	8	0.00
Nutrients					
Nitrate	mg/L	0.5	27	26.7	1.12
Nitrite	mg/L	0.01	0.211	0.221	4.63
Nitrate + nitrite	mg/L	0.5	27.2	26.9	1.11
Total ammonia	mg/L	0.05	12	12	0.00
Total Kjeldahl nitrogen	mg/L	2	16	15	6.45
Total phosphorus	mg/L	0.1	10	9.9	1.01
Chemical oxygen demand	mg/L	4	76	75	1.32
Biochemical Oxygen Demand, 5 Day	mg/L	2	5	5	0.00
General Organics					
Total oil and grease	mg/L	0.5	1.6	1.8	11.76

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-SR1	MEL-SR MAX GRAB	MEL-SR MAX MEAN	Sample Date	5/20/2019	5/27/2019	6/3/2019	6/11/2019	6/17/2019	7/1/2019	7/7/2019	7/9/2019	7/28/2019	8/4/2019	8/28/2019	9/1/2019	9/24/2019	10/21/2019
			FIELD_SDG	B9D9001	B9E7433	B9F4310	B9G5389	B9H1965	B9I4327	B9J0269	B9J5765	B9L0871	B9L8798	B9O3989	B9O6819	B9R3238	B9T8771
Parameter			Unit														
Field Measured																	
pH			pH units	7.51	7.96	7.66	7.53	7.86	7.88	7.93	8.09	7.87	7.79	-	7.97	8.08	8.32
Conductivity			uS/cm	349.2	398.6	597	785.9	1173	1685	1152	781.5	1487	1412	-	1111	961	530.4
Temperature			°C	0.17	0.3	1.3	9.48	7.01	11.8	8.4	5.9	7.1	7.09	-	3	8.8	0
Dissolved oxygen			mg/L	16.38	14.82	-	-	11.32	7.83	-	11.8	10.34	8.71	-	14.54	-	-
Dissolved oxygen			%	112.7	104.6	13.54	99.4	94.9	73	76.8	94.9	86.1	73.3	-	116.3	96	86.6
Turbidity			NTU	-	-	-	2.62	-	-	-	4.83	-	-	-	-	-	-
Conventional Parameters																	
pH	6.0 - 9.5	6.0 - 9.5	pH units	7.71	7.88	7.9	7.99	8.06	8.05	8.04	8.1	8.07	8.07	7.99	8.2	8.15	8.18
Hardness, as CaCO3 (T)			mg/L	103	116	165	181	261	611	410	320	465	464	411	385	349	312
Total alkalinity, as CaCO3			mg/L	54	63	90	88	110	160	170	140	190	210	140	190	180	160
Total dissolved solids			mg/L	245	230	365	390	545	1150	795	545	1020	960	710	775	705	575
Total suspended solids	100	50	mg/L	34	23	3	< 1	1	< 1	< 1	2	2	3	81	1	6	2
Turbidity			NTU	24	29	2.8	1.5	0.3	0.3	0.2	2.6	0.9	0.5	78	0.4	7.8	0.9
Major Ions																	
Chloride			mg/L	36	40	67	85	130	350	150	100	230	210	170	130	120	110
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	0.11	0.13	< 0.10	0.14	0.1	0.13	0.12	0.12	0.11	0.11	0.11
Sulphate			mg/L	42	51	59	68	98	200	170	140	180	160	180	180	160	120
Nutrients																	
Nitrate			mg/L	0.29	0.21	0.29	0.32	0.49	0.99	0.21	0.2	1.57	0.19	1.4	0.38	0.29	0.28
Nitrite			mg/L	0.013	< 0.010	< 0.010	< 0.010	< 0.010	0.022	< 0.010	< 0.010	0.04	< 0.010	0.02	< 0.010	< 0.010	< 0.010
Nitrate + nitrite			mg/L	0.3	0.21	0.29	0.32	0.49	1.01	0.21	0.2	1.61	0.19	1.42	0.38	0.29	0.28
Total ammonia			mg/L	0.28	< 0.050	0.5	< 0.050	< 0.050	0.3	< 0.050	< 0.050	0.84	< 0.050	0.39	0.16	0.12	< 0.050
Total phosphorus			mg/L	0.064	0.051	0.03	< 0.020	< 0.020	< 0.020	0.033	< 0.020	< 0.020	< 0.020	0.039	< 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
General Organics																	
Total oil and grease			mg/L	< 0.50	1	< 0.50	0.7	< 0.50	< 0.50	0.9	< 0.50	0.6	0.5	< 0.50	< 0.50	< 0.50	0.9
Total Metals																	
Aluminum			mg/L	0.741	0.72	0.0985	0.0352	0.0104	0.0089	0.0096	0.116	0.0393	0.0294	2.85	0.0227	0.252	0.05
Antimony			mg/L	< 0.00050	< 0.00050	-	0.00063	0.00095	0.00087	-	0.00053	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic			mg/L	0.00206	0.00187	0.00111	0.00119	0.00158	0.00233	0.00215	0.00253	0.00276	0.00294	0.00478	0.0022	0.00301	0.0022
Barium			mg/L	0.0247	0.025	0.0232	0.0229	0.0319	0.069	0.0558	0.0415	0.0602	0.0578	0.0767	0.0452	0.0482	0.0366
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
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
Boron			mg/L	< 0.05	< 0.05	-	< 0.05	< 0.05	0.077	-	0.051	0.095	0.075	0.102	< 0.05	< 0.05	< 0.05
Cadmium			mg/L	0.000027	0.000021	0.000013	< 0.000010	0.000011	0.000029	0.000012	0.000013	0.000016	0.000018	0.000026	< 0.000010	0.000011	0.000015
Calcium			mg/L	32.6	36.8	51.8	55.9	79.3	180	128	101	141	143	122	122	109	97.3
Cesium			mg/L	-	-	-	-	-	-	< 0.00020	-	-	-	-	-	-	-
Chromium			mg/L	0.0049	0.0048	< 0.0010	< 0.0010	< 0.0010	< 0.0010	-	< 0.0010	< 0.0010	< 0.0010	0.0186	< 0.0010	0.0018	< 0.0010
Cobalt			mg/L	0.00148	0.00137	-	0.00024	0.00024	0.00078	-	0.00047	0.0007	0.00049	0.00344	0.00041	0.00087	0.00035
Copper			mg/L	0.00874	0.00613	0.00329	0.00232	0.00262	0.00416	0.00359	0.00405	0.00348	0.00386	0.0101	0.00361	0.00473	0.00331
Iron			mg/L	1.27	1.22	0.196	0.082	0.038	0.119	0.045	0.308	0.141	0.118	4.22	0.079	0.517	0.11
Lead			mg/L	0.00068	0.00066	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	0.00108	< 0.00020	< 0.00020	< 0.00020
Lithium			mg/L	0.0128	0.0071	-	0.0135	0.0228	0.0646	-	0.0101	0.0486	0.0319	0.0438	0.0114	0.0113	0.01
Magnesium			mg/L	5.23	5.79	8.71	9.93	15.3	39.3	22.1	16.6	27.1	26	25.9	19.7	18.5	16.9
Manganese			mg/L	0.116	0.0547	0.0309	0.0115	0.0094	0.0429	0.0113	0.0213	0.0575	0.0247	0.101	0.0211	0.0379	0.0199
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	0.0014	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.001	0.0013	0.0015	0.0011	< 0.0010	0.0013	0.001	0.0012	0.0012
Nickel			mg/L	0.0057	0.0059	0.0049	0.0047	0.0067	0.0153	0.0094	0.0054	0.0109	0.0201	0.0172	0.0091	0.0106	0.0099
Potassium			mg/L	6.33	5.31	5.24	5.36	7.29	16.4	11	9.11	13.3	11.9	11.7	10.9	10.1	8.42
Selenium			mg/L	0.00011	< 0.00010	< 0.00010	< 0.00010	0.00011	0.00018	< 0.00010	0.0001	0.00013	0.00011	0.00012	< 0.00010	< 0.00010	< 0.00010
Silicon			mg/L	1.88	1.86	-	0.535	0.418	1.09	-	1.26	1.7	1.33	5.15	1.28	1.66	1.82
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	17.1	21.4	26.4	34.4	48.2	141	72.3	51.3	93.2	95.6	78.4	62.1	62.1	50.7
Strontium			mg/L	0.222	0.21	-	0.296	0.424	0.997	-	0.461	0.949	0.888	1.02	0.536	0.509	0.456
Sulphur			mg/L	15.9	17.5	19.8	23.9	32	76.4	61.8	51.3	65.4	59.4	60.3	59.5	51.5	42.9
Thallium			mg/L	0.000017	0.000013	< 0.000010	< 0.000010	< 0.000010	0.000012	-	< 0.000010	0.000018	< 0.000010	0.000044	< 0.000010	0.000011	< 0.000010
Tin			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
Titanium			mg/L	0.0299	0.0299	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.134	< 0.0050	0.0112	< 0.0050
Uranium			mg/L	0.0006	0.0006	-	0.00124	0.00233	0.00357	-	0.00213	0.0027	0.00255	0.00224	0.00257	0.00251	0.00235
Vanadium			mg/L	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050	0.0074	< 0.0050	< 0.0050	< 0.0050
Zinc			mg/L	0.0143	0.0171	0.0146	0.0122	0.02	0.0433	0.0194	0.0063	0.0184	0.0316	0.0225	0.008	0.0118	0.0104
Zirconium			mg/L	0.0003	0.00035	-	< 0.00010	< 0.00010	< 0.00010	-	< 0.00010	< 0.00010	< 0.00010	0.00069	< 0.00010	0.00018	0.0001

MEL-SR3	MEL-SR MAX GRAB	MEL-SR MAX MEAN	Sample Date	7/1/2019	7/7/2019	7/9/2019	7/28/2019	8/28/2019	9/24/2019	10/21/2019
			FIELD_SDG	B9I4327	B9J0269	B9J5765	B9L0871	B9O3989	B9R3238	B9T8771
Parameter			**Unit**							
Field Measured										
pH			pH units	7.87	7.94	7.93	7.97	-	8.01	7.94
Conductivity			uS/cm	7269	5248	16552	46163	-	36325	45154
Temperature			°C	9.6	3.8	1.2	4.3	-	7.5	0
Dissolved oxygen			mg/L	9.41	-	13.05	11.4	-	-	-
Dissolved oxygen			%	85.4	88.3	98.6	109	-	2100	75.9
Turbidity			NTU	-	-	7.91	-	-	-	-
Conventional Parameters										
pH	6.0 - 9.5	6.0 - 9.5	pH units	7.5	7.38	7.86	7.88	7.86	7.84	7.87
Hardness, as CaCO3 (T)			mg/L	769	460	1270	4780	5820	5170	5160
Total alkalinity, as CaCO3			mg/L	24	16	86	110	100	98	100
Total dissolved solids			mg/L	4570	2960	7220	30300	29800	29400	28800
Total suspended solids	100	50	mg/L	2	3	24	13	36	16	19
Turbidity			NTU	1.9	1.1	5.5	0.7	0.4	4.9	0.5
Major Ions										
Chloride			mg/L	2400	1500	4100	17000	14000	15000	15000
Cyanide			mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L	0.17	0.17	0.24	0.51	0.5	0.5	0.52
Sulphate			mg/L	320	210	500	2200	2000	2200	2000
Nutrients										
Nitrate			mg/L	< 0.10	< 0.10	0.12	< 0.50	< 0.10	< 0.10	< 0.10
Nitrite			mg/L	< 0.010	< 0.010	< 0.010	< 0.050	< 0.010	< 0.010	< 0.010
Nitrate + nitrite			mg/L	< 0.10	< 0.10	0.12	< 0.50	< 0.10	< 0.10	< 0.10
Total ammonia			mg/L	< 0.050	< 0.050	< 0.050	0.19	0.19	0.32	0.18
Total phosphorus			mg/L	< 0.020	< 0.020	< 0.020	0.059	0.087	0.076	0.058
Orthophosphate			mg/L	< 0.010	< 0.010	< 0.010	0.015	0.014	0.017	0.017
General Organics										
Total oil and grease			mg/L	< 0.50	< 0.50	0.7	0.7	< 0.50	0.8	< 0.50
Total Metals										
Aluminum			mg/L	0.069	0.0855	0.212	< 0.06	0.251	0.262	0.092
Antimony			mg/L	< 0.0025	-	< 0.0025	< 0.01	< 0.025	< 0.01	< 0.01
Arsenic			mg/L	0.00056	0.00038	0.00244	< 0.0020	< 0.0050	0.0022	0.0024
Barium			mg/L	< 0.0050	0.0043	0.0206	< 0.02	< 0.05	< 0.02	< 0.02
Beryllium			mg/L	< 0.00050	-	< 0.00050	< 0.0020	< 0.0050	< 0.0020	< 0.0020
Bismuth			mg/L	< 0.0050	-	< 0.0050	< 0.02	< 0.05	< 0.02	< 0.02
Boron			mg/L	0.593	-	0.861	3.41	3.74	3.57	3.44
Cadmium			mg/L	< 0.000050	< 0.000020	< 0.000050	< 0.00020	< 0.00050	< 0.00020	< 0.00020
Calcium			mg/L	56.6	36.7	124	347	331	337	342
Cesium			mg/L	-	< 0.00040	-	-	-	-	-
Chromium			mg/L	< 0.0050	-	< 0.0050	< 0.02	< 0.05	< 0.02	< 0.02
Cobalt			mg/L	< 0.0010	-	< 0.0010	< 0.0040	< 0.01	< 0.0040	< 0.0040
Copper			mg/L	< 0.0025	< 0.0010	0.0026	< 0.01	< 0.025	< 0.01	< 0.01
Iron			mg/L	0.127	0.139	0.411	< 0.2	< 0.5	0.384	< 0.2
Lead			mg/L	< 0.0010	< 0.00040	< 0.0010	< 0.0040	< 0.01	< 0.0040	< 0.0040
Lithium			mg/L	0.022	-	0.039	0.139	0.151	0.155	0.146
Magnesium			mg/L	152	89.3	234	951	1210	1050	1050
Manganese			mg/L	< 0.0050	0.0033	0.0157	< 0.02	< 0.05	< 0.02	< 0.02
Mercury			mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L	< 0.0050	< 0.0020	< 0.0050	< 0.02	< 0.05	< 0.02	< 0.02
Nickel			mg/L	< 0.0050	< 0.0020	< 0.0050	< 0.02	< 0.05	< 0.02	< 0.02
Potassium			mg/L	52.6	32.9	78.2	297	323	309	323
Selenium			mg/L	< 0.00050	< 0.00020	< 0.00050	< 0.0020	< 0.0050	< 0.0020	< 0.0020
Silicon			mg/L	< 0.5	-	0.871	< 2	< 5	< 2	< 2
Silver			mg/L	< 0.00010	< 0.000040	< 0.00010	< 0.00040	< 0.0010	< 0.00040	< 0.00040
Sodium			mg/L	1320	792	2000	8410	8870	8620	8730
Strontium			mg/L	0.903	-	1.92	6.25	6.99	6.76	7.29
Sulphur			mg/L	134	79	205	736	810	786	807
Thallium			mg/L	< 0.000050	-	< 0.000050	< 0.00020	< 0.00050	< 0.00020	< 0.00020
Tin			mg/L	< 0.025	-	< 0.025	< 0.1	< 0.25	< 0.1	< 0.1
Titanium			mg/L	< 0.025	< 0.01	< 0.025	< 0.1	< 0.25	< 0.1	< 0.1
Uranium			mg/L	< 0.00050	-	0.00155	0.0026	< 0.0050	0.0028	0.0029
Vanadium			mg/L	< 0.025	-	< 0.025	< 0.1	< 0.25	< 0.1	< 0.1
Zinc			mg/L	< 0.025	< 0.01	< 0.025	< 0.1	< 0.25	< 0.1	< 0.1
Zirconium			mg/L	< 0.00050	-	< 0.00050	< 0.0020	< 0.0050	< 0.0020	< 0.0020

MEL-SR7	MEL-SR MAX GRAB	MEL-SR MAX MEAN	Sample Date	5/20/2019	5/27/2019	6/3/2019	6/11/2019	6/17/2019	7/1/2019	7/9/2019	7/28/2019	8/4/2019	8/28/2019	9/1/2019	9/24/2019	10/21/2019
			FIELD_SDG	B9D9001	B9E7433	B9F4310	B9G5389	B9H1965	B9I4327	B9J5765	B9L0871	B9L8798	B9O3989	B9O6819	B9R3238	B9T8771
Parameter			**Unit**													
Field Measured																
pH			pH units	7.52	7.9	7.79	7.9	7.26	7.84	8.1	-	7.52	-	7.97	8.37	8.1
Conductivity			ms/cm	-	-	-	-	-	-	-	-	-	-	-	962	-
Conductivity			uS/cm	334	421	544	773.5	1161	815	865	-	1375	-	1120	-	540.8
Temperature			°C	0.23	0.12	1.7	6.06	7.82	11.4	6.2	-	9.4	-	3	8.9	2
Dissolved oxygen			mg/L	16.42	14.75	-	-	11.27	8.71	11.32	-	9.71	-	13.2	-	-
Dissolved oxygen			%	113.2	103.5	14.1	99.6	96.5	80	91.8	-	87.6	-	98.7	97.3	87.6
Turbidity			NTU	-	-	-	6.35	-	-	3.73	-	-	-	-	-	-
Conventional Parameters																
pH	6.0 - 9.5	6.0 - 9.5	pH units	7.71	7.91	7.82	7.98	7.73	8.01	8.09	7.94	7.99	7.82	8.12	8.14	8.16
Hardness, as CaCO3 (T)			mg/L	92.5	126	154	170	98.9	257	330	413	428	482	425	370	325
Total alkalinity, as CaCO3			mg/L	52	70	94	93	59	97	150	170	170	200	200	190	170
Total dissolved solids			mg/L	205	260	345	340	225	450	565	940	880	880	745	700	555
Total suspended solids	100	50	mg/L	17	20	5	3	5	< 1	< 1	2	2	5	< 1	5	3
Turbidity			NTU	25	24	4.3	2.4	0.8	0.5	1.9	1.3	0.1	2.5	0.5	4.8	0.7
Major Ions																
Chloride			mg/L	33	42	46	68	60	130	93	220	210	210	130	130	110
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
Fluoride			mg/L	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.11	< 0.10	< 0.10	< 0.10	0.11	0.11	0.11
Sulphate			mg/L	46	53	57	66	38	80	150	180	190	180	190	170	130
Nutrients																
Nitrate			mg/L	0.33	0.11	0.18	0.14	< 0.10	< 0.10	0.17	3.97	1.68	1.15	0.33	0.25	0.17
Nitrite			mg/L	0.018	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.011	0.14	0.021	< 0.010	< 0.010	< 0.010
Nitrate + nitrite			mg/L	0.35	0.11	0.18	0.14	< 0.10	< 0.10	0.17	3.98	1.82	1.17	0.33	0.25	0.17
Total ammonia			mg/L	0.54	< 0.050	0.82	< 0.050	< 0.050	< 0.050	0.078	2.4	0.7	0.73	0.14	< 0.050	0.12
Total phosphorus			mg/L	0.049	0.042	0.023	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.02	0.022	< 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
General Organics																
Total oil and grease			mg/L	< 0.50	1.4	< 0.50	0.8	< 0.50	< 0.50	< 0.50	< 0.50	0.8	< 0.50	< 0.50	< 0.50	< 0.50
Total Metals																
Aluminum			mg/L	0.375	0.474	0.143	0.0845	0.0418	0.0257	0.0538	0.0368	0.0053	0.107	0.0241	0.114	0.0608
Antimony			mg/L	< 0.00050	< 0.00050	-	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	0.00056	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic			mg/L	0.00136	0.00119	0.00089	0.00067	0.00105	0.00657	0.00196	0.013	0.0105	0.00524	0.00141	0.00184	0.00122
Barium			mg/L	0.0198	0.0263	0.0241	0.0238	0.0159	0.0309	0.0415	0.0499	0.0482	0.0507	0.0485	0.0475	0.0398
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
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
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
Cadmium			mg/L	0.000025	0.000018	0.000012	< 0.000010	< 0.000010	0.000018	< 0.000010	0.000029	0.000025	0.000014	< 0.000010	0.000014	0.000013
Calcium			mg/L	29.2	41.1	48.9	53.4	31.4	80.5	105	125	131	145	136	126|112	102
Chromium			mg/L	0.0027	0.0038	< 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	0.00091	0.00081	-	0.00033	0.00038	0.00195	0.00032	0.00285	0.00142	0.00185	0.0005	0.00063	0.00041
Copper			mg/L	0.00751	0.00531	0.00335	0.00211	0.00236	0.00508	0.00308	0.00652	0.00739	0.00421	0.00288	0.0036	0.00237
Iron			mg/L	0.669	0.765	0.303	0.196	0.079	0.108	0.247	0.158	0.05	0.419	0.164	0.248	0.175
Lead			mg/L	0.00047	0.00042	< 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	0.0054	0.0059	-	0.0057	< 0.0020	0.0036	0.0064	0.009	0.0096	0.0098	0.0076	0.0079	0.0092
Magnesium			mg/L	4.77	5.82	7.73	8.79	5.01	13.6	16.3	24.5	24.4	29.1	20.5	19	17
Manganese			mg/L	0.0733	0.0277	0.0991	0.0433	0.0155	0.0125	0.0207	0.0301	0.0083	0.0839	0.0463	0.042	0.053
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
Molybdenum			mg/L	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0015	< 0.0010	< 0.0010	< 0.0010	0.0012	0.0012	0.0014
Nickel			mg/L	0.0035	0.0041	0.0038	0.0028	0.0024	0.014	0.0039	0.0213	0.0225	0.014	0.004	0.005	0.0033
Potassium			mg/L	5.73	5.69	5.05	5.06	2.77	5.53	9.08	11.4	10.2	11.8	11.5	10.2	8.41
Selenium			mg/L	0.0001	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00017	0.0002	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon			mg/L	1.15	1.48	-	0.554	0.469	0.516	1.12	1.33	0.572	1.74	1.38	1.46	1.79
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
Sodium			mg/L	18.2	21.2	23.9	30.9	22.6	58.4	46.1	104	103	111	60.2	60.2	47.7
Strontium			mg/L	0.145	0.215	-	0.236	0.105	0.269	0.451	0.542	0.578	0.628	0.517	0.487	0.468
Sulphur			mg/L	15.7	18.4	18.6	21.9	12.4	29.7	53.1	65.8	66.2	64.3	67.4	54.1	45.1
Thallium			mg/L	0.000013	< 0.000010	0.00001	< 0.000010	< 0.000010	0.00001	< 0.000010	0.000012	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin			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
Titanium			mg/L	0.0148	0.0178	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium			mg/L	0.0005	0.00064	-	0.00084	0.00029	0.00067	0.00228	0.00179	0.00204	0.00188	0.00273	0.00257	0.0024
Vanadium			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
Zinc			mg/L	0.0106	0.0068	0.0135	0.0086	< 0.0050	< 0.0050	0.0057	< 0.0050	< 0.0050	< 0.0050	0.0052	0.0057	0.0115
Zirconium			mg/L	0.00018	0.00018	-	< 0.00010	< 0.00010	< 0.00010	< 0.00010	0.00011	< 0.00010	0.00015	< 0.00010	< 0.00010	< 0.00010

MEL-SR11	MEL-SR MAX GRAB	MEL-SR MAX MEAN	Sample Date	5/27/2019	6/3/2019	6/11/2019	6/17/2019
			FIELD_SDG	B9E7433	B9F4310	B9G5389	B9H1965
Parameter			**Unit**				
Field Measured							
pH			pH units	7.9	7.68	7.9	7.79
Conductivity			uS/cm	533.9	488	770.6	394.8
Temperature			°C	0.84	5.9	6.33	14.58
Dissolved oxygen			mg/L	13.25	-	-	8.97
Dissolved oxygen			%	95	13.86	99.6	89.6
Turbidity			NTU	-	-	5.13	-
Conventional Parameters							
pH	6.0 - 9.5	6.0 - 9.5	pH units	7.88	7.82	7.9	7.98
Hardness, as CaCO3 (T)			mg/L	88.8	85.6	94.4	62.5
Total alkalinity, as CaCO3			mg/L	80	70	63	66
Total dissolved solids			mg/L	305	280	270	145
Total suspended solids	100	50	mg/L	3	1	3	1
Turbidity			NTU	2.7	1.3	3.1	0.8
Major Ions							
Chloride			mg/L	80	61	46	23
Cyanide			mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L	0.15	0.11	< 0.10	0.14
Sulphate			mg/L	44	40	43	34
Nutrients							
Nitrate			mg/L	1.67	2.68	7.49	1.14
Nitrite			mg/L	0.015	0.031	0.057	< 0.010
Nitrate + nitrite			mg/L	1.69	2.71	7.55	1.14
Total ammonia			mg/L	0.83	0.26	0.28	< 0.050
Total phosphorus			mg/L	0.075	< 0.020	< 0.020	0.023
Orthophosphate			mg/L	< 0.010	< 0.010	< 0.010	< 0.010
General Organics							
Total oil and grease			mg/L	1.6	< 0.50	0.9	< 0.50
Total Metals							
Aluminum			mg/L	0.25	0.0474	0.124	0.214
Antimony			mg/L	0.00204	-	0.00096	0.00113
Arsenic			mg/L	0.00187	0.00096	0.00095	0.00117
Barium			mg/L	0.0137	0.0113	0.0137	0.0118
Beryllium			mg/L	< 0.00010	-	< 0.00010	< 0.00010
Bismuth			mg/L	< 0.0010	-	< 0.0010	< 0.0010
Boron			mg/L	0.066	-	< 0.05	0.069
Cadmium			mg/L	0.000033	0.000017	0.000012	0.000013
Calcium			mg/L	23.8	22.6	25.9	17.5
Chromium			mg/L	0.0019	< 0.0010	< 0.0010	0.0017
Cobalt			mg/L	0.00126	-	0.00035	0.00042
Copper			mg/L	0.00586	0.00327	0.00263	0.0023
Iron			mg/L	0.415	0.087	0.194	0.371
Lead			mg/L	0.0003	< 0.00020	< 0.00020	< 0.00020
Lithium			mg/L	0.0045	-	0.002	< 0.0020
Magnesium			mg/L	7.13	7.08	7.2	4.59
Manganese			mg/L	0.0828	0.0032	0.0043	0.0085
Mercury			mg/L	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L	0.0029	0.0027	0.002	0.0023
Nickel			mg/L	0.0041	0.0031	0.0025	0.0023
Potassium			mg/L	5.97	4.18	4.66	4.31
Selenium			mg/L	0.00035	0.00018	0.00027	0.00016
Silicon			mg/L	1.3	-	0.735	0.802
Silver			mg/L	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium			mg/L	51.3	46.1	46.3	28.7
Strontium			mg/L	0.134	-	0.14	0.0657
Sulphur			mg/L	14.2	11.9	15.6	9.44
Thallium			mg/L	0.00002	0.000012	0.00001	0.000017
Tin			mg/L	< 0.0050	-	< 0.0050	< 0.0050
Titanium			mg/L	0.0113	-	0.0058	0.0087
Uranium			mg/L	0.00357	-	0.00059	0.00062
Vanadium			mg/L	< 0.0050	-	< 0.0050	< 0.0050
Zinc			mg/L	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium			mg/L	0.00012	-	< 0.00010	< 0.00010

MEL-SR12	Sample Date	6/3/2019
	FIELD_SDG	B9F4310
Parameter	**Unit**	
Field Measured		
pH	pH units	7.21
Conductivity	uS/cm	240
Temperature	°C	1.1
Dissolved oxygen	%	13.54
Conventional Parameters		
Hardness, as CaCO3 (T)	mg/L	39.2
Major Ions		
Cyanide	mg/L	< 0.0050
Nutrients		
Nitrate	mg/L	< 0.10
Nitrite	mg/L	< 0.010
Nitrate + nitrite	mg/L	< 0.10
Total ammonia	mg/L	0.062
Total phosphorus	mg/L	0.031
Orthophosphate	mg/L	< 0.010
General Organics		
Total oil and grease	mg/L	< 0.50
Total Metals		
Aluminum	mg/L	0.446
Arsenic	mg/L	0.00121
Barium	mg/L	0.0176
Cadmium	mg/L	< 0.000010
Calcium	mg/L	11.9
Chromium	mg/L	0.0016
Copper	mg/L	0.00538
Iron	mg/L	0.771
Lead	mg/L	0.00056
Magnesium	mg/L	2.3
Manganese	mg/L	0.0201
Mercury	mg/L	< 0.00001
Molybdenum	mg/L	< 0.0010
Nickel	mg/L	0.0021
Potassium	mg/L	2.75
Selenium	mg/L	< 0.00010
Silver	mg/L	< 0.000020
Sodium	mg/L	8.73
Sulphur	mg/L	6.2
Thallium	mg/L	0.000014
Zinc	mg/L	< 0.0050

MEL-SR13	MEL-SR MAX GRAB	MEL-SR MAX MEAN	Sample Date	6/3/2019	6/11/2019
			FIELD_SDG	B9F4310	B9G5520
Parameter			Unit		
Field Measured					
pH			pH units	-	8.02
Conductivity			uS/cm	-	347
Temperature			°C	-	5.69
Dissolved oxygen			%	-	101.3
Turbidity			NTU	-	4.29
Conventional Parameters					
pH	6.0 - 9.5	6.0 - 9.5	pH units	-	7.9
Hardness, as CaCO3 (T)			mg/L	34.7	60.6
Total alkalinity, as CaCO3			mg/L	-	42
Total dissolved solids			mg/L	-	115
Total suspended solids	100	50	mg/L	-	< 10
Turbidity			NTU	-	0.7
Major Ions					
Chloride			mg/L	-	31
Cyanide			mg/L	< 0.0050	< 0.0050
Fluoride			mg/L	-	< 0.10
Sulphate			mg/L	-	24
Nutrients					
Nitrate			mg/L	0.11	< 0.10
Nitrite			mg/L	< 0.010	< 0.010
Nitrate + nitrite			mg/L	0.11	< 0.10
Total ammonia			mg/L	0.87	< 0.050
Total phosphorus			mg/L	< 0.020	< 0.020
Orthophosphate			mg/L	< 0.010	< 0.010
General Organics					
Total oil and grease			mg/L	< 0.50	1.4
Total Metals					
Aluminum			mg/L	0.155	0.0824
Antimony			mg/L	-	< 0.00050
Arsenic			mg/L	0.00066	0.00031
Barium			mg/L	0.0087	0.0081
Beryllium			mg/L	-	< 0.00010
Bismuth			mg/L	-	< 0.0010
Boron			mg/L	-	< 0.05
Cadmium			mg/L	0.000016	< 0.000010
Calcium			mg/L	11.3	17.4
Chromium			mg/L	0.0014	< 0.0010
Cobalt			mg/L	-	< 0.00020
Copper			mg/L	0.00476	0.00239
Iron			mg/L	0.28	0.147
Lead			mg/L	0.00031	< 0.00020
Lithium			mg/L	-	< 0.0020
Magnesium			mg/L	1.58	4.16
Manganese			mg/L	0.0098	0.0032
Mercury			mg/L	< 0.00001	< 0.00001
Molybdenum			mg/L	< 0.0010	< 0.0010
Nickel			mg/L	0.0021	0.0015
Potassium			mg/L	2.01	2.31
Selenium			mg/L	< 0.00010	< 0.00010
Silicon			mg/L	-	0.457
Silver			mg/L	< 0.000020	< 0.000020
Sodium			mg/L	3.82	18.6
Strontium			mg/L	-	0.0619
Sulphur			mg/L	6.05	7.77
Thallium			mg/L	< 0.000010	< 0.000010
Tin			mg/L	-	< 0.0050
Titanium			mg/L	-	< 0.0050
Uranium			mg/L	-	0.00013
Vanadium			mg/L	-	< 0.0050
Zinc			mg/L	0.0557	0.059
Zirconium			mg/L	-	< 0.00010

MEL-SR14	MEL-SR MAX GRAB	MEL-SR MAX MEAN	Sample Date	6/3/2019	6/11/2019	6/17/2019
			FIELD_SDG	B9F4310	B9G5520	B9H1965
Parameter			Unit			
Field Measured						
pH			pH units	-	7.99	8.1
Conductivity			uS/cm	-	347.8	535.3
Temperature			°C	-	5.86	6.73
Dissolved oxygen			mg/L	-	-	11.25
Dissolved oxygen			%	-	101.3	102
Turbidity			NTU	-	4.06	-
Conventional Parameters						
pH	6.0 - 9.5	6.0 - 9.5	pH units	7.53	7.77	7.97
Hardness, as CaCO3 (T)			mg/L	51.5	42.9	104
Total alkalinity, as CaCO3			mg/L	42	43	77
Total dissolved solids			mg/L	155	110	230
Total suspended solids	100	50	mg/L	2	5	1
Turbidity			NTU	1.3	1.1	1
Major Ions						
Chloride			mg/L	25	12	38
Cyanide			mg/L	< 0.0050	< 0.0050	< 0.0050
Fluoride			mg/L	< 0.10	< 0.10	< 0.10
Sulphate			mg/L	27	23	47
Nutrients						
Nitrate			mg/L	0.11	< 0.10	0.34
Nitrite			mg/L	< 0.010	< 0.010	< 0.010
Nitrate + nitrite			mg/L	0.11	< 0.10	0.34
Total ammonia			mg/L	3	0.069	0.12
Total phosphorus			mg/L	0.033	0.03	< 0.020
Orthophosphate			mg/L	< 0.010	< 0.010	< 0.010
General Organics						
Total oil and grease			mg/L	< 0.50	0.9	< 0.50
Total Metals						
Aluminum			mg/L	0.0314	0.142	0.047
Antimony			mg/L	-	< 0.00050	< 0.00050
Arsenic			mg/L	0.00042	0.0004	0.00055
Barium			mg/L	0.0092	0.0105	0.0208
Beryllium			mg/L	-	< 0.00010	< 0.00010
Bismuth			mg/L	-	< 0.0010	< 0.0010
Boron			mg/L	-	< 0.05	< 0.05
Cadmium			mg/L	< 0.000010	< 0.000010	< 0.000010
Calcium			mg/L	15.2	12.4	31.2
Chromium			mg/L	< 0.0010	< 0.0010	< 0.0010
Cobalt			mg/L	-	0.00024	< 0.00020
Copper			mg/L	0.00249	0.011	0.00923
Iron			mg/L	0.105	0.223	0.08
Lead			mg/L	< 0.00020	< 0.00020	< 0.00020
Lithium			mg/L	-	< 0.0020	0.003
Magnesium			mg/L	3.29	2.92	6.43
Manganese			mg/L	0.0195	0.0043	0.0018
Mercury			mg/L	< 0.00001	< 0.00001	< 0.00001
Molybdenum			mg/L	< 0.0010	< 0.0010	< 0.0010
Nickel			mg/L	0.0014	0.0032	0.0034
Potassium			mg/L	4.98	2.19	4.01
Selenium			mg/L	< 0.00010	< 0.00010	< 0.00010
Silicon			mg/L	-	0.774	1.11
Silver			mg/L	< 0.000020	< 0.000020	< 0.000020
Sodium			mg/L	14	14.8	30.7
Strontium			mg/L	-	0.0419	0.0975
Sulphur			mg/L	7.91	6.76	14.9
Thallium			mg/L	< 0.000010	0.000013	0.000013
Tin			mg/L	-	< 0.0050	< 0.0050
Titanium			mg/L	-	0.0087	< 0.0050
Uranium			mg/L	-	0.00014	0.0004
Vanadium			mg/L	-	< 0.0050	< 0.0050
Zinc			mg/L	0.006	0.219	0.0617
Zirconium			mg/L	-	< 0.00010	< 0.00010

MEL-11	CCME Aquatic Freshwater	CANADA DRINKING WATER	Sample Date	2017 Average	2018 Average	Annual Average	1/6/2019	2/3/2019	3/3/2019	4/1/2019	5/6/2019	6/2/2019	7/1/2019	8/4/2019	9/1/2019	10/14/2019	11/4/2019	12/2/2019
			FIELD_SDG				B907309	B932271	B959506	B987735	B9C4905	B9F4223	B9I4258	B9L8636	B9O6799	B9T3056	B9V3437	B9Y1283
Parameter			Unit															
Field Measured																		
pH			pH units	-	***7.41***	***7.25***	-	7.17	7.12	7	6.98	7.45	7.15	7.92	7.36	7.63	6.93	7.08
Conductivity			uS/cm	-	***75.57***	***97.85***	-	97.1	75.6	113.2	130.2	144.9	78.2	78	81.5	85.8	92.6	99.2
Temperature			°C	-	***5.50***	***6.61***	-	6.06	4.8	5.6	6.1	7.22	8.4	12.8	8.2	4	4.1	5.4
Dissolved oxygen			mg/L	-	***107.60***	***7.54***	-	0	-	-	-	-	9.29	7.3	8.39	-	12.74	-
Dissolved oxygen			%	-	-	***84.99***	-	-	-	-	-	98.2	79.3	69.6	71.2	88.9	97.8	89.9
Conventional Parameters																		
pH		6-9.5	pH units	-	***7.27***	***7.30***	7.17	7.32	6.89	7.27	7.44	7.41	7.51	7.28	7.5	7.09	7.4	7.35
Specific conductivity			umhos/cm	-	***88.71***	***96.50***	94	100	110	110	110	110	83	78	80	86	100	97
Hardness, as CaCO3 (D)			mg/L	***22.60***	***22.03***	***27.23***	26.4	27.1	27.5	29.7	32.5	32	23.5	22.5	22.9	27.3	27	28.4
Hardness, as CaCO3 (T)			mg/L	***23.43***	***25.92***	***27.40***	26.6	27.1	29.5	27.2	31.5	33.1	26.6	22.5	24.7	24	27.4	28.6
Total alkalinity, as CaCO3			mg/L	***18.67***	***18.67***	***20.67***	21	22	23	25	24	26	16	16	17	16	20	22
Total dissolved solids		500	mg/L	***52.67***	***79.29***	***65.83***	35	30	90	125	75	95	25	30	45	65	95	80
Total suspended solids			mg/L	***4.00***	***1.43***	***1.83***	< 10	< 1	1	< 1	< 1	< 1	< 1	1	< 1	2	< 1	1
Total organic carbon			mg/L	***2.83***	***3.11***	***3.11***	3.1	3	3.2	3	2.9	3.3	3.1	2.8	2.7	3.3	3.3	3.6
Dissolved organic carbon			mg/L	***2.70***	***3.09***	***2.97***	2.6	2.9	3.2	3.1	2.9	2.8	3.2	2.6	2.7	2.7	3	3.9
Turbidity		0.1	NTU	***0.30***	***0.33***	***0.21***	**0.2**	**0.2**	**0.2**	< 0.1	< 0.1	**0.2**	< 0.1	**0.3**	**0.3**	**0.3**	**0.2**	**0.3**
Major Ions																		
Bicarbonate, as CaCO3			mg/L	***18.33***	***19.00***	***20.50***	21	22	23	25	24	25	16	16	16	16	20	22
Calcium			mg/L	***7.07***	***8.08***	***8.57***	8.25	8.57	8.7	9.25	10.3	10.2	7.37	7.12	7.17	8.66	8.44	8.84
Carbonate, as CaCO3			mg/L	***1.00***	***1.00***	***1.00***	< 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	120		mg/L	***9.65***	***11.37***	***12.48***	12	13	13	14	15	14	11	9.8	11	11	13	13
Cyanide Total		0.2	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
Cyanide Free			mg/L	-	***0.0025***	***0.0013***	-	-	< 0.0050	< 0.0025	< 0.0010	< 0.0010	< 0.0010	0.0018	< 0.0010	-	0.0017	< 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
Magnesium			mg/L	***1.20***	***1.32***	***1.42***	1.4	1.38	1.39	1.61	1.66	1.61	1.23	1.15	1.21	1.37	1.44	1.53
Potassium			mg/L	***0.88***	***1.02***	***1.06***	1.09	1.08	0.994	1.25	1.28	1.18	0.946	0.916	0.928	0.975	1.07	1.04
Sodium			mg/L	***4.71***	***5.30***	***5.69***	5.54	5.64	5.8	6.4	6.7	6.38	5.06	4.6	4.86	5.53	5.81	6
Sulphate			mg/L	***4.00***	***4.36***	***4.47***	4.4	4.6	5	5.2	5.1	5.5	3.5	3.6	3.7	3.9	4.8	4.3
Silica			mg/L	***0.35***	***0.40***	***0.53***	0.34	0.38	-	0.49	0.56	0.6	0.35	1	0.59	0.23	0.85	0.39
Nutrients																		
Nitrate	3	10	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
Nitrite	0.06	1	mg/L	***0.01***	***0.01***	***0.01***	< 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***	***0.10***	***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
Total ammonia			mg/L	***0.01***	***0.05***	***0.08***	< 0.050	0.054	0.087	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.29	0.13	< 0.050	< 0.050
Total Kjeldahl nitrogen			mg/L	***0.14***	***0.16***	***0.20***	0.22	0.31	0.22	0.21	0.19	0.19	0.12	0.15	0.16	0.2	0.23	0.24
Total phosphorus			mg/L	***0.01***	***0.02***	***0.02***	< 0.020	< 0.020	< 0.020	< 0.020	0.04	< 0.020	0.025	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Orthophosphate			mg/L	***0.01***	***0.01***	***0.01***	< 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		0.1	mg/L	***0.0052***	***0.154***	***0.00618***	0.0053	0.0045	0.0098	< 0.0030	0.0055	< 0.0050	0.0041	0.0034	0.012	0.009	0.0084	0.0042
Antimony		0.006	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	0.005	0	mg/L	***0.00027***	***0.001***	***0.00032***	**0.00028**	**0.00031**	**0.0003**	**0.00029**	**0.00033**	**0.00033**	**0.00028**	**0.00028**	**0.00037**	**0.00033**	**0.00036**	**0.00039**
Barium		1	mg/L	***0.00730***	***0.011***	***0.00988***	0.01	0.0103	0.011	0.0118	0.0128	0.013	0.0089	0.0078	0.0078	0.0078	0.0081	0.0092
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	-	***0.00100***	***0.00100***	< 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		5	mg/L	***0.050***	***0.050***	***0.050***	< 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	0.00009	0.005	mg/L	***0.00001***	***0.00001***	***0.00001***	< 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	***7.343***	***8.128***	***8.55833***	8.38	8.5	9.26	8.47	9.92	10.4	8.24	6.99	7.77	7.48	8.41	8.88
Chromium		0.05	mg/L	***0.001***	***0.002***	***0.00100***	< 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
Copper		1	mg/L	***0.0008***	***0.0016***	***0.00146***	0.00782	0.00103	0.00108	0.00077	0.00086	0.0008	0.00081	0.00078	0.0009	0.00079	0.00088	0.00097
Iron	0.3	0.3	mg/L	***0.016***	***0.432***	***0.03467***	0.071	0.049	0.051	0.022	0.029	0.03	0.041	0.018	0.035	0.029	0.02	0.021
Lead		0.01	mg/L	***0.00039***	***0.00029***	***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	***0.00200***	***0.00202***	***0.00200***	< 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	***1.233***	***1.383***	***1.46083***	1.37	1.42	1.54	1.47	1.64	1.72	1.46	1.22	1.29	1.28	1.55	1.57
Manganese		0.05	mg/L	***0.003***	***0.043***	***0.00486***	0.0081	0.0055	0.0047	0.0032	0.0045	0.0057	0.008	0.0041	0.0039	0.0039	0.0026	0.0041
Mercury	0.000026	0.001	mg/L	***0.00001***	***0.00002***	***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	0.073		mg/L	***0.001***	***0.001***	***0.00100***	< 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	***0.001***	***0.001***	***0.00100***	< 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	***0.896***	***1.044***	***1.09058***	1.06	1.1	1.13	1.1	1.3	1.26	1.18	0.917	0.99	0.94	1.06	1.05
Selenium	0.001	0.05	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	-	***0.170***	***0.22450***	0.187	0.212	0.293	0.255	0.31	0.336	0.221	0.151	0.195	0.171	0.155	0.208
Silver	0.0001		mg/L	***0.00002***	***0.00002***	***0.00002***	< 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		200	mg/L	***4.753***	***5.155***	***5.77500***	5.21	5.65	6.09	5.95	6.75	6.78	5.84	4.67	5.28	5.1	5.98	6
Strontium			mg/L	***0.035***	***0.046***	***0.04513***	0.0439	0.0466	0.0476	0.0493	0.0528	0.0537	0.0401	0.037	0.0403	0.0394	0.043	0.0479
Sulphur			mg/L	-	***3.000***	***3.00000***	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Thallium	0.0008		mg/L	***0.00001***	***0.00001***	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-11	CCME Aquatic Freshwater	CANADA DRINKING WATER	Sample Date	*2017 Average*	*2018 Average*	*Annual Average*	1/6/2019	2/3/2019	3/3/2019	4/1/2019	5/6/2019	6/2/2019	7/1/2019	8/4/2019	9/1/2019	10/14/2019	11/4/2019	12/2/2019
			FIELD_SDG				B907309	B932271	B959506	B987735	B9C4905	B9F4223	B9I4258	B9L8636	B9O6799	B9T3056	B9V3437	B9Y1283
Parameter			Unit															
Total Metals																		
Titanium			mg/L	***0.005***	***0.012***	***0.00500***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium		0.02	mg/L	***0.00010***	***0.00011***	***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
Vanadium			mg/L	***0.005***	***0.005***	***0.00500***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	0.03	5	mg/L	***0.008***	***0.005***	***0.00513***	< 0.0050	< 0.0050	0.0066	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium			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
Dissolved Metals																		
Aluminum			mg/L	***0.00663***	***0.00462***	***0.00330***	0.0038	0.0043	0.0031	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	0.0044	< 0.0030	< 0.0030
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	0.005		mg/L	***0.00028***	***0.00035***	***0.00033***	0.00026	0.00027	0.00029	0.00029	0.0003	0.00029	0.00028	0.00027	0.00029	0.00068	0.00034	0.00037
Barium			mg/L	***0.00750***	***0.00837***	***0.00973***	0.0094	0.0101	0.0106	0.0121	0.0123	0.0128	0.0089	0.0078	0.0074	0.0078	0.0083	0.0092
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	-	***0.00100***	***0.00100***	< 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	***0.05000***	***0.05000***	***0.05000***	< 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	0.00009		mg/L	***0.00001***	***0.00001***	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium			mg/L	***0.00100***	***0.00100***	***0.00100***	< 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
Copper			mg/L	***0.00070***	***0.00078***	***0.00071***	0.00073	0.00079	0.0007	0.00074	0.00079	0.00075	0.00071	0.00059	0.00067	0.00051	0.00076	0.00082
Iron	0.3		mg/L	***0.00773***	***0.02153***	***0.01381***	0.0262	0.0199	0.0155	0.0114	0.0133	0.0081	0.0166	0.0061	0.008	0.023	0.0081	0.0095
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	***0.00200***	***0.00200***	***0.00200***	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese			mg/L	***0.00100***	***0.00497***	***0.00179***	0.0048	0.0026	0.0015	0.0013	0.0015	0.0013	0.0028	< 0.0010	< 0.0010	0.0012	< 0.0010	0.0015
Mercury	0.000026		mg/L	***0.00001***	***0.00003***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00005	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	0.073		mg/L	***0.00100***	***0.00100***	***0.00100***	< 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	***0.00113***	***0.00100***	***0.00100***	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Selenium	0.001		mg/L	***0.00010***	***0.00009***	***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	-	***0.14100***	***0.18927***	0.169	0.208	0.226	0.237	0.317	-	0.177	0.142	0.149	0.148	0.136	0.173
Silver	0.0001		mg/L	***0.00002***	***0.00002***	***0.00002***	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium			mg/L	***0.03393***	***0.04430***	***0.04529***	0.0435	0.0465	0.0469	0.0498	0.0529	0.053	0.0393	0.0375	0.0377	0.0428	0.0441	0.0495
Sulphur			mg/L	-	***3.00000***	***3.00000***	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	0.0008		mg/L	***0.00001***	***0.00001***	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin			mg/L	***0.00500***	***0.00500***	***0.00500***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium			mg/L	***0.00500***	***0.00500***	***0.00500***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium			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
Vanadium			mg/L	***0.00500***	***0.00500***	***0.00500***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	0.03		mg/L	***0.00500***	***0.00500***	***0.00500***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium			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
Volatile Organics																		
Benzene	0.37	0.005	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
Ethylbenzene	0.09	0.14	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
Toluene	0.002	0.06	mg/L	***0.00020***	***0.00034***	***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
Xylenes		0.09	mg/L	***0.00040***	***0.00040***	***0.00040***	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes			mg/L	***0.00040***	***0.00040***	***0.00040***	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene			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
F1 (C6-C10)-BTEX			mg/L	***0.025***	***0.0250***	***0.025***	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
F1 (C6-C10)			mg/L	***0.025***	***0.0250***	***0.025***	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025
F2 (C10-C16)			mg/L	***0.10***	***0.10***	***0.10***	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
F3 (C16-C34)			mg/L	***0.20***	***0.20***	***0.20***	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)			mg/L	***0.20***	***0.20***	***0.20***	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Reached baseline at C50			mg/L	-	-	-	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-11 QAQC	Sample Date	MDL	1/6/2019			
	Sample		Field Blank	Duplicate	Original	RPD (%)
	FIELD_SDG		B907309			
Parameter	Unit					
Conventional Parameters						
pH	pH units	-	5.87	7.07	7.17	1.40
Specific conductivity	umhos/cm	1	1.5	94	94	0.00
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	26.7	26.4	1.13
Hardness, as CaCO3 (T)	mg/L	0.5	0.52	26.9	26.6	1.12
Total alkalinity, as CaCO3	mg/L	1	1	21	21	0.00
Total dissolved solids	mg/L	10	10	25	35	**33.33**
Total suspended solids	mg/L	10	10	10	10	0.00
Total organic carbon	mg/L	0.5	0.5	3.2	3.1	3.17
Dissolved organic carbon	mg/L	0.5	0.5	2.6	2.6	0.00
Turbidity	NTU	0.1	0.1	0.3	0.2	**40.00**
Major Ions						
Bicarbonate, as CaCO3	mg/L	1	1	21	21	0.00
Calcium	mg/L	0.05	0.05	8.39	8.25	1.68
Carbonate, as CaCO3	mg/L	1	1	1	1	0.00
Chloride	mg/L	1	1	12	12	0.00
Cyanide Total	mg/L	0.005	0.005	0.005	0.005	0.00
Cyanide WAD	mg/L	0.001	0.001	0.001	0.001	0.00
Magnesium	mg/L	0.05	0.05	1.4	1.4	0.00
Potassium	mg/L	0.05	0.05	1.07	1.09	1.85
Sodium	mg/L	0.05	0.05	5.67	5.54	2.32
Sulphate	mg/L	1	1	4.5	4.4	2.25
Silica	mg/L	0.05	0.05	0.36	0.34	5.71
Nutrients						
Nitrate	mg/L	0.1	0.1	0.1	0.1	0.00
Nitrite	mg/L	0.01	0.01	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.1	0.1	0.1	0.1	0.00
Total ammonia	mg/L	0.05	0.05	0.05	0.05	0.00
Total Kjeldahl nitrogen	mg/L	0.1	0.1	0.19	0.22	14.63
Total phosphorus	mg/L	0.02	0.02	0.02	0.02	0.00
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00
Total Metals						
Aluminum	mg/L	0.005	0.0052	0.005	0.0053	5.83
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00028	0.00028	0.00
Barium	mg/L	0.001	0.001	0.01	0.01	0.00
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Calcium	mg/L	0.05	0.051	8.52	8.38	1.66
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	0.0005	0.0005	0.00083	0.00782	*161.62*
Iron	mg/L	0.01	0.163	0.057	0.071	**21.88**
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00
Magnesium	mg/L	0.05	0.095	1.36	1.37	0.73
Manganese	mg/L	0.001	0.0115	0.0078	0.0081	3.77
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
Potassium	mg/L	0.05	0.05	1.08	1.06	1.87
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.19	0.187	1.59
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Sodium	mg/L	0.05	0.05	5.41	5.21	3.77
Strontium	mg/L	0.001	0.001	0.0448	0.0439	2.03
Sulphur	mg/L	3	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.0692	0.005	0.005	0.00
Zirconium	mg/L	**0.0001**	0.0001	0.0001	0.0001	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-11 QAQC	Sample Date	MDL	1/6/2019			
	Sample		Field Blank	Duplicate	Original	RPD(%)
	FIELD_SDG		B907309			
Parameter	**Unit**					
Dissolved Metals						
Aluminum	mg/L	0.003	0.003	0.003	0.0038	**23.53**
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00026	0.00026	0.00
Barium	mg/L	0.001	0.001	0.0096	0.0094	2.11
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	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	0.00075	0.00073	2.70
Iron	mg/L	0.005	0.005	0.0151	0.0262	**53.75**
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00
Manganese	mg/L	0.001	0.001	0.0037	0.0048	**25.88**
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	0.169	0.169	0.00
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Strontium	mg/L	0.001	0.001	0.043	0.0435	1.16
Sulphur	mg/L	3	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Volatile Organics						
Benzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Ethylbenzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Toluene	mg/L	0.0002	0.00077	0.0002	0.0002	0.00
Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00
m,p-Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00
o-Xylene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
F1 (C6-C10)-BTEX	mg/L	0.025	0.025	0.025	0.025	0.00
F1 (C6-C10)	mg/L	0.025	0.025	0.025	0.025	0.00
F2 (C10-C16)	mg/L	0.1	0.1	0.1	0.1	0.00
F3 (C16-C34)	mg/L	0.2	0.2	0.2	0.2	0.00
F4 (C34-C50)	mg/L	0.2	0.2	0.2	0.2	0.00
Reached baseline at C50	mg/L	-	YES	YES	YES	-

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-12	Sample Date	*2018 Average*	*Annual Average*	6/24/2019	7/9/2019	7/30/2019	8/7/2019	9/3/2019	9/24/2019	10/1/2019
	FIELD_SDG			B9H9570	B9J1423	B9L2255	B9M1834	B9P1635	B9R1326	B9R7371
Parameter	**Unit**									
Field Measured										
pH	pH units	-	***7.95***	7.32	8.62	8.07	8.43	8.1	7.45	7.65
Conductivity	uS/cm	-	***3256.86***	2139	2366	3454	3526	4197	2666	4450
Temperature	°C	-	***10.85***	14.57	12.6	11.7	15.2	5.7	10.7	5.5
Dissolved oxygen	mg/L	-	***9.05***	-	6.74	-	7.16	11.63	-	10.67
Dissolved oxygen	%	-	***84.41***	107.1	63.7	84.6	72.2	94.5	82.7	86.1
Conventional Parameters										
pH	pH units	***7.49***	***7.59***	7.36	7.28	7.71	7.8	7.62	7.73	7.63
Specific conductivity	umhos/cm	***1875***	***3442.86***	2000	2600	3400	3500	4100	4200	4300
Hardness, as CaCO3 (D)	mg/L	***468.5***	***716.00***	428	535	667	687	839	917	939
Hardness, as CaCO3 (T)	mg/L	***481***	***740.43***	413	566	671	690	877	936	1030
Total alkalinity, as CaCO3	mg/L		***50.83***	21	36	58	-	59	65	66
Total dissolved solids	mg/L	***1152.5***	***2131.43***	1570	1580	2130	2100	2600	2490	2450
Total suspended solids	mg/L	***49***	***15.57***	26	26	6	8	14	17	12
Total organic carbon	mg/L	***18***	***14.40***	-	-	12	14	16	15	15
Turbidity	NTU	***7.125***	***6.67***	7.5	13	3.7	3.5	4.4	7.8	6.8
Major Ions										
Calcium	mg/L		***201.86***	121	156	182	195	233	261	265
Chloride	mg/L	***480***	***920.00***	540	680	890	930	1100	1100	1200
Cyanide	mg/L	***0.005***	***0.0075***	0.0072	< 0.0050	< 0.0050	< 0.0050	0.0081	0.007	0.015
Cyanide (free)	mg/L	***0.52575***	***0.0013***	-	-	-	0.0013	-	-	-
Fluoride	mg/L		***0.10***	0.11	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Magnesium	mg/L		***51.46***	30.4	35.6	51.3	48.5	62.5	64.5	67.4
Potassium	mg/L		***24.14***	14.7	18.5	25.1	25.2	27.9	28.3	29.3
Sodium	mg/L		***343.29***	204	253	338	339	431	410	428
Sulphate	mg/L	***53***	***141.00***	77	90	120	130	180	190	200
Nutrients										
Nitrate	mg/L	***3.99***	***23.614***	15.9	18.3	25.8	25.3	26.6	24.7	28.7
Nitrite	mg/L	***0.1825***	***0.984***	0.293	0.598	1.04	1.61	1.42	1	0.926
Nitrate + nitrite	mg/L	***4.175***	***24.600***	16.2	18.9	26.8	26.9	28.1	25.7	29.6
Total ammonia	mg/L	***1.1575***	***7.114***	5.2	5.3	9.4	7.9	7.3	7.2	7.5
Total phosphorus	mg/L	***0.14825***	***0.097***	-	0.19	0.088	0.081	0.076	0.078	0.069
Orthophosphate	mg/L	***0.01***	***0.010***	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals										
Aluminum	mg/L	***1.86425***	***0.4474***	1.94	0.354	0.0984	0.0473	0.125	0.283	0.284
Antimony	mg/L	***0.0005***	***0.0008***	< 0.00050	0.00053	< 0.0010	0.00063	< 0.0010	0.00068	< 0.0010
Arsenic	mg/L	***0.0043***	***0.0055***	0.00613	0.00764	0.00407	0.00366	0.00457	0.00421	0.00807
Barium	mg/L	***0.12425***	***0.1147***	0.0682	0.0905	0.111	0.118	0.13	0.139	0.146
Beryllium	mg/L	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00020	< 0.00010	< 0.00020	< 0.00010	< 0.00020
Bismuth	mg/L	-	***0.0014***	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
Boron	mg/L	***0.13975***	***0.3573***	0.176	0.246	0.362	0.364	0.446	0.434	0.473
Cadmium	mg/L	***0.000027***	***0.0000***	0.000021	0.000048	0.000043	0.000037	0.000047	0.000065	0.000064
Calcium	mg/L	***148.25***	***210.8571***	118	167	186	188	245	268	304
Chromium	mg/L	***0.001425***	***0.0015***	0.0012	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020
Cobalt	mg/L	-	***0.0015***	0.00126	0.00182	0.00134	0.0012	0.00149	0.00159	0.00192
Copper	mg/L	***0.0033425***	***0.0029***	0.00298	0.00381	0.0025	0.00264	0.003	0.00242	0.0029
Iron	mg/L	***1.1665***	***0.4279***	1.44	0.385	0.132	0.199	0.235	0.297	0.307
Lead	mg/L	***0.0006325***	***0.0005***	0.0008	0.00064	< 0.00040	0.00027	< 0.00040	0.00052	0.00052
Lithium	mg/L	***0.134***	***0.1113***	0.0734	0.0936	0.11	0.0998	0.119	0.132	0.151
Magnesium	mg/L	***26.9***	***51.7143***	29.1	36.4	50.1	50.9	64.4	64.9	66.2
Manganese	mg/L	***0.44***	***0.2160***	0.203	0.314	0.0913	0.0704	0.17	0.318	0.345
Mercury	mg/L	***0.00001***	***0.0000***	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.001875***	***0.0028***	0.0019	0.0026	0.0028	0.0027	0.0025	0.0033	0.0036
Nickel	mg/L	***0.004475***	***0.0072***	0.0053	0.0065	0.0067	0.0069	0.0075	0.0087	0.0087
Potassium	mg/L	***13.75***	***24.7286***	14.2	19.3	23.5	23.7	30.3	28.9	33.2
Selenium	mg/L	***0.0001125***	***0.0002***	0.00011	0.00015	< 0.00020	0.00017	0.00032	0.00025	0.00033
Silicon	mg/L	-	***1.0726***	0.677	1.16	0.874	0.717	1.06	1.27	1.75
Silver	mg/L	***0.00002***	***0.0000***	< 0.000020	< 0.000020	< 0.000040	< 0.000020	< 0.000040	< 0.000020	< 0.000040
Sodium	mg/L	***131.25***	***348.5000***	196	237	345	-	432	443	438
Strontium	mg/L	***3.4675***	***4.1271***	2.58	3.3	4.23	4.1	4.26	5.25	5.17
Sulphur	mg/L	-	***51.0429***	25.9	33	44.8	45.5	64.9	65.3	77.9
Thallium	mg/L	***0.00003225***	***0.0001***	0.000038	0.000043	0.000058	0.000058	0.000059	0.000059	0.000057
Tin	mg/L	***0.005***	***0.0071***	< 0.0050	< 0.0050	< 0.01	< 0.0050	< 0.01	< 0.0050	< 0.01
Titanium	mg/L	***0.0123***	***0.0071***	< 0.0050	< 0.0050	< 0.01	< 0.0050	< 0.01	< 0.0050	< 0.01
Uranium	mg/L	***0.0008575***	***0.0013***	0.00054	0.00114	0.00113	0.00106	0.00142	0.00171	0.00195
Vanadium	mg/L	***0.005***	***0.0071***	< 0.0050	< 0.0050	< 0.01	< 0.0050	< 0.01	< 0.0050	< 0.01
Zinc	mg/L	***0.02275***	***0.0823***	0.429	0.013	0.038	0.047	0.016	0.0172	0.016
Zirconium	mg/L	-	***0.0002***	< 0.00010	0.00012	< 0.00020	< 0.00010	< 0.00020	0.00016	0.00025

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-12	Sample Date	*2018 Average*	*Annual Average*	6/24/2019	7/9/2019	7/30/2019	8/7/2019	9/3/2019	9/24/2019	10/1/2019
	FIELD_SDG			B9H9570	B9J1423	B9L2255	B9M1834	B9P1635	B9R1326	B9R7371
Parameter	**Unit**									
Dissolved Metals										
Aluminum	mg/L	***0.30075***	***0.09329***	0.181	0.212	0.0565	0.03	0.0438	0.0733	0.0564
Antimony	mg/L	***0.002875***	***0.00065***	< 0.00050	0.00054	< 0.0010	0.00057	0.00057	0.00067	0.00068
Arsenic	mg/L	***0.0021425***	***0.00419***	0.00348	0.00644	0.00375	0.00338	0.00383	0.00297	0.00546
Barium	mg/L	***0.116175***	***0.11049***	0.07	0.0874	0.107	0.12	0.129	0.13	0.13
Beryllium	mg/L	***0.000575***	***0.00011***	< 0.00010	< 0.00010	< 0.00020	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	-	***0.00114***	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	***0.34875***	***0.34871***	0.175	0.24	0.372	0.414	0.397	0.419	0.424
Cadmium	mg/L	***0.00006075***	***0.00004***	0.000019	0.000038	0.000038	0.000031	0.000036	0.000043	0.000045
Chromium	mg/L	***0.00575***	***0.00114***	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	-	***0.00119***	0.00114	0.00163	0.00111	0.00106	0.00123	0.00096	0.00117
Copper	mg/L	***0.00217***	***0.00215***	0.00195	0.00292	0.00197	0.00208	0.00189	0.00221	0.00204
Iron	mg/L	***0.20585***	***0.06829***	0.0275	0.133	0.049	0.069	0.0761	0.0935	0.0299
Lead	mg/L	***0.00115***	***0.00024***	< 0.00020	0.00025	< 0.00040	< 0.00020	< 0.00020	0.00024	< 0.00020
Lithium	mg/L	***0.133***	***0.10886***	0.0647	0.0953	0.105	0.128	0.12	0.12	0.129
Manganese	mg/L	***0.245975***	***0.07831***	0.069	0.19	0.0222	0.0282	0.0886	0.0605	0.0897
Mercury	mg/L	***0.00001***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.00605***	***0.00281***	0.0019	0.0028	0.0027	0.0028	0.0028	0.0032	0.0035
Nickel	mg/L	***0.007325***	***0.00617***	0.0047	0.0053	0.0059	0.0063	0.0063	0.0073	0.0074
Selenium	mg/L	***0.000575***	***0.00024***	0.00012	0.00015	< 0.00020	0.00018	0.00026	0.00043	0.00033
Silicon	mg/L	-	***0.92286***	0.489	1.03	1.02	0.751	0.89	1.06	1.22
Silver	mg/L	***0.000115***	***0.00002***	< 0.000020	< 0.000020	< 0.000040	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	***2.9925***	***4.21000***	2.59	3.28	3.77	4.44	4.99	5.02	5.38
Sulphur	mg/L	-	***49.45714***	26.4	32.8	45.7	48.3	57.5	64.5	71
Thallium	mg/L	***0.00006825***	***0.00005***	0.000033	0.000043	0.000059	0.00006	0.000058	0.000056	0.000075
Tin	mg/L	***0.02875***	***0.00571***	< 0.0050	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	***0.02875***	***0.00571***	< 0.0050	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	***0.000955***	***0.00121***	0.00011	0.00108	0.0011	0.00107	0.00151	0.00168	0.00189
Vanadium	mg/L	***0.02875***	***0.00571***	< 0.0050	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	***0.035425***	***0.01367***	< 0.0050	0.0076	0.019	0.0239	0.0113	0.0218	0.0071
Zirconium	mg/L	-	***0.00012***	< 0.00010	< 0.00010	< 0.00020	< 0.00010	< 0.00010	0.00017	0.0001
Toxicity										
Algal growth 72 h inhibition test - IC2	%	-	-	-	-	-	-	-	60.8	88.2
Ceriodaphnia 7 d mortality test - LC25	%	-	-	-	-	-	-	-	24.3	58.8
Ceriodaphnia 7 d mortality test - LC50	%	-	-	-	-	-	-	-	> 100	> 100
Daphnia 48 h static acute test - LC50	%	-	-	-	-	-	-	-	> 100	> 100
Fathead minnow 7 d growth test - IC2	%	-	-	-	-	-	-	-	> 100	> 100
Fathead minnow 7 d mortality test - L	%	-	-	-	-	-	-	-	> 100	> 100
Daphnia 48 h Static Acute Test - EC50	%	-	-	-	-	-	-	-	> 100	> 100
LC50 (96h) - Rainbow Trout	%	-	-	-	-	-	-	-	> 100	> 100
Concentration of effluent causing bio	%	-	-	-	-	-	-	-	> 97.0	66.2
Concentration of effluent causing fro	%	-	-	-	-	-	-	-	26.3	29.4
Toxic Unit - Daphnia Magnia	%	-	-	-	-	-	-	-	< 1	-
Toxic Unit - Rainbow Trout	%	-	-	-	-	-	-	-	< 1	-

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-12 QAQC	Sample Date	MDL	6/24/2019			
	FIELD_SDG		B9H9570			
	Sample Name		Field Blank	Duplicate	Original	RPD
Parameter	Unit					
Conventional Parameters						
pH	pH units	-	6.15	7.45	7.36	1.22
Specific conductivity	umhos/cm	1	1.1	2000	2000	0.00
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	424	428	0.94
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	418	413	1.20
Total alkalinity, as CaCO3	mg/L	1	1	23	21	9.09
Total dissolved solids	mg/L	10	10	1580	1570	0.63
Total suspended solids	mg/L	1	1	47	26	**57.53**
Turbidity	NTU	0.1	0.1	15	7.5	66.67
Major Ions						
Calcium	mg/L	0.05	0.05	119	121	1.67
Chloride	mg/L	1	1	580	540	7.14
Cyanide	mg/L	0.005	0.005	0.0071	0.0072	1.40
Fluoride	mg/L	0.1	0.1	0.1	0.11	9.52
Magnesium	mg/L	0.05	0.05	30.7	30.4	0.98
Potassium	mg/L	0.05	0.05	14.7	14.7	0.00
Sodium	mg/L	0.05	0.05	205	204	0.49
Sulphate	mg/L	1	1	76	77	1.31
Nutrients						
Nitrate	mg/L	0.1	0.1	15.9	15.9	0.00
Nitrite	mg/L	0.01	0.01	0.302	0.293	3.03
Nitrate + nitrite	mg/L	0.1	0.1	16.2	16.2	0.00
Total ammonia	mg/L	0.05	0.05	5.4	5.2	3.77
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00
Total Metals						
Aluminum	mg/L	0.003	0.003	1.95	1.94	0.51
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00623	0.00613	1.62
Barium	mg/L	0.001	0.001	0.0691	0.0682	1.31
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.191	0.176	8.17
Cadmium	mg/L	0.00001	0.00001	0.000032	0.000021	**41.51**
Calcium	mg/L	0.05	0.05	119	118	0.84
Chromium	mg/L	0.001	0.001	0.001	0.0012	18.18
Cobalt	mg/L	0.0002	0.0002	0.00129	0.00126	2.35
Copper	mg/L	0.0005	0.0005	0.00346	0.00298	14.91
Iron	mg/L	0.01	0.01	1.43	1.44	0.70
Lead	mg/L	0.0002	0.0002	0.00093	0.0008	15.03
Lithium	mg/L	0.002	0.002	0.075	0.0734	2.16
Magnesium	mg/L	0.05	0.05	29.2	29.1	0.34
Manganese	mg/L	0.001	0.001	0.207	0.203	1.95
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.002	0.0019	5.13
Nickel	mg/L	0.001	0.001	0.0053	0.0053	0.00
Potassium	mg/L	0.05	0.05	14.4	14.2	1.40
Selenium	mg/L	0.0001	0.0001	0.00011	0.00011	0.00
Silicon	mg/L	0.1	0.1	0.703	0.677	3.77
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Sodium	mg/L	0.05	0.05	198	196	1.02
Strontium	mg/L	0.001	0.001	2.66	2.58	3.05
Sulphur	mg/L	3	3	25.9	25.9	0.00
Thallium	mg/L	0.00001	0.00001	0.000034	0.000038	11.11
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.00055	0.00054	1.83
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.441	0.429	2.76
Zirconium	mg/L	0.0001	0.0001	0.00013	0.0001	**26.09**

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-12 QAQC	Sample Date	MDL	6/24/2019			
	FIELD_SDG		B9H9570			
	Sample Name		Field Blank	Duplicate	Original	RPD
Parameter	Unit					
Dissolved Metals						
Aluminum	mg/L	0.003	0.003	0.19	0.181	4.85
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00351	0.00348	0.86
Barium	mg/L	0.001	0.001	0.0698	0.07	0.29
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.177	0.175	1.14
Cadmium	mg/L	0.00001	0.00001	0.000019	0.000019	0.00
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00
Cobalt	mg/L	0.0002	0.0002	0.00112	0.00114	1.77
Copper	mg/L	0.0002	0.0002	0.00435	0.00195	*76.19*
Iron	mg/L	0.005	0.005	0.0283	0.0275	2.87
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.0653	0.0647	0.92
Manganese	mg/L	0.001	0.001	0.0692	0.069	0.29
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.0019	0.0019	0.00
Nickel	mg/L	0.001	0.001	0.0046	0.0047	2.15
Selenium	mg/L	0.0001	0.0001	0.00011	0.00012	8.70
Silicon	mg/L	0.1	0.1	0.488	0.489	0.20
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Strontium	mg/L	0.001	0.001	2.6	2.59	0.39
Sulphur	mg/L	3	3	26.7	26.4	1.13
Thallium	mg/L	0.00001	0.00001	0.000033	0.000033	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.00011	0.00011	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-03-01	Sample Date	2018 Average	Annual Average	7/14/2019	8/9/2019	8/14/2019	9/14/2019
	FIELD_SDG			B9J9536	B9M7538	B9N0057	B9Q2056
Parameter	Unit						
Field Measured							
pH	pH units	-	***7.384***	7.49	7.43	7.11	7.46
Conductivity	uS/cm	-	***71.62***	67.8	72.9	71.4	73.1
Temperature	°C	-	***10.736***	8	12.14	13.6	7.8
Dissolved oxygen	mg/L	-	***10.08***	-	10.08	-	-
Dissolved oxygen	%	-	***99.92***	101.4	94.8	104.6	104
Conventional Parameters							
pH	pH units	***7.48***	***7.5475***	7.63	7.47	7.56	7.53
Specific conductivity	umhos/cm	***76***	***72.75***	71	73	73	74
Hardness, as CaCO3 (D)	mg/L	***21.9***	***21.225***	20.1	21.7	21.4	21.7
Hardness, as CaCO3 (T)	mg/L	***21.4***	***21.125***	21.3	21	20.7	21.5
Total alkalinity, as CaCO3	mg/L	***18***	***16.25***	16	16	17	16
Total dissolved solids	mg/L	***25***	***50***	50	55	50	45
Total suspended solids	mg/L	***1***	***1.25***	< 1	2	1	< 1
Total organic carbon	mg/L	***2.3***	***2.375***	2.4	2.3	2.3	2.5
Dissolved organic carbon	mg/L	***2.4***	***2.125***	2.2	2	2	2.3
Turbidity	NTU	***0.2***	***0.1***	0.1	< 0.1	0.1	< 0.1
Dissolved Oxygen	mg/L	***10.4***	***10.3225***	9.79	11	10.2	10.3
Major Ions							
Bicarbonate, as CaCO3	mg/L	***18***	***16.25***	16	16	17	16
Calcium	mg/L	***6.95***	***6.6925***	6.39	6.81	6.75	6.82
Carbonate, as CaCO3	mg/L	***1***	***1***	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	***8.4***	***8.5***	7.6	8.6	8.7	9.1
Cyanide Total	mg/L	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide Free	mg/L	-	***0.00155***	< 0.0010	< 0.0010	0.0032	< 0.0010
Cyanide WAD	mg/L	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Magnesium	mg/L	***1.11***	***1.0975***	1	1.14	1.12	1.13
Potassium	mg/L	***0.874***	***0.8505***	0.804	0.856	0.853	0.889
Sodium	mg/L	***4.36***	***4.295***	4	4.4	4.31	4.47
Sulphate	mg/L	***3.2***	***3.05***	3.2	2.8	2.8	3.4
Silica	mg/L	***0.23***	***0.1825***	0.16	0.22	0.17	0.18
Nutrients							
Nitrate	mg/L	***0.1***	***0.1***	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	***0.01***	***0.01***	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	***0.1***	***0.1***	< 0.10	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	***0.05***	***0.07***	< 0.050	0.13	< 0.050	< 0.050
Total Kjeldahl nitrogen	mg/L	***0.12***	***0.1675***	0.14	0.19	0.18	0.16
Total phosphorus	mg/L	***0.02***	***0.02***	< 0.020	< 0.020	< 0.020	< 0.020
Orthophosphate	mg/L	***0.01***	***0.01***	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals							
Aluminum	mg/L	***0.007***	***0.006925***	0.0049	0.0125	0.0037	0.0066
Antimony	mg/L	***0.0005***	***0.0005***	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	***0.0002***	***0.0001925***	0.0002	0.00018	0.00019	0.0002
Barium	mg/L	***0.0072***	***0.00755***	0.0074	0.0075	0.0078	0.0075
Beryllium	mg/L	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	***0.05***	***0.05***	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	***0.00001***	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium	mg/L	***6.79***	***6.66***	6.77	6.63	6.52	6.72
Chromium	mg/L	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	***0.00067***	***0.00066***	0.00062	0.00062	0.0006	0.0008
Iron	mg/L	***0.014***	***0.01325***	0.014	0.014	0.011	0.014
Lead	mg/L	***0.0002***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	***0.002***	***0.002***	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium	mg/L	***1.08***	***1.0825***	1.06	1.07	1.06	1.14
Manganese	mg/L	***0.0022***	***0.002425***	0.0026	0.0025	0.0024	0.0022
Mercury	mg/L	***0.00001***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Potassium	mg/L	***0.885***	***0.8615***	0.858	0.88	0.826	0.882
Selenium	mg/L	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	***0.10775***	0.106	0.11	0.106	0.109
Silver	mg/L	***0.00002***	***0.00002***	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	***4.25***	***4.195***	4.21	4.04	4.04	4.49
Strontium	mg/L	***0.0333***	***0.031225***	0.032	0.0309	0.0304	0.0316
Sulphur	mg/L	-	***3***	< 3	< 3	< 3	< 3
Thallium	mg/L	***0.00001***	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-03-01	Sample Date	2018 Average	Annual Average	7/14/2019	8/9/2019	8/14/2019	9/14/2019
	FIELD_SDG			B9J9536	B9M7538	B9N0057	B9Q2056
Parameter	Unit						
Total Metals							
Tin	mg/L	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Dissolved Metals							
Aluminum	mg/L	***0.0043***	***0.00325***	< 0.0030	0.0035	< 0.0030	0.0035
Antimony	mg/L	***0.0005***	***0.0005***	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	***0.00019***	***0.0002***	0.0002	0.00021	0.00018	0.00021
Barium	mg/L	***0.0072***	***0.007275***	0.0072	0.0073	0.0073	0.0073
Beryllium	mg/L	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	***0.05***	***0.05***	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	***0.00001***	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Chromium	mg/L	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	***0.0006***	***0.000605***	0.00062	0.00058	0.00056	0.00066
Iron	mg/L	***0.005***	***0.005225***	0.0059	< 0.0050	< 0.0050	< 0.0050
Lead	mg/L	***0.0002***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	***0.002***	***0.002***	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L	***0.001***	***0.001125***	0.0015	< 0.0010	< 0.0010	< 0.0010
Mercury	mg/L	***0.00001***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Selenium	mg/L	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	***0.10075***	< 0.1	0.101	0.102	< 0.1
Silver	mg/L	***0.00002***	***0.00002***	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	***0.0335***	***0.03085***	0.0295	0.0313	0.0306	0.032
Sulphur	mg/L	-	***3***	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	***0.00001***	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Volatile Organics							
Benzene	mg/L	***0.0002***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	mg/L	***0.0002***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	mg/L	***0.0002***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Xylenes	mg/L	***0.0004***	***0.0004***	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes	mg/L	***0.0004***	***0.0004***	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene	mg/L	***0.0002***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX	mg/L	***0.025***	***0.025***	< 0.025	< 0.025	< 0.025	< 0.025
F1 (C6-C10)	mg/L	***0.025***	***0.025***	< 0.025	< 0.025	< 0.025	< 0.025
F2 (C10-C16)	mg/L	***0.1***	***0.1***	< 0.1	< 0.1	< 0.1	< 0.1
F3 (C16-C34)	mg/L	***0.2***	***0.2***	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)	mg/L	***0.2***	***0.2***	< 0.2	< 0.2	< 0.2	< 0.2
Reached baseline at C50	mg/L	-	-	YES	YES	YES	YES
1,2-Dichloroethane-d4	mg/L	-	***99.5***	102	95	105	96
Ethylbenzene-d10	mg/L	-	***99***	106	94	97	99
4-Bromofluorobenzene	mg/L	-	***97.75***	96	97	97	101
1,4-Difluorobenzene	mg/L	-	***104.5***	103	100	112	103
o-Terphenyl	mg/L	-	***100.25***	92	106	108	95
Radionuclides							
Radium-226	Bq/l	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Note:

Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-03-01 QAQC	Sample Date	MDL	8/9/2019				8/14/2019		
	FIELD_SDG		B9M7538				B9N0057		
	Sample Name		Field Blank	Duplicate	Original	RPD (%)	Duplicate	Original	RPD (%)
Parameter	**Unit**								
Conventional Parameters									
pH	pH units	-	6	7.27	7.47	0.68	7.45	7.56	0.37
Specific conductivity	umhos/cm	1	1	75	73	0.68	73	73	0.00
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	21.1	21.7	0.70	21.8	21.4	0.46
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	20.8	21	0.24	21.3	20.7	0.71
Total alkalinity, as CaCO3	mg/L	1	1	16	16	0.00	16	17	1.52
Total dissolved solids	mg/L	10	10	40	55	7.89	35	50	8.82
Total suspended solids	mg/L	1	1	1	2	16.67	1	1	0.00
Total organic carbon	mg/L	0.5	0.5	2.3	2.3	0.00	2.3	2.3	0.00
Dissolved organic carbon	mg/L	0.5	0.5	2	2	0.00	2	2	0.00
Turbidity	NTU	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.00
Dissolved Oxygen	mg/L	-	11.2	10.9	11	0.23	10.3	10.2	0.24
Major Ions									
Bicarbonate, as CaCO3	mg/L	1	1	16	16	0.00	16	17	1.52
Calcium	mg/L	0.05	0.05	6.65	6.81	0.59	6.87	6.75	0.44
Carbonate, as CaCO3	mg/L	1	1	1	1	0.00	1	1	0.00
Chloride	mg/L	1	1	8.6	8.6	0.00	8.6	8.7	0.29
Cyanide Total	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00
Cyanide Free	mg/L	0.001	0.001	0.001	0.001	0.00	0.0011	0.0032	**24.42**
Cyanide WAD	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00
Magnesium	mg/L	0.05	0.05	1.1	1.14	0.89	1.13	1.12	0.22
Potassium	mg/L	0.05	0.05	0.816	0.856	1.20	0.886	0.853	0.95
Sodium	mg/L	0.05	0.05	4.18	4.4	1.28	4.44	4.31	0.74
Sulphate	mg/L	1	1	2.9	2.8	0.88	2.9	2.8	0.88
Silica	mg/L	0.05	0.05	1.4	0.22	*36.42*	0.19	0.17	2.78
Nutrients									
Nitrate	mg/L	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.00
Nitrite	mg/L	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.00
Total ammonia	mg/L	0.05	0.21	0.05	0.13	**22.22**	0.05	0.05	0.00
Total Kjeldahl nitrogen	mg/L	0.1	0.1	0.17	0.19	2.78	0.17	0.18	1.43
Total phosphorus	mg/L	0.02	0.02	0.02	0.02	0.00	0.02	0.02	0.00
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00
Total Metals									
Aluminum	mg/L	0.003	0.0036	0.0059	0.0125	17.93	0.0037	0.0037	0.00
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00019	0.00018	1.35	0.00019	0.00019	0.00
Barium	mg/L	0.001	0.001	0.0074	0.0075	0.34	0.0073	0.0078	1.66
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Calcium	mg/L	0.05	0.05	6.56	6.63	0.27	6.7	6.52	0.68
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00
Cobalt	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Copper	mg/L	0.0005	0.0005	0.00056	0.00062	2.54	0.00061	0.0006	0.41
Iron	mg/L	0.01	0.01	0.013	0.014	1.85	0.011	0.011	0.00
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00	0.002	0.002	0.00
Magnesium	mg/L	0.05	0.05	1.06	1.07	0.23	1.1	1.06	0.93
Manganese	mg/L	0.001	0.001	0.0024	0.0025	1.02	0.0025	0.0024	1.02
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00
Nickel	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00
Potassium	mg/L	0.05	0.05	0.853	0.88	0.78	0.862	0.826	1.07
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.111	0.11	0.23	0.108	0.106	0.47
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00	0.00002	0.00002	0.00
Sodium	mg/L	0.05	0.05	3.99	4.04	0.31	4.21	4.04	1.03
Strontium	mg/L	0.001	0.001	0.0307	0.0309	0.16	0.031	0.0304	0.49
Sulphur	mg/L	3	3	3	3	0.00	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-03-01 QAQC	Sample Date	MDL	8/9/2019				8/14/2019		
	FIELD_SDG		B9M7538				B9N0057		
	Sample Name		Field Blank	Duplicate	Original	RPD (%)	Duplicate	Original	RPD (%)
Parameter	**Unit**								
Dissolved Metals									
Aluminum	mg/L	0.003	0.003	0.003	0.0035	3.85	0.003	0.003	0.00
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00021	0.00021	0.00	0.00019	0.00018	1.35
Barium	mg/L	0.001	0.001	0.007	0.0073	1.05	0.0075	0.0073	0.68
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00
Cobalt	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Copper	mg/L	0.0002	0.0002	0.00058	0.00058	0.00	0.00055	0.00056	0.45
Iron	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00	0.002	0.002	0.00
Manganese	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00
Nickel	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.1	0.101	0.25	0.105	0.102	0.72
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00	0.00002	0.00002	0.00
Strontium	mg/L	0.001	0.001	0.0304	0.0313	0.73	0.0312	0.0306	0.49
Sulphur	mg/L	3	3	3	3	0.00	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.00
Volatile Organics									
Benzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Ethylbenzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Toluene	mg/L	0.0002	0.00059	0.0002	0.0002	0.00	0.0002	0.0002	0.00
Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00	0.0004	0.0004	0.00
m,p-Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00	0.0004	0.0004	0.00
o-Xylene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.00
F1 (C6-C10)-BTEX	mg/L	0.025	0.025	0.025	0.025	0.00	0.025	0.025	0.00
F1 (C6-C10)	mg/L	0.025	0.025	0.025	0.025	0.00	0.025	0.025	0.00
F2 (C10-C16)	mg/L	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.00
F3 (C16-C34)	mg/L	0.2	0.2	0.2	0.2	0.00	0.2	0.2	0.00
F4 (C34-C50)	mg/L	0.2	0.2	0.2	0.2	0.00	0.2	0.2	0.00
Reached baseline at C50	mg/L	YES	YES	YES	YES	-	YES	YES	-
1,2-Dichloroethane-d4	mg/L	-	97	97	95	0.52	109	105	0.93
Ethylbenzene-d10	mg/L	-	98	95	94	0.26	91	97	1.60
4-Bromofluorobenzene	mg/L	-	98	97	97	0.00	99	97	0.51
1,4-Difluorobenzene	mg/L	-	100	100	100	0.00	115	112	0.66
o-Terphenyl	mg/L	-	112	107	106	0.23	103	108	1.18
Radionuclides									
Radium-226	Bq/l	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-13	Sample Date	2018 Average	Annual Average	7/14/2019	8/10/2019	8/18/2019	9/18/2019
	FIELD_SDG			B9J9465	B9M5881	B9N2989	B9Q6869
Parameter	Unit						
Field Measured							
pH	pH units	-	***7.59***	7.36	7.5	7.62	7.89
Conductivity	uS/cm	-	***82.20***	76.9	83.4	81.8	86.7
Temperature	°C	-	***10.08***	7.46	12.54	12.7	7.6
Dissolved oxygen	mg/L	-	***11.01***	-	11.01	-	-
Dissolved oxygen	%	-	***102.68***	100.1	104.9	106.1	99.6
Conventional Parameters							
pH	pH units	***7.34***	***7.47***	7.45	7.26	7.59	7.56
Specific conductivity	umhos/cm	***87.50***	***84.75***	79	84	86	90
Hardness, as CaCO3 (D)	mg/L	***24.05***	***22.85***	21.7	23	23	23.7
Hardness, as CaCO3 (T)	mg/L	***140.00***	***23.40***	22.4	22.4	23.1	25.7
Total alkalinity, as CaCO3	mg/L	***16.00***	***15.50***	14	16	16	16
Total dissolved solids	mg/L	***147.50***	***58.75***	65	45	70	55
Total suspended solids	mg/L	***1.00***	***1.00***	< 1	1	1	1
Total organic carbon	mg/L	***3.00***	***3.10***	3	3	3.2	3.2
Dissolved organic carbon	mg/L	***2.90***	***2.80***	2.7	3	2.6	2.9
Turbidity	NTU	***0.28***	***0.20***	0.3	< 0.1	0.2	0.2
Dissolved Oxygen	mg/L	***10.45***	***10.35***	9.73	11.6	10.3	9.77
Major Ions							
Bicarbonate, as CaCO3	mg/L	***16.00***	***15.50***	14	16	16	16
Calcium	mg/L	***7.48***	***7.07***	6.72	7.12	7.12	7.3
Carbonate, as CaCO3	mg/L	***1.00***	***1.00***	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	***13.00***	***12.00***	11	12	12	13
Cyanide Total	mg/L	***0.01***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide Free	mg/L	-	***0.0015***	< 0.0010	0.0011	0.0021	0.0016
Cyanide WAD	mg/L	***0.00***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Magnesium	mg/L	***1.31***	***1.27***	1.2	1.28	1.27	1.34
Potassium	mg/L	***0.94***	***0.93***	0.876	0.935	0.93	0.969
Sodium	mg/L	***5.41***	***5.09***	4.73	5.07	5.03	5.53
Sulphate	mg/L	***4.33***	***3.63***	3.8	3.6	3.3	3.8
Silica	mg/L	***0.32***	***0.45***	0.42	0.8	0.31	0.26
Nutrients							
Nitrate	mg/L	***0.10***	***0.10***	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	***0.01***	***0.010***	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	***0.10***	***0.10***	< 0.10	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	***0.09***	***0.11***	< 0.050	0.13	0.22	0.055
Total Kjeldahl nitrogen	mg/L	***0.16***	***0.22***	0.15	0.37	0.18	0.16
Total phosphorus	mg/L	***0.02***	***0.021***	< 0.020	< 0.020	< 0.020	0.025
Orthophosphate	mg/L	***0.01***	***0.010***	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals							
Aluminum	mg/L	***1.6675***	***0.0070***	0.0057	0.0051	0.0055	0.0115
Antimony	mg/L	***0.0005***	***0.00050***	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	***0.0010***	***0.00036***	0.00029	0.00033	0.00039	0.00043
Barium	mg/L	***0.0375***	***0.0076***	0.0079	0.0071	0.0074	0.0078
Beryllium	mg/L	***0.0001***	***0.00010***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	-	***0.0010***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	***0.0765***	***0.050***	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	***0.0000***	***0.000010***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium	mg/L	***43.8300***	***7.23***	6.99	6.86	7.15	7.9
Chromium	mg/L	***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
Copper	mg/L	***0.0013***	***0.00072***	0.00065	0.00066	0.00072	0.00084
Iron	mg/L	***0.1193***	***0.028***	0.036	0.023	0.023	0.031
Lead	mg/L	***0.0002***	***0.00020***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	***0.0378***	***0.0020***	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium	mg/L	***7.4975***	***1.30***	1.21	1.27	1.28	1.44
Manganese	mg/L	***0.0712***	***0.0077***	0.0179	0.0045	0.005	0.0035
Mercury	mg/L	***0.00001***	***0.000010***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.0011***	***0.0010***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	***0.0016***	***0.0010***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Potassium	mg/L	***4.2058***	***0.96***	0.893	0.901	0.984	1.05
Selenium	mg/L	***0.0001***	***0.00010***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	***0.19***	0.24	0.184	0.2	0.153
Silver	mg/L	***0.00002***	***0.000020***	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	***35.8875***	***5.24***	4.9	5.01	5.17	5.88
Strontium	mg/L	***0.9866***	***0.04***	0.0391	0.0376	0.0394	0.0459
Sulphur	mg/L	-	***3.00***	< 3	< 3	< 3	< 3
Thallium	mg/L	***0.00002***	***0.000010***	< 0.000010	< 0.000010	< 0.000010	< 0.000010

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-13	Sample Date	2018 Average	Annual Average	7/14/2019	8/10/2019	8/18/2019	9/18/2019
	FIELD_SDG			B9J9465	B9M5881	B9N2989	B9Q6869
Parameter	Unit						
Total Metals							
Tin	mg/L	***0.0050***	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	***0.0050***	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	***0.0003***	***0.00010***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	***0.0050***	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	***0.0064***	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	-	***0.00010***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Dissolved Metals							
Aluminum	mg/L	***0.00785***	***0.0030***	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Antimony	mg/L	***0.00050***	***0.00050***	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	***0.0003625***	***0.00034***	0.00027	0.00034	0.00037	0.00039
Barium	mg/L	***0.007625***	***0.0073***	0.0074	0.0073	0.0072	0.0072
Beryllium	mg/L	***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
Boron	mg/L	***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
Chromium	mg/L	***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
Copper	mg/L	***0.000715***	***0.00087***	0.00068	0.0014	0.00066	0.00072
Iron	mg/L	***0.008325***	***0.0080***	0.0118	0.0065	0.0085	0.0051
Lead	mg/L	***0.00020***	***0.00020***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	***0.0020***	***0.0020***	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L	***0.00105***	***0.005***	0.0121	< 0.0010	0.0013	< 0.0010
Mercury	mg/L	***0.000010***	***0.000010***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.0010***	***0.0039***	0.0097	< 0.0010	0.002	0.0027
Nickel	mg/L	***0.0010***	***0.0010***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Selenium	mg/L	***0.00010***	***0.00010***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	***0.18***	0.222	0.187	0.183	0.133
Silver	mg/L	***0.000020***	***0.000020***	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	***0.0491***	***0.040***	0.0371	0.0402	0.0397	0.0448
Sulphur	mg/L	-	***3.00***	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	***0.000010***	***0.000010***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	***0.0050***	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	***0.0050***	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	***0.0001***	***0.00010***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	***0.0050***	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	***0.0050***	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	-	***0.00010***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Volatile Organics							
Benzene	mg/L	***0.00020***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	mg/L	***0.00020***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	mg/L	***0.00020***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Xylenes	mg/L	***0.00040***	***0.0004***	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes	mg/L	***0.00040***	***0.0004***	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene	mg/L	***0.00020***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX	mg/L	***0.025***	***0.025***	< 0.025	< 0.025	< 0.025	< 0.025
F1 (C6-C10)	mg/L	***0.025***	***0.025***	< 0.025	< 0.025	< 0.025	< 0.025
F2 (C10-C16)	mg/L	***0.10***	***0.10***	< 0.1	< 0.1	< 0.1	< 0.1
F3 (C16-C34)	mg/L	***0.20***	***0.20***	< 0.2	< 0.2	< 0.2	< 0.2
F4 (C34-C50)	mg/L	***0.20***	***0.20***	< 0.2	< 0.2	< 0.2	< 0.2
Reached baseline at C50	mg/L	-	-	YES	YES	YES	YES
1,2-Dichloroethane-d4	mg/L	-	***95.25***	93	97	83	108
Ethylbenzene-d10	mg/L	-	***97.50***	98	95	83	114
4-Bromofluorobenzene	mg/L	-	***97.25***	96	98	94	101
1,4-Difluorobenzene	mg/L	-	***101.00***	102	100	100	102
o-Terphenyl	mg/L	-	***97.00***	103	99	92	94
Radionuclides							
Radium-226	Bq/l	***0.0050***	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-13 QAQC	Sample Date	MDL	8/10/2019				8/18/2019			
	FIELD_SDG		B9M5881				B9N2989			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)	Field Blank	Duplicate	Original	RPD (%)
Parameter	**Unit**									
Conventional Parameters										
pH	pH units	-	5.72	7.14	7.26	1.67	5.93	7.5	7.59	1.19
Specific conductivity	umhos/cm	1	1	83	84	1.20	1	83	86	3.55
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	23.2	23	0.87	0.5	23	23	0.00
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	22.7	22.4	1.33	0.5	23.2	23.1	0.43
Total alkalinity, as CaCO3	mg/L	1	1	15	16	6.45	1	15	16	6.45
Total dissolved solids	mg/L	10	10	45	45	0.00	10	80	70	13.33
Total suspended solids	mg/L	1	1	2	1	**66.67**	1	2	1	**66.67**
Total organic carbon	mg/L	0.5	0.5	3	3	0.00	0.5	3.1	3.2	3.17
Dissolved organic carbon	mg/L	0.5	0.5	3	3	0.00	0.5	2.7	2.6	3.77
Turbidity	NTU	0.1	0.1	0.2	0.1	**66.67**	0.1	0.1	0.2	**66.67**
Dissolved Oxygen	mg/L	11.2	11.2	11.2	11.6	3.51	10.6	10.4	10.3	0.97
Major Ions										
Bicarbonate, as CaCO3	mg/L	1	1	15	16	6.45	1	15	16	6.45
Calcium	mg/L	0.05	0.05	7.17	7.12	0.70	0.05	7.1	7.12	0.28
Carbonate, as CaCO3	mg/L	1	1	1	1	0.00	1	1	1	0.00
Chloride	mg/L	1	1	12	12	0.00	1	11	12	8.70
Cyanide Total	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Cyanide Free	mg/L	0.001	0.0011	0.0016	0.0011	**37.04**	0.0021	0.0011	0.0021	**62.50**
Cyanide WAD	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.0015	0.001	**40.00**
Magnesium	mg/L	0.05	0.05	1.28	1.28	0.00	0.05	1.27	1.27	0.00
Potassium	mg/L	0.05	0.05	0.946	0.935	1.17	0.05	0.932	0.93	0.21
Sodium	mg/L	0.05	0.05	5.06	5.07	0.20	0.05	5.06	5.03	0.59
Sulphate	mg/L	1	1	3.4	3.6	5.71	1	3.6	3.3	8.70
Silica	mg/L	0.05	0.05	0.36	0.8	*75.86*	0.05	0.3	0.31	3.28
Nutrients										
Nitrate	mg/L	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.1	0.00
Nitrite	mg/L	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.1	0.00
Total ammonia	mg/L	0.05	0.05	0.066	0.13	**65.31**	0.05	0.12	0.22	**58.82**
Total Kjeldahl nitrogen	mg/L	0.1	0.1	0.15	0.37	**84.62**	0.1	0.11	0.18	**48.28**
Total phosphorus	mg/L	0.02	0.02	0.02	0.02	0.00	0.02	0.02	0.02	0.00
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00
Total Metals										
Aluminum	mg/L	0.003	0.003	0.0057	0.0051	11.11	0.003	0.0057	0.0055	3.57
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00037	0.00033	11.43	0.0001	0.00038	0.00039	2.60
Barium	mg/L	0.001	0.001	0.0073	0.0071	2.78	0.001	0.0074	0.0074	0.00
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00
Calcium	mg/L	0.05	0.05	7	6.86	2.02	0.05	7.19	7.15	0.56
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Cobalt	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
Copper	mg/L	0.0005	0.0005	0.00073	0.00066	10.07	0.0005	0.0007	0.00072	2.82
Iron	mg/L	0.01	0.01	0.022	0.023	4.44	0.01	0.022	0.023	4.44
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00	0.002	0.002	0.002	0.00
Magnesium	mg/L	0.05	0.05	1.28	1.27	0.78	0.05	1.27	1.28	0.78
Manganese	mg/L	0.001	0.001	0.0051	0.0045	12.50	0.001	0.0049	0.005	2.02
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Nickel	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Potassium	mg/L	0.05	0.05	0.929	0.901	3.06	0.05	0.97	0.984	1.43
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.195	0.184	5.80	0.1	0.201	0.2	0.50
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00	0.00002	0.00002	0.00002	0.00
Sodium	mg/L	0.05	0.05	5.15	5.01	2.76	0.05	5.09	5.17	1.56
Strontium	mg/L	0.001	0.001	0.039	0.0376	3.66	0.001	0.0394	0.0394	0.00
Sulphur	mg/L	3	3	3	3	0.00	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00

Notes:

RPD : Relative Percent Difference

MDL : Mean Detection Limit

25 : RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.

25 : RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.

25 : RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-13 QAQC	Sample Date	MDL	8/10/2019				8/18/2019			
	FIELD_SDG		B9M5881				B9N2989			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)	Field Blank	Duplicate	Original	RPD (%)
Parameter	**Unit**									
Dissolved Metals										
Aluminum	mg/L	0.003	0.003	0.003	0.003	0.00	0.003	0.003	0.003	0.00
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00035	0.00034	2.90	0.0001	0.00036	0.00037	2.74
Barium	mg/L	0.001	0.001	0.0073	0.0073	0.00	0.001	0.0072	0.0072	0.00
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Cobalt	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
Copper	mg/L	0.0002	0.0002	0.00063	0.0014	**75.86**	0.0002	0.00066	0.00066	0.00
Iron	mg/L	0.005	0.005	0.0063	0.0065	3.12	0.005	0.0075	0.0085	12.50
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00	0.002	0.002	0.002	0.00
Manganese	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.0013	0.0013	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Nickel	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.186	0.187	0.54	0.1	0.189	0.183	3.23
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00	0.00002	0.00002	0.00002	0.00
Strontium	mg/L	0.001	0.001	0.041	0.0402	1.97	0.001	0.0399	0.0397	0.50
Sulphur	mg/L	3	3	3	3	0.00	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Volatile Organics										
Benzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
Ethylbenzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
Toluene	mg/L	0.0002	0.00037	0.0002	0.0002	0.00	0.00059	0.0002	0.0002	0.00
Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00	0.0004	0.0004	0.0004	0.00
m,p-Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00	0.0004	0.0004	0.0004	0.00
o-Xylene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
F1 (C6-C10)-BTEX	mg/L	0.025	0.025	0.025	0.025	0.00	0.025	0.025	0.025	0.00
F1 (C6-C10)	mg/L	0.025	0.025	0.025	0.025	0.00	0.025	0.025	0.025	0.00
F2 (C10-C16)	mg/L	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.1	0.00
F3 (C16-C34)	mg/L	0.2	0.2	0.2	0.2	0.00	0.2	0.2	0.2	0.00
F4 (C34-C50)	mg/L	0.2	0.2	0.2	0.2	0.00	0.2	0.2	0.2	0.00
Reached baseline at C50	mg/L	YES	YES	YES	YES	-	YES	YES	YES	-
1,2-Dichloroethane-d4	%	-	98	98	97	1.03	82	84	83	1.20
Ethylbenzene-d10	%	-	94	95	95	0.00	84	83	83	0.00
4-Bromofluorobenzene	%	-	99	98	98	0.00	95	93	94	1.07
1,4-Difluorobenzene	%	-	100	101	100	1.00	100	101	100	1.00
o-Terphenyl	%	-	100	100	99	1.01	97	94	92	2.15
Radionuclides										
Radium-226	Bq/l	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-14	MDMER MAX GRAB	MDMER MAX MONTHLY MEAN	MEL-14 MAX GRAB	MEL-14 MAX MEAN	Sample Date	*2018 Average*	*Annual Average*	6/24/2019	7/9/2019	7/15/2019	7/25/2019	7/30/2019	8/6/2019	8/7/2019	8/13/2019	8/20/2019	8/22/2019	8/29/2019	9/3/2019	9/7/2019	9/12/2019	9/13/2019	9/17/2019	9/24/2019	10/1/2019
					FIELD_SDG			B9H6488	B9J1427	B9J7572	B9K9242	B9L2327	B9M0110	B9M1829	B9M5838	B9N3261	B9N6683	B9O3972	B9O6583	B9P4256	B9P8919	B9Q2018	B9Q3637	B9R1304	B9R7358
Parameter					**Unit**																				
Field Measured																									
pH	6.0 - 9.5	6.0 - 9.5			pH units	-	***7.22***	7.25	6.91	7.4	7.21	7.02	7.14	7.71	7.24	7.36	7.45	7.15	7.13	7.3	7	7.18	7.06	7.08	7.31
Conductivity					uS/cm	-	***1929.44***	1780	1768	1864	1809	1652	1534	1716	1728	1862	1882	1944	2171	2243	2240	2225	1994	2147	2171
Temperature					°C	-	***13.12***	12.47	13.8	13.2	16	22	14.8	16.7	13.6	11.5	14.8	13.1	7.13	10.3	18.3	12	10.8	12.1	3.5
Dissolved oxygen					mg/L	-	***9.17***	11.41	9.61	-	-	-	7.04	7.38	-	-	-	-	-	10.16	7.67	8.12	-	-	12
Dissolved oxygen					%	-	***82.40***	110.2	93.4	66.2	94.5	36.8	72.6	76.8	85	79.3	85	74.8	67.5	92.6	76.9	77.4	102	101.2	91
Conventional Parameters																									
pH	6.0 - 9.5	6.0 - 9.5	6.0 - 9.5	6.0 - 9.5	pH units	***7.22***	***7.46***	7.23	7.23	7.38	7.41	7.47	7.26	-	7.36	7.8	-	7.71	7.53	-	7.59	-	7.5	7.67	7.36
Specific conductivity					umhos/cm	***1854.55***	***1905.56***	1700	1900	1800	1700	1600	1500	1700	1700	1800	1900	1900	2100	2200	2300	2200	2100	2100	2100
Hardness, as CaCO3 (D)					mg/L	***428.12***	***354.86***	326	380	292	300	266	234	-	271	388	-	391	450	-	453	-	392	440	385
Hardness, as CaCO3 (T)					mg/L	***421.11***	***362.00***	342	361	297	289	260	232	-	293	388	-	441	460	-	422	-	399	462	422
Total alkalinity, as CaCO3					mg/L	***33.03***	***29.86***	12	13	16	25	22	18	-	22	51	-	46	47	-	51	-	25	46	24
Total dissolved solids			**1400**	**1400**	mg/L	***1130.00***	***1171.39***	915	1190	1190	935	1090	1070	965	1130	1310	1160	1170	1300	1360	1400	**1430**	1290	1320	860
Total suspended solids	30	15	30	15	mg/L	***9.23***	***3.39***	3	4	< 1	2	8	2	-	2	7	-	4	5	-	3	-	2	3	2
Total organic carbon					mg/L	***7.99***	***6.96***	4.8	5.2	5.1	4.4	3.1	3.3	-	3.7	13	-	12	12	-	12	-	4.3	11	3.6
Dissolved organic carbon					mg/L	***6.61***	***6.24***	4.4	4.4	4.7	4	2.8	2.8	-	3.7	11	-	10	10	-	11	-	4	11	3.6
Biochemical Oxygen Demand, 5 Day					mg/L	-	***1.07***	< 2	< 2	< 2	< 2	< 2	< 2	-	< 2	2	-	< 2	< 2	-	< 2	-	< 2	< 2	< 2
Turbidity					NTU	***0.81***	***1.94***	0.6	1.7	1	0.4	17	0.3	-	0.2	1.5	-	1.4	1	-	0.4	-	0.9	0.5	0.2
Dissolved Oxygen					mg/L	***10.35***	***9.91***	9.88	10	9.46	8.45	10.4	10.3	-	10.2	10	-	9.6	10.4	-	9.49	-	10	10	10.5
Temperature					C	-	***10.55***	11.5	11	13	18.5	-	5.5	-	11	9	-	-	7	-	7	-	12	-	-
Major Ions																									
Bicarbonate, as CaCO3					mg/L	***32.93***	***29.79***	12	13	16	25	22	18	-	22	50	-	46	47	-	51	-	25	46	24
Calcium					mg/L	***132.22***	***99.53***	92.8	109	82.7	82.9	73.4	66.2	-	75.4	108	-	109	125	-	128	-	108	125	108
Carbonate, as CaCO3					mg/L	***0.50***	***0.50***	< 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	***481.82***	***473.57***	450	500	470	440	410	370	-	410	460	-	470	530	-	550	-	530	510	530
Cyanide Total	2	1	1	0.5	mg/L	***0.00***	***1121.24***	0.013	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	-	< 0.0050	-	< 0.0050	< 0.0050	0.0054
Cyanide Free					mg/L	-	***0.0012***	0.0019	0.0014	< 0.0010	0.0014	0.0014	0.0011	-	0.0011	0.0018	-	0.0014	0.0021	-	< 0.0010	-	< 0.0010	0.0016	< 0.0010
Cyanide WAD					mg/L	***0.00***	***0.0007***	0.0014	0.0014	< 0.0010	< 0.0010	0.001	< 0.0010	-	< 0.0010	< 0.0010	-	< 0.0010	0.001	-	0.001	-	< 0.0010	< 0.0010	< 0.0010
Magnesium					mg/L	***23.72***	***25.88***	23	26.3	20.9	22.6	20.1	16.7	-	20	28.8	-	28.8	33.5	-	32.7	-	29.8	31.1	28
Potassium					mg/L	***13.90***	***13.18***	12.2	14.3	12.7	12.5	12.5	11.7	-	11	12.9	-	12.9	14.3	-	14.7	-	14.7	14	14.1
Sodium					mg/L	***146.60***	***189.07***	169	192	184	184	179	162	-	162	181	-	177	201	-	205	-	236	201	214
Sulphate					mg/L	***46.11***	***63.29***	52	56	53	55	44	39	-	50	63	-	69	82	-	90	-	75	84	74
Silica					mg/L	***0.53***	***0.87***	0.86	0.99	0.92	0.82	0.42	0.43	-	0.53	0.7	-	0.75	1.2	-	1.2	-	0.81	1.9	0.68
Nutrients																									
Nitrate					mg/L	***5.467***	***12.67***	11.8	13.2	13.8	13.7	11.1	13.6	-	12.9	11.1	-	11.5	12.3	-	13.5	-	13.7	11.6	13.6
Nitrite					mg/L	***0.208***	***0.495***	0.21	0.373	0.347	0.402	0.366	0.573	-	0.753	0.738	-	0.726	0.595	-	0.585	-	0.464	0.434	0.366
Nitrate + nitrite					mg/L	***5.675***	***13.16***	12	13.6	14.1	14.1	11.4	14.2	-	13.7	11.8	-	12.3	12.9	-	14.1	-	14.1	12	14
Total ammonia			14	14	mg/L	***1.569***	***3.84***	4.2	3.7	4.5	4.9	5.6	3.8	-	3.2	2.8	-	2.6	3.4	-	3.5	-	3.6	3.9	4
Total Kjeldahl nitrogen					mg/L	***2.035***	***4.13***	4.2	4.3	5.5	5.1	5.2	4.1	-	3.3	3.6	-	2.9	4.2	-	4.2	-	3.3	3.6	4.3
Total phosphorus			4	2	mg/L	***0.038***	***0.016***	0.021	0.027	0.025	< 0.020	< 0.020	< 0.020	-	< 0.020	0.025	-	0.023	< 0.020	-	< 0.020	-	< 0.020	0.024	< 0.020
Orthophosphate					mg/L	***0.011***	***0.0060***	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	-	< 0.010	< 0.010	-	< 0.010	< 0.010	-	0.019	-	< 0.010	< 0.010	< 0.010
Total Metals																									
Aluminum			3	2	mg/L	***1.20130***	***0.2385***	0.174	0.452	0.18	0.0915	0.0734	0.0674	-	0.0992	0.529	-	0.515	0.543	-	0.254	-	0.0774	0.166	0.117
Antimony					mg/L	***0.00025***	***0.00024***	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	-	< 0.00050	< 0.00050	-	< 0.00050	< 0.0025	-	< 0.00050	-	< 0.00050	< 0.00050	< 0.00050
Arsenic	1	0.5	0.6	0.3	mg/L	***0.00171***	***0.0017***	0.00248	0.00243	0.00179	0.00148	0.00113	0.0009	-	0.00116	0.00206	-	0.00199	0.002	-	0.00207	-	0.00119	0.00193	0.00104
Barium					mg/L	***0.10743***	***0.0562***	0.0516	0.0519	0.0434	0.0463	0.0379	0.0378	-	0.0519	0.068	-	0.0724	0.0726	-	0.0727	-	0.053	0.0724	0.0554
Beryllium					mg/L	***0.000050***	***0.000064***	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	-	< 0.00010	< 0.00010	-	< 0.00010	< 0.00050	-	< 0.00010	-	< 0.00010	< 0.00010	< 0.00010
Bismuth					mg/L	***0.00050***	***0.000643***	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	-	< 0.0010	< 0.0010	-	< 0.0010	< 0.0050	-	< 0.0010	-	< 0.0010	< 0.0010	< 0.0010
Boron					mg/L	***0.22310***	***0.2922***	0.229	0.283	0.349	0.324	0.363	0.392	-	0.323	0.175	-	0.181	< 0.25	-	0.184	-	0.327	0.315	0.353
Cadmium					mg/L	***0.000011***	***0.000017***	0.000016	0.000021	0.000018	0.000015	< 0.000010	0.000012	-	0.000012	0.000016	-	0.000013	< 0.000050	-	0.000016	-	0.000019	0.000022	0.000025
Calcium					mg/L	***130.55***	***101.81***	96.6	105	84.3	79.6	71.7	64.9	-	82.2	108	-	118	128	-	120	-	112	131	124
Chromium					mg/L	***0.00050***	***0.000643***	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	-	< 0.0010	< 0.0010	-	< 0.0010	< 0.0050	-	< 0.0010	-	< 0.0010	< 0.0010	< 0.0010
Cobalt					mg/L	***0.00066***	***0.00052***	0.00075	0.00083	0.00068	0.00059	0.00024	0.00034	-	0.00037	0.0005	-	0.00043	< 0.0010	-	0.00051	-	0.00043	0.00053	0.00052
Copper	0.6	0.3	0.2	0.2	mg/L	***0.00119***	***0.00094***	0.00132	0.00139	0.00103	0.00094	< 0.00050	0.00062	-	0.00065	0.00149	-	0.00116	< 0.0025	-	0.00088	-	0.00065	0.00084	0.00072
Iron					mg/L	***0.13***	***0.28***	0.119	0.24	0.11	0.091	2.37	0.133	-	0.049	0.085	-	0.095	0.122	-	0.106	-	0.276	0.052	0.08
Lead	0.4	0.2	0.4	0.2	mg/L	***0.00014***	***0.00015***	0.00026	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	-	< 0.00020	< 0.00020	-	0.00022	< 0.0010	-	< 0.00020	-	< 0.00020	< 0.00020	< 0.00020
Lithium					mg/L	***0.129***	***0.0637***	0.0676	0.0771	0.0754	0.0624	0.0675	0.0557	-	0.0526	0.0498	-	0.0545	0.058	-	0.0541	-	0.0681	0.0671	0.0822
Magnesium					mg/L	***23.066***	***26.214***	24.6	24.2	20.9	21.8	19.7	17	-	21.4	29.1	-	35.8	33.9	-	29.8	-	28.7	32.6	27.5
Manganese					mg/L	***0.1998***	***0.0335***	0.033	0.0798	0.0253	0.0117	0.0648	0.0093	-	0.0056	0.023	-	0.0165	0.0394	-	0.0342	-	0.0338	0.0539	0.038
Mercury					mg/L	***0.000005***	***0.000005***	< 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	***0.0011***	***0.0014***	0.0015	0.0016	0.0013	0.0012	< 0.0010	< 0.0010	-	0.001	0.0015	-	0.0015	< 0.0050	-	0.0018	-	0.0011	0.0019	0.0014
Nickel	1	0.5	0.5	0.5	mg/L	***0.0024***	***0.0031***	0.0034	0.0034	0.0027	0.0028	0.0018	0.0022	-	0.0025	0.0038	-	0.0033	< 0.0050	-	0.0036	-	0.0034	0.0042	0.0034
Potassium					mg/L	***13.486***	***13.221***	12.9	14.2	12.6	11.9	11.6	10.5	-	12	12.8	-	13.5	13.9	-	15.1	-	14.3	14.5	15.3
Selenium					mg/L	***0.00005***	***0.00010***	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	-	< 0.00010	0.00013	-	0.00012	< 0.00050	-	0.00011	-	0.00011	0.00014	0.00014
Silicon					mg/L	***0.65***	***0.50***	0.475	0.58	0.455	0.427	0.214	0.238	-	0.266	0.419	-	0.475	0.677	-	0.606	-	0.419	1.08	0.659
Silver					mg/L	***0.000010***	***0.000013***	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	-	< 0.000020	< 0.000020	-	< 0.000020	< 0.00010	-	< 0.000020	-	< 0.000020	< 0.000020	< 0.000020
Sodium					mg/L	***141.03***	***191.07***	177	192	185	174	179	161	-	171	186	-	193	201	-	190	-	227	224	215
Strontium					mg/L	***2.71***	***1.97***	1.96	2.15	1.9	1.84	1.63	1.37	-	1.85	2.05	-	2.26	2.04	-	1.96	-	2.18	2.25	2.15
Sulphur					mg/L	-	***23.89***	22.2	24.4	18.2	18.3	16.5	14.3	-	18.8	24.1	-	26.3	28.5	-	31.3	-	26.4	32.4	32.7
Thallium					mg/L	***0.000020***	***0.000024***	0.000024	0.000028	0.000031	0.000027	0.000013	0.000023	-	0.000026	0.000039	-	0.000027	< 0.000050	-	< 0.000010	-	0.000022	0.000024	0.000024
Tin					mg/L	***0.00250***	***0.00321***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	-	< 0.0050	< 0.025	-	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050
Titanium					mg/L	***0.00250***	***0.00321***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	-	< 0.0050	< 0.025	-	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050
Uranium					mg/L	***0.00019***	***0.00025***	< 0.00010	0.0002	0.00024	0.00023	0.00013	0.00018	-	0.00017	0.00046	-	0.00035	< 0.00050	-	0.00026	-	0.00034	0.00035	0.00028
Vanadium					mg/L	***0.00250***	***0.00321***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	-	< 0.0050	< 0.0050	-	< 0.0050	< 0.025	-	< 0.0050	-	< 0.0050	< 0.0050	< 0.0050
Zinc	1	0.5	0.8	0.4	mg/L	***0.00472***	***0.0051***	< 0.0050	0.0067	< 0.0050	< 0.0050	0.0066	0.0055	-	< 0.0050	< 0.0050	-	< 0.0050	< 0.025	-	< 0.0050	-	< 0.0050	0.0059	0.0145
Zirconium					mg/L	***0.000050***	***0.000064***	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	-	< 0.00010	< 0.00010	-	< 0.00010	< 0.00050	-	< 0.00010	-	< 0.00010	< 0.00010	< 0.00010

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-14	MDMER MAX GRAB	MDMER MAX MONTHLY MEAN	MEL-14 MAX GRAB	MEL-14 MAX MEAN	Sample Date	*2018 Average*	*Annual Average*	6/24/2019	7/9/2019	7/15/2019	7/25/2019	7/30/2019	8/6/2019	8/7/2019	8/13/2019	8/20/2019	8/22/2019	8/29/2019	9/3/2019	9/7/2019	9/12/2019	9/13/2019	9/17/2019	9/24/2019	10/1/2019
					FIELD_SDG			B9H6488	B9J1427	B9J7572	B9K9242	B9L2327	B9M0110	B9M1829	B9M5838	B9N3261	B9N6683	B9O3972	B9O6583	B9P4256	B9P8919	B9Q2018	B9Q3637	B9R1304	B9R7358
Parameter					Unit																				
Field Measured																									
Dissolved Metals																									
Aluminum					mg/L	***0.0702***	***0.0428***	0.0335	0.0316	0.0527	0.0377	0.0243	0.0272	-	0.0323	0.112	-	0.0641	0.0584	-	0.0427	-	0.028	0.0355	0.0192
Antimony					mg/L	***0.0015***	***0.00025***	< 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	***0.0015***	***0.0016***	0.0023	0.00216	0.00163	0.00155	0.00096	0.00087	-	0.00104	0.00188	-	0.00167	0.00176	-	0.0022	-	0.00114	0.00177	0.00084
Barium					mg/L	***0.1068***	***0.0555***	0.0516	0.0557	0.0424	0.0483	0.0369	0.0389	-	0.0456	0.0685	-	0.0677	0.0745	-	0.0784	-	0.0506	0.0683	0.0499
Beryllium					mg/L	***0.00030***	***0.000050***	< 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	***0.00050***	***0.00050***	< 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	***0.3338***	***0.2880***	0.231	0.274	0.333	0.349	0.361	0.406	-	0.341	0.181	-	0.181	0.196	-	0.188	-	0.35	0.302	0.339
Cadmium					mg/L	***0.000034***	***0.000015***	0.000014	0.00002	0.000013	0.000015	< 0.000010	0.000018	-	< 0.000010	0.000013	-	0.000014	0.000019	-	0.000014	-	0.000019	0.000021	0.000023
Chromium					mg/L	***0.00295***	***0.00050***	< 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	***0.00058***	***0.00050***	0.00069	0.00085	0.00065	0.0006	< 0.00020	0.00035	-	0.00037	0.00047	-	0.0004	0.00059	-	0.00056	-	0.00037	0.00049	0.00048
Copper					mg/L	***0.00080***	***0.00085***	0.00115	0.00129	0.00095	0.00089	< 0.00020	0.00067	-	0.0006	0.00129	-	0.00107	0.00101	-	0.00087	-	0.00059	0.00069	0.00068
Iron					mg/L	***0.03384***	***0.0694***	0.0901	0.173	0.0717	0.0587	0.0098	0.152	-	0.0538	0.036	-	0.0349	0.1	-	0.0698	-	0.0435	0.0339	0.0444
Lead					mg/L	***0.00049***	***0.000119***	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	-	< 0.00020	< 0.00020	-	< 0.00020	0.00036	-	< 0.00020	-	< 0.00020	< 0.00020	< 0.00020
Lithium					mg/L	***0.1376***	***0.0634***	0.0674	0.0821	0.0735	0.0665	0.0674	0.0571	-	0.054	0.0542	-	0.0581	0.0564	-	0.0541	-	0.0657	0.0615	0.07
Manganese					mg/L	***0.1651***	***0.0260***	0.0274	0.0695	0.0193	0.0105	0.0531	0.0105	-	0.0053	0.0105	-	0.0069	0.0335	-	0.0316	-	0.0128	0.0426	0.0309
Mercury					mg/L	***0.000008***	***0.000005***	< 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	***0.0035***	***0.0025***	0.0015	0.0015	0.0012	0.0013	< 0.0010	0.0061	-	< 0.0010	0.0098	-	0.0014	0.0054	-	0.0021	-	0.0011	0.0018	0.0012
Nickel					mg/L	***0.0024***	***0.0031***	0.0033	0.0034	0.0026	0.0028	0.0014	0.0023	-	0.0024	0.0036	-	0.0032	0.0039	-	0.0039	-	0.0032	0.0039	0.0034
Selenium					mg/L	***0.00030***	***0.000090***	0.0001	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	-	< 0.00010	0.00012	-	0.00011	0.00014	-	0.00012	-	0.0001	0.00015	0.00012
Silicon					mg/L	***0.5900***	***0.4738***	0.444	0.561	0.433	0.417	0.211	0.256	-	0.247	0.415	-	0.42	0.635	-	0.575	-	0.48	1.01	0.529
Silver					mg/L	***0.000059***	***0.000010***	< 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
Strontium					mg/L	***2.65***	***1.98***	1.92	2.27	1.84	1.89	1.5	1.29	-	1.63	2.01	-	2.18	2.33	-	2.42	-	2.24	2.17	2.07
Sulphur					mg/L	-	***23.96***	20.3	23.8	18.8	19.2	18.4	15.9	-	17.8	25	-	25	31	-	30	-	30.1	31.7	28.4
Thallium					mg/L	***0.000045***	***0.000025***	0.000026	0.000029	0.00003	0.00003	0.000013	0.000024	-	0.000024	0.000032	-	0.000029	0.000027	-	0.000011	-	0.000024	0.000024	0.000022
Tin					mg/L	***0.016***	***0.0025***	< 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
Titanium					mg/L	***0.016***	***0.0025***	< 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
Uranium					mg/L	***0.00031***	***0.00022***	< 0.00010	< 0.00010	0.00019	0.00022	0.00011	0.00017	-	0.00013	0.00044	-	0.00027	0.0003	-	0.00029	-	0.00035	0.00032	0.00025
Vanadium					mg/L	***0.016***	***0.0025***	< 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
Zinc					mg/L	***0.016***	***0.0045***	< 0.0050	0.0071	< 0.0050	< 0.0050	< 0.0050	0.0075	-	< 0.0050	< 0.0050	-	< 0.0050	0.0107	-	< 0.0050	-	< 0.0050	< 0.0050	0.0132
Zirconium					mg/L	***0.000050***	***0.000054***	< 0.00010	0.0001	< 0.00010	< 0.00010	< 0.00010	< 0.00010	-	< 0.00010	< 0.00010	-	< 0.00010	< 0.00010	-	< 0.00010	-	< 0.00010	< 0.00010	< 0.00010
Volatile Organics																									
Benzene					mg/L	***0.00010***	***0.00010***	< 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
Ethylbenzene					mg/L	***0.00010***	***0.00010***	< 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
Toluene					mg/L	***0.00012***	***0.00010***	< 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
Xylenes					mg/L	***0.00020***	***0.00020***	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	-	< 0.00040	< 0.00040	-	< 0.00040	< 0.00040	-	< 0.00040	-	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes					mg/L	***0.00020***	***0.00020***	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	< 0.00040	-	< 0.00040	< 0.00040	-	< 0.00040	< 0.00040	-	< 0.00040	-	< 0.00040	< 0.00040	< 0.00040
o-Xylene					mg/L	***0.00010***	***0.00010***	< 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
F1 (C6-C10)-BTEX					mg/L	***0.01250***	***0.01250***	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	-	< 0.025	< 0.025	-	< 0.025	< 0.025	-	< 0.025	-	< 0.025	< 0.025	< 0.025
F1 (C6-C10)					mg/L	***0.01250***	***0.01250***	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	< 0.025	-	< 0.025	< 0.025	-	< 0.025	< 0.025	-	< 0.025	-	< 0.025	< 0.025	< 0.025
F2 (C10-C16)					mg/L	***0.050***	***0.500***	< 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
F3 (C16-C34)					mg/L	***0.10***	***0.10***	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	-	< 0.2	< 0.2	-	< 0.2	< 0.2	-	< 0.2	-	< 0.2	< 0.2	< 0.2
F4 (C34-C50)					mg/L	***0.10***	***0.10***	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	-	< 0.2	< 0.2	-	< 0.2	< 0.2	-	< 0.2	-	< 0.2	< 0.2	< 0.2
Reached baseline at C50					mg/L	-	-	YES	YES	YES	YES	YES	YES	-	YES	YES	-	YES	YES	-	YES	-	YES	YES	YES
1,2-Dichloroethane-d4					mg/L	-	***98.85***	-	94	97	98	95	99	-	99	104	-	105	102	-	96	-	100	98	98
Ethylbenzene-d10					mg/L	-	***99.00***	-	93	96	100	104	99	-	94	86	-	95	108	-	89	-	111	106	106
4-Bromofluorobenzene					mg/L	-	***98.54***	-	100	98	102	99	96	-	98	97	-	102	98	-	99	-	96	96	100
1,4-Difluorobenzene					mg/L	-	***101.77***	-	101	102	103	98	100	-	100	102	-	103	102	-	103	-	104	103	102
o-Terphenyl					mg/L	-	***99.23***	-	103	98	105	98	109	-	109	97	-	100	98	-	93	-	95	95	90
Toxicity																									
Aerobic heterotrophic bacteria					CFU/100mL	-	***7134***	3100	39000	20000	1140	-	1180	-	1220	1320	-	-	100	-	2580	-	1700	-	-
Escherichia coli					CFU/100mL	-	***1.90***	< 2	< 2	< 2	< 2	-	2	-	< 2	8	-	-	< 2	-	< 2	-	2	-	-
Atypical colonies					CFU/100mL	-	***4695***	4000	4900	12800	1300	-	1600	-	1150	8400	-	-	400	-	3400	-	9000	-	-
Total Coliform					CFU/100mL	-	***730***	900	1800	< 100	< 100	-	< 10	-	10	< 100	-	-	880	-	< 100	-	3500	-	-
Fecal Coliform					CFU/100mL	-	***2***	< 2	< 2	< 2	< 2	-	2	-	< 2	8	-	-	< 2	-	< 2	-	2	-	-
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
Concentration of effluent causing biomass inhibition in 25% of Lemna					%	-	-	-	> 97.0	-	-	-	-	-	> 97.0	-	-	-	-	-	-	-	-	-	> 97.0
Concentration of effluent causing frond number inhibition in 25% of Lemna					%	-	-	-	> 97.0	-	-	-	-	-	> 97.0	-	-	-	-	-	-	-	-	-	> 97.0
Toxic Unit - Daphnia Magnia					-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Toxic Unit - Rainbow Trout					-	-	-	< 1	< 1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Radionuclides																									
Radium-226	1.11	0.37			Bq/l	***0.00341***	***0.0238***	0.3	< 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

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-14 QAQC	Sample Date	MDL	8/13/2019				9/3/2019			9/12/2019	
	FIELD_SDG		B9M5838				B9O6583			B9P8919	
	Sample Name		Field Blank	Duplicate	Original	RPD (%)	Duplicate	Original	RPD (%)	Field Blank	Original
Parameter	**Unit**										
Conventional Parameters											
pH	pH units	-	5.78	7.32	7.36	0.54	7.56	7.53	0.40	6.11	7.59
Specific conductivity	umhos/cm	1	1	1700	1700	0.00	2100	2100	0.00	1.2	2300
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	271	271	0.00	443	450	1.57	0.5	453
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	291	293	0.68	489	460	6.11	0.5	422
Total alkalinity, as CaCO3	mg/L	1	1	22	22	0.00	47	47	0.00	1	51
Total dissolved solids	mg/L	10	10	1110	1130	1.79	1290	1300	0.77	10	1400
Total suspended solids	mg/L	1	1	3	2	**40.00**	5	5	0.00	1	3
Total organic carbon	mg/L	0.5	0.5	3.7	3.7	0.00	12	12	0.00	0.5	12
Dissolved organic carbon	mg/L	0.5	0.5	3.6	3.7	2.74	10	10	0.00	0.5	11
Turbidity	NTU	0.1	0.1	0.3	0.2	**40.00**	1	1	0.00	0.1	0.4
Biochemical Oxygen Demand, 5 Day	mg/L	2	2	2	2	0.00	2	2	0.00	2	2
Dissolved Oxygen	mg/L	-	10.3	10.4	10.2	1.94	10.7	10.4	2.84	9.34	9.49
Major Ions											
Bicarbonate, as CaCO3	mg/L	1	1	22	22	0.00	47	47	0.00	1	51
Calcium	mg/L	0.05	0.05	75.2	75.4	0.27	124	125	0.80	0.05	128
Carbonate, as CaCO3	mg/L	1	1	1	1	0.00	1	1	0.00	1	1
Chloride	mg/L	1	1	420	410	2.41	520	530	1.90	1	550
Cyanide Total	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00	0.005	0.005
Cyanide Free	mg/L	0.001	0.001	0.0011	0.0011	0.00	0.0019	0.0021	10.00	0.0019	0.001
Cyanide WAD	mg/L	0.001	0.001	0.001	0.001	0.00	0.0016	0.001	**46.15**	0.001	0.001
Magnesium	mg/L	0.05	0.05	20.2	20	1.00	32.6	33.5	2.72	0.05	32.7
Potassium	mg/L	0.05	0.05	11	11	0.00	14.1	14.3	1.41	0.05	14.7
Sodium	mg/L	0.05	0.05	161	162	0.62	201	201	0.00	0.05	205
Sulphate	mg/L	1	1	50	50	0.00	81	82	1.23	1	90
Silica	mg/L	0.05	0.05	0.52	0.53	1.90	1.2	1.2	0.00	0.05	1.2
Nutrients											
Nitrate	mg/L	0.1	0.1	12.9	12.9	0.00	12.3	12.3	0.00	0.1	13.5
Nitrite	mg/L	0.01	0.01	0.754	0.753	0.13	0.594	0.595	0.17	0.01	0.585
Nitrate + nitrite	mg/L	0.1	0.1	13.7	13.7	0.00	12.9	12.9	0.00	0.1	14.1
Total ammonia	mg/L	0.05	0.091	3.3	3.2	3.08	3.5	3.4	2.90	0.16	3.5
Total Kjeldahl nitrogen	mg/L	0.1	0.1	3	3.3	9.52	4.3	4.2	2.35	0.1	4.2
Total phosphorus	mg/L	0.02	0.02	0.02	0.02	0.00	0.02	0.02	0.00	0.02	0.02
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.019
Total Metals											
Aluminum	mg/L	0.003	0.003	0.0989	0.0992	0.30	0.542	0.543	0.18	0.003	0.254
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00	0.0025	0.0025	0.00	0.0005	0.0005
Arsenic	mg/L	0.0001	0.0001	0.00116	0.00116	0.00	0.00194	0.002	3.05	0.0001	0.00207
Barium	mg/L	0.001	0.001	0.0507	0.0519	2.34	0.0739	0.0726	1.77	0.001	0.0727
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0005	0.0005	0.00	0.0001	0.0001
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00	0.005	0.005	0.00	0.001	0.001
Boron	mg/L	0.05	0.05	0.323	0.323	0.00	0.25	0.25	0.00	0.05	0.184
Cadmium	mg/L	0.00001	0.00001	0.000013	0.000012	8.00	0.00005	0.00005	0.00	0.00001	0.000016
Calcium	mg/L	0.05	0.05	81.6	82.2	0.73	139	128	8.24	0.05	120
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00	0.005	0.005	0.00	0.001	0.001
Cobalt	mg/L	0.0002	0.0002	0.00038	0.00037	2.67	0.001	0.001	0.00	0.0002	0.00051
Copper	mg/L	0.0005	0.0005	0.00096	0.00065	**38.51**	0.0025	0.0025	0.00	0.0005	0.00088
Iron	mg/L	0.01	0.01	0.05	0.049	2.02	0.131	0.122	7.11	0.01	0.106
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.001	0.001	0.00	0.0002	0.0002
Lithium	mg/L	0.002	0.002	0.0522	0.0526	0.76	0.057	0.058	1.74	0.002	0.0541
Magnesium	mg/L	0.05	0.05	21.2	21.4	0.94	34.4	33.9	1.46	0.05	29.8
Manganese	mg/L	0.001	0.001	0.0055	0.0056	1.80	0.0408	0.0394	3.49	0.001	0.0342
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00	0.00001	0.00001
Molybdenum	mg/L	0.001	0.001	0.001	0.001	0.00	0.005	0.005	0.00	0.001	0.0018
Nickel	mg/L	0.001	0.001	0.0025	0.0025	0.00	0.005	0.005	0.00	0.001	0.0036
Potassium	mg/L	0.05	0.05	12	12	0.00	14.3	13.9	2.84	0.05	15.1
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0005	0.0005	0.00	0.0001	0.00011
Silicon	mg/L	0.1	0.1	0.265	0.266	0.38	0.744	0.677	9.43	0.1	0.606
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00	0.0001	0.0001	0.00	0.00002	0.00002
Sodium	mg/L	0.05	0.05	170	171	0.59	208	201	3.42	0.05	190
Strontium	mg/L	0.001	0.001	1.83	1.85	1.09	2.09	2.04	2.42	0.001	1.96
Sulphur	mg/L	3	3	18.9	18.8	0.53	27.4	28.5	3.94	3	31.3
Thallium	mg/L	0.00001	0.00001	0.000026	0.000026	0.00	0.00005	0.00005	0.00	0.00001	0.00001
Tin	mg/L	0.005	0.005	0.005	0.005	0.00	0.025	0.025	0.00	0.005	0.005
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00	0.025	0.025	0.00	0.005	0.005
Uranium	mg/L	0.0001	0.0001	0.00016	0.00017	6.06	0.0005	0.0005	0.00	0.0001	0.00026
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00	0.025	0.025	0.00	0.005	0.005
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00	0.025	0.025	0.00	0.005	0.005
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0005	0.0005	0.00	0.0001	0.0001

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-14 QAQC	Sample Date	MDL	8/13/2019				9/3/2019			9/12/2019	
	FIELD_SDG		B9M5838				B9O6583			B9P8919	
	Sample Name		Field Blank	Duplicate	Original	RPD (%)	Duplicate	Original	RPD (%)	Field Blank	Original
Parameter	**Unit**										
Dissolved Metals											
Aluminum	mg/L	0.003	0.003	0.0322	0.0323	0.31	0.0556	0.0584	4.91	0.003	0.0427
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00	0.0005	0.0005	0.00	0.0005	0.0005
Arsenic	mg/L	0.0001	0.0001	0.00105	0.00104	0.96	0.00174	0.00176	1.14	0.0001	0.0022
Barium	mg/L	0.001	0.001	0.046	0.0456	0.87	0.0739	0.0745	0.81	0.001	0.0784
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001
Boron	mg/L	0.05	0.05	0.343	0.341	0.58	0.195	0.196	0.51	0.05	0.188
Cadmium	mg/L	0.00001	0.00001	0.000011	0.00001	9.52	0.000016	0.000019	17.14	0.00001	0.000014
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.00	0.001	0.001
Cobalt	mg/L	0.0002	0.0002	0.00036	0.00037	2.74	0.00058	0.00059	1.71	0.0002	0.00056
Copper	mg/L	0.0002	0.0002	0.0006	0.0006	0.00	0.001	0.00101	1.00	0.0002	0.00087
Iron	mg/L	0.005	0.005	0.055	0.0538	2.21	0.0993	0.1	0.70	0.005	0.0698
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.00036	**57.14**	0.0002	0.0002
Lithium	mg/L	0.002	0.002	0.0553	0.054	2.38	0.0553	0.0564	1.97	0.002	0.0541
Manganese	mg/L	0.001	0.001	0.0055	0.0053	3.70	0.0327	0.0335	2.42	0.001	0.0316
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00	0.00001	0.00001
Molybdenum	mg/L	0.001	0.001	0.001	0.001	0.00	0.0067	0.0054	**21.49**	0.001	0.0021
Nickel	mg/L	0.001	0.001	0.0023	0.0024	4.26	0.0038	0.0039	2.60	0.001	0.0039
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.00013	0.00014	7.41	0.0001	0.00012
Silicon	mg/L	0.1	0.1	0.252	0.247	2.00	0.653	0.635	2.80	0.1	0.575
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00	0.00002	0.00002	0.00	0.00002	0.00002
Strontium	mg/L	0.001	0.001	1.66	1.63	1.82	2.37	2.33	1.70	0.001	2.42
Sulphur	mg/L	3	3	18	17.8	1.12	30.7	31	0.97	3	30
Thallium	mg/L	0.00001	0.00001	0.000026	0.000024	8.00	0.000027	0.000027	0.00	0.00001	0.000011
Tin	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00	0.005	0.005
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00	0.005	0.005
Uranium	mg/L	0.0001	0.0001	0.00014	0.00013	7.41	0.0003	0.0003	0.00	0.0001	0.00029
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.00	0.005	0.005
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00	0.0072	0.0107	**39.11**	0.005	0.005
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.00	0.0001	0.0001
Volatile Organics											
Benzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.00	0.0002	0.0002
Ethylbenzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.00	0.0002	0.0002
Toluene	mg/L	0.0002	0.00051	0.0002	0.0002	0.00	0.0002	0.0002	0.00	0.00055	0.0002
Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00	0.0004	0.0004	0.00	0.0004	0.0004
m,p-Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00	0.0004	0.0004	0.00	0.0004	0.0004
o-Xylene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.00	0.0002	0.0002
F1 (C6-C10)-BTEX	mg/L	0.025	0.025	0.025	0.025	0.00	0.025	0.025	0.00	0.025	0.025
F1 (C6-C10)	mg/L	0.025	0.025	0.025	0.025	0.00	0.025	0.025	0.00	0.025	0.025
F2 (C10-C16)	mg/L	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.00	0.1	0.1
F3 (C16-C34)	mg/L	0.2	0.2	0.2	0.2	0.00	0.2	0.2	0.00	0.2	0.2
F4 (C34-C50)	mg/L	0.2	0.2	0.2	0.2	0.00	0.2	0.2	0.00	0.2	0.2
Reached baseline at C50	mg/L	YES	YES	YES	YES	-	YES	YES	-	YES	YES
Radionuclides											
Radium-226	Bq/l	0.005	0.005	0.053	0.005	*165.52*	0.005	0.005	0.00	0.005	0.005

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-15	Sample Date	2018 Average	Annual Average	6/17/2019	7/7/2019	8/4/2019	9/4/2019
	FIELD_SDG			B9H1905	B9J0345	B9L8622	B9P1656
Parameter	Unit						
Field Measured							
pH	pH units	-	***7.5725***	7.91	7.59	7.83	6.96
Conductivity	uS/cm	-	***104.425***	106.5	95.1	100.2	115.9
Temperature	°C	-	***9.215***	8.16	12.3	11.9	4.5
Dissolved oxygen	mg/L	-	***10.615***	11.64	8.68	9.05	13.09
Dissolved oxygen	%	-	***92.725***	100.3	82.3	84.6	103.7
Conventional Parameters							
pH	pH units	***7.44***	***7.615***	7.39	7.75	7.56	7.76
Specific conductivity	umhos/cm	***97.5***	***96.5***	77	100	89	120
Hardness, as CaCO3 (D)	mg/L	-	***39.15***	30.8	38.7	36.4	50.7
Hardness, as CaCO3 (T)	mg/L	-	***40.225***	29.4	46.7	37.9	46.9
Total alkalinity, as CaCO3	mg/L	***34.5***	***33***	27	36	30	39
Total dissolved solids	mg/L	***45***	***66.25***	40	65	80	80
Total suspended solids	mg/L	***2***	***1.5***	< 1	< 1	< 1	3
Total organic carbon	mg/L	***8.15***	***4.8***	4.5	4.4	4.7	5.6
Dissolved organic carbon	mg/L	***3.95***	***4.375***	4	4.1	4	5.4
Turbidity	NTU	***0.4***	***0.375***	0.3	0.4	0.3	0.5
Major Ions							
Bicarbonate, as CaCO3	mg/L	***34***	***33***	27	36	30	39
Calcium	mg/L	-	***13.25***	10.4	13	12.3	17.3
Carbonate, as CaCO3	mg/L	***1***	***1***	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	***7.2***	***7.25***	5.7	7.7	7	8.6
Cyanide Total	mg/L	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide Free	mg/L	***0.001***	***0.001525***	< 0.0010	< 0.0010	0.0018	0.0023
Cyanide WAD	mg/L	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Magnesium	mg/L	-	***1.46***	1.15	1.51	1.36	1.82
Potassium	mg/L	-	***0.9185***	0.847	0.915	0.882	1.03
Sodium	mg/L	-	***3.37***	2.64	3.35	3.28	4.21
Sulphate	mg/L	***2.45***	***2.65***	< 1.0	3.6	1.1	4.9
Silica	mg/L	***0.7***	***0.99***	0.57	2.1	0.32	0.97
Nutrients							
Nitrate	mg/L	***0.1***	***0.1***	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	***0.01***	***0.01***	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	***0.1***	***0.1***	< 0.10	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	***0.05***	***0.0925***	< 0.050	< 0.050	0.12	0.15
Total Kjeldahl nitrogen	mg/L	***0.345***	***0.29***	0.28	0.35	0.24	0.29
Total phosphorus	mg/L	***0.02***	***0.0205***	0.022	< 0.020	< 0.020	< 0.020
Orthophosphate	mg/L	***0.01***	***0.01***	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals							
Aluminum	mg/L	-	***0.0061***	0.0096	0.0041	0.0039	0.0068
Antimony	mg/L	-	***0.0005***	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	-	***0.000895***	0.00099	0.00086	0.00086	0.00087
Barium	mg/L	-	***0.01175***	0.011	0.0138	0.0106	0.0116
Beryllium	mg/L	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	-	***0.05***	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	-	***0.00001825***	0.000028	< 0.000010	< 0.000010	0.000025
Calcium	mg/L	-	***13.72***	9.88	16.3	12.8	15.9
Chromium	mg/L	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	-	***0.00069***	0.00073	0.00058	0.00062	0.00083
Iron	mg/L	-	***0.08675***	0.077	0.111	0.084	0.075
Lead	mg/L	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	-	***0.002***	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium	mg/L	-	***1.45***	1.14	1.47	1.44	1.75
Manganese	mg/L	-	***0.0129***	0.0224	0.0139	0.0094	0.0059
Mercury	mg/L	***0.00002***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	-	***0.00105***	< 0.0010	0.001	< 0.0010	0.0012
Potassium	mg/L	-	***0.90275***	0.795	0.898	0.888	1.03
Selenium	mg/L	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	***0.33175***	0.298	0.291	0.244	0.494
Silver	mg/L	-	***0.00002***	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	-	***3.42***	3.01	3.36	3.37	3.94
Strontium	mg/L	-	***0.064425***	0.049	0.0713	0.0638	0.0736
Sulphur	mg/L	-	***3***	< 3	< 3	< 3	< 3
Thallium	mg/L	-	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	-	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-15	Sample Date	2018 Average	Annual Average	6/17/2019	7/7/2019	8/4/2019	9/4/2019
	FIELD_SDG			B9H1905	B9J0345	B9L8622	B9P1656
Parameter	**Unit**						
Total Metals							
Titanium	mg/L	-	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	-	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	-	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Dissolved Metals							
Aluminum	mg/L	-	***0.00325***	0.0036	< 0.0030	< 0.0030	0.0034
Antimony	mg/L	-	***0.0005***	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	-	***0.000775***	0.00085	0.00076	0.00074	0.00075
Barium	mg/L	-	***0.011475***	0.0103	0.0136	0.0103	0.0117
Beryllium	mg/L	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	-	***0.05***	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	-	***0.00001175***	< 0.000010	< 0.000010	< 0.000010	0.000017
Chromium	mg/L	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	-	***0.0005675***	0.00049	0.00056	0.00049	0.00073
Iron	mg/L	-	***0.0521***	0.0708	0.0633	0.0387	0.0356
Lead	mg/L	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	-	***0.002***	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Manganese	mg/L	-	***0.0073***	0.0212	0.0042	0.0026	0.0012
Mercury	mg/L	***0.00001***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	-	***0.001025***	< 0.0010	< 0.0010	< 0.0010	0.0011
Selenium	mg/L	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	***0.324***	0.308	0.211	0.242	0.535
Silver	mg/L	-	***0.00002***	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	-	***0.064275***	0.0473	0.0715	0.0634	0.0749
Sulphur	mg/L	-	***3***	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	-	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	-	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	-	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	-	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	-	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-15 QAQC	Sample Date	MDL	8/4/2019			
	FIELD_SDG		B9L8622			
	SAMPLE_TYPE_CO		Field Blank	Duplicate	Original	RPD (%)
Parameter	**Unit**					
Conventional Parameters						
pH	pH units	-	5.9	7.6	7.56	0.53
Specific conductivity	umhos/cm	1	1	92	89	3.31
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	36.4	36.4	0.00
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	37	37.9	2.40
Total alkalinity, as CaCO3	mg/L	1	1	32	30	6.45
Total dissolved solids	mg/L	10	10	60	80	**28.57**
Total suspended solids	mg/L	1	1	1	1	0.00
Total organic carbon	mg/L	0.5	0.5	4.6	4.7	2.15
Dissolved organic carbon	mg/L	0.5	0.5	3.8	4	5.13
Turbidity	NTU	0.1	0.1	0.3	0.3	0.00
Major Ions						
Bicarbonate, as CaCO3	mg/L	1	1	32	30	6.45
Calcium	mg/L	0.05	0.05	12.3	12.3	0.00
Carbonate, as CaCO3	mg/L	1	1	1	1	0.00
Chloride	mg/L	1	1	7.1	7	1.42
Cyanide Total	mg/L	0.005	0.005	0.005	0.005	0.00
Cyanide Free	mg/L	0.001	0.001	0.001	0.0018	**57.14**
Cyanide WAD	mg/L	0.001	0.001	0.001	0.001	0.00
Magnesium	mg/L	0.05	0.05	1.36	1.36	0.00
Potassium	mg/L	0.05	0.05	0.884	0.882	0.23
Sodium	mg/L	0.05	0.05	3.3	3.28	0.61
Sulphate	mg/L	1	1	1.2	1.1	8.70
Silica	mg/L	0.05	0.05	0.25	0.32	**24.56**
Nutrients						
Nitrate	mg/L	0.1	0.1	0.1	0.1	0.00
Nitrite	mg/L	0.01	0.01	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.1	0.1	0.1	0.1	0.00
Total ammonia	mg/L	0.05	0.12	0.05	0.12	**82.35**
Total Kjeldahl nitrogen	mg/L	0.1	0.1	0.24	0.24	0.00
Total phosphorus	mg/L	0.02	0.02	0.02	0.02	0.00
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00
Total Metals						
Aluminum	mg/L	0.003	0.003	0.0044	0.0039	12.05
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00085	0.00086	1.17
Barium	mg/L	0.001	0.001	0.0105	0.0106	0.95
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Calcium	mg/L	0.05	0.05	12.4	12.8	3.17
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	0.0005	0.0005	0.0006	0.00062	3.28
Iron	mg/L	0.01	0.01	0.081	0.084	3.64
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00
Magnesium	mg/L	0.05	0.05	1.45	1.44	0.69
Manganese	mg/L	0.001	0.001	0.0093	0.0094	1.07
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.0046	0.001	0.001	0.00
Nickel	mg/L	0.001	0.001	0.001	0.001	0.00
Potassium	mg/L	0.05	0.05	0.881	0.888	0.79
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-15 QAQC	Sample Date	MDL	8/4/2019			
	FIELD_SDG		B9L8622			
	SAMPLE_TYPE_CO		Field Blank	Duplicate	Original	RPD (%)
Parameter	**Unit**					
Total Metals						
Silicon	mg/L	0.1	0.1	0.241	0.244	1.24
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Sodium	mg/L	0.05	1.34	3.35	3.37	0.60
Strontium	mg/L	0.001	0.001	0.0628	0.0638	1.58
Sulphur	mg/L	3	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Dissolved Metals						
Aluminum	mg/L	0.003	0.003	0.003	0.003	0.00
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00076	0.00074	2.67
Barium	mg/L	0.001	0.001	0.0103	0.0103	0.00
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	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	0.00048	0.00049	2.06
Iron	mg/L	0.005	0.005	0.0386	0.0387	0.26
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00
Manganese	mg/L	0.001	0.001	0.0026	0.0026	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.0044	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	0.246	0.242	1.64
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Strontium	mg/L	0.001	0.001	0.0633	0.0634	0.16
Sulphur	mg/L	3	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-16 (Lake G2)	Sample Date	2016 Average	2017 Average	2018 Average	Annual Average	6/17/2019	7/7/2019	8/4/2019	9/1/2019
	FIELD_SDG					B9H1907	B9J0351	B9L8789	B9O6790
Parameter	Unit								
Field Measured									
pH	pH units	***8.655***	-	***8.46***	***7.64***	7.82	7.75	7.59	7.4
Conductivity	uS/cm	***69.25***	-	***84.7***	***79.25***	70.7	46.7	93.8	105.8
Temperature	°C	***8.45***	-	***16.3***	***9.6825***	10.63	13.2	10.5	4.4
Dissolved oxygen	mg/L	-	-	-	***10.0575***	11.45	10.34	7.88	10.56
Dissolved oxygen	%	-	-	-	***88.875***	104.4	99.3	70.3	81.5
Conventional Parameters									
pH	pH units	***7.59***	***7.69***	***7.32***	***7.425***	7.13	7.62	7.37	7.58
Specific conductivity	umhos/cm	***74.5***	***89***	***89***	***82.75***	50	78	93	110
Hardness, as CaCO3 (D)	mg/L	***30.2***	***37.3***	***33.75***	***31.725***	19.2	32.6	35.2	39.9
Hardness, as CaCO3 (T)	mg/L	***29.5***	***32.33***	***32.65***	***29.425***	17.9	30.1	35.5	34.2
Total alkalinity, as CaCO3	mg/L	***29.5***	***32.25***	***26***	***21.25***	12	23	25	25
Total dissolved solids	mg/L	***49***	***66***	***45***	***63.75***	25	60	95	75
Total suspended solids	mg/L	***1***	***1.25***	***1***	***2.25***	< 1	< 1	2	5
Total organic carbon	mg/L	***4.85***	***4.925***	***3.95***	***4.025***	3.3	3.3	4.3	5.2
Dissolved organic carbon	mg/L	***4.8***	***4.6***	***3.75***	***3.525***	2.6	3.1	3.9	4.5
Turbidity	NTU	***0.55***	***0.8***	***0.45***	***0.8***	0.3	1	0.5	1.4
Major Ions									
Bicarbonate, as CaCO3	mg/L	***29.5***	***31.75***	***26***	***21***	12	22	25	25
Calcium	mg/L	***10.115***	***11.5375***	***35.75***	***10.5025***	6.31	10.9	11.7	13.1
Carbonate, as CaCO3	mg/L	***1***	***1***	***1***	***1***	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	***3.8***	***6.725***	***9.85***	***10.375***	6	9.5	11	15
Cyanide	mg/L	***0.005***	***0.005***	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide	mg/L	***0.005***	***0.005***	***0.005***	***0.0012***	< 0.0010	< 0.0010	0.0018	< 0.0010
Cyanide (free)	mg/L	***0.001***	***0.00115***	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Magnesium	mg/L	***1.21***	***1.3975***	***4.24***	***1.35125***	0.825	1.33	1.47	1.78
Potassium	mg/L	***1.04***	***1.06475***	***2.6895***	***0.872***	0.599	0.846	0.973	1.07
Sodium	mg/L	***2.1***	***2.4375***	***11.34***	***2.2825***	1.46	2.2	2.45	3.02
Sulphate	mg/L	***1.05***	***1.275***	***1.25***	***1.45***	< 1.0	1.6	1.6	1.6
Silica	mg/L	***0.335***	***0.28925***	***0.22***	***0.1775***	0.11	0.1	0.17	0.33
Nutrients									
Nitrate	mg/L	***0.1***	***0.1***	***0.1***	***0.1***	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	***0.1***	***0.1***	***0.1***	***0.01***	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	***0.01***	***0.01***	***0.01***	***0.1***	< 0.10	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	***0.01***	***0.01***	***0.01***	***0.12175***	0.057	< 0.050	< 0.050	0.33
Total Kjeldahl nitrogen	mg/L	***0.3***	***0.255***	***0.205***	***0.195***	0.2	0.11	0.18	0.29
Total phosphorus	mg/L	***0.0055***	***0.00725***	***0.02***	***0.02***	< 0.020	< 0.020	< 0.020	< 0.020
Orthophosphate	mg/L	***0.01***	***0.01***	***0.01***	***0.01***	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals									
Aluminum	mg/L	***0.00795***	***0.012***	***0.00665***	***0.012425***	0.0134	0.0092	0.0074	0.0197
Antimony	mg/L	***0.0005***	***0.0005***	***0.0005***	***0.0005***	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	***0.00104***	***0.001045***	***0.00058***	***0.00121***	0.0013	0.00109	0.00115	0.0013
Barium	mg/L	***0.01405***	***0.0166***	***0.0885***	***0.015975***	0.0112	0.017	0.0175	0.0182
Beryllium	mg/L	***0.0001***	***0.0001***	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	-	-	***0.001***	***0.001***	< 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
Cadmium	mg/L	***0.00001***	***0.00001***	***0.00001***	***0.0000115***	< 0.000010	< 0.000010	0.000016	< 0.000010
Calcium	mg/L	***9.95***	***12.2275***	***11.25***	***9.675***	5.9	10	11.7	11.1
Chromium	mg/L	***0.001***	***0.001***	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	-	-	***0.0002***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	***0.00097***	***0.0010125***	***0.00076***	***0.0007775***	0.00054	0.00069	0.00091	0.00097
Iron	mg/L	***0.106***	***0.1545***	***0.0895***	***0.12375***	0.104	0.112	0.1	0.179
Lead	mg/L	***0.0002***	***0.0002***	***0.0002***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	***0.005***	***0.005***	***0.005***	***0.002***	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Magnesium	mg/L	***1.12***	***1.38***	***1.36***	***1.2675***	0.76	1.23	1.52	1.56
Manganese	mg/L	***0.0065***	***0.011425***	***0.0083***	***0.0113***	0.0207	0.0063	0.008	0.0102
Mercury	mg/L	***0.00001***	***0.00001***	***0.00001***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.001***	***0.001***	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	***0.003***	***0.0011***	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Potassium	mg/L	***1.03***	***1.092***	***0.9635***	***0.83075***	0.554	0.825	0.959	0.985
Selenium	mg/L	***0.0001***	***0.0001***	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	-	***0.15***	***0.139***	< 0.1	< 0.1	0.126	0.23
Silver	mg/L	***0.00002***	***0.00002***	***0.00002***	***0.00002***	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	***2.07***	***2.3675***	***2.34***	***2.1475***	1.29	2.04	2.45	2.81
Strontium	mg/L	***0.0495***	***0.059975***	***0.061***	***0.051325***	0.0307	0.0529	0.0616	0.0601
Sulphur	mg/L	-	-	-	***3***	< 3	< 3	< 3	< 3
Thallium	mg/L	***0.00005***	***0.00005***	***0.00005***	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	***0.005***	***0.005***	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	***0.005***	***0.005***	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	***0.0001***	***0.0001***	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	***0.005***	***0.005***	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	***0.005***	***0.005***	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	-	-	***0.0001***	***0.0001625***	< 0.00010	0.00035	< 0.00010	< 0.00010

Note:

Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-16 (Lake G2)	Sample Date	2016 Average	2017 Average	2018 Average	Annual Average	6/17/2019	7/7/2019	8/4/2019	9/1/2019
	FIELD_SDG					B9H1907	B9J0351	B9L8789	B9O6790
Parameter	Unit								
Dissolved Metals									
Aluminum	mg/L	***0.0072***	***0.004925***	***0.00565***	***0.00635***	-	0.0038	-	0.0089
Antimony	mg/L	***0.0005***	***0.0005***	***0.0005***	***0.0005***	-	< 0.00050	-	< 0.00050
Arsenic	mg/L	***0.000905***	***0.00084***	***0.000985***	***0.00092***	-	0.0009	-	0.00094
Barium	mg/L	***0.01315***	***0.016025***	***0.016***	***0.01855***	-	0.0169	-	0.0202
Beryllium	mg/L	***0.0001***	***0.0001***	***0.0001***	***0.0001***	-	< 0.00010	-	< 0.00010
Bismuth	mg/L	-	-	***0.001***	***0.001***	-	< 0.0010	-	< 0.0010
Boron	mg/L	***0.05***	***0.05***	***0.05***	***0.05***	-	< 0.05	-	< 0.05
Cadmium	mg/L	***0.00001***	***0.00001***	***0.00001***	***0.000052***	-	< 0.000010	-	0.000094
Chromium	mg/L	***0.001***	***0.001***	***0.001***	***0.001***	-	< 0.0010	-	< 0.0010
Cobalt	mg/L	-	-	***0.0002***	***0.0002***	-	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	***0.000965***	***0.000805***	***0.000685***	***0.000955***	-	0.00056	-	0.00135
Iron	mg/L	***0.024***	***0.058625***	***0.1748***	***0.0548***	-	0.0574	-	0.0522
Lead	mg/L	***0.0002***	***0.0002***	***0.0002***	***0.0002***	-	< 0.00020	-	< 0.00020
Lithium	mg/L	***0.005***	***0.005***	***0.0168***	***0.002***	-	< 0.0020	-	< 0.0020
Manganese	mg/L	***0.001***	***0.002325***	***0.0117***	***0.0022***	-	0.0022	-	0.0022
Mercury	mg/L	***0.00001***	***0.00001***	***0.00001***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.001***	***0.001***	***0.001***	***0.001***	-	< 0.0010	-	< 0.0010
Nickel	mg/L	***0.001***	***0.001***	***0.0014***	***0.001***	-	< 0.0010	-	< 0.0010
Selenium	mg/L	***0.0001***	***0.0001***	***0.0001***	***0.0001***	-	< 0.00010	-	< 0.00010
Silicon	mg/L	-	-	***0.6***	***0.139333333***	< 0.1	< 0.1	-	0.218
Silver	mg/L	***0.00002***	***0.00002***	***0.00002***	***0.00002***	-	< 0.000020	-	< 0.000020
Strontium	mg/L	***0.0519***	***0.05825***	***0.3705***	***0.0516***	0.0314	0.055	-	0.0684
Sulphur	mg/L	-	-	-	***3***	< 3.0	< 3.0	< 3.0	< 3.0
Thallium	mg/L	***0.00001***	***0.00001***	***0.00001***	***0.00001***	-	< 0.000010	-	< 0.000010
Tin	mg/L	***0.005***	***0.005***	***0.005***	***0.005***	-	< 0.0050	-	< 0.0050
Titanium	mg/L	***0.005***	***0.005***	***0.005***	***0.005***	-	< 0.0050	-	< 0.0050
Uranium	mg/L	***0.0001***	***0.0001***	***0.000125***	***0.0001***	-	< 0.00010	-	< 0.00010
Vanadium	mg/L	***0.005***	***0.005***	***0.005***	***0.005***	-	< 0.0050	-	< 0.0050
Zinc	mg/L	***0.005***	***0.005***	***0.005***	***0.005***	-	< 0.0050	-	< 0.0050
Zirconium	mg/L	-	-	***0.0001***	***0.0001***	-	< 0.00010	-	< 0.00010

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-16 QAQC	Sample Date	MDL	8/4/2019			
	FIELD_SDG		B9L8789			
	SAMPLE_TYPE_CO		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Conventional Parameters						
pH	pH units	-	5.94	7.44	7.37	0.95
Specific conductivity	umhos/cm	1	1	93	93	0.00
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	35.5	35.2	0.85
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	36	35.5	1.40
Total alkalinity, as CaCO3	mg/L	1	1	24	25	4.08
Total dissolved solids	mg/L	10	10	110	95	14.63
Total suspended solids	mg/L	1	1	2	2	0.00
Total organic carbon	mg/L	0.5	0.5	4.5	4.3	4.55
Dissolved organic carbon	mg/L	0.5	0.5	3.8	3.9	2.60
Turbidity	NTU	0.1	0.1	0.4	0.5	**22.22**
Major Ions						
Bicarbonate, as CaCO3	mg/L	1	1	24	25	4.08
Calcium	mg/L	0.05	0.05	11.7	11.7	0.00
Carbonate, as CaCO3	mg/L	1	1	1	1	0.00
Chloride	mg/L	1	1	12	11	8.70
Cyanide Total	mg/L	0.005	0.005	0.005	0.005	0.00
Cyanide Free	mg/L	0.001	0.0025	0.001	0.0018	**57.14**
Cyanide WAD	mg/L	0.001	0.001	0.001	0.001	0.00
Magnesium	mg/L	0.05	0.05	1.52	1.47	3.34
Potassium	mg/L	0.05	0.05	1.01	0.973	3.73
Sodium	mg/L	0.05	0.05	2.49	2.45	1.62
Sulphate	mg/L	1	1	1.6	1.6	0.00
Silica	mg/L	0.05	0.05	0.16	0.17	6.06
Nutrients						
Nitrate	mg/L	0.1	0.1	0.1	0.1	0.00
Nitrite	mg/L	0.01	0.01	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.1	0.1	0.1	0.1	0.00
Total ammonia	mg/L	0.05	0.12	0.05	0.05	0.00
Total Kjeldahl nitrogen	mg/L	0.1	0.1	0.22	0.18	**20.00**
Total phosphorus	mg/L	0.02	0.02	0.02	0.02	0.00
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00
Total Metals						
Aluminum	mg/L	0.003	0.003	0.0072	0.0074	2.74
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00114	0.00115	0.87
Barium	mg/L	0.001	0.001	0.0177	0.0175	1.14
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.000016	0.000016	0.00
Calcium	mg/L	0.05	0.05	11.9	11.7	1.69
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	0.0005	0.0005	0.0009	0.00091	1.10
Iron	mg/L	0.01	0.01	0.095	0.1	5.13
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00
Magnesium	mg/L	0.05	0.05	1.53	1.52	0.66
Manganese	mg/L	0.001	0.001	0.008	0.008	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
Potassium	mg/L	0.05	0.05	0.969	0.959	1.04

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-16 QAQC	Sample Date	MDL	8/4/2019			
	FIELD_SDG		B9L8789			
	SAMPLE_TYPE_CO		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Total Metals						
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.126	0.126	0.00
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Sodium	mg/L	0.05	0.05	2.46	2.45	0.41
Strontium	mg/L	0.001	0.001	0.063	0.0616	2.25
Sulphur	mg/L	3	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Dissolved Metals						
Aluminum	mg/L	0.003	0.003	0.0042	-	-
Antimony	mg/L	0.0005	0.0005	0.0005	-	-
Arsenic	mg/L	0.0001	0.0001	0.00102	-	-
Barium	mg/L	0.001	0.001	0.0175	-	-
Beryllium	mg/L	0.0001	0.0001	0.0001	-	-
Bismuth	mg/L	0.001	0.001	0.001	-	-
Boron	mg/L	0.05	0.05	0.05	-	-
Cadmium	mg/L	0.00001	0.00001	0.000016	-	-
Chromium	mg/L	0.001	0.001	0.001	-	-
Cobalt	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Copper	mg/L	0.0002	0.0002	0.00075	-	-
Iron	mg/L	0.005	0.005	0.0485	-	-
Lead	mg/L	0.0002	0.0002	0.0002	-	-
Lithium	mg/L	0.002	0.002	0.002	-	-
Manganese	mg/L	0.001	0.001	0.001	-	-
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.001	-	-
Nickel	mg/L	0.001	0.001	0.001	-	-
Selenium	mg/L	0.0001	0.0001	0.0001	-	-
Silicon	mg/L	0.1	0.1	0.106	-	-
Silver	mg/L	0.00002	0.00002	0.00002	-	-
Strontium	mg/L	0.001	0.001	0.059	-	-
Sulphur	mg/L	3	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	-	-
Tin	mg/L	0.005	0.005	0.005	-	-
Titanium	mg/L	0.005	0.005	0.005	-	-
Uranium	mg/L	0.0001	0.0001	0.0001	-	-
Vanadium	mg/L	0.005	0.005	0.005	-	-
Zinc	mg/L	0.005	0.005	0.005	-	-
Zirconium	mg/L	0.0001	0.0001	0.0001	-	-

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-17	Sample Date	2015 Average	2016 Average	2017 Average	2018 Average	Annual Average	6/17/2019	7/7/2019	8/4/2019	9/3/2019
	FIELD_SDG						B9H1910	B9J0342	B9L8699	B9P1648
Parameter	Unit									
Field Measured										
pH	pH units	***8.21***	***9.30***	***8.44***	***8.57***	***8.00***	7.97	8.18	8	7.84
Conductivity	uS/cm	***0.34***	***2.61***	***0.74***	***0.47***	***256.35***	256.6	141.7	326.5	300.6
Temperature	°C	***11.00***	***10.27***	***12.20***	***16.20***	***12.28***	15.72	17	9.8	6.6
Dissolved oxygen	mg/L	-	-	-	-	***10.13***	10.47	9.8	7.42	12.84
Dissolved oxygen	%	-	-	-	-	***94.18***	107	99.6	65.5	104.6
Conventional Parameters										
pH	pH units	***7.69***	***7.48***	***7.73***	***7.50***	***7.77***	7.47	7.88	7.89	7.82
Specific conductivity	umhos/cm	***313.00***	***2151.00***	***657.50***	***302.33***	***257.50***	180	250	310	290
Hardness, as CaCO3 (D)	mg/L	-	***2130.00***	***154.67***	***77.80***	***86.50***	19	109	105	113
Hardness, as CaCO3 (T)	mg/L	***133.60***	***804.00***	***148.13***	***78.10***	***93.35***	57.9	91.5	110	114
Total alkalinity, as CaCO3	mg/L	***44.40***	***44.00***	***44.25***	***41.00***	***43.00***	25	42	55	50
Total dissolved solids	mg/L	***187.00***	***2241.00***	***590.50***	***156.67***	***231.25***	155	230	305	235
Total suspended solids	mg/L	***5.25***	***2.33***	***3.75***	***1.67***	***1.50***	1	< 1	3	< 1
Total organic carbon	mg/L	-	***11.20***	***9.95***	***7.50***	***8.50***	6.1	7.9	10	10
Dissolved organic carbon	mg/L	-	***8.90***	***9.57***	***7.03***	***8.25***	6.3	7.4	9.7	9.6
Turbidity	NTU	***1.48***	***3.92***	***0.58***	***0.53***	***0.65***	0.4	0.9	0.9	0.4
Major Ions										
Bicarbonate, as CaCO3	mg/L	***54.18***	***44.00***	***44.00***	***41.00***	***42.50***	25	42	54	49
Calcium	mg/L	***39.37***	***744.00***	***70.90***	***25.40***	***28.94***	6.37	37.6	35.1	36.7
Carbonate, as CaCO3	mg/L	***0.60***	***1.67***	***1.00***	***1.00***	***1.00***	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	-	***1700.00***	***152.50***	***57.03***	***43.75***	33	48	49	45
Cyanide Total	mg/L	-	***0.01***	***0.01***	***0.01***	***0.01***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide Free	mg/L	-	***0.05***	***0.00***	***0.00***	***0.00***	0.0095	< 0.0010	0.0018	0.0012
Cyanide WAD	mg/L	-	-			***0.00***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Magnesium	mg/L	***3.61***	***65.70***	***8.49***	***3.48***	***3.46***	0.748	3.72	4.23	5.16
Potassium	mg/L	***2.08***	***38.00***	***4.52***	***1.93***	***1.85***	0.614	2.45	2.27	2.08
Sodium	mg/L	***5.38***	***192.00***	***24.80***	***10.80***	***8.68***	1.21	10.3	11.2	12
Sulphate	mg/L	-	***77.00***	***15.50***	***7.57***	***7.48***	5.6	4.4	7.9	12
Silica	mg/L	-	***5.47***	***1.56***	***1.20***	***1.36***	0.7	0.68	0.86	3.2
Nutrients										
Nitrate	mg/L	***0.64***	***8.22***	***0.15***	***0.14***	***0.10***	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	***0.01***	***0.14***	***0.01***	***0.01***	***0.01***	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	***0.66***	***8.37***	***0.16***	***0.14***	***0.10***	< 0.10	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	-	***8.76***	***0.08***	***0.05***	***0.05***	< 0.050	< 0.050	< 0.050	0.055
Total Kjeldahl nitrogen	mg/L	***0.54***	***9.75***	***0.51***	***0.42***	***0.41***	0.33	0.35	0.47	0.47
Total phosphorus	mg/L	***0.05***	***0.01***	***0.01***	***0.02***	***0.02***	< 0.020	< 0.020	< 0.020	< 0.020
Orthophosphate	mg/L	-	***0.17***	***0.01***	***0.01***	***0.01***	< 0.010	< 0.010	< 0.010	0.022
General Organics										
Total oil and grease	mg/L	-	-	-	-	***1.175***	< 0.50	2.2	0.6	1.4
Total Metals										
Aluminum	mg/L	***0.01045***	***0.005866667***	***0.0051***	***0.0059***	***0.007075***	0.0096	0.0039	0.0057	0.0091
Antimony	mg/L	***0.0002***	***0.0001***	***0.0005***	***0.0005***	***0.0005***	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	***0.00077***	***0.000703333***	***0.00073***	***0.00048***	***0.0006425***	0.00054	0.0006	0.00078	0.00065
Barium	mg/L	***0.0384***	***0.251***	***0.05645***	***0.0265***	***0.028725***	0.0223	0.0334	0.0308	0.0284
Beryllium	mg/L	***0.0002***	***0.000366667***	***0.0001***	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	-	-	-	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	***0.01***	***0.042***	***0.05***	***0.05***	***0.05***	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	***0.00001***	***0.000025***	***0.00001***	***0.00001***	***0.000011***	< 0.000010	< 0.000010	< 0.000010	0.000014
Calcium	mg/L	***46.76666667***	***285.6666667***	***75.9***	***25.7***	***31.075***	19.1	30.8	36.7	37.7
Chromium	mg/L	***0.0001075***	***0.000766667***	***0.001***	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	-	-	-	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	***0.00098***	***0.00097***	***0.000955***	***0.00071***	***0.000985***	0.00077	0.00091	0.00108	0.00118
Iron	mg/L	***0.2975***	***0.7***	***0.1735***	***0.151***	***0.25625***	0.258	0.275	0.267	0.225
Lead	mg/L	***0.00009***	***0.000266667***	***0.0002***	***0.0002***	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	***0.013325***	***0.272666667***	***0.0468***	***0.0124***	***0.0091***	0.0073	0.0118	0.0106	0.0067
Magnesium	mg/L	***14.585***	***22.17***	***8.7475***	***3.42***	***3.845***	2.51	3.56	4.46	4.85
Manganese	mg/L	***0.064175***	***0.132166667***	***0.024925***	***0.0511***	***0.048525***	0.0543	0.0742	0.0389	0.0267
Mercury	mg/L	***0.00002***	***0.00007***	***0.00001***	***0.00001***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.000215***	***0.000666667***	***0.001***	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	***0.00158***	***0.004166667***	***0.0014***	***0.0013***	***0.0015***	0.0011	0.0012	0.0015	0.0022
Potassium	mg/L	***2.725***	***12.94***	***4.5825***	***2.01***	***2.1025***	1.66	2.41	2.27	2.07
Selenium	mg/L	***0.0001***	***0.0017***	***0.0001***	***0.0001***	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	-	-	-	***0.76375***	0.372	0.384	0.489	1.81
Silver	mg/L	***0.00001***	***0.00006***	***0.00002***	***0.00002***	***0.00002***	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	***5.6575***	***63.34666667***	***25.325***	***10.5***	***10.0775***	7.41	10	11.9	11
Strontium	mg/L	***0.3345***	***4.332333333***	***0.89825***	***0.293***	***0.279***	0.202	0.32	0.345	0.249
Sulphur	mg/L	-	-	-	-	***3.465***	< 3	< 3	< 3	4.86
Thallium	mg/L	***0.0001***	***0.0003***	***0.00007775***	***0.00001***	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	***0.0002***	***0.002333333***	***0.005***	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	***0.0005***	***0.025***	***0.005***	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	***0.0001075***	***0.000766667***	***0.000125***	***0.0001***	***0.000105***	< 0.00010	< 0.00010	< 0.00010	0.00012
Vanadium	mg/L	***0.0002***	***0.003266667***	***0.005***	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	***0.00165***	***0.002333333***	***0.005***	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	-	-	-	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-17	Sample Date	2015 Average	2016 Average	2017 Average	2018 Average	Annual Average	6/17/2019	7/7/2019	8/4/2019	9/3/2019
	FIELD_SDG						B9H1910	B9J0342	B9L8699	B9P1648
Parameter	Unit									
Dissolved Metals										
Aluminum	mg/L	-	***0.00595***	***0.004425***	***0.0042***	***0.003733333***	-	< 0.0030	0.0032	0.005
Antimony	mg/L	-	***0.0003***	***0.0005***	***0.0005***	***0.0005***	-	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	-	***0.00058***	***0.0007***	***0.00046***	***0.000625***	0.00051	0.00061	0.00076	0.00062
Barium	mg/L	-	***0.35855***	***0.0543***	***0.0265***	***0.030166667***	-	0.0316	0.0305	0.0284
Beryllium	mg/L	-	***0.0003***	***0.0001***	***0.0001***	***0.0001***	-	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	-	***0.089***	***0.05***	-	***0.001***	-	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	-	-	-	***0.05***	***0.05***	-	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	-	***0.000026***	***0.00001***	***0.00001***	***0.000011***	-	< 0.000010	< 0.000010	0.000013
Chromium	mg/L	-	***0.0008***	***0.001***	***0.001***	***0.001***	-	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	-	-	-	-	***0.0002***	-	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	-	***0.00081***	***0.0008375***	***0.0007***	***0.00099***	-	0.00088	0.00094	0.00115
Iron	mg/L	-	***0.234***	***0.09615***	***0.114***	***0.152666667***	-	0.133	0.152	0.173
Lead	mg/L	-	***0.00025***	***0.0002***	***0.0002***	***0.0002***	-	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	-	***0.417***	***0.04585***	***0.0131***	***0.009466667***	-	0.0113	0.0102	0.0069
Manganese	mg/L	-	***0.16725***	***0.0186***	***0.0446***	***0.037***	-	0.0612	0.0242	0.0256
Mercury	mg/L	-	***0.000055***	***0.00001***	***0.00001***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	-	***0.00075***	***0.001***	***0.001***	***0.001***	-	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	-	***0.0047***	***0.0013***	***0.0013***	***0.001666667***	-	0.0011	0.0015	0.0024
Selenium	mg/L	-	***0.00055***	***0.0001***	***0.0001***	***0.0001***	-	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	-	-	-	***0.879666667***	-	0.394	0.495	1.75
Silver	mg/L	-	***0.00002***	***0.00002***	***0.00002***	***0.00002***	-	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	-	***5.8075***	***0.89425***	***0.279***	***0.309666667***	-	0.317	0.369	0.243
Sulphur	mg/L	-	-	-	-	***3.35***	< 3.0	< 3.0	< 3.0	4.4
Thallium	mg/L	-	***0.00045***	***0.000055***	***0.00001***	***0.00001***	-	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	-	***0.003***	***0.005***	***0.005***	***0.005***	-	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	-	***0.0125***	***0.005***	***0.005***	***0.005***	-	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	-	***0.00064***	***0.00012***	***0.0001***	***0.0001***	-	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	-	***0.00285***	***0.005***	***0.005***	***0.005***	-	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	-	***0.003***	***0.005***	***0.005***	***0.005***	-	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	-	-	-	-	***0.0001***	-	< 0.00010	< 0.00010	< 0.00010
Volatile Organics										
Benzene	mg/L	-	-	-	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Ethylbenzene	mg/L	-	-	-	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Toluene	mg/L	-	-	-	-	***0.001***	< 0.00020	< 0.00020	< 0.00020	0.0034
Xylenes	mg/L	-	-	-	-	***0.0004***	< 0.00040	< 0.00040	< 0.00040	< 0.00040
m,p-Xylenes	mg/L	-	-	-	-	***0.0004***	< 0.00040	< 0.00040	< 0.00040	< 0.00040
o-Xylene	mg/L	-	-	-	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
F1 (C6-C10)-BTEX	mg/L	-	-	-	-	***0.025***	< 0.025	< 0.025	< 0.025	< 0.025
F1 (C6-C10)	mg/L	-	-	-	-	***0.025***	< 0.025	< 0.025	< 0.025	< 0.025
1,2-Dichloroethane-d4	mg/L	-	-	-	-	***96***	88	95	95	106
Ethylbenzene-d10	mg/L	-	-	-	-	***100.5***	89	108	89	116
4-Bromofluorobenzene	mg/L	-	-	-	-	***100***	98	103	96	103
1,4-Difluorobenzene	mg/L	-	-	-	-	***102***	104	97	104	103

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-17	Sample Date	MDL	8/4/2019			
	FIELD_SDG		B9L8699			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Conventional Parameters						
pH	pH units	-	6.07	7.85	7.89	0.51
Specific conductivity	umhos/cm	1	1	310	310	0.00
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	108	105	2.82
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	111	110	0.90
Total alkalinity, as CaCO3	mg/L	1	1	53	55	3.70
Total dissolved solids	mg/L	10	10	320	305	4.80
Total suspended solids	mg/L	1	1	3	3	0.00
Total organic carbon	mg/L	0.5	0.5	10	10	0.00
Dissolved organic carbon	mg/L	0.5	0.5	10	9.7	3.05
Turbidity	NTU	0.1	0.1	0.9	0.9	0.00
Major Ions						
Bicarbonate, as CaCO3	mg/L	1	1	52	54	3.77
Calcium	mg/L	0.05	0.05	36.3	35.1	3.36
Carbonate, as CaCO3	mg/L	1	1	1	1	0.00
Chloride	mg/L	1	1	48	49	2.06
Cyanide Total	mg/L	0.005	0.005	0.005	0.005	0.00
Cyanide Free	mg/L	0.001	0.0014	0.0011	0.0018	**48.28**
Cyanide WAD	mg/L	0.001	0.001	0.001	0.001	0.00
Magnesium	mg/L	0.05	0.05	4.33	4.23	2.34
Potassium	mg/L	0.05	0.05	2.29	2.27	0.88
Sodium	mg/L	0.05	0.05	11.5	11.2	2.64
Sulphate	mg/L	1	1	7.8	7.9	1.27
Silica	mg/L	0.05	0.05	0.86	0.86	0.00
Nutrients						
Nitrate	mg/L	0.1	0.1	0.1	0.1	0.00
Nitrite	mg/L	0.01	0.01	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.1	0.1	0.1	0.1	0.00
Total ammonia	mg/L	0.05	0.12	0.086	0.05	**52.94**
Total Kjeldahl nitrogen	mg/L	0.1	0.1	0.53	0.47	12.00
Total phosphorus	mg/L	0.02	0.02	0.02	0.02	0.00
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00
General Organics						
Total oil and grease	mg/L	0.5	0.8	0.5	0.6	18.18
Total Metals						
Aluminum	mg/L	0.003	0.003	0.0052	0.0057	9.17
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00081	0.00078	3.77
Barium	mg/L	0.001	0.001	0.0308	0.0308	0.00
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Calcium	mg/L	0.05	0.05	37	36.7	0.81
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	0.0005	0.0005	0.00108	0.00108	0.00
Iron	mg/L	0.01	0.01	0.276	0.267	3.31
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.0106	0.0106	0.00
Magnesium	mg/L	0.05	0.05	4.48	4.46	0.45
Manganese	mg/L	0.001	0.001	0.0398	0.0389	2.29
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	0.0016	0.0015	6.45
Potassium	mg/L	0.05	0.05	2.29	2.27	0.88
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.489	0.489	0.00
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-17	Sample Date	MDL	8/4/2019			
	FIELD_SDG		B9L8699			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Total Metals						
Sodium	mg/L	0.05	0.05	11.8	11.9	0.84
Strontium	mg/L	0.001	0.001	0.354	0.345	2.58
Sulphur	mg/L	3	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Dissolved Metals						
Aluminum	mg/L	0.003	0.003	0.003	0.0032	6.45
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00076	0.00076	0.00
Barium	mg/L	0.001	0.001	0.0314	0.0305	2.91
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	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	0.00093	0.00094	1.07
Iron	mg/L	0.005	0.005	0.155	0.152	1.95
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.0103	0.0102	0.98
Manganese	mg/L	0.001	0.001	0.0242	0.0242	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	0.0014	0.0015	6.90
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.485	0.495	2.04
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Strontium	mg/L	0.001	0.001	0.367	0.369	0.54
Sulphur	mg/L	3	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Volatile Organics						
Benzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Ethylbenzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Toluene	mg/L	0.0002	0.0011	0.0002	0.0002	0.00
Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00
m,p-Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00
o-Xylene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
F1 (C6-C10)-BTEX	mg/L	0.025	0.025	0.025	0.025	0.00
F1 (C6-C10)	mg/L	0.025	0.025	0.025	0.025	0.00
1,2-Dichloroethane-d4	%	-	95	95	95	0.00
Ethylbenzene-d10	%	-	90	90	89	1.12
4-Bromofluorobenzene	%	-	97	95	96	1.05
1,4-Difluorobenzene	%	-	106	104	104	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-18 (Lake B5)	Sample Date	2016	2017	2018	Annual	6/17/2019	7/7/2019	8/7/2019	9/3/2019
	FIELD_SDG	Average	Average	Average	Average	B9H1912	B9J0334	B9M1918	B9P1607
Parameter	Unit								
Field Measured									
pH	pH units	***8.575***	-	***8.45***	***7.78***	7.86	7.63	7.86	7.78
Conductivity	uS/cm	***145.85***	-	***105.4***	***127.83***	140.1	79.1	128.7	163.4
Temperature	°C	***7.95***	-	***17.1***	***9.22***	4.88	13.6	12.7	5.7
Dissolved oxygen	mg/L	-	-	-	***10.73***	11.07	9.46	9.33	13.06
Dissolved oxygen	%	-	-	-	***92.73***	87.4	91.1	87.8	104.6
Conventional Parameters									
pH	pH units	***7.655***	***7.70***	***7.345***	***7.61***	7.53	7.69	7.49	7.72
Specific conductivity	umhos/cm	***155***	***143.33***	***125***	***123.75***	95	110	130	160
Hardness, as CaCO3 (D)	mg/L	***62***	***55.70***	-	***45.90***	35	40	-	62.7
Hardness, as CaCO3 (T)	mg/L	***59.05***	***53.97***	-	***45.78***	33.1	42.2	43	64.8
Total alkalinity, as CaCO3	mg/L	***37.5***	***35.00***	***28.5***	***28.75***	23	28	30	34
Total dissolved solids	mg/L	***153***	***114.67***	***60***	***93.75***	75	95	95	110
Total suspended solids	mg/L	***1.5***	***4.33***	***2***	***1.25***	2	< 1	1	1
Total organic carbon	mg/L	***4.1***	***4.27***	***3.8***	***4.13***	3.8	3.2	4.4	5.1
Dissolved organic carbon	mg/L	***4.1***	***3.97***	***3.55***	***3.85***	3.3	3	4	5.1
Turbidity	NTU	***1.05***	***0.40***	***0.55***	***0.50***	0.5	0.3	0.5	0.7
Major Ions									
Bicarbonate, as CaCO3	mg/L	***37.5***	***34.67***	***28.5***	***28.50***	23	27	30	34
Calcium	mg/L	***19.2***	***17.97***	-	***15.27***	11.8	13.2	-	20.8
Carbonate, as CaCO3	mg/L	***1***	***1.00***	***1***	***1.00***	< 1.0	< 1.0	< 1.0	< 1.0
Chloride	mg/L	***21.5***	***19.33***	***17***	***17.00***	13	15	18	22
Cyanide Total	mg/L	***0.005***	***0.01***	***0.005***	***0.005***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyanide Free	mg/L	-	-	-	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cyanide WAD	mg/L	***0.001***	***0.00***	***0.001***	***0.001***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Magnesium	mg/L	***2.61***	***2.38***	-	***1.88***	1.33	1.69	-	2.61
Potassium	mg/L	***1.25***	***1.14***	-	***1.00***	0.899	0.89	-	1.2
Sodium	mg/L	***4.95***	***4.51***	-	***3.69***	2.38	3.34	-	5.36
Sulphate	mg/L	***3.5***	***4.10***	***3.95***	***4.30***	2.4	3.4	4	7.4
Silica	mg/L	***0.82***	***0.55***	***0.21***	***0.70***	0.45	0.31	0.35	1.7
Nutrients									
Nitrate	mg/L	***0.01***	***0.01***	***0.1***	***0.10***	< 0.10	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	***0.1***	***0.10***	***0.01***	***0.01***	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	***0.01***	***0.01***	***0.1***	***0.10***	< 0.10	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	***0.045***	***0.010***	***0.05***	***0.084***	0.081	0.13	< 0.050	0.075
Total Kjeldahl nitrogen	mg/L	***0.31***	***0.23***	***0.215***	***0.32***	0.45	0.22	0.27	0.32
Total phosphorus	mg/L	***0.0095***	***0.0080***	***0.02***	***0.02***	< 0.020	0.027	< 0.020	< 0.020
Orthophosphate	mg/L	***0.01***	***0.01***	***0.01***	***0.01***	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals									
Aluminum	mg/L	***0.00605***	***0.00456667***	-	***0.0086***	0.0113	0.0058	0.0055	0.0117
Antimony	mg/L	***0.0005***	***0.0005***	-	***0.0005***	< 0.00050	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	***0.001645***	***0.00144667***	-	***0.0017***	0.00193	0.00159	0.00152	0.00176
Barium	mg/L	***0.01615***	***0.0149***	-	***0.0148***	0.0129	0.0148	0.0136	0.0177
Beryllium	mg/L	***0.0001***	***0.0001***	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	-	-	-	***0.0010***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	***0.05***	***0.05***	-	***0.0500***	< 0.05	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	***0.00001***	***0.00001***	-	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Calcium	mg/L	***20.4***	***18.2333333***	-	***15.1750***	11	14.2	14.1	21.4
Chromium	mg/L	***0.001***	***0.001***	-	***0.0010***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	-	-	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	***0.000605***	***0.0006***	-	***0.0007***	0.0005	0.00054	0.00068	0.00096
Iron	mg/L	***0.074***	***0.08***	-	***0.1453***	0.195	0.158	0.094	0.134
Lead	mg/L	***0.0002***	***0.0002***	-	***0.0002***	< 0.00020	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	***0.0052***	***0.00336667***	-	***0.0055***	0.0042	0.0053	0.0049	0.0077
Magnesium	mg/L	***3***	***2.31***	-	***1.9200***	1.38	1.65	1.88	2.77
Manganese	mg/L	***0.0095***	***0.01273333***	-	***0.0174***	0.0411	0.0084	0.0097	0.0103
Mercury	mg/L	***0.000015***	***0.00001***	***0.00001***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.001***	***0.001***	-	***0.0010***	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Nickel	mg/L	***0.001***	***0.001***	-	***0.0010***	< 0.0010	< 0.0010	< 0.0010	0.0011
Potassium	mg/L	***1.29***	***1.088***	-	***1.0093***	0.815	0.94	0.982	1.3
Selenium	mg/L	***0.0001***	***0.0001***	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	-	-	-	***0.2815***	0.268	0.187	0.168	0.503
Silver	mg/L	***0.00002***	***0.00002***	-	***0.0000***	< 0.000020	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	***5.54***	***4.44666667***	-	***3.6800***	2.49	3.36	-	5.19
Strontium	mg/L	***0.132***	***0.103***	-	***0.1029***	0.0794	0.0993	0.0958	0.137
Sulphur	mg/L	-	-	-	***3.0000***	< 3	< 3	< 3	< 3
Thallium	mg/L	***0.00005***	***0.000037***	-	***0.00001***	< 0.000010	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	***0.005***	***0.005***	-	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	***0.005***	***0.005***	-	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	***0.0001***	***0.0001***	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	***0.005***	***0.005***	-	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	***0.005***	***0.005***	-	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	-	-	-	***0.0001***	< 0.00010	< 0.00010	< 0.00010	< 0.00010

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-18 (Lake B5)	Sample Date	2016 Average	2017 Average	2018 Average	Annual Average	6/17/2019	7/7/2019	8/7/2019	9/3/2019
	FIELD_SDG					B9H1912	B9J0334	B9M1918	B9P1607
Parameter	Unit								
Dissolved Metals									
Aluminum	mg/L	***0.00455***	***0.00356667***	-	***0.0032***	< 0.0030	< 0.0030	-	0.0036
Antimony	mg/L	***0.0005***	***0.0005***	-	***0.0005***	< 0.00050	< 0.00050	-	< 0.00050
Arsenic	mg/L	***0.00133***	***0.00124***	-	***0.0014***	0.0015	0.00129	-	0.00127
Barium	mg/L	***0.0144***	***0.01486667***	-	***0.0148***	0.0129	0.0147	-	0.0168
Beryllium	mg/L	***0.0001***	***0.0001***	-	***0.0001***	< 0.00010	< 0.00010	-	< 0.00010
Bismuth	mg/L	-	-	-	***0.0010***	< 0.0010	< 0.0010	-	< 0.0010
Boron	mg/L	***0.05***	***0.05***	-	***0.0500***	< 0.05	< 0.05	-	< 0.05
Cadmium	mg/L	***0.00001***	***0.00001***	-	***0.00001***	< 0.000010	< 0.000010	-	< 0.000010
Chromium	mg/L	***0.001***	***0.001***	-	***0.0010***	< 0.0010	< 0.0010	-	< 0.0010
Cobalt	mg/L	-	-	-	***0.0002***	< 0.00020	< 0.00020	-	< 0.00020
Copper	mg/L	***0.00062***	***0.00058***	-	***0.0006***	0.00035	0.00042	-	0.00091
Iron	mg/L	***0.0286***	***0.04233333***	-	***0.0818***	0.113	0.091	-	0.0415
Lead	mg/L	***0.0002***	***0.0002***	-	***0.0002***	< 0.00020	< 0.00020	-	< 0.00020
Lithium	mg/L	***0.005***	***0.00346667***	-	***0.0059***	0.0046	0.0053	-	0.0078
Manganese	mg/L	***0.0021***	***0.0037***	-	***0.0157***	0.0392	0.0041	-	0.0038
Mercury	mg/L	***0.00001***	***0.00001***	***0.00001***	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.001***	***0.001***	-	***0.0031***	< 0.0010	0.0072	-	< 0.0010
Nickel	mg/L	***0.001***	***0.001***	-	***0.0010***	< 0.0010	< 0.0010	-	< 0.0010
Selenium	mg/L	***0.0001***	***0.0001***	-	***0.0001***	< 0.00010	< 0.00010	-	< 0.00010
Silicon	mg/L	-	-	-	***0.3047***	0.288	0.145	-	0.481
Silver	mg/L	***0.00002***	***0.00002***	-	***0.0000***	< 0.000020	< 0.000020	-	< 0.000020
Strontium	mg/L	***0.114***	***0.10436667***	-	***0.1009***	0.0772	0.0965	-	0.129
Sulphur	mg/L	-	-	-	***3.0000***	< 3.0	< 3.0	-	< 3.0
Thallium	mg/L	***0.00005***	***0.00001***	-	***0.00001***	< 0.000010	< 0.000010	-	< 0.000010
Tin	mg/L	***0.005***	***0.005***	-	***0.0050***	< 0.0050	< 0.0050	-	< 0.0050
Titanium	mg/L	***0.005***	***0.005***	-	***0.0050***	< 0.0050	< 0.0050	-	< 0.0050
Uranium	mg/L	***0.0001***	***0.0001***	-	***0.0001***	< 0.00010	< 0.00010	-	< 0.00010
Vanadium	mg/L	***0.005***	***0.005***	-	***0.0050***	< 0.0050	< 0.0050	-	< 0.0050
Zinc	mg/L	***0.005***	***0.005***	-	***0.0050***	< 0.0050	< 0.0050	-	< 0.0050
Zirconium	mg/L	-	-	-	***0.0001***	< 0.00010	< 0.00010	-	< 0.00010

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-18	Sample Date	MDL	8/7/2019			
	FIELD_SDG		B9M1918			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Conventional Parameters						
pH	pH units	-	5.95	7.62	7.49	1.72
Specific conductivity	umhos/cm	1	1.1	130	130	0.00
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	-	-	-
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	42.6	43	0.93
Total alkalinity, as CaCO3	mg/L	1	1	29	30	3.39
Total dissolved solids	mg/L	10	10	110	95	14.63
Total suspended solids	mg/L	1	1	2	1	**66.67**
Total organic carbon	mg/L	0.5	0.5	4.6	4.4	4.44
Dissolved organic carbon	mg/L	0.5	0.5	3.8	4	5.13
Turbidity	NTU	0.1	0.1	0.4	0.5	**22.22**
Major Ions						
Bicarbonate, as CaCO3	mg/L	1	1	29	30	3.39
Calcium	mg/L	0.05	0.05	-	-	-
Carbonate, as CaCO3	mg/L	1	1	1	1	0.00
Chloride	mg/L	1	1	17	18	5.71
Cyanide Total	mg/L	0.005	0.005	0.005	0.005	0.00
Cyanide Free	mg/L	0.001	0.001	0.0018	0.001	**57.14**
Cyanide WAD	mg/L	0.001	0.001	0.001	0.001	0.00
Magnesium	mg/L	0.05	0.05	-	-	-
Potassium	mg/L	0.05	0.05	-	-	-
Sodium	mg/L	0.05	0.05	-	-	-
Sulphate	mg/L	1	1	3.9	4	2.53
Silica	mg/L	0.05	0.05	0.34	0.35	2.90
Nutrients						
Nitrate	mg/L	0.1	0.1	0.1	0.1	0.00
Nitrite	mg/L	0.01	0.01	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.1	0.1	0.1	0.1	0.00
Total ammonia	mg/L	0.05	0.09	0.1	0.05	**66.67**
Total Kjeldahl nitrogen	mg/L	0.1	0.1	0.23	0.27	16.00
Total phosphorus	mg/L	0.02	0.02	0.02	0.02	0.00
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00
Total Metals						
Aluminum	mg/L	0.003	0.003	0.0052	0.0055	5.61
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00155	0.00152	1.95
Barium	mg/L	0.001	0.001	0.0139	0.0136	2.18
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Calcium	mg/L	0.05	0.05	13.9	14.1	1.43
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	0.0005	0.0005	0.00066	0.00068	2.99
Iron	mg/L	0.01	0.01	0.087	0.094	7.73
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.0051	0.0049	4.00
Magnesium	mg/L	0.05	0.05	1.88	1.88	0.00
Manganese	mg/L	0.001	0.001	0.009	0.0097	7.49
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
Potassium	mg/L	0.05	0.05	0.982	0.982	0.00
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.163	0.168	3.02
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Strontium	mg/L	0.001	0.001	0.0978	0.0958	2.07
Sulphur	mg/L	**3**	3	3	3	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-18	Sample Date	MDL	8/7/2019			
	FIELD_SDG		B9M1918			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	**Unit**					
Total Metals						
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Dissolved Metals						
Aluminum	mg/L	0.003	0.003	-	-	-
Antimony	mg/L	0.0005	0.0005	-	-	-
Arsenic	mg/L	0.0001	0.0001	-	-	-
Barium	mg/L	0.001	0.001	-	-	-
Beryllium	mg/L	0.0001	0.0001	-	-	-
Bismuth	mg/L	0.001	0.001	-	-	-
Boron	mg/L	0.05	0.05	-	-	-
Cadmium	mg/L	0.00001	0.00001	-	-	-
Chromium	mg/L	0.001	0.001	-	-	-
Cobalt	mg/L	0.0002	0.0002	-	-	-
Copper	mg/L	0.0002	0.0002	-	-	-
Iron	mg/L	0.005	0.005	-	-	-
Lead	mg/L	0.0002	0.0002	-	-	-
Lithium	mg/L	0.002	0.002	-	-	-
Manganese	mg/L	0.001	0.001	-	-	-
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	-	-	-
Nickel	mg/L	0.001	0.001	-	-	-
Selenium	mg/L	0.0001	0.0001	-	-	-
Silicon	mg/L	0.1	0.1	-	-	-
Silver	mg/L	0.00002	0.00002	-	-	-
Strontium	mg/L	0.001	0.001	-	-	-
Sulphur	mg/L	3	3	-	-	-
Thallium	mg/L	0.00001	0.00001	-	-	-
Tin	mg/L	0.005	0.005	-	-	-
Titanium	mg/L	0.005	0.005	-	-	-
Uranium	mg/L	0.0001	0.0001	-	-	-
Vanadium	mg/L	0.005	0.005	-	-	-
Zinc	mg/L	0.005	0.005	-	-	-
Zirconium	mg/L	**0.0001**	0.0001	-	-	-

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-20	Sample Date	*Annual Average*	5/22/2019	5/29/2019	6/4/2019	6/9/2019	6/17/2019	7/1/2019	8/4/2019	9/1/2019
	FIELD_SDG		B9E0939	B9E9595	B9F7660	B9G2468	B9H1976	B9I4287	B9L8678	B9O6796
Parameter	**Unit**									
Field Measured										
pH	pH units	***7.72***	8.58	7.7	6.98	7.22	7.86	7.96	7.68	7.76
Conductivity	uS/cm	***1607.59***	1423	-	706.1	1470	1240	1349	2525	2540
Temperature	°C	***6.49***	3.5	4.28	4.1	7.44	10.08	7.7	10.9	3.9
Dissolved oxygen	mg/L	***9.47***	-	-	10.2	-	11	9.57	7.43	9.13
Dissolved oxygen	%	***78.88***	101.6	79.1	91.6	98.3	99.4	81.7	72.3	7
Conventional Parameters										
pH	pH units	***7.73***	7.36	7.7	7.69	7.93	7.73	7.89	7.88	7.65
Hardness, as CaCO3 (D)	mg/L	***292.67***	-	-	142	231	149	296	459	479
Hardness, as CaCO3 (T)	mg/L	***259.75***	139	142	146	224	172	332	452	471
Total alkalinity, as CaCO3	mg/L	***72.88***	55	62	66	70	67	83	94	86
Total dissolved solids	mg/L	***839.38***	420	430	455	700	620	1010	1510	1570
Total suspended solids	mg/L	***92.75***	100	50	130	16	290	83	33	40
Turbidity	NTU	***125.00***	190	130	180	27	280	140	13	40
Major Ions										
Calcium	mg/L	***74.60***	-	-	39.6	69.7	37.7	70.6	110	120
Chloride	mg/L	***273.75***	140	130	140	190	170	360	550	510
Cyanide	mg/L	***0.02***	0.0076	0.0074	0.0067	< 0.0050	0.0064	< 0.0050	0.012	0.086
Fluoride	mg/L	***0.14***	< 0.10	0.12	< 0.10	< 0.10	0.12	0.17	0.22	0.16
Magnesium	mg/L	***25.88***	-	-	10.6	13.9	13.4	29	45	43.4
Potassium	mg/L	***14.52***	-	-	8.31	11.8	9.02	15.1	21.2	21.7
Sodium	mg/L	***175.80***	-	-	77.2	88.6	103	204	290	292
Sulphate	mg/L	***140.38***	73	70	72	86	82	170	260	310
Nutrients										
Nitrate	mg/L	***8.04***	6.36	6.53	5.94	1.7	5.14	8.93	15.4	14.3
Nitrite	mg/L	***0.19***	0.114	0.123	0.116	0.07	0.128	0.296	0.356	0.282
Nitrate + nitrite	mg/L	***8.22***	6.48	6.65	6.05	1.77	5.27	9.22	15.7	14.6
Total ammonia	mg/L	***4.84***	4.5	4.7	4.3	1.2	3.3	5.3	7	8.4
Total phosphorus	mg/L	***0.22***	0.24	0.39	0.15	0.043	0.36	0.19	0.077	0.33
Orthophosphate	mg/L	***0.06***	0.072	0.067	0.068	< 0.010	0.051	0.017	0.016	0.16
Total Metals										
Aluminum	mg/L	***2.00863***	2.83	1.1	2.17	0.448	5.95	2.1	0.311	1.16
Antimony	mg/L	***0.00229***	-	-	0.00084	0.00358	0.0011	0.00163	0.0016	< 0.0050
Arsenic	mg/L	***0.09328***	0.236	0.119	0.0847	0.0247	0.0785	0.0366	0.0377	0.129
Barium	mg/L	***0.05994***	0.0497	0.0365	0.055	0.0337	0.0902	0.0722	0.0652	0.077
Beryllium	mg/L	***0.00028***	-	-	< 0.00010	< 0.00010	< 0.00020	< 0.00010	< 0.00020	< 0.0010
Bismuth	mg/L	***0.00283***	-	-	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.01
Boron	mg/L	***0.34950***	-	-	0.157	0.386	0.294	0.365	0.395	< 0.5
Cadmium	mg/L	***0.00005***	0.000036	0.000023	0.000027	0.000013	0.000068	0.000055	0.000042	< 0.00010
Calcium	mg/L	***66.03750***	37.9	39.2	39.8	66.1	41.4	77.9	109	117
Chromium	mg/L	***0.00618***	0.0071	0.003	0.0052	0.0013	0.015	0.0058	< 0.0020	< 0.01
Cobalt	mg/L	***0.00454***	-	-	0.0034	0.00152	0.00686	0.00539	0.00426	0.0058
Copper	mg/L	***0.01182***	0.0153	0.00832	0.00874	0.0064	0.0202	0.0135	0.0101	0.012
Iron	mg/L	***3.20175***	4.48	2.28	3.14	0.793	9.7	3.27	0.501	1.45
Lead	mg/L	***0.00613***	0.0156	0.00574	0.00504	0.00102	0.013	0.0039	0.00133	0.0034
Lithium	mg/L	***0.01687***	-	-	0.0056	0.0417	0.0114	0.0102	0.0123	< 0.02
Magnesium	mg/L	***23.08750***	10.7	10.7	11.3	14.4	16.8	33.4	44	43.4

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-20	Sample Date	*Annual Average*	5/22/2019	5/29/2019	6/4/2019	6/9/2019	6/17/2019	7/1/2019	8/4/2019	9/1/2019
	FIELD_SDG		B9E0939	B9E9595	B9F7660	B9G2468	B9H1976	B9I4287	B9L8678	B9O6796
Parameter	**Unit**									
Total Metals										
Manganese	mg/L	***0.22208***	0.197	0.198	0.18	0.0646	0.226	0.219	0.304	0.388
Mercury	mg/L	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.00670***	0.0038	0.004	0.004	0.0121	0.0051	0.0071	0.0075	< 0.01
Nickel	mg/L	***0.02458***	0.0164	0.0153	0.0153	0.0124	0.0302	0.0417	0.0363	0.029
Potassium	mg/L	***13.74125***	9.31	8.65	8.77	11.9	11	17.7	20.9	21.7
Selenium	mg/L	***0.00040***	0.00033	0.00024	0.00024	0.00019	0.00027	0.0004	0.00049	< 0.0010
Silicon	mg/L	***5.39500***	-	-	4.57	2.46	12.3	5.49	2.7	4.85
Silver	mg/L	***0.00006***	0.000031	< 0.000020	< 0.000020	0.000022	0.000078	0.000032	< 0.000040	< 0.00020
Sodium	mg/L	***150.87500***	69.5	76.5	75.1	89.8	99.1	221	285	291
Strontium	mg/L	***0.58350***	-	-	0.267	0.736	0.248	0.54	0.876	0.834
Sulphur	mg/L	***49.22500***	29.7	24.4	24.8	28.6	24.5	60.9	89.9	111
Thallium	mg/L	***0.00006***	-	-	0.000037	0.00002	0.000111	0.000062	0.000033	< 0.00010
Tin	mg/L	***0.01417***	-	-	< 0.0050	< 0.0050	< 0.01	< 0.0050	< 0.01	< 0.05
Titanium	mg/L	***0.11403***	0.147	0.0636	0.124	0.0236	0.347	0.133	0.018	0.056
Uranium	mg/L	***0.00639***	-	-	0.00302	0.00349	0.00505	0.00907	0.0106	0.0071
Vanadium	mg/L	***0.01527***	-	-	0.0059	< 0.0050	0.015	0.0057	< 0.01	< 0.05
Zinc	mg/L	***0.01595***	0.0115	0.0061	0.0097	< 0.0050	0.026	0.0093	< 0.01	< 0.05
Zirconium	mg/L	***0.00246***	-	-	0.00272	0.00067	0.00538	0.00364	0.00104	0.0013
Dissolved Metals										
Aluminum	mg/L	***0.01625***	-	-	0.0092	0.0157	0.0153	0.0111	0.0162	< 0.03
Antimony	mg/L	***0.00233***	-	-	0.00093	0.00376	0.00107	0.00166	0.00158	< 0.0050
Arsenic	mg/L	***0.04917***	-	-	0.067	0.0187	0.0352	0.0235	0.0326	0.118
Barium	mg/L	***0.04285***	-	-	0.022	0.032	0.0281	0.0505	0.0625	0.062
Beryllium	mg/L	***0.00025***	-	-	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.0010
Bismuth	mg/L	***0.00250***	-	-	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.01
Boron	mg/L	***0.34750***	-	-	0.156	0.384	0.266	0.381	0.398	< 0.5
Cadmium	mg/L	***0.00004***	-	-	0.000011	0.000015	0.000012	0.000023	0.000029	0.00012
Chromium	mg/L	***0.00317***	-	-	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.014
Cobalt	mg/L	***0.00256***	-	-	0.00148	0.00085	0.00116	0.00254	0.00373	0.0056
Copper	mg/L	***0.00641***	-	-	0.00385	0.00451	0.00487	0.00677	0.00834	0.0101
Iron	mg/L	***0.04107***	-	-	0.0365	0.0143	0.0198	0.0115	0.0343	0.13
Lead	mg/L	***0.00051***	-	-	0.00022	< 0.00020	< 0.00020	< 0.00020	0.00022	< 0.0020
Lithium	mg/L	***0.01453***	-	-	0.0028	0.0421	0.0034	0.0073	0.0116	< 0.02
Manganese	mg/L	***0.17392***	-	-	0.136	0.0367	0.0838	0.147	0.262	0.378
Mercury	mg/L	***0.00001***	-	-	< 0.00001	< 0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.00788***	-	-	0.0043	0.0121	0.0054	0.0075	0.008	< 0.01
Nickel	mg/L	***0.02272***	-	-	0.0094	0.0104	0.0121	0.0314	0.033	0.04
Selenium	mg/L	***0.00040***	-	-	0.0002	0.00013	0.00023	0.00033	0.00051	0.001
Silicon	mg/L	***1.75167***	-	-	1.08	1.85	1.26	1.91	2.19	2.22
Silver	mg/L	***0.00005***	-	-	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.00020
Strontium	mg/L	***0.59950***	-	-	0.255	0.717	0.252	0.61	0.931	0.832
Sulphur	mg/L	***56.70000***	-	-	25.8	32	25.7	55.1	91.6	110
Thallium	mg/L	***0.00003***	-	-	0.000016	0.000013	0.000013	0.000031	0.000028	< 0.00010
Tin	mg/L	***0.01250***	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.05
Titanium	mg/L	***0.01250***	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.05
Uranium	mg/L	***0.00644***	-	-	0.00286	0.00357	0.00434	0.00864	0.0119	0.0073
Vanadium	mg/L	***0.01250***	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.05
Zinc	mg/L	***0.01250***	-	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.05
Zirconium	mg/L	***0.00057***	-	-	0.0003	0.00026	0.00031	0.00057	0.00097	< 0.0010

Note:

Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-20 QAQC	Sample Date	MDL	6/9/2019			
	FIELD_SDG		B9G2468			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Conventional Parameters						
pH	pH units	-	6.24	7.83	7.93	1.27
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	232	231	0.43
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	215	224	4.10
Total alkalinity, as CaCO3	mg/L	1	1	69	70	1.44
Total dissolved solids	mg/L	10	10	695	700	0.72
Total suspended solids	mg/L	1	1	17	16	6.06
Turbidity	NTU	0.1	0.1	27	27	0.00
Major Ions						
Calcium	mg/L	0.05	0.05	69.1	69.7	0.86
Chloride	mg/L	1	1	200	190	5.13
Cyanide	mg/L	0.005	0.005	0.005	0.005	0.00
Fluoride	mg/L	0.1	0.1	0.12	0.1	18.18
Magnesium	mg/L	0.05	0.05	14.4	13.9	3.53
Potassium	mg/L	0.05	0.05	12.3	11.8	4.15
Sodium	mg/L	0.05	0.05	91.7	88.6	3.44
Sulphate	mg/L	1	1	87	86	1.16
Nutrient						
Nitrate	mg/L	0.1	0.1	1.69	1.7	0.59
Nitrite	mg/L	0.01	0.01	0.071	0.07	1.42
Nitrate + nitrite	mg/L	0.1	0.1	1.76	1.77	0.57
Total ammonia	mg/L	0.05	0.05	1.2	1.2	0.00
Total phosphorus	mg/L	0.02	0.02	0.037	0.043	15.00
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00
Total Metals						
Aluminum	mg/L	0.003	0.003	0.48	0.448	6.90
Antimony	mg/L	0.0005	0.0005	0.00351	0.00358	1.97
Arsenic	mg/L	0.0001	0.0001	0.0239	0.0247	3.29
Barium	mg/L	0.001	0.001	0.0328	0.0337	2.71
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.374	0.386	3.16
Cadmium	mg/L	0.00001	0.00001	0.000015	0.000013	14.29
Calcium	mg/L	0.05	0.05	63.3	66.1	4.33
Chromium	mg/L	0.001	0.001	0.0014	0.0013	7.41
Cobalt	mg/L	0.0002	0.0002	0.00151	0.00152	0.66
Copper	mg/L	0.0005	0.0005	0.0063	0.0064	1.57
Iron	mg/L	0.01	0.01	0.945	0.793	17.49
Lead	mg/L	0.0002	0.0002	0.00105	0.00102	2.90
Lithium	mg/L	0.002	0.002	0.0406	0.0417	2.67
Magnesium	mg/L	0.05	0.05	13.9	14.4	3.53
Manganese	mg/L	0.001	0.001	0.0636	0.0646	1.56
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.0118	0.0121	2.51
Nickel	mg/L	0.001	0.001	0.0124	0.0124	0.00
Potassium	mg/L	0.05	0.05	11.4	11.9	4.29
Selenium	mg/L	0.0001	0.0001	0.00019	0.00019	0.00
Silicon	mg/L	0.1	0.1	2.33	2.46	5.43
Silver	mg/L	0.00002	0.00002	0.000023	0.000022	4.44
Sodium	mg/L	0.05	0.05	86.9	89.8	3.28
Strontium	mg/L	0.001	0.001	0.725	0.736	1.51
Sulphur	mg/L	3	3	27.8	28.6	2.84
Thallium	mg/L	0.00001	0.00001	0.000019	0.00002	5.13
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.0229	0.0236	3.01
Uranium	mg/L	0.0001	0.0001	0.00344	0.00349	1.44
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.00068	0.00067	1.48

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-20 QAQC	Sample Date	MDL	6/9/2019			
	FIELD_SDG		B9G2468			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Dissolved Metals						
Aluminum	mg/L	0.003	0.003	0.0156	0.0157	0.64
Antimony	mg/L	0.0005	0.0005	0.00372	0.00376	1.07
Arsenic	mg/L	0.0001	0.0001	0.0188	0.0187	0.53
Barium	mg/L	0.001	0.001	0.0314	0.032	1.89
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.369	0.384	3.98
Cadmium	mg/L	0.00001	0.00001	0.000015	0.000015	0.00
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00
Cobalt	mg/L	0.0002	0.0002	0.00084	0.00085	1.18
Copper	mg/L	0.0002	0.0002	0.00466	0.00451	3.27
Iron	mg/L	0.005	0.005	0.0161	0.0143	11.84
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.0426	0.0421	1.18
Manganese	mg/L	0.001	0.001	0.0379	0.0367	3.22
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.0122	0.0121	0.82
Nickel	mg/L	0.001	0.001	0.0109	0.0104	4.69
Selenium	mg/L	0.0001	0.0001	0.00015	0.00013	14.29
Silicon	mg/L	0.1	0.1	1.83	1.85	1.09
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Strontium	mg/L	0.001	0.001	0.715	0.717	0.28
Sulphur	mg/L	3	3	31.5	32	1.57
Thallium	mg/L	0.00001	0.00001	0.000014	0.000013	7.41
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.00362	0.00357	1.39
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	**0.0001**	0.0001	0.00024	0.00026	8.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-21	Sample Date	*Annual Average*	5/22/2019	6/4/2019	6/9/2019	6/17/2019	7/1/2019	8/4/2019	9/4/2019
	FIELD_SDG		B9E0939	B9F7660	B9G2251	B9H1974	B9I4297	B9L8675	B9P1604
Parameter	**Unit**								
Field Measured									
pH	pH units	***8.05***	8.24	7.22	7.99	7.64	8.1	9.07	8.09
Conductivity	uS/cm	***1701.19***	1313	884.3	1205	1485	1026	3682	2313
Temperature	°C	***7.61***	4.49	6.4	3.83	13.12	9.6	10.6	5.2
Dissolved oxygen	mg/L	***9.88***	-	10.18	-	10.41	9.97	9.45	9.37
Dissolved oxygen	%	***91.46***	101.9	90.5	98.7	101	87.5	86.3	74.3
Conventional Parameters									
pH	pH units	***7.85***	7.55	7.7	7.79	7.87	7.97	8.03	8.03
Hardness, as CaCO3 (D)	mg/L	***308.67***	-	217	149	233	251	508	494
Hardness, as CaCO3 (T)	mg/L	***297.00***	184	217	146	242	271	522	497
Total alkalinity, as CaCO3	mg/L	***83.29***	67	69	65	72	80	130	100
Total dissolved solids	mg/L	***957.14***	515	605	525	685	680	2190	1500
Total suspended solids	mg/L	***42.71***	71	22	110	6	6	43	41
Turbidity	NTU	***58.17***	77	37	160	6.8	8.4	35	83
Major Ions									
Calcium	mg/L	***79.82***	-	64.4	41.5	68.7	72.3	105	127
Chloride	mg/L	***334.29***	170	180	150	200	250	910	480
Cyanide	mg/L	***0.007***	< 0.0050	< 0.0050	0.014	0.012	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	***0.14***	< 0.10	< 0.10	0.12	< 0.10	0.11	0.26	0.18
Magnesium	mg/L	***26.55***	-	13.7	11	15	17.2	59.4	43
Potassium	mg/L	***16.27***	-	11.1	8.89	12	14.3	32.2	19.1
Sodium	mg/L	***185.67***	-	81	84.9	96.1	121	478	253
Sulphate	mg/L	***132.14***	76	84	75	91	99	270	230
Nutrients									
Nitrate	mg/L	***2.71***	1.88	1.77	6.38	1.72	1.96	3.34	1.94
Nitrite	mg/L	***0.085***	0.059	0.056	0.132	0.074	0.111	0.111	0.054
Nitrate + nitrite	mg/L	***2.80***	1.94	1.82	6.51	1.79	2.07	3.45	1.99
Total ammonia	mg/L	***1.99***	1.4	1.3	4.3	1.3	1.7	2.5	1.4
Total phosphorus	mg/L	***0.09***	0.052	< 0.040	0.2	< 0.020	< 0.020	< 0.20	< 0.10
Orthophosphate	mg/L	***0.015***	< 0.010	< 0.010	0.043	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals									
Aluminum	mg/L	***0.86486***	1.1	0.639	1.47	0.172	0.204	0.799	1.67
Antimony	mg/L	***0.00420***	-	0.00339	0.00091	0.00396	0.00517	0.0081	0.00367
Arsenic	mg/L	***0.02993***	0.0395	0.0296	0.0711	0.0195	0.0172	0.0124	0.0202
Barium	mg/L	***0.04710***	0.0327	0.0346	0.0445	0.0328	0.037	0.0741	0.074
Beryllium	mg/L	***0.00012***	-	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00010
Bismuth	mg/L	***0.00117***	-	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010
Boron	mg/L	***0.52450***	-	0.34	0.198	0.376	0.478	1.19	0.565
Cadmium	mg/L	***0.00004***	0.000028	0.000029	0.000021	0.00002	0.000022	0.000032	0.000127
Calcium	mg/L	***77.28571***	54	64	38.9	70.9	76.2	109	128
Chromium	mg/L	***0.00247***	0.003	0.0018	0.0037	< 0.0010	< 0.0010	0.0026	0.0042
Cobalt	mg/L	***0.00286***	-	0.00196	0.00321	0.00094	0.00124	0.00391	0.00592
Copper	mg/L	***0.00744***	0.0109	0.00785	0.009	0.00494	0.00564	0.0051	0.00867
Iron	mg/L	***1.38200***	1.8	1.07	2.43	0.248	0.316	1.35	2.46
Lead	mg/L	***0.00195***	0.00294	0.00136	0.00438	0.00045	0.00058	0.00164	0.00228
Lithium	mg/L	***0.03550***	-	0.0379	0.0049	0.0425	0.0435	0.0366	0.0476
Magnesium	mg/L	***25.28571***	11.9	13.9	11.8	15.7	19.6	60.9	43.2
Manganese	mg/L	***0.12273***	0.109	0.0881	0.161	0.04	0.041	0.19	0.23

Note:

Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-21	Sample Date	*Annual Average*	5/22/2019	6/4/2019	6/9/2019	6/17/2019	7/1/2019	8/4/2019	9/4/2019
	FIELD_SDG		B9E0939	B9F7660	B9G2251	B9H1974	B9I4297	B9L8675	B9P1604
Parameter	**Unit**								
Total Metals									
Mercury	mg/L	***0.00001***	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.01834***	0.008	0.0101	0.0042	0.0126	0.0146	0.0546	0.0243
Nickel	mg/L	***0.01971***	0.0132	0.0127	0.0164	0.0117	0.0169	0.0381	0.029
Potassium	mg/L	***16.10571***	11.3	11.4	9.04	12.9	15.9	32.6	19.6
Selenium	mg/L	***0.00032***	0.00023	0.00022	0.00019	0.00016	0.00025	0.00077	0.00045
Silicon	mg/L	***3.57167***	-	2.65	3.31	2.18	2.42	4.27	6.6
Silver	mg/L	***0.00003***	0.000049	0.000029	< 0.000020	< 0.000020	< 0.000020	< 0.000040	0.000027
Sodium	mg/L	***172.41429***	73.5	80.7	83.4	97.3	141	484	247
Strontium	mg/L	***0.73783***	-	0.72	0.257	0.736	0.807	1.05	0.857
Sulphur	mg/L	***47.08571***	26.2	27.9	25.1	33.8	37.7	97.3	81.6
Thallium	mg/L	***0.00003***	-	0.000025	0.000036	0.000018	0.00002	0.000023	0.000033
Tin	mg/L	***0.00583***	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.01	< 0.0050
Titanium	mg/L	***0.04797***	0.0504	0.0314	0.0926	0.0067	0.012	0.061	0.0817
Uranium	mg/L	***0.00653***	-	0.00329	0.0034	0.00404	0.00505	0.0152	0.00821
Vanadium	mg/L	***0.00583***	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.01	< 0.0050
Zinc	mg/L	***0.00639***	0.0054	< 0.0050	0.0074	< 0.0050	< 0.0050	< 0.01	0.0069
Zirconium	mg/L	***0.00120***	-	0.00088	0.0024	0.00042	0.00057	0.00161	0.00132
Dissolved Metals									
Aluminum	mg/L	***0.01347***	-	0.0215	0.0083	0.0149	0.0169	0.0094	0.0098
Antimony	mg/L	***0.00424***	-	0.00347	0.00105	0.00398	0.00503	0.008	0.00392
Arsenic	mg/L	***0.02132***	-	0.022	0.0569	0.0169	0.0157	0.00775	0.00864
Barium	mg/L	***0.04065***	-	0.0291	0.0253	0.0311	0.0353	0.0641	0.059
Beryllium	mg/L	***0.00012***	-	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00020	< 0.00010
Bismuth	mg/L	***0.00117***	-	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010
Boron	mg/L	***0.53350***	-	0.335	0.205	0.41	0.504	1.14	0.607
Cadmium	mg/L	***0.000019***	-	0.000017	0.000013	< 0.000010	0.000016	< 0.000020	0.000038
Chromium	mg/L	***0.00117***	-	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010
Cobalt	mg/L	***0.00178***	-	0.00112	0.00143	0.00075	0.00073	0.00268	0.00399
Copper	mg/L	***0.00432***	-	0.00501	0.00445	0.00463	0.00436	0.003	0.00444
Iron	mg/L	***0.01665***	-	0.0188	0.0279	0.0116	0.0099	< 0.01	0.0217
Lead	mg/L	***0.00023***	-	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00040	< 0.00020
Lithium	mg/L	***0.03447***	-	0.0371	0.0033	0.0426	0.0439	0.0318	0.0481
Manganese	mg/L	***0.09307***	-	0.0638	0.114	0.0277	0.0129	0.146	0.194
Mercury	mg/L	***0.000010***	-	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.02050***	-	0.0102	0.0043	0.0131	0.0155	0.0542	0.0257
Nickel	mg/L	***0.01718***	-	0.0101	0.0106	0.0115	0.015	0.0324	0.0235
Selenium	mg/L	***0.00030***	-	0.00015	0.00016	0.00014	0.00022	0.00072	0.00041
Silicon	mg/L	***2.08***	-	1.63	1.27	1.85	2.08	2.69	2.98
Silver	mg/L	***0.00002***	-	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000040	< 0.000020
Strontium	mg/L	***0.75717***	-	0.712	0.248	0.777	0.914	1.02	0.872
Sulphur	mg/L	***49.32***	-	28	28.1	28.8	33.5	94.5	83
Thallium	mg/L	***0.000014***	-	0.000013	< 0.000010	0.000014	0.000016	< 0.000020	0.000012
Tin	mg/L	***0.00583***	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.01	< 0.0050
Titanium	mg/L	***0.00583***	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.01	< 0.0050
Uranium	mg/L	***0.00635***	-	0.00333	0.00334	0.00389	0.00495	0.0144	0.00817
Vanadium	mg/L	***0.00583***	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.01	< 0.0050
Zinc	mg/L	***0.00583***	-	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.01	< 0.0050
Zirconium	mg/L	***0.00032***	-	0.0003	0.00028	0.00028	0.00028	0.00038	0.00039

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-21 QAQC	Sample Date	MDL	6/9/2019			
	FIELD_SDG		B9G2251			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Conventional Parameters						
pH	pH units	-	6.18	7.83	7.79	0.51
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	150	149	0.67
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	152	146	4.03
Total alkalinity, as CaCO3	mg/L	1	1	65	65	0.00
Total dissolved solids	mg/L	10	10	540	525	2.82
Total suspended solids	mg/L	1	1	100	110	9.52
Turbidity	NTU	0.1	0.1	150	160	6.45
Major Ions						
Calcium	mg/L	0.05	0.05	41.5	41.5	0.00
Chloride	mg/L	1	1	140	150	6.90
Cyanide	mg/L	0.005	0.005	0.014	0.014	0.00
Fluoride	mg/L	0.1	0.1	0.11	0.12	8.70
Magnesium	mg/L	0.05	0.05	11.3	11	2.69
Potassium	mg/L	0.05	0.05	9.06	8.89	1.89
Sodium	mg/L	0.05	0.115	82.8	84.9	2.50
Sulphate	mg/L	1	1	70	75	6.90
Nutrients						
Nitrate	mg/L	0.1	0.1	6.36	6.38	0.31
Nitrite	mg/L	0.01	0.01	0.133	0.132	0.75
Nitrate + nitrite	mg/L	0.1	0.1	6.49	6.51	0.31
Total ammonia	mg/L	0.05	0.05	4.3	4.3	0.00
Total phosphorus	mg/L	0.02	0.02	0.19	0.2	5.13
Orthophosphate	mg/L	0.01	0.01	0.05	0.043	15.05
Total Metals						
Aluminum	mg/L	0.003	0.003	1.47	1.47	0.00
Antimony	mg/L	0.0005	0.0005	0.00093	0.00091	2.17
Arsenic	mg/L	0.0001	0.0001	0.0722	0.0711	1.54
Barium	mg/L	0.001	0.001	0.0455	0.0445	2.22
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.206	0.198	3.96
Cadmium	mg/L	0.00001	0.00001	0.000024	0.000021	13.33
Calcium	mg/L	0.05	0.05	40.9	38.9	5.01
Chromium	mg/L	0.001	0.001	0.0036	0.0037	2.74
Cobalt	mg/L	0.0002	0.0002	0.00321	0.00321	0.00
Copper	mg/L	0.0005	0.0005	0.00914	0.009	1.54
Iron	mg/L	0.01	0.01	2.39	2.43	1.66
Lead	mg/L	0.0002	0.0002	0.00442	0.00438	0.91
Lithium	mg/L	0.002	0.002	0.005	0.0049	2.02
Magnesium	mg/L	0.05	0.05	12.1	11.8	2.51
Manganese	mg/L	0.001	0.001	0.164	0.161	1.85
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.0041	0.0042	2.41
Nickel	mg/L	0.001	0.001	0.0166	0.0164	1.21
Potassium	mg/L	0.05	0.05	9.05	9.04	0.11
Selenium	mg/L	0.0001	0.0001	0.0002	0.00019	5.13
Silicon	mg/L	0.1	0.1	3.45	3.31	4.14
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Sodium	mg/L	0.05	0.05	85.3	83.4	2.25
Strontium	mg/L	0.001	0.001	0.263	0.257	2.31
Sulphur	mg/L	3	3	25.9	25.1	3.14
Thallium	mg/L	0.00001	0.00001	0.000034	0.000036	5.71
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.0917	0.0926	0.98
Uranium	mg/L	0.0001	0.0001	0.00341	0.0034	0.29
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.0073	0.0074	1.36
Zirconium	mg/L	0.0001	0.0001	0.00247	0.0024	2.87

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-21 QAQC	Sample Date	MDL	6/9/2019			
	FIELD_SDG		B9G2251			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Dissolved Metals						
Aluminum	mg/L	0.003	0.003	0.0164	0.0083	**65.59**
Antimony	mg/L	0.0005	0.0005	0.00106	0.00105	0.95
Arsenic	mg/L	0.0001	0.0001	0.0568	0.0569	0.18
Barium	mg/L	0.001	0.001	0.0259	0.0253	2.34
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.195	0.205	5.00
Cadmium	mg/L	0.00001	0.00001	0.000014	0.000013	7.41
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00
Cobalt	mg/L	0.0002	0.0002	0.0015	0.00143	4.78
Copper	mg/L	0.0002	0.0002	0.0048	0.00445	7.57
Iron	mg/L	0.005	0.005	0.055	0.0279	*65.38*
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.0032	0.0033	3.08
Manganese	mg/L	0.001	0.001	0.118	0.114	3.45
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.0043	0.0043	0.00
Nickel	mg/L	0.001	0.001	0.0108	0.0106	1.87
Selenium	mg/L	0.0001	0.0001	0.00019	0.00016	17.14
Silicon	mg/L	0.1	0.1	1.29	1.27	1.56
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Strontium	mg/L	0.001	0.001	0.255	0.248	2.78
Sulphur	mg/L	3	3	29.5	28.1	4.86
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.00326	0.00334	2.42
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0003	0.00028	6.90

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-22	Sample Date	2018 Average	Annual Average	5/30/2019	6/5/2019	6/9/2019	6/17/2019	7/1/2019	8/4/2019	9/3/2019
	FIELD_SDG			B9F2695	B9F6535	B9G2285	B9H1973	B9I4302	B9L8668	B9P1602
Parameter	**Unit**									
Field Measured										
pH	pH units	-	***7.56***	6.31	7.5	7.66	7.71	7.95	7.92	7.86
Conductivity	uS/cm	-	***5591.57***	2227	3020	6582	7849	5741	6842	6880
Temperature	°C	-	***7.13***	0.87	8.39	2.86	15.08	7.5	9.8	5.4
Dissolved oxygen	mg/L	-	***11.58***	-	-	-	12.07	10.84	10.86	12.56
Dissolved oxygen	%	-	***102.40***	109.2	109	109.1	102.8	93.1	91.6	102
Conventional Parameters										
pH	pH units	***7.51***	***7.65***	7.56	7.56	7.58	7.7	7.67	7.8	7.67
Specific conductivity	umhos/cm	***7479.23***	***7500.00***	-	-	-	-	9100	6800	6600
Hardness, as CaCO3 (D)	mg/L	***2067.40***	***1257.14***	477	683	1010	1220	2320	1440	1650
Hardness, as CaCO3 (T)	mg/L	***2172.43***	***1285.57***	462	687	1060	1200	2480	1420	1690
Total alkalinity, as CaCO3	mg/L	***65.43***	***60.00***	42	46	53	64	77	68	70
Total dissolved solids	mg/L	***5335.36***	***3468.57***	1280	1920	2840	3340	5850	4760	4290
Total suspended solids	mg/L	***12.64***	***6.43***	2	4	7	5	6	13	8
Total organic carbon	mg/L	***17.15***	***17.50***	-	-	-	-	-	18	17
Turbidity	NTU	***4.19***	***3.83***	5	3.2	4.7	1.8	2.9	4.7	4.5
Major Ions										
Calcium	mg/L	***613.16***	***364.43***	144	202	301	356	670	404	474
Chloride	mg/L	***2895.71***	***1590.00***	520	810	1400	1600	2800	2100	1900
Cyanide	mg/L	***0.0063***	***0.0050***	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	***0.100***	***0.101***	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.11	< 0.10
Magnesium	mg/L	***130.24***	***84.07***	28.6	43.7	62.1	79.1	157	105	113
Potassium	mg/L	***55.16***	***33.39***	12.3	17.4	26.4	32.6	60.5	42.6	41.9
Sodium	mg/L	***791.58***	***540.29***	185	279	413	526	1020	676	683
Sulphate	mg/L	***297.43***	***240.00***	130	180	220	240	350	250	310
Nutrients										
Nitrate	mg/L	***28.58***	***15.66***	6.5	8.54	11.9	13.5	18.5	28.3	22.4
Nitrite	mg/L	***0.40***	***0.22***	0.093	0.09	0.115	0.128	0.255	0.551	0.339
Nitrate + nitrite	mg/L	***28.97***	***15.92***	6.59	8.63	12.1	13.7	18.8	28.8	22.8
Total ammonia	mg/L	***18.18***	***10.73***	7.2	8.3	9.6	11	16	12	11
Total phosphorus	mg/L	***0.035***	***0.039***	0.049	0.031	0.028	< 0.020	0.034	0.07	< 0.040
Orthophosphate	mg/L	***0.010***	***0.010***	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Total Metals										
Aluminum	mg/L	***0.11***	***0.081***	0.134	0.127	0.077	0.0546	0.021	0.0978	0.055
Antimony	mg/L	***0.0036***	***0.0016***	< 0.00050	< 0.0010	< 0.0025	< 0.0010	< 0.0025	< 0.0010	< 0.0025
Arsenic	mg/L	***0.0048***	***0.0041***	0.00513	0.00416	0.00401	0.00348	0.00356	0.00426	0.0038
Barium	mg/L	***0.20***	***0.093***	0.0491	0.0609	0.0798	0.09	0.14	0.117	0.114
Beryllium	mg/L	***0.0007***	***0.00031***	< 0.00010	< 0.00020	< 0.00050	< 0.00020	< 0.00050	< 0.00020	< 0.00050
Bismuth	mg/L	-	***0.00314***	< 0.0010	< 0.0020	< 0.0050	< 0.0020	< 0.0050	< 0.0020	< 0.0050
Boron	mg/L	***0.55***	***0.28***	0.105	0.144	< 0.25	0.259	0.415	0.437	0.367
Cadmium	mg/L	***0.00031***	***0.00014***	0.000058	0.000118	0.000139	0.00012	0.000255	0.000137	0.000164
Calcium	mg/L	***718.69***	***371.14***	139	202	313	346	717	397	484
Chromium	mg/L	***0.0064***	***0.0031***	< 0.0010	< 0.0020	< 0.0050	< 0.0020	< 0.0050	< 0.0020	< 0.0050
Cobalt	mg/L	-	***0.0020***	0.00117	0.00141	0.0024	0.0014	0.0033	0.00212	0.002
Copper	mg/L	***0.0140***	***0.0041***	0.00312	0.0032	0.0036	0.0037	0.0062	0.0042	0.0049
Iron	mg/L	***0.31***	***0.24***	0.287	0.245	0.235	0.144	0.144	0.277	0.346
Lead	mg/L	***0.0016***	***0.00079***	0.00086	0.00083	< 0.0010	0.00046	< 0.0010	< 0.00040	< 0.0010

Note:

Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-22	Sample Date	*2018 Average*	*Annual Average*	5/30/2019	6/5/2019	6/9/2019	6/17/2019	7/1/2019	8/4/2019	9/3/2019
	FIELD_SDG			B9F2695	B9F6535	B9G2285	B9H1973	B9I4302	B9L8668	B9P1602
Parameter	**Unit**									
Total Metals										
Lithium	mg/L	***0.6416***	***0.24164***	0.0705	0.124	0.229	0.236	0.498	0.289	0.245
Magnesium	mg/L	***160.81***	***86.91***	27.6	44.5	68.4	80.9	166	105	116
Manganese	mg/L	***0.26***	***0.16***	0.17	0.143	0.204	0.0866	0.276	0.143	0.104
Mercury	mg/L	***0.000044***	***0.000010***	< 0.00001	0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.0072***	***0.0036***	0.0012	< 0.0020	< 0.0050	0.0027	< 0.0050	0.0045	< 0.0050
Nickel	mg/L	***0.024***	***0.019***	0.0066	0.0104	0.0174	0.0163	0.0357	0.0215	0.0234
Potassium	mg/L	***65.57***	***34.84***	11.8	18.2	28.2	33.2	66.3	43.1	43.1
Selenium	mg/L	***0.00072***	***0.00033***	0.00012	< 0.00020	< 0.00050	0.00021	< 0.00050	0.00025	< 0.00050
Silicon	mg/L	-	***1.15***	1.12	1.13	1.1	0.828	0.645	0.866	2.33
Silver	mg/L	***0.00020***	***0.000066***	0.000026	< 0.000040	< 0.00010	0.000055	< 0.00010	< 0.000040	< 0.00010
Sodium	mg/L	***990.77***	***561.71***	181	286	465	544	1090	674	692
Strontium	mg/L	***18.00***	***7.22***	2.52	4.05	6.42	6.72	13.4	9.7	7.76
Sulphur	mg/L	-	***88.24***	48	61.1	77.2	90.1	140	82.3	119
Thallium	mg/L	***0.00017***	***0.000070***	0.000031	0.000046	0.000052	0.000075	0.000122	0.000096	0.000068
Tin	mg/L	***0.034***	***0.016***	< 0.0050	< 0.01	< 0.025	< 0.01	< 0.025	< 0.01	< 0.025
Titanium	mg/L	***0.037***	***0.016***	0.0051	< 0.01	< 0.025	< 0.01	< 0.025	< 0.01	< 0.025
Uranium	mg/L	***0.005***	***0.003***	0.0008	0.00126	0.00203	0.00258	0.00548	0.00375	0.00338
Vanadium	mg/L	***0.036***	***0.016***	< 0.0050	< 0.01	< 0.025	< 0.01	< 0.025	< 0.01	< 0.025
Zinc	mg/L	***0.036***	***0.016***	0.0055	< 0.01	< 0.025	< 0.01	< 0.025	< 0.01	< 0.025
Zirconium	mg/L	-	***0.00037***	0.00014	< 0.00020	< 0.00050	< 0.00020	0.00088	< 0.00020	< 0.00050
Dissolved Metals										
Aluminum	mg/L	***0.027***	***0.016***	0.0214	0.0105	0.0123	0.0292	< 0.015	0.0071	< 0.015
Antimony	mg/L	***0.0027***	***0.0014***	< 0.00050	< 0.0010	< 0.0010	< 0.0010	< 0.0025	< 0.0010	< 0.0025
Arsenic	mg/L	***0.0033***	***0.0031***	0.00373	0.0031	0.00302	0.00284	0.00307	0.00316	0.00256
Barium	mg/L	***0.17***	***0.10***	0.0516	0.0599	0.0795	0.0934	0.151	0.118	0.115
Beryllium	mg/L	***0.00055***	***0.00027***	< 0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00050	< 0.00020	< 0.00050
Bismuth	mg/L	-	***0.0027***	< 0.0010	< 0.0020	< 0.0020	< 0.0020	< 0.0050	< 0.0020	< 0.0050
Boron	mg/L	***0.41***	***0.28***	0.111	0.143	0.219	0.265	0.44	0.42	0.395
Cadmium	mg/L	***0.00020***	***0.00013***	0.000072	0.000109	0.000131	0.000108	0.000238	0.000098	0.000162
Chromium	mg/L	***0.0053***	***0.0027***	< 0.0010	< 0.0020	< 0.0020	< 0.0020	< 0.0050	< 0.0020	< 0.0050
Cobalt	mg/L	-	***0.0016***	0.00036	0.00125	0.002	0.00135	0.003	0.00183	0.0017
Copper	mg/L	***0.0041***	***0.0034***	0.00285	0.00271	0.00315	0.00362	0.0041	0.00348	0.004
Iron	mg/L	***0.048***	***0.048***	0.0336	0.026	0.041	0.038	0.042	0.053	0.101
Lead	mg/L	***0.0011***	***0.0005***	0.00024	< 0.00040	< 0.00040	< 0.00040	< 0.0010	< 0.00040	< 0.0010
Lithium	mg/L	***0.58***	***0.25***	0.0709	0.125	0.201	0.251	0.547	0.267	0.284
Manganese	mg/L	***0.15***	***0.12***	0.0736	0.134	0.177	0.0752	0.231	0.0819	0.0916
Mercury	mg/L	***0.000010***	***0.000016***	< 0.000050	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.0053***	***0.0032***	0.0013	< 0.0020	0.0021	0.0029	< 0.0050	0.004	< 0.0050
Nickel	mg/L	***0.018***	***0.018***	0.0062	0.0097	0.0162	0.0175	0.034	0.0193	0.0226
Selenium	mg/L	***0.00053***	***0.00027***	< 0.00010	< 0.00020	< 0.00020	< 0.00020	< 0.00050	0.00022	< 0.00050
Silicon	mg/L	-	***0.99***	0.951	0.882	1.05	0.713	0.542	0.714	2.1
Silver	mg/L	***0.00014***	***0.000054***	< 0.000020	< 0.000040	< 0.000040	< 0.000040	< 0.00010	< 0.000040	< 0.00010
Strontium	mg/L	***14.29***	***7.61***	2.57	3.95	5.68	7.6	16	9.75	7.74
Sulphur	mg/L	-	***86.00***	50	59.7	77.8	81.4	128	84.1	121
Thallium	mg/L	***0.00014***	***0.000069***	0.000033	0.00004	0.00005	0.000068	0.000112	0.000092	0.000088
Tin	mg/L	***0.027***	***0.014***	< 0.0050	< 0.01	< 0.01	< 0.01	< 0.025	< 0.01	< 0.025
Titanium	mg/L	***0.027***	***0.014***	< 0.0050	< 0.01	< 0.01	< 0.01	< 0.025	< 0.01	< 0.025
Uranium	mg/L	***0.0043***	***0.0028***	0.00087	0.00124	0.00193	0.0026	0.00574	0.00357	0.00349
Vanadium	mg/L	***0.027***	***0.014***	< 0.0050	< 0.01	< 0.01	< 0.01	< 0.025	< 0.01	< 0.025
Zinc	mg/L	***0.027***	***0.014***	0.0051	< 0.01	< 0.01	< 0.01	< 0.025	< 0.01	< 0.025
Zirconium	mg/L	-	***0.00027***	0.00011	< 0.00020	< 0.00020	< 0.00020	< 0.00050	< 0.00020	< 0.00050

Note:

Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-22 QAQC	Sample Date	MDL	6/5/2019			
	FIELD_SDG		B9F6535			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	**Unit**					
Conventional Parameters						
pH	pH units	-	6.18	7.55	7.56	0.13
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	683	683	0.00
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	676	687	1.61
Total alkalinity, as CaCO3	mg/L	1	1	44	46	4.44
Total dissolved solids	mg/L	10	10	1850	1920	3.71
Total suspended solids	mg/L	1	1	4	4	0.00
Turbidity	NTU	0.1	0.1	2.6	3.2	20.69
Major Ions						
Calcium	mg/L	0.05	0.05	202	202	0.00
Chloride	mg/L	1	1	860	810	5.99
Cyanide	mg/L	0.005	0.005	0.005	0.005	0.00
Fluoride	mg/L	0.1	0.1	0.1	0.1	0.00
Magnesium	mg/L	0.05	0.05	43.8	43.7	0.23
Potassium	mg/L	0.05	0.05	17.6	17.4	1.14
Sodium	mg/L	0.05	0.05	282	279	1.07
Sulphate	mg/L	1	1	180	180	0.00
Nutrients						
Nitrate	mg/L	0.1	0.1	8.48	8.54	0.71
Nitrite	mg/L	0.01	0.01	0.09	0.09	0.00
Nitrate + nitrite	mg/L	0.1	0.1	8.57	8.63	0.70
Total ammonia	mg/L	0.05	0.063	8.3	8.3	0.00
Total phosphorus	mg/L	0.02	0.02	0.033	0.031	6.25
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00
Total Metals						
Aluminum	mg/L	0.003	0.003	0.0838	0.127	40.99
Antimony	mg/L	0.0005	0.0005	0.001	0.001	0.00
Arsenic	mg/L	0.0001	0.0001	0.00409	0.00416	1.70
Barium	mg/L	0.001	0.001	0.059	0.0609	3.17
Beryllium	mg/L	0.0001	0.0001	0.0002	0.0002	0.00
Bismuth	mg/L	0.001	0.001	0.002	0.002	0.00
Boron	mg/L	0.05	0.05	0.144	0.144	0.00
Cadmium	mg/L	0.00001	0.00001	0.000107	0.000118	9.78
Calcium	mg/L	0.05	0.09	200	202	1.00
Chromium	mg/L	0.001	0.001	0.002	0.002	0.00
Cobalt	mg/L	0.0002	0.0002	0.00129	0.00141	8.89
Copper	mg/L	0.0005	0.0005	0.003	0.0032	6.45
Iron	mg/L	0.01	0.01	0.177	0.245	32.23
Lead	mg/L	0.0002	0.0002	0.0007	0.00083	16.99
Lithium	mg/L	0.002	0.002	0.124	0.124	0.00
Magnesium	mg/L	0.05	0.05	43.3	44.5	2.73
Manganese	mg/L	0.001	0.001	0.136	0.143	5.02
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.002	0.002	0.00
Nickel	mg/L	0.001	0.001	0.0098	0.0104	5.94
Potassium	mg/L	0.05	0.05	17.2	18.2	5.65
Selenium	mg/L	0.0001	0.0001	0.0002	0.0002	0.00
Silicon	mg/L	0.1	0.1	1.02	1.13	10.23

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-22 QAQC	Sample Date	MDL	6/5/2019			
	FIELD_SDG		B9F6535			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Total Metals						
Silver	mg/L	0.00002	0.00002	0.00004	0.00004	0.00
Sodium	mg/L	0.05	0.05	278	286	2.84
Strontium	mg/L	0.001	0.001	4.01	4.05	0.99
Sulphur	mg/L	3	3	59.6	61.1	2.49
Thallium	mg/L	0.00001	0.00001	0.000044	0.000046	4.44
Tin	mg/L	0.005	0.005	0.01	0.01	0.00
Titanium	mg/L	0.005	0.005	0.01	0.01	0.00
Uranium	mg/L	0.0001	0.0001	0.00123	0.00126	2.41
Vanadium	mg/L	0.005	0.005	0.01	0.01	0.00
Zinc	mg/L	0.005	0.0255	0.01	0.01	0.00
Zirconium	mg/L	0.0001	0.0001	0.0002	0.0002	0.00
Dissolved Metals						
Aluminum	mg/L	0.003	0.003	0.008	0.0105	**27.03**
Antimony	mg/L	0.0005	0.0005	0.001	0.001	0.00
Arsenic	mg/L	0.0001	0.0001	0.00315	0.0031	1.60
Barium	mg/L	0.001	0.001	0.0605	0.0599	1.00
Beryllium	mg/L	0.0001	0.0001	0.0002	0.0002	0.00
Bismuth	mg/L	0.001	0.001	0.002	0.002	0.00
Boron	mg/L	0.05	0.05	0.143	0.143	0.00
Cadmium	mg/L	0.00001	0.00001	0.000097	0.000109	11.65
Chromium	mg/L	0.001	0.001	0.002	0.002	0.00
Cobalt	mg/L	0.0002	0.0002	0.00123	0.00125	1.61
Copper	mg/L	0.0002	0.0002	0.0027	0.00271	0.37
Iron	mg/L	0.005	0.005	0.027	0.026	3.77
Lead	mg/L	0.0002	0.0002	0.0004	0.0004	0.00
Lithium	mg/L	0.002	0.002	0.125	0.125	0.00
Manganese	mg/L	0.001	0.001	0.135	0.134	0.74
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.002	0.002	0.00
Nickel	mg/L	0.001	0.001	0.0097	0.0097	0.00
Selenium	mg/L	0.0001	0.0001	0.0002	0.0002	0.00
Silicon	mg/L	0.1	0.1	0.882	0.882	0.00
Silver	mg/L	0.00002	0.00002	0.00004	0.00004	0.00
Strontium	mg/L	0.001	0.001	4.05	3.95	2.50
Sulphur	mg/L	3	3	60	59.7	0.50
Thallium	mg/L	0.00001	0.00001	0.000039	0.00004	2.53
Tin	mg/L	0.005	0.005	0.01	0.01	0.00
Titanium	mg/L	0.005	0.005	0.01	0.01	0.00
Uranium	mg/L	0.0001	0.0001	0.00123	0.00124	0.81
Vanadium	mg/L	0.005	0.005	0.01	0.01	0.00
Zinc	mg/L	0.005	0.005	0.01	0.01	0.00
Zirconium	mg/L	0.0001	0.0001	0.0002	0.0002	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-23	Sample Date	*Annual Average*	7/24/2019	8/4/2019	9/3/2019
	FIELD_SDG		B9K9251	B9L8673	B9P1610
Parameter	**Unit**				
Field Measured					
pH	pH units	***7.69***	7.51	7.77	7.8
Conductivity	uS/cm	***276.93***	248.9	276.1	305.8
Temperature	°C	***10.97***	16.7	11.4	4.8
Dissolved oxygen	mg/L	***9.84***	6.64	9.05	13.82
Dissolved oxygen	%	***87.00***	68.2	85	107.8
Conventional Parameters					
pH	pH units	***7.83***	7.7	7.89	7.89
Hardness, as CaCO3 (D)	mg/L	***80.27***	70.6	76.6	93.6
Hardness, as CaCO3 (T)	mg/L	***79.50***	72.4	76.6	89.5
Total alkalinity, as CaCO3	mg/L	***41.33***	36	43	45
Total dissolved solids	mg/L	***210.00***	175	230	225
Total suspended solids	mg/L	***1.33***	2	1	1
Turbidity	NTU	***0.60***	0.4	0.4	1
Major Ions					
Calcium	mg/L	***22.87***	20.1	21.8	26.7
Chloride	mg/L	***50.00***	45	48	57
Cyanide	mg/L	***0.01***	< 0.0050	< 0.0050	< 0.0050
Fluoride	mg/L	***0.10***	< 0.10	< 0.10	< 0.10
Magnesium	mg/L	***5.63***	4.98	5.39	6.51
Potassium	mg/L	***1.92***	1.73	1.93	2.09
Sodium	mg/L	***19.77***	17.5	18.9	22.9
Sulphate	mg/L	***5.33***	6.5	3.8	5.7
Nutrients					
Nitrate	mg/L	***0.1000***	< 0.10	< 0.10	< 0.10
Nitrite	mg/L	***0.0100***	< 0.010	< 0.010	< 0.010
Nitrate + nitrite	mg/L	***0.1000***	< 0.10	< 0.10	< 0.10
Total ammonia	mg/L	***0.0833***	< 0.050	0.1	0.1
Total phosphorus	mg/L	***0.0203***	0.021	< 0.020	< 0.020
Orthophosphate	mg/L	***0.0100***	< 0.010	< 0.010	< 0.010
Total Metals					
Aluminum	mg/L	***0.00963***	0.008	0.0068	0.0141
Antimony	mg/L	***0.00050***	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	***0.00191***	0.00218	0.00184	0.0017
Barium	mg/L	***0.02273***	0.0219	0.0229	0.0234
Beryllium	mg/L	***0.00010***	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	***0.00100***	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	***0.05000***	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	***0.00004***	0.000089	< 0.000010	< 0.000010
Calcium	mg/L	***22.50000***	20.6	21.7	25.2
Chromium	mg/L	***0.00100***	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	***0.00020***	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	***0.00096***	0.00094	0.00095	0.00099
Iron	mg/L	***0.19267***	0.185	0.17	0.223
Lead	mg/L	***0.00020***	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	***0.00343***	0.0032	0.0036	0.0035

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-23	Sample Date	*Annual Average*	7/24/2019	8/4/2019	9/3/2019
	FIELD_SDG		B9K9251	B9L8673	B9P1610
Parameter	**Unit**				
Total Metals					
Magnesium	mg/L	***5.66333***	5.08	5.46	6.45
Manganese	mg/L	***0.00870***	0.0092	0.0112	0.0057
Mercury	mg/L	***0.00001***	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.00143***	< 0.0010	< 0.0010	0.0023
Nickel	mg/L	***0.00150***	0.0012	0.0015	0.0018
Potassium	mg/L	***1.99000***	1.86	1.95	2.16
Selenium	mg/L	***0.00010***	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	***0.19333***	0.162	0.14	0.278
Silver	mg/L	***0.00002***	< 0.000020	< 0.000020	< 0.000020
Sodium	mg/L	***19.46667***	17.4	19.3	21.7
Strontium	mg/L	***0.13267***	0.121	0.142	0.135
Sulphur	mg/L	***3.17667***	< 3	< 3	3.53
Thallium	mg/L	***0.00001***	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	***0.00500***	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	***0.00500***	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	***0.00010***	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	***0.00500***	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	***0.00500***	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	***0.00010***	< 0.00010	< 0.00010	< 0.00010
Dissolved Metals					
Aluminum	mg/L	***0.00493***	0.006	0.0036	0.0052
Antimony	mg/L	***0.00050***	< 0.00050	< 0.00050	< 0.00050
Arsenic	mg/L	***0.00164***	0.00178	0.00162	0.00151
Barium	mg/L	***0.02277***	0.0214	0.0234	0.0235
Beryllium	mg/L	***0.00010***	< 0.00010	< 0.00010	< 0.00010
Bismuth	mg/L	***0.00100***	< 0.0010	< 0.0010	< 0.0010
Boron	mg/L	***0.05000***	< 0.05	< 0.05	< 0.05
Cadmium	mg/L	***0.00003***	0.000065	< 0.000010	< 0.000010
Chromium	mg/L	***0.00100***	< 0.0010	< 0.0010	< 0.0010
Cobalt	mg/L	***0.00020***	< 0.00020	< 0.00020	< 0.00020
Copper	mg/L	***0.00093***	0.00109	0.00083	0.00088
Iron	mg/L	***0.12433***	0.124	0.104	0.145
Lead	mg/L	***0.00020***	< 0.00020	< 0.00020	< 0.00020
Lithium	mg/L	***0.00343***	0.0031	0.0035	0.0037
Manganese	mg/L	***0.00573***	0.0058	0.0078	0.0036
Mercury	mg/L	***0.00001***	< 0.00001	< 0.00001	< 0.00001
Molybdenum	mg/L	***0.00150***	< 0.0010	< 0.0010	0.0025
Nickel	mg/L	***0.00147***	0.0014	0.0013	0.0017
Selenium	mg/L	***0.00010***	< 0.00010	< 0.00010	< 0.00010
Silicon	mg/L	***0.18300***	0.142	0.132	0.275
Silver	mg/L	***0.00002***	< 0.000020	< 0.000020	< 0.000020
Strontium	mg/L	***0.13233***	0.123	0.139	0.135
Sulphur	mg/L	***3.00000***	< 3.0	< 3.0	< 3.0
Thallium	mg/L	***0.00001***	< 0.000010	< 0.000010	< 0.000010
Tin	mg/L	***0.00500***	< 0.0050	< 0.0050	< 0.0050
Titanium	mg/L	***0.00500***	< 0.0050	< 0.0050	< 0.0050
Uranium	mg/L	***0.00010***	< 0.00010	< 0.00010	< 0.00010
Vanadium	mg/L	***0.00500***	< 0.0050	< 0.0050	< 0.0050
Zinc	mg/L	***0.00500***	< 0.0050	< 0.0050	< 0.0050
Zirconium	mg/L	***0.00010***	< 0.00010	< 0.00010	< 0.00010

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-23 QAQC	Sample Date	MDL	7/24/2019				9/3/2019			
	FIELD_SDG		B9K9251				B9P1610			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)	Field Blank	Duplicate	Original	RPD (%)
Parameter	**Unit**									
Conventional Parameters										
pH	pH units	-	6.19	7.53	7.7	2.23	6.02	7.75	7.89	1.79
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	71.5	70.6	1.27	0.5	89.8	93.6	4.14
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	68.8	72.4	5.10	0.5	90	89.5	0.56
Total alkalinity, as CaCO3	mg/L	1	1	38	36	5.41	1	44	45	2.25
Total dissolved solids	mg/L	10	10	175	175	0.00	10	210	225	6.90
Total suspended solids	mg/L	1	1	1	2	**66.67**	1	1	1	0.00
Turbidity	NTU	0.1	0.1	0.4	0.4	0.00	0.1	0.6	1	*50.00*
Major Ions										
Calcium	mg/L	0.05	0.05	20.3	20.1	0.99	0.05	25.5	26.7	4.60
Chloride	mg/L	1	1	45	45	0.00	1	58	57	1.74
Cyanide	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Fluoride	mg/L	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.1	0.00
Magnesium	mg/L	0.05	0.05	5.01	4.98	0.60	0.05	6.34	6.51	2.65
Potassium	mg/L	0.05	0.05	1.73	1.73	0.00	0.05	2.12	2.09	1.43
Sodium	mg/L	0.05	0.05	17.7	17.5	1.14	0.05	22.8	22.9	0.44
Sulphate	mg/L	1	1	3.3	6.5	**65.31**	1	5.3	5.7	7.27
Nutrients										
Nitrate	mg/L	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.1	0.00
Nitrite	mg/L	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.1	0.1	0.1	0.1	0.00	0.1	0.1	0.1	0.00
Total ammonia	mg/L	0.05	0.05	0.05	0.05	0.00	0.075	0.32	0.1	**104.76**
Total phosphorus	mg/L	0.02	0.02	0.02	0.021	4.88	0.02	0.02	0.02	0.00
Orthophosphate	mg/L	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.00
Total Metals										
Aluminum	mg/L	0.003	0.003	0.0087	0.008	8.38	0.003	0.0112	0.0141	**22.92**
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00215	0.00218	1.39	0.0001	0.00171	0.0017	0.59
Barium	mg/L	0.001	0.001	0.0217	0.0219	0.92	0.001	0.0232	0.0234	0.86
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.000034	0.000089	**89.43**	0.00001	0.00001	0.00001	0.00
Calcium	mg/L	0.05	0.05	19.1	20.6	7.56	0.05	25.1	25.2	0.40
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Cobalt	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
Copper	mg/L	0.0005	0.0005	0.00084	0.00094	11.24	0.0005	0.001	0.00099	1.01
Iron	mg/L	0.01	0.01	0.171	0.185	7.87	0.01	0.223	0.223	0.00
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.003	0.0032	6.45	0.002	0.0038	0.0035	8.22
Magnesium	mg/L	0.05	0.05	5.12	5.08	0.78	0.05	6.64	6.45	2.90
Manganese	mg/L	0.001	0.001	0.0092	0.0092	0.00	0.001	0.0059	0.0057	3.45
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.0023	**78.79**
Nickel	mg/L	0.001	0.001	0.0014	0.0012	15.38	0.001	0.0018	0.0018	0.00
Potassium	mg/L	0.05	0.05	1.84	1.86	1.08	0.05	2.17	2.16	0.46
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.158	0.162	2.50	0.1	0.279	0.278	0.36
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00	0.00002	0.00002	0.00002	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-23 QAQC	Sample Date	MDL	7/24/2019				9/3/2019			
	FIELD_SDG		B9K9251				B9P1610			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)	Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit									
Total Metals										
Sodium	mg/L	0.05	0.05	17.8	17.4	2.27	0.05	22.5	21.7	3.62
Strontium	mg/L	0.001	0.001	0.12	0.121	0.83	0.001	0.135	0.135	0.00
Sulphur	mg/L	3	3	3	3	0.00	3	3	3.53	16.23
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Dissolved Metals										
Aluminum	mg/L	0.003	0.003	0.0057	0.006	5.13	0.003	0.0057	0.0052	9.17
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00177	0.00178	0.56	0.0001	0.0015	0.00151	0.66
Barium	mg/L	0.001	0.001	0.0213	0.0214	0.47	0.001	0.0233	0.0235	0.85
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.05	0.05	0.00	0.05	0.05	0.05	0.00
Cadmium	mg/L	0.00001	0.00001	0.00003	0.000065	**73.68**	0.00001	0.00001	0.00001	0.00
Chromium	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.001	0.001	0.00
Cobalt	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
Copper	mg/L	0.0002	0.0002	0.00088	0.00109	**21.32**	0.0002	0.00084	0.00088	4.65
Iron	mg/L	0.005	0.005	0.118	0.124	4.96	0.005	0.149	0.145	2.72
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.0031	0.0031	0.00	0.002	0.0037	0.0037	0.00
Manganese	mg/L	0.001	0.001	0.0058	0.0058	0.00	0.001	0.0036	0.0036	0.00
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.001	0.001	0.00	0.001	0.0025	0.0025	0.00
Nickel	mg/L	0.001	0.001	0.0014	0.0014	0.00	0.001	0.0018	0.0017	5.71
Selenium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Silicon	mg/L	0.1	0.1	0.144	0.142	1.40	0.1	0.266	0.275	3.33
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00	0.00002	0.00002	0.00002	0.00
Strontium	mg/L	0.001	0.001	0.123	0.123	0.00	0.001	0.136	0.135	0.74
Sulphur	mg/L	3	3	3	3	0.00	3	3	3	0.00
Thallium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00001	0.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00	0.0001	0.0001	0.0001	0.00

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-24	Sample Date	*2018 Average*	*Annual Average*	7/9/2019
	FIELD_SDG			B9J4382
Parameter	**Unit**			
Conventional Parameters				
pH	pH units	***7.44***	***7.11***	7.11
Hardness, as CaCO3 (T)	mg/L	***1460***	***975***	975
Total alkalinity, as CaCO3	mg/L	***370***	***24***	24
Total dissolved solids	mg/L	***2810***	***1910***	1910
Total suspended solids	mg/L	***64***	***20***	20
Turbidity	NTU	***23***	***2.1***	2.1
Major Ions				
Chloride	mg/L	***810***	***570***	570
Cyanide	mg/L	***0.005***	***0.005***	< 0.0050
Fluoride	mg/L	***0.1***	***0.1***	< 0.10
Sulphate	mg/L	***440***	***370***	370
Nutrients				
Nitrate	mg/L	***0.1***	***1.91***	1.91
Nitrite	mg/L	***0.01***	***0.033***	0.033
Nitrate + nitrite	mg/L	***0.1***	***1.94***	1.94
Total ammonia	mg/L	***12***	***4.5***	4.5
Total phosphorus	mg/L	***0.22***	***0.11***	0.11
Orthophosphate	mg/L	***0.026***	***0.01***	< 0.010
Total Metals				
Aluminum	mg/L	***0.169***	***0.0296***	0.0296
Antimony	mg/L	***0.0136***	***0.001***	< 0.0010
Arsenic	mg/L	***0.137***	***0.0131***	0.0131
Barium	mg/L	***0.478***	***0.146***	0.146
Beryllium	mg/L	***0.0005***	***0.0002***	< 0.00020
Bismuth	mg/L	-	***0.002***	< 0.0020
Boron	mg/L	***0.54***	***0.1***	< 0.1
Cadmium	mg/L	***0.000086***	***0.000075***	0.000075
Calcium	mg/L	***515***	***296***	296
Chromium	mg/L	***0.0054***	***0.002***	< 0.0020
Cobalt	mg/L	-	***0.00092***	0.00092
Copper	mg/L	***0.0103***	***0.0018***	0.0018
Iron	mg/L	***6.29***	***0.049***	0.049
Lead	mg/L	***0.001***	***0.0004***	< 0.00040
Lithium	mg/L	***0.282***	***0.138***	0.138
Magnesium	mg/L	***41.4***	***57***	57
Manganese	mg/L	***18***	***0.0211***	0.0211
Mercury	mg/L	***0.00001***	***0.00001***	0.00001
Molybdenum	mg/L	***0.0118***	***0.002***	< 0.0020
Nickel	mg/L	***0.0173***	***0.0027***	0.0027
Potassium	mg/L	***101***	***47.5***	47.5
Selenium	mg/L	***0.0005***	***0.0002***	< 0.00020
Silicon	mg/L	-	***3.01***	3.01
Silver	mg/L	***0.0001***	***0.00004***	< 0.000040
Sodium	mg/L	***208***	***154***	154
Strontium	mg/L	***6.57***	***1.33***	1.33
Sulphur	mg/L	-	***155***	155
Thallium	mg/L	***0.00005***	***0.00002***	< 0.000020
Tin	mg/L	***0.025***	***0.01***	< 0.01
Titanium	mg/L	***0.025***	***0.01***	< 0.01
Uranium	mg/L	***0.00459***	***0.0002***	< 0.00020
Vanadium	mg/L	***0.025***	***0.01***	< 0.01
Zinc	mg/L	***0.025***	***0.01***	< 0.01
Zirconium	mg/L	-	***0.0002***	< 0.00020

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-25	MEL-25 MAX GRAB	MEL-25 MAX MEAN	Sample Date	*2018 Average*	*Annual Average*	6/1/2019	9/27/2019
			FIELD_SDG			B9F3366	B9R5759
Parameter			**Unit**				
Field Measured							
pH			pH units	-	***7.89***	7.7	8.08
Conductivity			uS/cm	-	***257.95***	222.1	293.8
Temperature			°C	-	***17.875***	33.45	2.3
Dissolved oxygen			mg/L	-	***11.15***	-	11.15
Dissolved oxygen			%	-	***94.3***	107.3	81.3
Conventional Parameters							
pH	6 - 9.5	6 - 9.5	pH units	***8.13***	***7.9***	7.7	8.1
Hardness, as CaCO3 (T)			mg/L	***109.30***	***63.1***	39.5	86.7
Total suspended solids	30	15	mg/L	***33.57***	***2.5***	3	2
Nutrients							
Total ammonia			mg/L	***7.02***	***0.12***	0.19	< 0.050
General Organics							
Total oil and grease	5	5	mg/L	***0.6***	***0.85***	< 0.50	1.2
Total Metals							
Aluminum			mg/L	***3.41813***	***0.0926***	-	0.0926
Antimony			mg/L	***0.00065***	***0.0005***	-	< 0.00050
Arsenic			mg/L	***0.00100***	***0.000715***	0.00064	0.00079
Barium			mg/L	***0.02928***	***0.0156***	-	0.0156
Beryllium			mg/L	***0.00020***	***0.0001***	-	< 0.00010
Bismuth			mg/L	***-***	***0.001***	-	< 0.0010
Boron			mg/L	***0.20900***	***0.078***	-	0.078
Cadmium			mg/L	***0.00003***	***0.00001***	-	< 0.000010
Calcium			mg/L	***20.25000***	***15.055***	9.51	20.6
Chromium			mg/L	***0.04440***	***0.0013***	-	0.0013
Cobalt			mg/L	***0.01800***	***0.00026***	-	0.00026
Copper			mg/L	***0.00969***	***0.00297***	0.00431	0.00163
Iron			mg/L	***6.22950***	***0.133***	-	0.133
Lead	0.1	0.1	mg/L	***0.00084***	***0.000225***	0.00025	< 0.00020
Lithium			mg/L	***0.00220***	***0.002***	-	< 0.0020
Magnesium			mg/L	***13.77000***	***6.175***	3.82	8.53
Manganese			mg/L	***0.10118***	***0.0025***	-	0.0025
Molybdenum			mg/L	***0.00980***	***0.0032***	-	0.0032
Nickel			mg/L	***0.01137***	***0.0039***	0.0043	0.0035
Potassium			mg/L	***13.77250***	***6.095***	4.08	8.11
Selenium			mg/L	***0.00184***	***0.00035***	-	0.00035
Silicon			mg/L	***22.00000***	***2.08***	-	2.08
Silver			mg/L	***0.00004***	***0.00002***	-	< 0.000020
Sodium			mg/L	***128.87500***	***27.55***	29.4	25.7
Strontium			mg/L	***0.09155***	***0.0993***	-	0.0993
Sulphur			mg/L	-	***13.75***	11.1	16.4
Thallium			mg/L	***0.00003***	***0.000013***	-	0.000013
Tin			mg/L	***0.00400***	***0.005***	-	< 0.0050
Titanium			mg/L	***0.15068***	***0.005***	-	< 0.0050
Uranium			mg/L	***0.00137***	***0.00066***	-	0.00066
Vanadium			mg/L	***0.01350***	***0.005***	-	< 0.0050
Zinc			mg/L	***0.01475***	***0.005***	-	< 0.0050
Zirconium			mg/L	***-***	***0.0001***	-	< 0.00010
Volatile Organics							
Benzene	0.37	0.37	mg/L	***0.0002***	***0.0002***	< 0.00020	< 0.00020
Ethylbenzene	0.09	0.09	mg/L	***0.000234***	***0.0002***	< 0.00020	< 0.00020
Toluene	0.002	0.002	mg/L	***0.000346***	***0.0002***	< 0.00020	< 0.00020
Xylenes			mg/L	***0.000314***	***0.0004***	< 0.00040	< 0.00040
m,p-Xylenes			mg/L	***0.000286***	***0.0004***	< 0.00040	< 0.00040
o-Xylene			mg/L	***0.000208***	***0.0002***	< 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			-	***-***	***-***	-	YES
1,2-Dichloroethane-d4			%	***102.4***	***98.5***	96	101
Ethylbenzene-d10			%	***102***	***97.5***	92	103
4-Bromofluorobenzene			%	***95.4***	***96***	97	95
1,4-Difluorobenzene			%	**104.33**	***105***	103	107
o-Terphenyl			%	***101***	***93.5***	95	92

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-25 QAQC	Sample Date	MDL	9/27/2019			
	FIELD_SDG		B9R5759			
	Sample Name		Field Blank	Duplicate	Original	RPD (%)
Parameter	Unit					
Conventional Parameters						
pH	pH units	-	6.36	8.09	8.1	0.12
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	91.4	86.7	5.28
Total suspended solids	mg/L	1	1	1	2	**66.67**
Nutrients						
Total ammonia	mg/L	0.05	0.05	0.071	0.05	**34.71**
General Organics						
Total oil and grease	mg/L	0.5	1.1	1.2	1.2	0.00
Total Metals						
Aluminum	mg/L	0.003	0.003	0.0912	0.0926	1.52
Antimony	mg/L	0.0005	0.0005	0.0005	0.0005	0.00
Arsenic	mg/L	0.0001	0.0001	0.00073	0.00079	7.89
Barium	mg/L	0.001	0.001	0.0156	0.0156	0.00
Beryllium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Bismuth	mg/L	0.001	0.001	0.001	0.001	0.00
Boron	mg/L	0.05	0.05	0.081	0.078	3.77
Cadmium	mg/L	0.00001	0.00001	0.00001	0.00001	0.00
Calcium	mg/L	0.05	0.05	22.5	20.6	8.82
Chromium	mg/L	0.001	0.001	0.0013	0.0013	0.00
Cobalt	mg/L	0.0002	0.0002	0.00024	0.00026	8.00
Copper	mg/L	0.0005	0.0005	0.00151	0.00163	7.64
Iron	mg/L	0.01	0.01	0.14	0.133	5.13
Lead	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Lithium	mg/L	0.002	0.002	0.002	0.002	0.00
Magnesium	mg/L	0.05	0.05	8.54	8.53	0.12
Manganese	mg/L	0.001	0.001	0.0026	0.0025	3.92
Molybdenum	mg/L	0.001	0.001	0.0033	0.0032	3.08
Nickel	mg/L	0.001	0.001	0.0034	0.0035	2.90
Potassium	mg/L	0.05	0.05	8.47	8.11	4.34
Selenium	mg/L	0.0001	0.0001	0.00038	0.00035	8.22
Silicon	mg/L	0.1	0.1	2.35	2.08	12.19
Silver	mg/L	0.00002	0.00002	0.00002	0.00002	0.00
Sodium	mg/L	0.05	0.05	26.5	25.7	3.07
Strontium	mg/L	0.001	0.001	0.101	0.0993	1.70
Sulphur	mg/L	3	3	15.7	16.4	4.36
Thallium	mg/L	0.00001	0.00001	0.000012	0.000013	8.00
Tin	mg/L	0.005	0.005	0.005	0.005	0.00
Titanium	mg/L	0.005	0.005	0.005	0.005	0.00
Uranium	mg/L	0.0001	0.0001	0.00066	0.00066	0.00
Vanadium	mg/L	0.005	0.005	0.005	0.005	0.00
Zinc	mg/L	0.005	0.005	0.005	0.005	0.00
Zirconium	mg/L	0.0001	0.0001	0.0001	0.0001	0.00
Volatile Organics						
Benzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Ethylbenzene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
Toluene	mg/L	0.0002	0.00069	0.0002	0.0002	0.00
Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00
m,p-Xylenes	mg/L	0.0004	0.0004	0.0004	0.0004	0.00
o-Xylene	mg/L	0.0002	0.0002	0.0002	0.0002	0.00
F1 (C6-C10)-BTEX	mg/L	0.025	0.025	0.025	0.025	0.00
F1 (C6-C10)	mg/L	0.025	0.025	0.025	0.025	0.00
F2 (C10-C16)	mg/L	0.1	0.1	0.1	0.1	0.00
F3 (C16-C34)	mg/L	0.2	0.2	0.2	0.2	0.00
F4 (C34-C50)	mg/L	0.2	0.2	0.2	0.2	0.00
Reached baseline at C50	-	-	YES	YES	YES	-
1,2-Dichloroethane-d4	%	-	103	101	101	0.00
Ethylbenzene-d10	%	-	99	102	103	0.98
4-Bromofluorobenzene	%	-	95	93	95	2.13
1,4-Difluorobenzene	%	-	105	105	107	1.89
o-Terphenyl	%	-	98	99	92	7.33

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-26	MDMER MAX GRAB	MDMER MAX MONTHLY MEAN	Sample Date	*Annual Average*	7/17/2019	7/22/2019	8/1/2019	8/3/2019	8/5/2019	8/12/2019	8/19/2019	8/26/2019	9/2/2019	9/9/2019	9/26/2019	10/1/2019	10/7/2019
			FIELD_SDG		B9K0978	B9K5086		B9L6967	B9L6974	B9M5773	B9N3354	B9O0837	B9O5316	B9P4257	B9R3149	B9R7258	B9S3427
Parameter			**Unit**														
Field Measured																	
pH	6 - 9.5	6 - 9.5	pH units	***7.20***	7.35	7.39	6.21	7.66	7.75	7.88	8.2	7.1	7.21	7.65	6.5	6.21	6.54
Conductivity			uS/cm	***29499.88***	43440	33700	24573	34280	31236	34292	48357	28207	30998	24380	22573	24573	2889.4
Temperature			°C	***9.54***	22	19.4	2.7	10.3	9	10.5	10.9	11.8	4.9	9.1	8.6	2.7	2.1
Dissolved oxygen			mg/L	***7.19***	4.4	7.25	-	8.46	8.46	-	-	7.56	8.29	-	-	-	-
Dissolved oxygen			%	***82.82***	58.8	89.7	82.7	103.8	76.5	70.6	60.98	79.2	75.6	79.7	85	82.7	131.4
Turbidity			NTU	***2.85***	-	-	-	5.06	-	-	-	-	-	-	0.63	-	-
Conventional Parameters																	
pH	6 - 9.5	6 - 9.5	pH units	***7.50***	-	8.35	-	7.82	7.69	7.69	8	7.32	7.14	7.44	7.28	6.46	7.29
Specific conductivity			umhos/cm	***30363.64***	-	36000	-	34000	30000	33000	46000	27000	30000	23000	21000	26000	28000
Hardness, as CaCO3 (D)			mg/L	***5366.36***	-	4790	-	5080	4900	6450	8740	4480	5370	4010	4170	5210	5830
Hardness, as CaCO3 (T)			mg/L	***5245.45***	-	4940	-	4970	4790	6220	8190	4450	5510	3890	3970	5080	5690
Total alkalinity, as CaCO3			mg/L	***68.27***	-	110	-	82	80	91	130	57	32	64	37	11	57
Total dissolved solids			mg/L	***20145.45***	-	24400	-	22000	20000	22600	32000	17800	19500	15300	12800	16900	18300
Total suspended solids	**30**	15	mg/L	***19.55***	-	17	-	27	19	22	**53**	14	9	11	12	14	17
Volatile TSS			mg/L	***12.00***	-	-	-	-	10	-	24	8	6	-	-	-	-
Total organic carbon			mg/L	***17.39***	-	5.2	-	5	6.1	20	31	17	16	19	22	22	28
Dissolved organic carbon			mg/L	***16.83***	-	4.5	-	4.3	5.3	20	29	17	16	18	21	23	27
Turbidity			NTU	***1.21***	-	0.2	-	1.7	0.7	0.2	7.5	0.5	0.4	0.3	0.4	0.4	1
Dissolved Oxygen			mg/L	***9.90***	-	9.54	-	9.67	9.52	9.93	10.5	9.44	9.48	10.2	9.76	10.9	10
Sodium Adsorption Ratio			-	***23.67***	-	-	-	-	-	-	-	-	-	-	22	24	25
Chlorine, free			mg/L	***4.75***	-	-	-	-	-	-	-	-	9	0.5	-	-	-
Major Ions																	
Bicarbonate, as CaCO3			mg/L	***68.18***	-	110	-	82	79	91	130	57	32	64	37	11	57
Calcium			mg/L	***1094.64***	-	798	-	846	943	1450	1760	875	967	856	986	1190	1370
Carbonate, as CaCO3			mg/L	***1.13***	-	2.2	-	< 1.0	< 1.0	< 1.0	1.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloride			mg/L	***10863.64***	-	14000	-	12000	11000	12000	17000	9500	10000	8500	7100	9100	9300
Cyanide Total	2	1	mg/L	***0.06***	-	0.12	-	0.0064	< 0.0050	< 0.0050	0.2	< 0.0050	0.0084	0.0072	0.069	0.057	0.13
Cyanide Free			mg/L	***0.0102***	-	< 0.0010	-	0.0025	0.0011	< 0.0010	0.011	< 0.0010	< 0.0010	< 0.0010	0.018	0.045	0.03
Cyanide WAD			mg/L	***0.0095***	-	0.0011	-	0.0014	< 0.0010	0.017	0.035	0.0035	0.0021	0.0022	0.0087	0.015	0.018
Magnesium			mg/L	***640.00***	-	679	-	720	618	690	1060	557	718	454	415	543	586
Potassium			mg/L	***190.55***	-	210	-	193	182	215	310	162	188	139	134	174	189
Sodium			mg/L	***4966.36***	-	5840	-	6010	5240	5420	7960	4550	5150	3530	3150	3810	3970
Sulphate			mg/L	***1059.09***	-	1200	-	1100	980	1200	1700	870	1000	820	790	990	1000
Silica			mg/L	***6.04***	-	2.7	-	2.1	2.1	1.7	8.1	4.4	13	8	4.5	8.8	11
Nutrients																	
Nitrate			mg/L	***56.94***	-	57.9	-	41	46.2	75.7	79.8	43.5	53.3	48.7	48.9	60.2	71.1
Nitrite			mg/L	***0.53***	-	0.27	-	0.387	0.296	0.087	2.04	< 0.010	< 0.010	< 0.010	0.672	0.994	1.1
Nitrate + nitrite			mg/L	***57.47***	-	58.2	-	41.4	46.5	75.8	81.8	43.5	53.3	48.7	49.6	61.2	72.2
Total ammonia			mg/L	***13.09***	-	7.4	-	4.1	3.1	4.6	39	3.8	7	6	18	23	28
Total Kjeldahl nitrogen			mg/L	***23.39***	-	15	-	13	9.3	11	46	14	18	16	29	42	44
Total phosphorus			mg/L	***0.090***	-	0.074	-	0.068	0.054	0.078	0.25	0.08	0.076	0.071	0.062	0.098	0.084
Orthophosphate			mg/L	***0.013***	-	0.014	-	< 0.010	< 0.010	< 0.010	0.024	0.012	0.011	0.017	< 0.010	< 0.010	< 0.010
Total Metals																	
Aluminum			mg/L	***0.2439***	-	0.13	-	0.102	0.074	0.273	0.268	0.351	0.223	0.31	0.178	0.31	0.464
Antimony			mg/L	***0.0142***	-	< 0.0050	-	< 0.01	0.0059	< 0.01	< 0.025	< 0.05	< 0.025	< 0.0050	< 0.0050	< 0.01	< 0.0050
Arsenic	1	0.5	mg/L	***0.0154***	-	0.0063	-	0.015	0.012	0.0131	0.075	0.012	0.0091	0.0107	0.0047	0.0055	0.0065
Barium			mg/L	***0.2235***	-	0.143	-	0.125	0.176	0.321	0.331	0.181	0.192	0.182	0.223	0.261	0.324
Beryllium			mg/L	***0.0028***	-	< 0.0010	-	< 0.0020	< 0.0010	< 0.0020	< 0.0050	< 0.01	< 0.0050	< 0.0010	< 0.0010	< 0.0020	< 0.0010
Bismuth			mg/L	***0.0282***	-	< 0.01	-	< 0.02	< 0.01	< 0.02	< 0.05	< 0.1	< 0.05	< 0.01	< 0.01	< 0.02	< 0.01
Boron			mg/L	***1.5003***	-	0.771	-	< 1	0.827	< 1	< 2.5	< 5	< 2.5	0.584	0.574	< 1	0.747
Cadmium			mg/L	***0.0003***	-	< 0.00010	-	< 0.00020	< 0.00010	< 0.00020	< 0.00050	< 0.0010	< 0.00050	0.00013	0.00013	< 0.00020	0.00037
Calcium			mg/L	***1068.1818***	-	836	-	800	922	1440	1670	866	974	832	920	1170	1320
Chromium			mg/L	***0.0282***	-	< 0.01	-	< 0.02	< 0.01	< 0.02	< 0.05	< 0.1	< 0.05	< 0.01	< 0.01	< 0.02	< 0.01
Cobalt			mg/L	***0.0072***	-	0.0022	-	< 0.0040	0.0021	0.0047	< 0.01	< 0.02	< 0.01	0.004	0.0051	0.0075	0.0092
Copper	0.6	0.3	mg/L	***0.0147***	-	< 0.0050	-	< 0.01	0.0087	< 0.01	< 0.025	< 0.05	< 0.025	< 0.0050	< 0.0050	< 0.01	0.0081
Iron			mg/L	***0.2851***	-	0.121	-	< 0.2	< 0.1	0.215	< 0.5	< 1	< 0.5	< 0.1	< 0.1	< 0.2	< 0.1
Lead	0.4	0.2	mg/L	***0.0058***	-	< 0.0020	-	< 0.0040	< 0.0020	< 0.0040	< 0.01	< 0.02	< 0.01	0.0022	0.0025	< 0.0040	0.0034
Lithium			mg/L	***0.5385***	-	0.255	-	0.35	0.47	0.78	0.885	0.498	0.555	0.415	0.466	0.544	0.705

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-26	MDMER MAX GRAB	MDMER MAX MONTHLY MEAN	Sample Date	*Annual Average*	7/17/2019	7/22/2019	8/1/2019	8/3/2019	8/5/2019	8/12/2019	8/19/2019	8/26/2019	9/2/2019	9/9/2019	9/26/2019	10/1/2019	10/7/2019
			FIELD_SDG		B9K0978	B9K5086		B9L6967	B9L6974	B9M5773	B9N3354	B9O0837	B9O5316	B9P4257	B9R3149	B9R7258	B9S3427
Parameter			**Unit**														
Total Metals																	
Magnesium			mg/L	***626.3636***	-	693	-	723	604	638	976	555	747	441	406	523	584
Manganese			mg/L	***0.1604***	-	0.126	-	0.108	0.071	0.092	0.284	< 0.1	< 0.05	0.046	0.219	0.28	0.388
Mercury			mg/L	***0.0000***	-	< 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	***0.0306***	-	0.02	-	< 0.02	0.015	< 0.02	< 0.05	< 0.1	< 0.05	0.014	< 0.01	< 0.02	0.018
Nickel	1	0.5	mg/L	***0.0407***	-	< 0.01	-	< 0.02	< 0.01	0.037	0.065	< 0.1	< 0.05	0.022	0.031	0.045	0.058
Potassium			mg/L	***187.4545***	-	215	-	195	175	208	292	170	188	136	130	169	184
Selenium			mg/L	***0.0029***	-	< 0.0010	-	< 0.0020	0.0011	< 0.0020	< 0.0050	< 0.01	< 0.0050	< 0.0010	0.0011	< 0.0020	0.0018
Silicon			mg/L	***3.4391***	-	1.37	-	< 2	< 1	< 2	< 5	< 10	< 5	1.32	2.63	2.84	4.67
Silver			mg/L	***0.0006***	-	< 0.00020	-	< 0.00040	< 0.00020	< 0.00040	< 0.0010	< 0.0020	< 0.0010	< 0.00020	< 0.00020	< 0.00040	< 0.00020
Sodium			mg/L	***4826.3636***	-	6230	-	5780	4820	4950	7440	4380	5090	3380	3010	3760	4250
Strontium			mg/L	***25.1364***	-	21.4	-	21.5	23	35	38.9	20.2	23.6	20.1	19.8	24.9	28.1
Sulphur			mg/L	***430.7273***	-	427	-	437	393	454	672	375	448	308	313	403	508
Thallium			mg/L	***0.0003***	-	< 0.00010	-	< 0.00020	< 0.00010	< 0.00020	< 0.00050	< 0.0010	< 0.00050	0.0001	0.00011	< 0.00020	0.00016
Tin			mg/L	***0.1409***	-	< 0.05	-	< 0.1	< 0.05	< 0.1	< 0.25	< 0.5	< 0.25	< 0.05	< 0.05	< 0.1	< 0.05
Titanium			mg/L	***0.1409***	-	< 0.05	-	< 0.1	< 0.05	< 0.1	< 0.25	< 0.5	< 0.25	< 0.05	< 0.05	< 0.1	< 0.05
Uranium			mg/L	***0.0044***	-	0.0012	-	< 0.0020	0.001	< 0.0020	0.007	< 0.01	< 0.0050	0.0047	0.0038	0.0041	0.0073
Vanadium			mg/L	***0.1409***	-	< 0.05	-	< 0.1	< 0.05	< 0.1	< 0.25	< 0.5	< 0.25	< 0.05	< 0.05	< 0.1	< 0.05
Zinc	1	0.5	mg/L	***0.1409***	-	< 0.05	-	< 0.1	< 0.05	< 0.1	< 0.25	< 0.5	< 0.25	< 0.05	< 0.05	< 0.1	< 0.05
Zirconium			mg/L	***0.0028***	-	< 0.0010	-	< 0.0020	< 0.0010	< 0.0020	< 0.0050	< 0.01	< 0.0050	< 0.0010	< 0.0010	< 0.0020	< 0.0010
Dissolved Metals																	
Aluminum			mg/L	***0.1466***	-	< 0.15	-	0.076	0.046	0.188	< 0.15	0.161	< 0.15	0.166	0.111	0.165	0.25
Antimony			mg/L	***0.0118***	-	< 0.025	-	< 0.0050	< 0.0050	< 0.01	< 0.025	< 0.0050	< 0.025	< 0.0050	< 0.0050	< 0.01	< 0.01
Arsenic			mg/L	***0.0152***	-	0.0056	-	0.0148	0.0112	0.0124	0.0748	0.0102	0.009	0.0137	0.005	0.0054	0.0051
Barium			mg/L	***0.2265***	-	0.143	-	0.128	0.18	0.315	0.343	0.181	0.191	0.187	0.226	0.276	0.321
Beryllium			mg/L	***0.0024***	-	< 0.0050	-	< 0.0010	< 0.0010	< 0.0020	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0020	< 0.0020
Bismuth			mg/L	***0.0236***	-	< 0.05	-	< 0.01	< 0.01	< 0.02	< 0.05	< 0.01	< 0.05	< 0.01	< 0.01	< 0.02	< 0.02
Boron			mg/L	***1.2997***	-	< 2.5	-	0.864	0.863	< 1	< 2.5	0.628	< 2.5	0.639	0.803	< 1	< 1
Cadmium			mg/L	***0.0003***	-	< 0.00050	-	< 0.00010	< 0.00010	< 0.00020	< 0.00050	< 0.00010	< 0.00050	0.00013	0.00017	0.00028	0.00029
Chromium			mg/L	***0.0236***	-	< 0.05	-	< 0.01	< 0.01	< 0.02	< 0.05	< 0.01	< 0.05	< 0.01	< 0.01	< 0.02	< 0.02
Cobalt			mg/L	***0.0062***	-	< 0.01	-	< 0.0020	< 0.0020	0.0045	< 0.01	0.0036	< 0.01	0.0041	0.0055	0.0079	0.0088
Copper			mg/L	***0.0061***	-	< 0.01	-	< 0.0020	< 0.0020	< 0.0040	< 0.01	0.005	< 0.01	0.004	0.0049	0.0067	0.0086
Iron			mg/L	***0.1182***	-	< 0.25	-	< 0.05	< 0.05	< 0.1	< 0.25	< 0.05	< 0.25	< 0.05	< 0.05	< 0.1	< 0.1
Lead			mg/L	***0.0048***	-	< 0.01	-	< 0.0020	< 0.0020	< 0.0040	< 0.01	< 0.0020	< 0.01	0.0022	0.0027	< 0.0040	< 0.0040
Lithium			mg/L	***0.5471***	-	0.26	-	0.35	0.499	0.903	0.911	0.432	0.539	0.428	0.477	0.543	0.676
Manganese			mg/L	***0.1485***	-	0.125	-	0.084	0.062	0.066	0.299	0.015	< 0.05	0.042	0.223	0.303	0.364
Mercury			mg/L	***0.0000***	-	< 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	***0.0255***	-	< 0.05	-	0.016	0.012	< 0.02	< 0.05	0.013	< 0.05	0.017	0.013	< 0.02	< 0.02
Nickel			mg/L	***0.0365***	-	< 0.05	-	< 0.01	< 0.01	0.037	0.064	0.019	< 0.05	0.022	0.032	0.048	0.06
Selenium			mg/L	***0.0024***	-	< 0.0050	-	< 0.0010	< 0.0010	< 0.0020	< 0.0050	< 0.0010	< 0.0050	< 0.0010	0.0013	< 0.0020	< 0.0020
Silicon			mg/L	***2.8536***	-	< 5	-	< 1	< 1	< 2	< 5	< 1	< 5	1.36	2.6	3.46	3.97
Silver			mg/L	***0.0005***	-	< 0.0010	-	< 0.00020	< 0.00020	< 0.00040	< 0.0010	< 0.00020	< 0.0010	< 0.00020	< 0.00020	< 0.00040	< 0.00040
Strontium			mg/L	***25.6455***	-	19.1	-	22.1	24.7	33.8	40.9	20.8	23.5	20.8	19.9	26.4	30.1
Sulphur			mg/L	***431.2727***	-	412	-	441	379	475	712	368	437	320	332	417	451
Thallium			mg/L	***0.0002***	-	< 0.00050	-	< 0.00010	< 0.00010	< 0.00020	< 0.00050	< 0.00010	< 0.00050	0.0001	0.00012	< 0.00020	< 0.00020
Tin			mg/L	***0.1182***	-	< 0.25	-	< 0.05	< 0.05	< 0.1	< 0.25	< 0.05	< 0.25	< 0.05	< 0.05	< 0.1	< 0.1
Titanium			mg/L	***0.1182***	-	< 0.25	-	< 0.05	< 0.05	< 0.1	< 0.25	< 0.05	< 0.25	< 0.05	< 0.05	< 0.1	< 0.1
Uranium			mg/L	***0.0040***	-	< 0.0050	-	0.001	< 0.0010	< 0.0020	0.0068	0.0041	< 0.0050	0.0048	0.0042	0.0042	0.006
Vanadium			mg/L	***0.1182***	-	< 0.25	-	< 0.05	< 0.05	< 0.1	< 0.25	< 0.05	< 0.25	< 0.05	< 0.05	< 0.1	< 0.1
Zinc			mg/L	***0.1197***	-	< 0.25	-	< 0.05	< 0.05	< 0.1	< 0.25	0.067	< 0.25	< 0.05	< 0.05	< 0.1	< 0.1
Zirconium			mg/L	***0.0024***	-	< 0.0050	-	< 0.0010	< 0.0010	< 0.0020	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0020	< 0.0020
Toxicity																	
IC25 (Fertilization Assay Using Echinoids)			%		-	-	-	-	-	24	-	-	-	-	-	-	-
IC25 (Growth from Biomass) Marine and Estuarine Organisms			%		-	-	-	-	-	36.2	-	-	-	-	-	-	-
LC50 Marine and Estuarine Organisms			%		-	-	-	-	-	44.8	-	-	-	-	-	-	-
LC50 (96h) - Threespine Stickleback			%		-	Non-lethal	Non-lethal	-	Non-lethal	-	-	-	25	16.5	-	Non-lethal	Non-lethal
Radionuclides																	
Radium-226	1.11	0.37	Bq/l	***0.1576***	0.37	0.2	-	0.12	0.17	0.14	0.3	0.16	0.07	0.13	0.1	0.07	0.061

Note:
Half the value of the detection limit was used in the calculation of the annual average for values below the detection limit.

MEL-26 QAQC	Sample Date	MDL	8/19/2019				9/9/2019		
	FIELD_SDG		B9N3354				B9P4257		
	Sample Name		Field Blank	Duplicate	Original	RPD	Duplicate	Original	RPD (%)
Parameter	**Unit**								
Conventional Parameters									
pH	pH units	-	6.44	8.01	8	0.12	7.44	7.44	0.00
Specific conductivity	umhos/cm	10000	32000	46000	46000	0.00	23000	23000	0.00
Hardness, as CaCO3 (D)	mg/L	0.5	0.5	8580	8740	1.85	4040	4010	0.75
Hardness, as CaCO3 (T)	mg/L	0.5	0.5	8310	8190	1.45	4020	3890	3.29
Total alkalinity, as CaCO3	mg/L	1	1	140	130	7.41	63	64	1.57
Total dissolved solids	mg/L	10	10	31900	32000	0.31	14900	15300	2.65
Total suspended solids	mg/L	1	1	33	53	46.51	11	11	0.00
Volatile TSS	mg/L	1	1	16	24	40.00	-	-	-
Total organic carbon	mg/L	0.5	0.5	31	31	0.00	19	19	0.00
Dissolved organic carbon	mg/L	0.5	0.5	29	29	0.00	18	18	0.00
Turbidity	NTU	0.1	0.1	7.4	7.5	1.34	0.3	0.3	0.00
Dissolved Oxygen	mg/L	-	10.6	10.2	10.5	2.90	9.85	10.2	3.49
Major Ions									
Bicarbonate, as CaCO3	mg/L	1	1	130	130	0.00	63	64	1.57
Calcium	mg/L	0.05	0.05	1730	1760	1.72	866	856	1.16
Carbonate, as CaCO3	mg/L	1	1	1.3	1.2	8.00	1	1	0.00
Chloride	mg/L	1	1	17000	17000	0.00	8000	8500	6.06
Cyanide Total	mg/L	0.005	0.0018	0.13	0.2	42.42	0.0074	0.0072	2.74
Cyanide Free	mg/L	0.001	0.005	0.0097	0.011	12.56	0.001	0.001	0.00
Cyanide WAD	mg/L	0.001	0.002	0.037	0.035	5.56	0.0023	0.0022	4.44
Magnesium	mg/L	0.05	0.05	1030	1060	2.87	457	454	0.66
Potassium	mg/L	0.05	0.05	303	310	2.28	139	139	0.00
Sodium	mg/L	0.05	0.05	7960	7960	0.00	3570	3530	1.13
Sulphate	mg/L	1	1	1700	1700	0.00	820	820	0.00
Silica	mg/L	0.05	0.15	4.1	8.1	65.57	12	8	40.00
Nutrients									
Nitrate	mg/L	0.1	0.1	78.2	79.8	2.03	48.5	48.7	0.41
Nitrite	mg/L	0.01	0.01	2.07	2.04	1.46	0.01	0.01	0.00
Nitrate + nitrite	mg/L	0.1	0.1	80.2	81.8	1.98	48.5	48.7	0.41
Total ammonia	mg/L	0.05	0.05	38	39	2.60	5.7	6	5.13
Total Kjeldahl nitrogen	mg/L	0.1	0.1	46	46	0.00	16	16	0.00
Total phosphorus	mg/L	0.02	0.02	0.26	0.25	3.92	0.082	0.071	14.38
Orthophosphate	mg/L	0.01	0.01	0.023	0.024	4.26	0.018	0.017	5.71
Total Metals									
Aluminum	mg/L	0.003	0.003	0.286	0.268	6.50	0.307	0.31	0.97
Antimony	mg/L	0.0005	0.0005	0.025	0.025	0.00	0.005	0.005	0.00
Arsenic	mg/L	0.0001	0.0001	0.0764	0.075	1.85	0.0108	0.0107	0.93
Barium	mg/L	0.001	0.001	0.325	0.331	1.83	0.192	0.182	5.35
Beryllium	mg/L	0.0001	0.0001	0.005	0.005	0.00	0.001	0.001	0.00
Bismuth	mg/L	0.001	0.001	0.05	0.05	0.00	0.01	0.01	0.00
Boron	mg/L	0.05	0.05	2.5	2.5	0.00	0.607	0.584	3.86
Cadmium	mg/L	0.00001	0.00001	0.0005	0.0005	0.00	0.00013	0.00013	0.00
Calcium	mg/L	0.05	0.05	1680	1670	0.60	856	832	2.84
Chromium	mg/L	0.001	0.001	0.05	0.05	0.00	0.01	0.01	0.00
Cobalt	mg/L	0.0002	0.0002	0.01	0.01	0.00	0.0041	0.004	2.47
Copper	mg/L	0.0005	0.0144	0.025	0.025	0.00	0.005	0.005	0.00
Iron	mg/L	0.01	0.01	0.5	0.5	0.00	0.1	0.1	0.00
Lead	mg/L	0.0002	0.0002	0.01	0.01	0.00	0.0022	0.0022	0.00
Lithium	mg/L	0.002	0.002	0.915	0.885	3.33	0.436	0.415	4.94
Magnesium	mg/L	0.05	0.05	997	976	2.13	457	441	3.56
Manganese	mg/L	0.001	0.001	0.285	0.284	0.35	0.047	0.046	2.15
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.05	0.05	0.00	0.014	0.014	0.00
Nickel	mg/L	0.001	0.001	0.061	0.065	6.35	0.022	0.022	0.00
Potassium	mg/L	0.05	0.05	296	292	1.36	142	136	4.32
Selenium	mg/L	0.0001	0.0001	0.005	0.005	0.00	0.001	0.001	0.00
Silicon	mg/L	0.1	0.1	5	5	0.00	1.41	1.32	6.59
Silver	mg/L	0.00002	0.00002	0.001	0.001	0.00	0.0002	0.0002	0.00
Sodium	mg/L	0.05	0.05	7500	7440	0.80	3530	3380	4.34
Strontium	mg/L	0.001	0.001	38.7	38.9	0.52	21.1	20.1	4.85
Sulphur	mg/L	3	3	681	672	1.33	324	308	5.06
Thallium	mg/L	0.00001	0.00001	0.0005	0.0005	0.00	0.00011	0.0001	9.52
Tin	mg/L	0.005	0.005	0.25	0.25	0.00	0.05	0.05	0.00
Titanium	mg/L	0.005	0.005	0.25	0.25	0.00	0.05	0.05	0.00
Uranium	mg/L	0.0001	0.0001	0.007	0.007	0.00	0.0049	0.0047	4.17

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
25	: RPD higher than 20% and concentrations of parent and duplicate samples are within 10x the MDL.
25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.

MEL-26 QAQC	Sample Date	MDL	8/19/2019				9/9/2019		
	FIELD_SDG		B9N3354				B9P4257		
	Sample Name		Field Blank	Duplicate	Original	RPD	Duplicate	Original	RPD (%)
Parameter	**Unit**								
Total Metals									
Vanadium	mg/L	0.005	0.005	0.25	0.25	0.00	0.05	0.05	0.00
Zinc	mg/L	0.005	0.005	0.25	0.25	0.00	0.05	0.05	0.00
Zirconium	mg/L	0.0001	0.0001	0.005	0.005	0.00	0.001	0.001	0.00
Dissolved Metals									
Aluminum	mg/L	0.003	0.003	0.15	0.15	0.00	0.168	0.166	1.20
Antimony	mg/L	0.0005	0.0005	0.025	0.025	0.00	0.005	0.005	0.00
Arsenic	mg/L	0.0001	0.0001	0.0722	0.0748	3.54	0.0128	0.0137	6.79
Barium	mg/L	0.001	0.001	0.335	0.343	2.36	0.191	0.187	2.12
Beryllium	mg/L	0.0001	0.0001	0.005	0.005	0.00	0.001	0.001	0.00
Bismuth	mg/L	0.001	0.001	0.05	0.05	0.00	0.01	0.01	0.00
Boron	mg/L	0.05	0.05	2.5	2.5	0.00	0.637	0.639	0.31
Cadmium	mg/L	0.00001	0.00001	0.0005	0.0005	0.00	0.00011	0.00013	16.67
Chromium	mg/L	0.001	0.001	0.05	0.05	0.00	0.01	0.01	0.00
Cobalt	mg/L	0.0002	0.0002	0.01	0.01	0.00	0.0042	0.0041	2.41
Copper	mg/L	0.0002	0.0002	0.018	0.01	57.14	0.004	0.004	0.00
Iron	mg/L	0.005	0.005	0.25	0.25	0.00	0.05	0.05	0.00
Lead	mg/L	0.0002	0.0002	0.01	0.01	0.00	0.0021	0.0022	4.65
Lithium	mg/L	0.002	0.002	0.92	0.911	0.98	0.441	0.428	2.99
Manganese	mg/L	0.001	0.001	0.289	0.299	3.40	0.043	0.042	2.35
Mercury	mg/L	0.00001	0.00001	0.00001	0.00001	0.00	0.00001	0.00001	0.00
Molybdenum	mg/L	0.001	0.001	0.05	0.05	0.00	0.015	0.017	12.50
Nickel	mg/L	0.001	0.001	0.067	0.064	4.58	0.022	0.022	0.00
Selenium	mg/L	0.0001	0.0001	0.005	0.005	0.00	0.001	0.001	0.00
Silicon	mg/L	0.1	0.1	5	5	0.00	1.37	1.36	0.73
Silver	mg/L	0.00002	0.00002	0.001	0.001	0.00	0.0002	0.0002	0.00
Strontium	mg/L	0.001	0.001	39.7	40.9	2.98	20.6	20.8	0.97
Sulphur	mg/L	3	3	684	712	4.01	323	320	0.93
Thallium	mg/L	0.00001	0.00001	0.0005	0.0005	0.00	0.0001	0.0001	0.00
Tin	mg/L	0.005	0.005	0.25	0.25	0.00	0.05	0.05	0.00
Titanium	mg/L	0.005	0.005	0.25	0.25	0.00	0.05	0.05	0.00
Uranium	mg/L	0.0001	0.0001	0.0068	0.0068	0.00	0.0048	0.0048	0.00
Vanadium	mg/L	0.005	0.005	0.25	0.25	0.00	0.05	0.05	0.00
Zinc	mg/L	0.005	0.005	0.25	0.25	0.00	0.05	0.05	0.00
Zirconium	mg/L	0.0001	0.0001	0.005	0.005	0.00	0.001	0.001	0.00
Radionuclides									
Radium-226	Bq/l	0.005	0.005	0.25	0.3	18.18	0.1	0.13	26.09

Notes:

RPD	: Relative Percent Difference
MDL	: Mean Detection Limit
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25	: RPD higher than 20%, one of the result is within 10X the MDL and the other one exceeds 10x the MDL.
25	: RPD higher than 20% and concentrations of parent and duplicate samples are above 10x the MDL.