

HC 1 = 12-AR-05 59-63								
Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L
		Input	Output					
16-Apr-19	1	500	330	5.73	1174	#N/A	24.2	29.1
23-Apr-19	2	500	470	6.20	737	#N/A	12.9	5.4
30-Apr-19	3	500	455	6.10	369	#N/A	8.3	1.6
7-May-19	4	500	440	6.94	289	#N/A	9.3	2.3
14-May-19	5	500	445	5.90	242	#N/A	6.0	1.0
21-May-19	6	500	440	6.58	233	#N/A	6.0	1.7
28-May-19	7	500	435	5.71	210	#N/A	5.5	0.3
4-Jun-19	8	500	430	5.21	204	#N/A	6.3	0.3
11-Jun-19	9	500	440	5.42	195	#N/A	9.9	0.6
18-Jun-19	10	500	435	5.18	177	#N/A	6.0	0.5
25-Jun-19	11	500	465	5.40	165			
2-Jul-19	12	500	440	5.32	153	#N/A	5.5	1.9
9-Jul-19	13	500	465	5.73	153			
16-Jul-19	14	500	475	5.49	125	#N/A	9.6	0.6
23-Jul-19	15	500	445	5.68	131			
30-Jul-19	16	500	435	5.99	123	#N/A	6.8	2.2
6-Aug-19	17	500	475	6.01	121			
13-Aug-19	18	500	455	6.21	116	#N/A	7.7	1.5
20-Aug-19	19	500	435	6.41	107			
27-Aug-19	20	500	500	6.40	109	#N/A	7.4	1.2
3-Sep-19	21	500	440	7.17	102			
10-Sep-19	22	500	465	6.32	99			
17-Sep-19	23	500	460	5.79	95			
24-Sep-19	24	500	455	6.52	93	#N/A	6.5	0.9
1-Oct-19	25	500	465	7.18	91			
8-Oct-19	26	500	470	7.07	85			
15-Oct-19	27	500	450	6.86	92			
22-Oct-19	28	500	440	5.72	86	#N/A	5.2	0.5
29-Oct-19	29	500	440	5.76	81			
5-Nov-19	30	500	425	5.75	81			
12-Nov-19	31	500	440	6.63	81			
19-Nov-19	32	500	480	5.46	80	#N/A	5.2	0.9
26-Nov-19	33	500	465	5.80	77			
3-Dec-19	34	500	440	6.25	77			
10-Dec-19	35	500	440	6.76	78			
17-Dec-19	36	500	445	6.19	71	#N/A	3.5	0.7
24-Dec-19	37	500	430	7.00	71			
31-Dec-19	38	500	455	6.17	70			
7-Jan-20	39	500	435	6.06	73			
14-Jan-20	40	500	450	6.13	69	#N/A	2.2	0.7

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Date	Cycle	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L
16-Apr-19	1	637	657	0.108	< 0.0009	0.0003	0.00775	0.000256
23-Apr-19	2	383	350	0.012	< 0.0009	< 0.0002	0.00600	0.000036
30-Apr-19	3	191	180	0.022	< 0.0009	< 0.0002	0.00428	0.000047
7-May-19	4	124	129	0.017	< 0.0009	< 0.0002	0.00448	0.000079
14-May-19	5	114	112	0.023	< 0.0009	< 0.0002	0.00426	0.000102
21-May-19	6	109	97.8	0.040	< 0.0009	< 0.0002	0.00424	0.000131
28-May-19	7	98	88.0	0.035	< 0.0009	< 0.0002	0.00440	0.000146
4-Jun-19	8	99	80.7	0.035	< 0.0009	0.0003	0.00476	0.000144
11-Jun-19	9	87	73.3	0.038	< 0.0009	0.0002	0.00525	0.000117
18-Jun-19	10	78	66.8	0.041	< 0.0009	< 0.0002	0.00418	0.000151
25-Jun-19	11	72						
2-Jul-19	12	62	52.2	0.035	< 0.0009	< 0.0002	0.00334	0.000123
9-Jul-19	13	61						
16-Jul-19	14	51	47.8	0.028	< 0.0009	< 0.0002	0.00301	0.000108
23-Jul-19	15	45						
30-Jul-19	16	47	42.8	0.026	< 0.0009	< 0.0002	0.00263	0.000093
6-Aug-19	17	48						
13-Aug-19	18	42	32.3	0.020	< 0.0009	< 0.0002	0.00231	0.000072
20-Aug-19	19	43						
27-Aug-19	20	44	36.1	0.020	< 0.0009	< 0.0002	0.00219	0.000071
3-Sep-19	21	41						
10-Sep-19	22	41						
17-Sep-19	23	37						
24-Sep-19	24	36	31.7	0.020	< 0.0009	0.0003	0.00211	0.000061
1-Oct-19	25	37						
8-Oct-19	26	30						
15-Oct-19	27	33						
22-Oct-19	28	32	24.4	0.015	< 0.0009	< 0.0002	0.00156	0.000077
29-Oct-19	29	29						
5-Nov-19	30	33						
12-Nov-19	31	30						
19-Nov-19	32	29	29.2	0.096	< 0.0009	< 0.0002	0.00176	0.000103
26-Nov-19	33	26						
3-Dec-19	34	29						
10-Dec-19	35	27						
17-Dec-19	36	29	23.2	0.021	< 0.0009	< 0.0002	0.00153	0.000057
24-Dec-19	37	27						
31-Dec-19	38	27						
7-Jan-20	39	26						
14-Jan-20	40	24	22.6	0.022	< 0.0009	< 0.0002	0.00167	0.000056

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Date	Cycle	Bi	B	Cd	Ca	Cr	Co	Cu
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	< 0.000007	0.022	0.000483	166	0.00022	0.432	0.0232
23-Apr-19	2	< 0.000007	0.008	0.000220	84.7	< 0.00008	0.110	0.0070
30-Apr-19	3	< 0.000007	0.007	0.000270	44.2	< 0.00008	0.130	0.0152
7-May-19	4	< 0.000007	0.006	0.000255	31.5	< 0.00008	0.176	0.0206
14-May-19	5	< 0.000007	0.005	0.000347	27.0	< 0.00008	0.231	0.0320
21-May-19	6	< 0.000007	0.003	0.000392	23.7	< 0.00008	0.279	0.0595
28-May-19	7	< 0.000007	0.004	0.000371	21.1	< 0.00008	0.293	0.0552
4-Jun-19	8	< 0.000007	0.011	0.000444	19.0	< 0.00008	0.326	0.0642
11-Jun-19	9	< 0.000007	0.003	0.000425	16.8	< 0.00008	0.326	0.0690
18-Jun-19	10	< 0.000007	0.004	0.000435	16.4	< 0.00008	0.305	0.0713
25-Jun-19	11							
2-Jul-19	12	< 0.000007	0.011	0.000325	12.9	< 0.00008	0.226	0.0523
9-Jul-19	13							
16-Jul-19	14	< 0.000007	0.004	0.000290	12.1	< 0.00008	0.218	0.0479
23-Jul-19	15							
30-Jul-19	16	< 0.000007	0.004	0.000286	10.3	< 0.00008	0.218	0.0428
6-Aug-19	17							
13-Aug-19	18	< 0.000007	< 0.002	0.000371	7.92	< 0.00008	0.185	0.0377
20-Aug-19	19							
27-Aug-19	20	< 0.000007	0.005	0.000272	8.46	< 0.00008	0.175	0.0296
3-Sep-19	21							
10-Sep-19	22							
17-Sep-19	23							
24-Sep-19	24	< 0.000007	0.003	0.000247	7.68	< 0.00008	0.136	0.0266
1-Oct-19	25							
8-Oct-19	26							
15-Oct-19	27							
22-Oct-19	28	< 0.000007	0.003	0.000219	5.94	< 0.00008	0.0955	0.0188
29-Oct-19	29							
5-Nov-19	30							
12-Nov-19	31							
19-Nov-19	32	< 0.000007	0.003	0.000307	6.78	< 0.00008	0.110	0.0250
26-Nov-19	33							
3-Dec-19	34							
10-Dec-19	35							
17-Dec-19	36	< 0.000007	< 0.002	0.000177	6.15	< 0.00008	0.0865	0.0183
24-Dec-19	37							
31-Dec-19	38							
7-Jan-20	39							
14-Jan-20	40	< 0.000007	0.004	0.000198	5.99	< 0.00008	0.0861	0.0194

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Date	Cycle	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni
		mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L
16-Apr-19	1	5.52	0.00012	0.0699	58.9	4.98	< 0.01	0.00075	0.473
23-Apr-19	2	1.74	< 0.00001	0.0498	33.6	4.35	< 0.01	< 0.00004	0.232
30-Apr-19	3	0.258	0.00003	0.0349	17.0	2.61	< 0.01	0.00029	0.298
7-May-19	4	0.218	0.00004	0.0304	12.2	2.53	< 0.01	< 0.00004	0.384
14-May-19	5	0.294	0.00001	0.0230	10.8	2.72	< 0.01	< 0.00004	0.478
21-May-19	6	0.414	0.00001	0.0200	9.38	3.18	< 0.01	< 0.00004	0.555
28-May-19	7	0.418	0.00009	0.0200	8.59	3.38	< 0.01	< 0.00004	0.566
4-Jun-19	8	0.468	< 0.00001	0.0156	8.11	3.66	< 0.01	0.00093	0.570
11-Jun-19	9	0.565	0.00009	0.0107	7.62	3.57	< 0.01	< 0.00004	0.577
18-Jun-19	10	0.650	0.00002	0.0165	6.25	3.79	0.01	< 0.00004	0.565
25-Jun-19	11								
2-Jul-19	12	0.598	< 0.00001	0.0097	4.86	3.80	< 0.01	0.00077	0.425
9-Jul-19	13								
16-Jul-19	14	0.528	0.00005	0.0091	4.28	3.28	< 0.01	0.00094	0.467
23-Jul-19	15								
30-Jul-19	16	0.461	< 0.00001	0.0087	4.15	3.55	< 0.01	0.00181	0.384
6-Aug-19	17								
13-Aug-19	18	0.377	0.00313	0.0055	3.04	3.32	< 0.01	0.00009	0.356
20-Aug-19	19								
27-Aug-19	20	0.456	< 0.00001	0.0075	3.64	3.55	< 0.01	< 0.00004	0.303
3-Sep-19	21								
10-Sep-19	22								
17-Sep-19	23								
24-Sep-19	24	0.268	0.00001	0.0059	3.05	3.37	< 0.01	0.00112	0.264
1-Oct-19	25								
8-Oct-19	26								
15-Oct-19	27								
22-Oct-19	28	0.212	< 0.00001	0.0060	2.32	2.77	< 0.01	0.00007	0.209
29-Oct-19	29								
5-Nov-19	30								
12-Nov-19	31								
19-Nov-19	32	0.319	0.00001	0.0049	2.47	3.28	< 0.01	0.00024	0.218
26-Nov-19	33								
3-Dec-19	34								
10-Dec-19	35								
17-Dec-19	36	0.165	< 0.00001	0.0039	1.90	2.90	< 0.01	< 0.00004	0.175
24-Dec-19	37								
31-Dec-19	38								
7-Jan-20	39								
14-Jan-20	40	0.142	0.00002	0.0041	1.85	2.86	< 0.01	0.00188	0.177

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Date	Cycle	P	K	Se	Si	Ag	Na	Sr
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	0.005	0.671	0.00297	5.87	< 0.00005	5.15	0.278
23-Apr-19	2	0.008	1.16	0.00190	3.99	< 0.00005	4.19	0.161
30-Apr-19	3	< 0.003	1.13	0.00183	4.47	< 0.00005	2.55	0.0897
7-May-19	4	< 0.003	0.908	0.00116	5.22	< 0.00005	1.62	0.0660
14-May-19	5	< 0.003	0.947	0.00115	5.24	< 0.00005	1.28	0.0554
21-May-19	6	< 0.003	0.850	0.00103	5.08	< 0.00005	0.99	0.0534
28-May-19	7	< 0.003	0.838	0.00083	5.65	< 0.00005	0.85	0.0466
4-Jun-19	8	< 0.003	0.663	0.00098	4.43	< 0.00005	0.70	0.0430
11-Jun-19	9	< 0.003	0.639	0.00081	4.84	< 0.00005	0.65	0.0366
18-Jun-19	10	< 0.003	0.639	0.00078	5.00	< 0.00005	0.62	0.0346
25-Jun-19	11							
2-Jul-19	12	< 0.003	0.517	0.00063	5.05	< 0.00005	1.30	0.0238
9-Jul-19	13							
16-Jul-19	14	< 0.003	0.399	0.00058	4.01	< 0.00005	0.37	0.0224
23-Jul-19	15							
30-Jul-19	16	< 0.003	0.357	0.00052	3.78	< 0.00005	0.48	0.0186
6-Aug-19	17							
13-Aug-19	18	< 0.003	0.232	0.00051	2.82	< 0.00005	0.28	0.0159
20-Aug-19	19							
27-Aug-19	20	< 0.003	0.263	0.00055	3.94	< 0.00005	0.33	0.0156
3-Sep-19	21							
10-Sep-19	22							
17-Sep-19	23							
24-Sep-19	24	< 0.003	0.235	0.00043	3.46	< 0.00005	0.30	0.0115
1-Oct-19	25							
8-Oct-19	26							
15-Oct-19	27							
22-Oct-19	28	< 0.003	0.178	0.00036	2.67	< 0.00005	0.27	0.00873
29-Oct-19	29							
5-Nov-19	30							
12-Nov-19	31							
19-Nov-19	32	< 0.003	0.201	0.00043	3.43	< 0.00005	0.22	0.0104
26-Nov-19	33							
3-Dec-19	34							
10-Dec-19	35							
17-Dec-19	36	< 0.003	0.154	0.00032	2.60	< 0.00005	0.10	0.00848
24-Dec-19	37							
31-Dec-19	38							
7-Jan-20	39							
14-Jan-20	40	< 0.003	0.147	0.00035	2.37	< 0.00005	0.21	0.00789

HC 1 = 12-AR-05 59-63

Date	Cycle	S	Tl	Sn	Ti	U	V	Zn	Zr
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	209	< 0.000005	< 0.00006	0.00007	0.000021	0.00003	0.214	< 0.002
23-Apr-19	2	161	< 0.000005	< 0.00006	< 0.00005	0.000011	0.00002	0.035	< 0.002
30-Apr-19	3	69.8	0.000006	< 0.00006	< 0.00005	0.000005	0.00002	0.038	< 0.002
7-May-19	4	45.3	< 0.000005	< 0.00006	< 0.00005	< 0.000002	< 0.00001	0.052	< 0.002
14-May-19	5	41.9	0.000005	< 0.00006	< 0.00005	0.000006	0.00001	0.076	< 0.002
21-May-19	6	39.8	0.000005	< 0.00006	< 0.00005	0.000007	< 0.00001	0.101	< 0.002
28-May-19	7	33.1	0.000009	0.00008	< 0.00005	0.000006	< 0.00001	0.101	< 0.002
4-Jun-19	8	31.3	< 0.000005	< 0.00006	< 0.00005	0.000002	< 0.00001	0.117	< 0.002
11-Jun-19	9	23.7	< 0.000005	< 0.00006	< 0.00005	0.000012	< 0.00001	0.120	< 0.002
18-Jun-19	10	23.5	< 0.000005	< 0.00006	< 0.00005	0.000007	< 0.00001	0.122	< 0.002
25-Jun-19	11								
2-Jul-19	12	20.8	0.000005	0.00019	< 0.00005	0.000012	0.00001	0.099	< 0.002
9-Jul-19	13								
16-Jul-19	14	17.9	< 0.000005	< 0.00006	< 0.00005	0.000005	< 0.00001	0.091	< 0.002
23-Jul-19	15								
30-Jul-19	16	16.4	< 0.000005	< 0.00006	< 0.00005	0.000016	0.00002	0.087	< 0.002
6-Aug-19	17								
13-Aug-19	18	12.2	< 0.000005	< 0.00006	< 0.00005	0.000021	0.00001	0.083	< 0.002
20-Aug-19	19								
27-Aug-19	20	14.4	< 0.000005	0.00032	< 0.00005	0.000003	< 0.00001	0.073	< 0.002
3-Sep-19	21								
10-Sep-19	22								
17-Sep-19	23								
24-Sep-19	24	11.8	0.000006	< 0.00006	< 0.00005	0.000004	< 0.00001	0.059	< 0.002
1-Oct-19	25								
8-Oct-19	26								
15-Oct-19	27								
22-Oct-19	28	11.1	< 0.000005	< 0.00006	< 0.00005	0.000004	< 0.00001	0.045	< 0.002
29-Oct-19	29								
5-Nov-19	30								
12-Nov-19	31								
19-Nov-19	32	13.3	0.000010	0.00199	< 0.00005	0.000658	0.00044	0.079	< 0.002
26-Nov-19	33								
3-Dec-19	34								
10-Dec-19	35								
17-Dec-19	36	10.4	< 0.000005	0.00012	< 0.00005	0.000010	< 0.00001	0.047	< 0.002
24-Dec-19	37								
31-Dec-19	38								
7-Jan-20	39								
14-Jan-20	40	9.8	< 0.000005	< 0.00006	< 0.00005	0.000038	0.00002	0.046	< 0.002

HC 1 = 12-AR-05 59-63

Date	Cycle	SGS File #	Major Anions	Major Cations	Diff	Diff %
16-Apr-19	1	CA15355-APR19	13.85	13.91	0.05	0.2%
23-Apr-19	2	CA15405-APR19	8.09	7.47	-0.61	-3.9%
30-Apr-19	3	CA15034-MAY19	4.01	3.87	-0.14	-1.7%
7-May-19	4	CA15159-MAY19	2.63	2.80	0.17	3.1%
14-May-19	5	CA15322-MAY19	2.40	2.46	0.07	1.4%
21-May-19	6	CA15433-MAY19	2.30	2.19	-0.11	-2.4%
28-May-19	7	CA15611-MAY19	2.05	2.00	-0.05	-1.1%
4-Jun-19	8	CA15096-JUN19	2.07	1.86	-0.21	-5.3%
11-Jun-19	9	CA15242-JUN19	1.82	1.71	-0.11	-3.2%
18-Jun-19	10	CA15360-JUN19	1.63	1.59	-0.05	-1.5%
25-Jun-19	11					
2-Jul-19	12	CA15041-JUL19	1.33	1.31	-0.02	-0.6%
9-Jul-19	13					
16-Jul-19	14	CA12738-JUL19	1.07	1.16	0.09	3.8%
23-Jul-19	15					
30-Jul-19	16	CA15028-AUG19	1.02	1.07	0.04	2.1%
6-Aug-19	17					
13-Aug-19	18	CA15190-AUG19	0.91	0.83	-0.08	-4.4%
20-Aug-19	19					
27-Aug-19	20	CA15479-AUG19	0.94	0.92	-0.02	-1.2%
3-Sep-19	21					
10-Sep-19	22					
17-Sep-19	23					
24-Sep-19	24	CA15459-SEP19	0.77	0.81	0.04	2.6%
1-Oct-19	25					
8-Oct-19	26					
15-Oct-19	27					
22-Oct-19	28	CA15516-OCT19	0.68	0.63	-0.05	-3.6%
29-Oct-19	29					
5-Nov-19	30					
12-Nov-19	31					
19-Nov-19	32	CA15385-NOV19	0.62	0.72	0.10	7.1%
26-Nov-19	33					
3-Dec-19	34					
10-Dec-19	35					
17-Dec-19	36	CA15295-DEC19	0.62	0.60	-0.02	-1.6%
24-Dec-19	37					
31-Dec-19	38					
7-Jan-20	39					
14-Jan-20	40	CA15262-JAN20	0.51	0.59	0.08	6.8%

HC 2 = 12-AR-06 50-54								
Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L
		Input	Output					
16-Apr-19	1	500	295	7.42	923	#N/A	6.7	69.0
23-Apr-19	2	500	455	7.62	901	#N/A	6.7	27.4
30-Apr-19	3	500	460	7.77	587	#N/A	7.0	21.2
7-May-19	4	500	440	7.86	452	#N/A	7.2	22.6
14-May-19	5	500	440	7.87	364	#N/A	3.4	17.7
21-May-19	6	500	495	7.89	267	#N/A	3.4	25.1
28-May-19	7	500	460	7.71	232	#N/A	2.8	15.7
4-Jun-19	8	500	435	7.16	237	#N/A	3.2	14.5
11-Jun-19	9	500	435	7.82	244	#N/A	5.9	18.7
18-Jun-19	10	500	435	7.49	225	#N/A	2.5	16.0
25-Jun-19	11	500	440	7.50	222			
2-Jul-19	12	500	425	7.67	222	#N/A	2.2	17.5
9-Jul-19	13	500	460	7.61	199			
16-Jul-19	14	500	445	7.75	168	#N/A	6.6	20.1
23-Jul-19	15	500	440	7.88	188			
30-Jul-19	16	500	445	7.80	178	#N/A	4.9	21.4
6-Aug-19	17	500	430	7.94	192			
13-Aug-19	18	500	440	8.03	169	#N/A	5.6	23.8
20-Aug-19	19	500	445	8.02	167			
27-Aug-19	20	500	435	7.61	159	#N/A	3.7	16.2
3-Sep-19	21	500	440	8.11	172			
10-Sep-19	22	500	440	7.76	162			
17-Sep-19	23	500	450	7.41	166			
24-Sep-19	24	500	450	7.85	162	#N/A	4.2	23.0
1-Oct-19	25	500	460	7.27	162			
8-Oct-19	26	500	465	7.13	158			
15-Oct-19	27	500	465	7.53	176			
22-Oct-19	28	500	450	7.12	151	#N/A	2.4	14.9
29-Oct-19	29	500	440	7.21	152			
5-Nov-19	30	500	450	7.07	159			
12-Nov-19	31	500	440	7.71	164			
19-Nov-19	32	500	460	7.10	151	#N/A	3.8	14.9
26-Nov-19	33	500	450	7.17	164			
3-Dec-19	34	500	450	7.65	152			
10-Dec-19	35	500	440	7.63	150			
17-Dec-19	36	500	445	7.48	148	#N/A	2.6	15.0
24-Dec-19	37	500	440	7.54	152			
31-Dec-19	38	500	460	7.29	150			
7-Jan-20	39	500	435	7.42	146			
14-Jan-20	40	500	435	7.68	147	#N/A	1.3	14.6

HC 2 = 12-AR-06 50-54								
Date	Cycle	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L
16-Apr-19	1	438	474	0.001	< 0.0009	0.0002	0.0339	0.000016
23-Apr-19	2	450	462	0.009	< 0.0009	0.0005	0.00806	< 0.000007
30-Apr-19	3	302	316	0.012	< 0.0009	< 0.0002	0.00698	< 0.000007
7-May-19	4	208	233	0.018	< 0.0009	< 0.0002	0.00589	< 0.000007
14-May-19	5	167	178	0.021	< 0.0009	< 0.0002	0.00503	< 0.000007
21-May-19	6	100	128	0.027	< 0.0009	< 0.0002	0.00333	< 0.000007
28-May-19	7	87	108	0.022	< 0.0009	< 0.0002	0.00313	< 0.000007
4-Jun-19	8	100	106	0.022	< 0.0009	< 0.0002	0.00315	< 0.000007
11-Jun-19	9	101	104	0.019	< 0.0009	< 0.0002	0.00356	< 0.000007
18-Jun-19	10	86	105	0.024	< 0.0009	0.0002	0.00290	< 0.000007
25-Jun-19	11	82						
2-Jul-19	12	76	101	0.027	< 0.0009	< 0.0002	0.00242	< 0.000007
9-Jul-19	13	66						
16-Jul-19	14	52	77.2	0.026	< 0.0009	< 0.0002	0.00254	< 0.000007
23-Jul-19	15	59						
30-Jul-19	16	56	78.1	0.031	< 0.0009	< 0.0002	0.00206	< 0.000007
6-Aug-19	17	69						
13-Aug-19	18	50	60.0	0.025	< 0.0009	0.0002	0.00195	< 0.000007
20-Aug-19	19	49						
27-Aug-19	20	55	72.8	0.024	< 0.0009	< 0.0002	0.00172	< 0.000007
3-Sep-19	21	61						
10-Sep-19	22	51						
17-Sep-19	23	48						
24-Sep-19	24	48	72.5	0.033	< 0.0009	0.0002	0.00189	< 0.000007
1-Oct-19	25	53						
8-Oct-19	26	41						
15-Oct-19	27	46						
22-Oct-19	28	43	56.0	0.023	< 0.0009	< 0.0002	0.00165	0.000007
29-Oct-19	29	44						
5-Nov-19	30	44						
12-Nov-19	31	51						
19-Nov-19	32	42	66.3	0.025	< 0.0009	< 0.0002	0.00175	0.000018
26-Nov-19	33	47						
3-Dec-19	34	46						
10-Dec-19	35	42						
17-Dec-19	36	48	65.3	0.028	< 0.0009	< 0.0002	0.00164	< 0.000007
24-Dec-19	37	43						
31-Dec-19	38	41						
7-Jan-20	39	46						
14-Jan-20	40	48	64.9	0.030	< 0.0009	< 0.0002	0.00184	< 0.000007

HC 2 = 12-AR-06 50-54								
Date	Cycle	Bi	B	Cd	Ca	Cr	Co	Cu
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	< 0.000007	0.012	0.00074	140	< 0.00008	0.140	0.0011
23-Apr-19	2	< 0.000007	0.014	0.000048	139	< 0.00008	0.00433	0.0011
30-Apr-19	3	< 0.000007	0.007	0.000042	104	< 0.00008	0.00272	0.0005
7-May-19	4	< 0.000007	0.005	0.000013	81.2	< 0.00008	0.00175	0.0003
14-May-19	5	< 0.000007	0.004	0.000017	63.3	< 0.00008	0.00148	0.0004
21-May-19	6	< 0.000007	0.003	0.000020	46.6	< 0.00008	0.00102	0.0099
28-May-19	7	< 0.000007	0.004	0.000009	39.8	< 0.00008	0.000574	0.0003
4-Jun-19	8	< 0.000007	0.006	< 0.000003	39.2	< 0.00008	0.000566	< 0.0002
11-Jun-19	9	< 0.000007	0.003	0.000011	38.6	< 0.00008	0.000548	0.0002
18-Jun-19	10	0.000007	0.003	0.000005	39.3	< 0.00008	0.000477	0.0005
25-Jun-19	11							
2-Jul-19	12	< 0.000007	0.009	0.000006	38.6	< 0.00008	0.000358	0.0003
9-Jul-19	13							
16-Jul-19	14	< 0.000007	0.004	0.000005	29.4	< 0.00008	0.000274	0.0005
23-Jul-19	15							
30-Jul-19	16	< 0.000007	0.004	0.000004	29.9	< 0.00008	0.000312	0.0004
6-Aug-19	17							
13-Aug-19	18	< 0.000007	0.003	0.000003	23.1	< 0.00008	0.000257	0.0003
20-Aug-19	19							
27-Aug-19	20	< 0.000007	0.005	0.000004	28.1	< 0.00008	0.000235	0.0006
3-Sep-19	21							
10-Sep-19	22							
17-Sep-19	23							
24-Sep-19	24	< 0.000007	0.003	< 0.000003	28.0	< 0.00008	0.000248	0.0005
1-Oct-19	25							
8-Oct-19	26							
15-Oct-19	27							
22-Oct-19	28	< 0.000007	0.005	0.000005	21.7	< 0.00008	0.000166	0.0006
29-Oct-19	29							
5-Nov-19	30							
12-Nov-19	31							
19-Nov-19	32	< 0.000007	0.005	0.000027	25.7	< 0.00008	0.000364	0.0007
26-Nov-19	33							
3-Dec-19	34							
10-Dec-19	35							
17-Dec-19	36	< 0.000007	< 0.002	0.000011	25.4	< 0.00008	0.0002	0.0007
24-Dec-19	37							
31-Dec-19	38							
7-Jan-20	39							
14-Jan-20	40	< 0.000007	0.003	0.000021	25.3	< 0.00008	0.000204	0.0005

HC 2 = 12-AR-06 50-54									
Date	Cycle	Fe	Pb	Li	Mg	Mn	Hg	Mo	Ni
		mg/L	mg/L	mg/L	mg/L	mg/L	ug/L	mg/L	mg/L
16-Apr-19	1	0.689	< 0.00001	0.0368	30.2	4.18	< 0.01	0.00040	0.289
23-Apr-19	2	< 0.007	0.00014	0.0143	27.6	1.72	0.04	0.00306	0.0166
30-Apr-19	3	0.007	< 0.00001	0.0101	13.6	0.912	< 0.01	0.00279	0.0102
7-May-19	4	< 0.007	< 0.00001	0.0075	7.41	0.505	< 0.01	0.00233	0.0064
14-May-19	5	0.017	< 0.00001	0.0054	4.81	0.312	< 0.01	0.00243	0.0051
21-May-19	6	< 0.007	< 0.00001	0.0044	2.82	0.235	< 0.01	0.00187	0.0036
28-May-19	7	< 0.007	< 0.00001	0.0039	2.18	0.159	< 0.01	0.00202	0.0020
4-Jun-19	8	< 0.007	< 0.00001	0.0036	1.92	0.139	< 0.01	0.00234	0.0017
11-Jun-19	9	< 0.007	< 0.00001	0.0027	1.83	0.117	< 0.01	0.00423	0.0019
18-Jun-19	10	< 0.007	< 0.00001	0.0041	1.59	0.114	0.01	0.00205	0.0017
25-Jun-19	11								
2-Jul-19	12	0.007	< 0.00001	0.0027	1.12	0.0874	< 0.01	0.00175	0.0012
9-Jul-19	13								
16-Jul-19	14	< 0.007	0.00024	0.0026	0.949	0.0615	< 0.01	0.00281	0.0011
23-Jul-19	15								
30-Jul-19	16	0.023	< 0.00001	0.0026	0.843	0.0574	0.01	0.00356	0.0010
6-Aug-19	17								
13-Aug-19	18	< 0.007	< 0.00001	0.0019	0.601	0.0512	< 0.01	0.00183	0.0009
20-Aug-19	19								
27-Aug-19	20	< 0.007	< 0.00001	0.0022	0.640	0.0474	< 0.01	0.00151	0.0007
3-Sep-19	21								
10-Sep-19	22								
17-Sep-19	23								
24-Sep-19	24	< 0.007	< 0.00001	0.0023	0.599	0.0511	< 0.01	0.00162	0.0006
1-Oct-19	25								
8-Oct-19	26								
15-Oct-19	27								
22-Oct-19	28	< 0.007	0.00001	0.0024	0.453	0.0377	< 0.01	0.00123	0.0008
29-Oct-19	29								
5-Nov-19	30								
12-Nov-19	31								
19-Nov-19	32	0.040	< 0.00001	0.0022	0.502	0.0427	< 0.01	0.00121	0.0014
26-Nov-19	33								
3-Dec-19	34								
10-Dec-19	35								
17-Dec-19	36	< 0.007	0.00001	0.0017	0.42	0.04	< 0.01	0.00092	0.001
24-Dec-19	37								
31-Dec-19	38								
7-Jan-20	39								
14-Jan-20	40	< 0.007	< 0.00001	0.0019	0.437	0.0393	< 0.01	0.00128	0.0005

HC 2 = 12-AR-06 50-54

Date	Cycle	P	K	Se	Si	Ag	Na	Sr
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	< 0.003	11.5	0.00138	1.26	< 0.00005	4.62	0.126
23-Apr-19	2	< 0.003	11.4	0.00214	1.46	< 0.00005	4.47	0.103
30-Apr-19	3	< 0.003	9.26	0.00093	1.84	< 0.00005	2.18	0.0701
7-May-19	4	< 0.003	7.44	0.00054	1.96	< 0.00005	1.12	0.0488
14-May-19	5	< 0.003	6.52	0.00049	1.74	< 0.00005	0.76	0.0345
21-May-19	6	< 0.003	4.97	0.00037	1.88	< 0.00005	0.48	0.0261
28-May-19	7	< 0.003	4.58	0.00030	1.63	< 0.00005	0.39	0.0213
4-Jun-19	8	< 0.003	4.03	0.00045	1.46	< 0.00005	0.34	0.0207
11-Jun-19	9	< 0.003	4.74	0.00034	1.51	< 0.00005	0.34	0.0188
18-Jun-19	10	< 0.003	4.29	0.00035	1.68	< 0.00005	0.41	0.0188
25-Jun-19	11							
2-Jul-19	12	< 0.003	4.07	0.00038	1.92	< 0.00005	1.10	0.0146
9-Jul-19	13							
16-Jul-19	14	< 0.003	3.85	0.00027	1.43	< 0.00005	0.23	0.0124
23-Jul-19	15							
30-Jul-19	16	< 0.003	3.71	0.00029	1.47	< 0.00005	0.32	0.0122
6-Aug-19	17							
13-Aug-19	18	< 0.003	2.78	0.00023	1.41	< 0.00005	0.19	0.0106
20-Aug-19	19							
27-Aug-19	20	< 0.003	3.15	0.00028	1.39	< 0.00005	0.23	0.0108
3-Sep-19	21							
10-Sep-19	22							
17-Sep-19	23							
24-Sep-19	24	< 0.003	2.98	0.00021	1.49	< 0.00005	0.18	0.0109
1-Oct-19	25							
8-Oct-19	26							
15-Oct-19	27							
22-Oct-19	28	< 0.003	2.23	0.00022	1.22	< 0.00005	0.18	0.00838
29-Oct-19	29							
5-Nov-19	30							
12-Nov-19	31							
19-Nov-19	32	< 0.003	2.52	0.00022	1.60	< 0.00005	0.14	0.00994
26-Nov-19	33							
3-Dec-19	34							
10-Dec-19	35							
17-Dec-19	36	< 0.003	2.240	0.00021	1.22	< 0.00005	0.03	0.00977
24-Dec-19	37							
31-Dec-19	38							
7-Jan-20	39							
14-Jan-20	40	< 0.003	2.26	0.00020	1.18	< 0.00005	0.14	0.00942

HC 2 = 12-AR-06 50-54

Date	Cycle	S	Tl	Sn	Ti	U	V	Zn	Zr
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	145	0.000036	0.00010	< 0.00005	0.00122	0.00006	0.103	< 0.002
23-Apr-19	2	217	0.000006	0.00014	< 0.00005	0.000849	0.00006	0.003	< 0.002
30-Apr-19	3	113	0.000006	0.00012	< 0.00005	0.000551	0.00003	0.003	< 0.002
7-May-19	4	71.1	0.000010	< 0.00006	< 0.00005	0.000417	0.00005	< 0.002	< 0.002
14-May-19	5	55.7	0.000008	< 0.00006	< 0.00005	0.000413	0.00006	< 0.002	< 0.002
21-May-19	6	39.3	0.000006	< 0.00006	< 0.00005	0.000454	0.00008	< 0.002	< 0.002
28-May-19	7	32.5	0.000007	< 0.00006	< 0.00005	0.000240	0.00009	< 0.002	< 0.002
4-Jun-19	8	33.9	0.000006	< 0.00006	< 0.00005	0.000291	0.00007	< 0.002	< 0.002
11-Jun-19	9	30.3	0.000005	< 0.00006	< 0.00005	0.000299	0.00010	< 0.002	< 0.002
18-Jun-19	10	29.5	0.000006	< 0.00006	0.00008	0.000265	0.00012	< 0.002	< 0.002
25-Jun-19	11								
2-Jul-19	12	28.1	0.000005	0.00012	< 0.00005	0.000290	0.00012	< 0.002	< 0.002
9-Jul-19	13								
16-Jul-19	14	20.6	< 0.000005	< 0.00006	< 0.00005	0.000233	0.00013	< 0.002	< 0.002
23-Jul-19	15								
30-Jul-19	16	21.1	< 0.000005	< 0.00006	0.00009	0.000268	0.00015	< 0.002	< 0.002
6-Aug-19	17								
13-Aug-19	18	14.6	< 0.000005	< 0.00006	< 0.00005	0.000225	0.00016	< 0.002	< 0.002
20-Aug-19	19								
27-Aug-19	20	17.8	< 0.000005	0.00028	0.00006	0.000246	0.00012	< 0.002	< 0.002
3-Sep-19	21								
10-Sep-19	22								
17-Sep-19	23								
24-Sep-19	24	18.3	0.000009	< 0.00006	< 0.00005	0.000337	0.00015	< 0.002	< 0.002
1-Oct-19	25								
8-Oct-19	26								
15-Oct-19	27								
22-Oct-19	28	15.3	0.000006	< 0.00006	< 0.00005	0.000292	0.00012	< 0.002	< 0.002
29-Oct-19	29								
5-Nov-19	30								
12-Nov-19	31								
19-Nov-19	32	16.6	< 0.000005	0.00124	< 0.00005	0.000470	0.00022	< 0.002	< 0.002
26-Nov-19	33								
3-Dec-19	34								
10-Dec-19	35								
17-Dec-19	36	19.0	0.000006	0.00075	< 0.00005	0.000337	0.00013	0.004	< 0.002
24-Dec-19	37								
31-Dec-19	38								
7-Jan-20	39								
14-Jan-20	40	19.1	< 0.000005	0.00006	< 0.00005	0.000351	0.00016	< 0.002	< 0.002

HC 2 = 12-AR-06 50-54

Date	Cycle	SGS File #	Major Anions	Major Cations	Diff	Diff %
16-Apr-19	1	CA15355-APR19	10.50	10.18	-0.33	-1.6%
23-Apr-19	2	CA15405-APR19	9.92	9.76	-0.16	-0.8%
30-Apr-19	3	CA15034-MAY19	6.72	6.68	-0.04	-0.3%
7-May-19	4	CA15159-MAY19	4.79	4.92	0.14	1.4%
14-May-19	5	CA15322-MAY19	3.83	3.77	-0.07	-0.9%
21-May-19	6	CA15433-MAY19	2.59	2.71	0.13	2.4%
28-May-19	7	CA15611-MAY19	2.13	2.31	0.18	4.1%
4-Jun-19	8	CA15096-JUN19	2.37	2.24	-0.14	-2.9%
11-Jun-19	9	CA15242-JUN19	2.48	2.22	-0.26	-5.5%
18-Jun-19	10	CA15360-JUN19	2.11	2.22	0.11	2.6%
25-Jun-19	11					
2-Jul-19	12	CA15041-JUL19	1.93	2.17	0.24	5.9%
9-Jul-19	13					
16-Jul-19	14	CA12738-JUL19	1.48	1.66	0.17	5.5%
23-Jul-19	15					
30-Jul-19	16	CA15028-AUG19	1.60	1.67	0.08	2.4%
6-Aug-19	17					
13-Aug-19	18	CA15190-AUG19	1.52	1.28	-0.23	-8.3%
20-Aug-19	19					
27-Aug-19	20	CA15479-AUG19	1.47	1.55	0.08	2.6%
3-Sep-19	21					
10-Sep-19	22					
17-Sep-19	23					
24-Sep-19	24	CA15459-SEP19	1.46	1.53	0.07	2.4%
1-Oct-19	25					
8-Oct-19	26					
15-Oct-19	27					
22-Oct-19	28	CA15516-OCT19	1.19	1.19	-0.01	-0.3%
29-Oct-19	29					
5-Nov-19	30					
12-Nov-19	31					
19-Nov-19	32	CA15385-NOV19	1.17	1.40	0.22	8.7%
26-Nov-19	33					
3-Dec-19	34					
10-Dec-19	35					
17-Dec-19	36	CA15295-DEC19	1.30	1.36	0.06	2.4%
24-Dec-19	37					
31-Dec-19	38					
7-Jan-20	39					
14-Jan-20	40	CA15262-JAN20	1.29	1.36	0.07	2.7%

HC 3 = 12-VR-01 40-44

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity	Acidity	Alkalinity	Sulphate
		Input	Output			(pH 4.5) mgCaCO3/L	(pH 8.3) mgCaCO3/L	mgCaCO3/L	(mg/L)
16-Apr-19	1	500	350	3.73	2444	43.8	659.5	#N/A	1671
23-Apr-19	2	500	490	3.73	1467	36.5	334.9	#N/A	923
30-Apr-19	3	500	445	3.80	1001	25.8	212.3	#N/A	558
7-May-19	4	500	445	3.79	816	24.1	171.3	#N/A	432
14-May-19	5	500	450	3.83	793	22.1	160.6	#N/A	375
21-May-19	6	500	430	3.66	721	28.2	182.4	#N/A	365
28-May-19	7	500	450	3.46	636	45.2	159.3	#N/A	308
4-Jun-19	8	500	460	3.29	610	52.2	151.3	#N/A	291
11-Jun-19	9	500	445	3.39	603	28.7	155.7	#N/A	266
18-Jun-19	10	500	450	3.51	589	32.3	145.9	#N/A	230
25-Jun-19	11	500	440	3.52	579				226
2-Jul-19	12	500	440	3.59	563	26.0	145.4	#N/A	252
9-Jul-19	13	500	470	3.71	580				229
16-Jul-19	14	500	450	3.60	514	28.2	139.8	#N/A	211
23-Jul-19	15	500	450	3.72	557				217
30-Jul-19	16	500	445	3.59	539	30.6	144.4	#N/A	219
6-Aug-19	17	500	435	3.58	584				244
13-Aug-19	18	500	465	3.91	528	23.0	145.0	#N/A	217
20-Aug-19	19	500	450	3.79	522				197
27-Aug-19	20	500	455	3.77	522	26.7	138.6	#N/A	210
3-Sep-19	21	500	445	3.91	558				236
10-Sep-19	22	500	455	3.83	571				224
17-Sep-19	23	500	460	3.42	571				186
24-Sep-19	24	500	455	3.68	597	39.3	190.6	#N/A	231
1-Oct-19	25	500	460	3.45	593				227
8-Oct-19	26	500	460	3.34	630				217
15-Oct-19	27	500	435	3.34	721				224
22-Oct-19	28	500	485	3.23	710	60.1	184.2	#N/A	246
29-Oct-19	29	500	475	3.19	693				247
5-Nov-19	30	500	435	3.13	727				245
12-Nov-19	31	500	415	3.59	812				299
19-Nov-19	32	500	460	2.58	832	133.3	225.7	#N/A	262
26-Nov-19	33	500	435	3.08	857				264
3-Dec-19	34	500	455	3.54	796				293
10-Dec-19	35	500	430	3.46	811				268
17-Dec-19	36	500	450	2.99	854	108.0	257.7	#N/A	302
24-Dec-19	37	500	435	3.48	864				272
31-Dec-19	38	500	470	3.16	891				282
7-Jan-20	39	500	430	3.02	868				297
14-Jan-20	40	500	435	3.15	888	107.2	260.8	#N/A	297

HC 3 = 12-VR-01 40-44

Date	Cycle	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L
16-Apr-19	1	790	28.8	< 0.0009	0.0009	0.0275	0.0122	< 0.000007	0.006
23-Apr-19	2	483	9.33	< 0.0009	0.0004	0.00526	0.00681	< 0.000007	0.007
30-Apr-19	3	379	9.77	< 0.0009	0.0003	0.00414	0.00579	< 0.000007	0.005
7-May-19	4	260	8.47	< 0.0009	0.0005	0.00386	0.00549	< 0.000007	0.004
14-May-19	5	222	8.58	< 0.0009	0.0002	0.00391	0.00595	< 0.000007	0.005
21-May-19	6	185	9.66	< 0.0009	0.0003	0.00398	0.00631	< 0.000007	0.004
28-May-19	7	151	8.82	< 0.0009	0.0002	0.00389	0.00580	0.000011	0.005
4-Jun-19	8	120	7.24	< 0.0009	0.0003	0.00367	0.00442	< 0.000007	0.005
11-Jun-19	9	117	9.33	< 0.0009	0.0003	0.00416	0.00368	< 0.000007	0.004
18-Jun-19	10	108	7.37	< 0.0009	0.0004	0.00389	0.00437	< 0.000007	0.004
25-Jun-19	11								
2-Jul-19	12	94.7	9.40	< 0.0009	0.0002	0.00418	0.00406	< 0.000007	0.010
9-Jul-19	13								
16-Jul-19	14	84.9	7.32	< 0.0009	0.0011	0.00441	0.00339	< 0.000007	0.005
23-Jul-19	15								
30-Jul-19	16	80.6	7.92	< 0.0009	0.0003	0.00421	0.00321	< 0.000007	0.005
6-Aug-19	17								
13-Aug-19	18	60.7	6.81	< 0.0009	0.0002	0.00388	0.00202	< 0.000007	0.002
20-Aug-19	19								
27-Aug-19	20	61.5	8.52	< 0.0009	< 0.0002	0.00403	0.00184	< 0.000007	0.004
3-Sep-19	21								
10-Sep-19	22								
17-Sep-19	23								
24-Sep-19	24	67.8	10.8	< 0.0009	0.0003	0.00458	0.00173	< 0.000007	< 0.002
1-Oct-19	25								
8-Oct-19	26								
15-Oct-19	27								
22-Oct-19	28	66.8	12.1	< 0.0009	0.0011	0.00513	0.00190	0.000030	0.010
29-Oct-19	29								
5-Nov-19	30								
12-Nov-19	31								
19-Nov-19	32	73.5	12.7	< 0.0009	0.0002	0.00459	0.00187	< 0.000007	0.004
26-Nov-19	33								
3-Dec-19	34								
10-Dec-19	35								
17-Dec-19	36	67.1	13.4	< 0.0009	0.0002	0.00377	0.00111	< 0.000007	< 0.002
24-Dec-19	37								
31-Dec-19	38								
7-Jan-20	39								
14-Jan-20	40	75.9	15.0	< 0.0009	0.0006	0.00396	0.00114	< 0.000007	0.002

HC 3 = 12-VR-01 40-44

Date	Cycle	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	0.00854	212	0.0357	2.69	0.0695	245	0.00355	0.0542	63.4	11.0
23-Apr-19	2	0.00706	89.0	0.00559	1.34	0.0173	110	0.00084	0.0758	63.4	12.6
30-Apr-19	3	0.00996	87.8	0.00400	1.33	0.0326	73.2	0.00084	0.0537	38.8	10.5
7-May-19	4	0.00934	65.4	0.00269	1.15	0.0339	48.9	0.00089	0.0489	23.5	8.32
14-May-19	5	0.0106	51.4	0.00307	1.04	0.0391	52.2	0.00106	0.0517	22.6	8.29
21-May-19	6	0.0113	41.5	0.00294	0.956	0.0518	53.8	0.00091	0.0517	19.7	9.48
28-May-19	7	0.00983	33.6	0.00233	0.741	0.0443	46.7	0.00079	0.0486	16.3	8.93
4-Jun-19	8	0.00897	27.5	0.00179	0.620	0.0468	39.3	0.00080	0.0350	12.6	8.56
11-Jun-19	9	0.00829	26.0	0.00171	0.580	0.0516	42.8	0.00076	0.0287	12.7	8.39
18-Jun-19	10	0.00743	25.0	0.00160	0.485	0.0578	44.5	0.00127	0.0382	11.2	8.49
25-Jun-19	11										
2-Jul-19	12	0.00584	23.5	0.00113	0.375	0.0632	40.2	0.00104	0.0238	8.77	8.58
9-Jul-19	13										
16-Jul-19	14	0.00506	20.6	0.00105	0.326	0.0848	39.6	0.00072	0.0243	8.12	6.89
23-Jul-19	15										
30-Jul-19	16	0.00425	19.4	0.00124	0.317	0.1120	39.1	0.00275	0.0213	7.81	6.50
6-Aug-19	17										
13-Aug-19	18	0.00357	14.8	0.00144	0.266	0.140	34.0	0.00072	0.0116	5.77	5.43
20-Aug-19	19										
27-Aug-19	20	0.00332	15.9	0.00169	0.262	0.176	36.4	0.00077	0.0136	5.26	5.56
3-Sep-19	21										
10-Sep-19	22										
17-Sep-19	23										
24-Sep-19	24	0.00297	18.7	0.00297	0.272	0.265	39.9	0.00114	0.0135	5.13	4.91
1-Oct-19	25										
8-Oct-19	26										
15-Oct-19	27										
22-Oct-19	28	0.00253	19.2	0.00495	0.232	0.308	43.8	0.00164	0.0146	4.57	3.83
29-Oct-19	29										
5-Nov-19	30										
12-Nov-19	31										
19-Nov-19	32	0.00256	20.9	0.00907	0.257	0.388	53.8	0.00163	0.0156	5.16	3.48
26-Nov-19	33										
3-Dec-19	34										
10-Dec-19	35										
17-Dec-19	36	0.00241	20.3	0.0118	0.263	0.344	51.8	0.00172	0.0115	3.99	3.00
24-Dec-19	37										
31-Dec-19	38										
7-Jan-20	39										
14-Jan-20	40	0.00245	23.4	0.0152	0.287	0.399	55.4	0.00264	0.0136	4.26	2.68

HC 3 = 12-VR-01 40-44

Date	Cycle	Hg	Mo	Ni	P	K	Se	Si	Ag	Na	Sr
		ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	0.06	0.00023	2.71	0.003	0.883	0.00256	9.20	< 0.00005	3.95	1.03
23-Apr-19	2	< 0.01	0.00011	1.59	< 0.003	0.398	0.00412	10.7	< 0.00005	5.45	0.500
30-Apr-19	3	< 0.01	0.00007	1.86	< 0.003	0.412	0.00453	9.96	< 0.00005	3.37	0.378
7-May-19	4	< 0.01	0.00009	1.66	< 0.003	0.307	0.00377	9.73	< 0.00005	1.83	0.243
14-May-19	5	< 0.01	< 0.00004	1.57	< 0.003	0.314	0.00455	9.24	< 0.00005	1.75	0.179
21-May-19	6	< 0.01	< 0.00004	1.56	< 0.003	0.277	0.00454	9.54	< 0.00005	1.34	0.137
28-May-19	7	< 0.01	< 0.00004	1.29	< 0.003	0.267	0.00339	9.67	< 0.00005	1.07	0.0968
4-Jun-19	8	< 0.01	0.00024	1.17	< 0.003	0.170	0.00291	6.29	< 0.00005	0.70	0.0719
11-Jun-19	9	< 0.01	< 0.00004	1.06	< 0.003	0.198	0.00264	7.25	< 0.00005	0.76	0.0546
18-Jun-19	10	0.01	< 0.00004	0.857	< 0.003	0.200	0.00274	7.74	< 0.00005	0.76	0.0496
25-Jun-19	11										
2-Jul-19	12	< 0.01	0.00015	0.676	< 0.003	0.214	0.00234	8.73	< 0.00005	0.90	0.0359
9-Jul-19	13										
16-Jul-19	14	< 0.01	0.00094	0.644	< 0.003	0.202	0.00237	7.58	< 0.00005	0.59	0.0328
23-Jul-19	15										
30-Jul-19	16	< 0.01	0.00195	0.580	< 0.003	0.171	0.00191	8.14	< 0.00005	0.70	0.0286
6-Aug-19	17										
13-Aug-19	18	< 0.01	< 0.00004	0.486	< 0.003	0.117	0.00174	6.68	< 0.00005	0.46	0.0236
20-Aug-19	19										
27-Aug-19	20	< 0.01	< 0.00004	0.490	< 0.003	0.143	0.00180	7.46	< 0.00005	0.37	0.0233
3-Sep-19	21										
10-Sep-19	22										
17-Sep-19	23										
24-Sep-19	24	< 0.01	0.00019	0.450	< 0.003	0.140	0.00174	10.4	< 0.00005	0.48	0.0235
1-Oct-19	25										
8-Oct-19	26										
15-Oct-19	27										
22-Oct-19	28	< 0.01	< 0.00004	0.446	< 0.003	0.090	0.00206	10.1	< 0.00005	0.72	0.0249
29-Oct-19	29										
5-Nov-19	30										
12-Nov-19	31										
19-Nov-19	32	0.01	0.00118	0.483	0.004	0.131	0.00225	13.4	< 0.00005	0.65	0.0288
26-Nov-19	33										
3-Dec-19	34										
10-Dec-19	35										
17-Dec-19	36	0.02	< 0.00004	0.472	< 0.003	0.079	0.00228	11.0	< 0.00005	0.31	0.0274
24-Dec-19	37										
31-Dec-19	38										
7-Jan-20	39										
14-Jan-20	40	0.01	0.00026	0.513	< 0.003	0.094	0.00221	11.5	< 0.00005	0.56	0.0294

HC 3 = 12-VR-01 40-44

Date	Cycle	S	Tl	Sn	Ti	U	V	Zn	Zr
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	524	0.000017	0.00011	0.00218	0.00965	0.00205	1.24	< 0.002
23-Apr-19	2	357	0.000012	< 0.00006	0.00037	0.00532	0.00049	1.52	< 0.002
30-Apr-19	3	223	0.000012	0.00007	0.00039	0.00388	0.00027	2.02	< 0.002
7-May-19	4	147	0.000012	< 0.00006	0.00044	0.00311	0.00012	1.92	< 0.002
14-May-19	5	121	0.000017	< 0.00006	0.00057	0.00335	0.00010	1.94	< 0.002
21-May-19	6	126	0.000018	< 0.00006	0.00087	0.00345	0.00013	2.02	< 0.002
28-May-19	7	105	0.000020	0.00012	0.00079	0.00264	0.00010	1.59	< 0.002
4-Jun-19	8	97	0.000017	< 0.00006	0.00067	0.00265	0.00004	1.38	< 0.002
11-Jun-19	9	85.2	0.000011	< 0.00006	0.00075	0.00214	0.00005	1.30	< 0.002
18-Jun-19	10	82.5	0.000014	< 0.00006	0.00067	0.00212	0.00013	1.19	< 0.002
25-Jun-19	11								
2-Jul-19	12	86.8	0.000015	0.00009	0.00100	0.00176	0.00005	1.11	< 0.002
9-Jul-19	13								
16-Jul-19	14	65.9	0.000011	0.00006	0.00075	0.00122	0.00002	0.999	< 0.002
23-Jul-19	15								
30-Jul-19	16	75.1	0.000011	< 0.00006	0.00099	0.00127	0.00007	0.780	< 0.002
6-Aug-19	17								
13-Aug-19	18	55.3	0.000015	< 0.00006	0.00131	0.00126	0.00004	0.692	< 0.002
20-Aug-19	19								
27-Aug-19	20	70.7	0.000013	0.00026	0.00162	0.00114	0.00005	0.678	< 0.002
3-Sep-19	21								
10-Sep-19	22								
17-Sep-19	23								
24-Sep-19	24	77.0	0.000023	< 0.00006	0.00242	0.00129	0.00008	0.636	< 0.002
1-Oct-19	25								
8-Oct-19	26								
15-Oct-19	27								
22-Oct-19	28	86.0	0.000020	0.00009	0.00382	0.00116	0.00016	0.584	< 0.002
29-Oct-19	29								
5-Nov-19	30								
12-Nov-19	31								
19-Nov-19	32	94.0	0.000023	0.00485	0.00756	0.00121	0.00067	0.509	< 0.002
26-Nov-19	33								
3-Dec-19	34								
10-Dec-19	35								
17-Dec-19	36	112	0.000024	0.00007	0.00961	0.00120	0.00037	0.560	< 0.002
24-Dec-19	37								
31-Dec-19	38								
7-Jan-20	39								
14-Jan-20	40	127	0.000032	0.00019	0.0126	0.00118	0.00056	0.541	< 0.002

HC 3 = 12-VR-01 40-44

Date	Cycle	SGS File #	Major Anions	Major Cations	Diff	Diff %
16-Apr-19	1	CA15355-APR19	34.81	33.20	-1.62	-2.4%
23-Apr-19	2	CA15405-APR19	19.23	17.66	-1.57	-4.3%
30-Apr-19	3	CA15034-MAY19	11.63	13.47	1.85	7.4%
7-May-19	4	CA15159-MAY19	9.00	9.48	0.48	2.6%
14-May-19	5	CA15322-MAY19	7.81	8.87	1.06	6.3%
21-May-19	6	CA15433-MAY19	7.60	8.44	0.83	5.2%
28-May-19	7	CA15611-MAY19	6.42	7.35	0.94	6.8%
4-Jun-19	8	CA15096-JUN19	6.06	6.29	0.23	1.8%
11-Jun-19	9	CA15242-JUN19	5.54	6.53	0.99	8.2%
18-Jun-19	10	CA15360-JUN19	4.79	6.12	1.33	12.2%
25-Jun-19	11					
2-Jul-19	12	CA15041-JUL19	5.25	5.78	0.53	4.8%
9-Jul-19	13					
16-Jul-19	14	CA12738-JUL19	4.40	5.24	0.84	8.7%
23-Jul-19	15					
30-Jul-19	16	CA15028-AUG19	4.56	5.18	0.61	6.3%
6-Aug-19	17					
13-Aug-19	18	CA15190-AUG19	4.52	4.19	-0.33	-3.8%
20-Aug-19	19					
27-Aug-19	20	CA15479-AUG19	4.38	4.57	0.19	2.2%
3-Sep-19	21					
10-Sep-19	22					
17-Sep-19	23					
24-Sep-19	24	CA15459-SEP19	4.81	5.16	0.34	3.5%
1-Oct-19	25					
8-Oct-19	26					
15-Oct-19	27					
22-Oct-19	28	CA15516-OCT19	5.13	5.84	0.71	6.5%
29-Oct-19	29					
5-Nov-19	30					
12-Nov-19	31					
19-Nov-19	32	CA15385-NOV19	5.46	8.60	3.14	22.4%
26-Nov-19	33					
3-Dec-19	34					
10-Dec-19	35					
17-Dec-19	36	CA15295-DEC19	6.29	6.81	0.51	3.9%
24-Dec-19	37					
31-Dec-19	38					
7-Jan-20	39					
14-Jan-20	40	CA15262-JAN20	6.19	7.04	0.85	6.4%

HC 4 = 12-VR-04 44-48

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5)	Acidity (pH 8.3)	Alkalinity	Sulphate (mg/L)
		Input	Output			mgCaCO3/L	mgCaCO3/L	mgCaCO3/L	
16-Apr-19	1	500	275	4.64	986	#N/A	77.6	<0.1	539
23-Apr-19	2	500	480	4.43	782	2.2	45.0	#N/A	393
30-Apr-19	3	500	455	4.62	490	#N/A	25.9	<0.1	230
7-May-19	4	500	445	4.64	355	#N/A	26.1	<0.1	163
14-May-19	5	500	460	4.42	313	1.8	26.8	#N/A	136
21-May-19	6	500	445	4.14	332	5.2	39.8	#N/A	145
28-May-19	7	500	460	3.80	304	10.0	44.7	#N/A	129
4-Jun-19	8	500	450	3.59	305	15.7	53.4	#N/A	129
11-Jun-19	9	500	450	3.99	280	9.2	55.6	#N/A	112
18-Jun-19	10	500	455	3.82	266	10.6	52.3	#N/A	98
25-Jun-19	11	500	455	3.77	277				101
2-Jul-19	12	500	450	3.79	258	10.6	46.3	#N/A	90
9-Jul-19	13	500	470	3.99	278				97
16-Jul-19	14	500	460	3.77	256	13.8	49.3	#N/A	90
23-Jul-19	15	500	460	3.84	340				103
30-Jul-19	16	500	465	3.70	325	16.7	60.4	#N/A	114
6-Aug-19	17	500	450	3.62	419				157
13-Aug-19	18	500	465	3.72	418	17.7	82.6	#N/A	139
20-Aug-19	19	500	460	3.75	443				163
27-Aug-19	20	500	455	3.76	466	22.2	94.5	#N/A	172
3-Sep-19	21	500	445	3.83	554				221
10-Sep-19	22	500	465	3.82	508				190
17-Sep-19	23	500	465	3.40	522				174
24-Sep-19	24	500	455	3.66	569	33.1	137.6	#N/A	197
1-Oct-19	25	500	465	3.39	549				214
8-Oct-19	26	500	470	3.11	537				177
15-Oct-19	27	500	445	3.36	697				216
22-Oct-19	28	500	440	3.24	682	63.0	140.3	#N/A	213
29-Oct-19	29	500	435	3.20	636				221
5-Nov-19	30	500	435	3.14	686				219
12-Nov-19	31	500	425	3.60	756				266
19-Nov-19	32	500	445	3.19	708	70.6	146.3	#N/A	228
26-Nov-19	33	500	435	3.18	715				215
3-Dec-19	34	500	430	3.65	649				214
10-Dec-19	35	500	425	3.55	684				205
17-Dec-19	36	500	430	3.16	687	70.0	151.9	#N/A	238
24-Dec-19	37	500	420	3.63	677				215
31-Dec-19	38	500	435	3.36	637				217
7-Jan-20	39	500	425	3.18	639				251
14-Jan-20	40	500	425	3.36	640	47.3	135.2	#N/A	231

HC 4 = 12-VR-04 44-48

Date	Cycle	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L	B mg/L
16-Apr-19	1	392	3.02	< 0.0009	0.0023	0.0797	0.00404	< 0.000007	0.007
23-Apr-19	2	317	1.25	< 0.0009	0.0012	0.0132	0.00164	< 0.000007	0.009
30-Apr-19	3	192	0.978	< 0.0009	0.0009	0.0136	0.00140	< 0.000007	0.008
7-May-19	4	126	0.931	< 0.0009	0.0007	0.01785	0.00186	< 0.000007	0.007
14-May-19	5	104	1.27	< 0.0009	0.0008	0.0218	0.00241	< 0.000007	0.006
21-May-19	6	94.1	2.19	< 0.0009	0.0014	0.0284	0.00383	< 0.000007	0.004
28-May-19	7	79.5	2.63	< 0.0009	0.0007	0.0316	0.00434	< 0.000007	0.005
4-Jun-19	8	64.9	2.75	< 0.0009	0.0011	0.0322	0.00426	< 0.000007	0.006
11-Jun-19	9	55.2	2.93	< 0.0009	0.0010	0.0344	0.00324	< 0.000007	0.004
18-Jun-19	10	46.9	2.75	< 0.0009	0.0010	0.0280	0.00394	< 0.000007	0.004
25-Jun-19	11								
2-Jul-19	12	39.0	4.43	< 0.0009	0.0009	0.0277	0.00406	< 0.000007	0.009
9-Jul-19	13								
16-Jul-19	14	45.7	4.42	< 0.0009	0.0013	0.0294	0.00383	< 0.000007	0.005
23-Jul-19	15								
30-Jul-19	16	52.4	5.94	< 0.0009	0.0013	0.0279	0.00398	< 0.000007	0.004
6-Aug-19	17								
13-Aug-19	18	49.4	6.72	< 0.0009	0.0017	0.0350	0.00318	< 0.000007	0.003
20-Aug-19	19								
27-Aug-19	20	68.9	10.8	< 0.0009	0.0020	0.03285	0.00313	< 0.000007	0.004
3-Sep-19	21								
10-Sep-19	22								
17-Sep-19	23								
24-Sep-19	24	82.1	14.4	< 0.0009	0.0021	0.0370	0.00255	< 0.000007	< 0.002
1-Oct-19	25								
8-Oct-19	26								
15-Oct-19	27								
22-Oct-19	28	54.4	18.2	< 0.0009	0.0012	0.0204	0.00153	< 0.000007	0.003
29-Oct-19	29								
5-Nov-19	30								
12-Nov-19	31								
19-Nov-19	32	85.5	17.8	< 0.0009	0.0014	0.0263	0.00192	< 0.000007	0.005
26-Nov-19	33								
3-Dec-19	34								
10-Dec-19	35								
17-Dec-19	36	79.2	16.7	< 0.0009	0.0009	0.0235	0.00115	< 0.000007	< 0.002
24-Dec-19	37								
31-Dec-19	38								
7-Jan-20	39								
14-Jan-20	40	86.0	16.6	< 0.0009	0.0011	0.0244	0.00121	< 0.000007	0.003

HC 4 = 12-VR-04 44-48

Date	Cycle	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li	Mg	Mn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	0.00366	65.5	0.00213	0.716	0.0556	23.1	0.00196	0.0759	55.4	5.65
23-Apr-19	2	0.00246	50.2	0.00077	0.618	0.0376	7.00	0.00086	0.0624	46.5	6.23
30-Apr-19	3	0.00255	28.7	0.00056	0.445	0.0463	2.38	0.00097	0.0562	29.2	4.57
7-May-19	4	0.00263	18.9	0.00054	0.392	0.0612	2.07	0.00131	0.0602	19.3	3.29
14-May-19	5	0.00321	16.6	0.00074	0.393	0.0898	3.20	0.00140	0.0438	15.2	2.61
21-May-19	6	0.00461	14.7	0.00069	0.498	0.156	5.49	0.00226	0.0401	13.9	2.83
28-May-19	7	0.00456	12.1	0.00054	0.462	0.160	6.68	0.00249	0.0371	12.0	2.56
4-Jun-19	8	0.00481	9.16	0.00048	0.457	0.177	7.79	0.00290	0.0264	10.2	2.53
11-Jun-19	9	0.00447	7.67	0.00046	0.386	0.163	9.05	0.00252	0.0184	8.75	2.30
18-Jun-19	10	0.00452	7.14	0.00044	0.332	0.165	10.6	0.00267	0.0281	7.07	2.47
25-Jun-19	11										
2-Jul-19	12	0.00424	5.88	0.00036	0.223	0.242	2.66	0.00340	0.0212	5.92	2.78
9-Jul-19	13										
16-Jul-19	14	0.00460	6.59	0.00036	0.236	0.317	1.70	0.00345	0.0261	7.10	3.21
23-Jul-19	15										
30-Jul-19	16	0.00467	7.27	0.00063	0.260	0.304	1.49	0.00448	0.0306	8.31	3.83
6-Aug-19	17										
13-Aug-19	18	0.00435	6.94	0.00081	0.260	0.289	1.19	0.00674	0.0278	7.78	3.99
20-Aug-19	19										
27-Aug-19	20	0.00432	10.1	0.00154	0.285	0.295	1.13	0.00751	0.0360	10.6	4.32
3-Sep-19	21										
10-Sep-19	22										
17-Sep-19	23										
24-Sep-19	24	0.00339	10.5	0.00291	0.307	0.310	1.21	0.00933	0.0425	13.6	4.08
1-Oct-19	25										
8-Oct-19	26										
15-Oct-19	27										
22-Oct-19	28	0.00256	7.76	0.00342	0.203	0.224	0.712	0.00840	0.0319	8.50	2.29
29-Oct-19	29										
5-Nov-19	30										
12-Nov-19	31										
19-Nov-19	32	0.00216	10.8	0.00879	0.258	0.310	1.80	0.00861	0.0556	14.2	2.38
26-Nov-19	33										
3-Dec-19	34										
10-Dec-19	35										
17-Dec-19	36	0.00185	11.0	0.00908	0.241	0.286	1.42	0.00662	0.0401	12.6	2.09
24-Dec-19	37										
31-Dec-19	38										
7-Jan-20	39										
14-Jan-20	40	0.00157	11.5	0.00952	0.241	0.279	1.30	0.00606	0.0497	13.9	1.80

HC 4 = 12-VR-04 44-48

Date	Cycle	Hg	Mo	Ni	P	K	Se	Si	Ag	Na
		ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	< 0.01	< 0.00004	1.50	< 0.003	11.2	0.00308	2.70	< 0.00005	7.11
23-Apr-19	2	< 0.01	< 0.00004	1.27	< 0.003	6.93	0.00279	6.52	< 0.00005	6.19
30-Apr-19	3	< 0.01	< 0.00004	0.958	< 0.003	7.13	0.00247	7.49	< 0.00005	4.02
7-May-19	4	< 0.01	< 0.00004	0.856	< 0.003	5.75	0.00199	8.21	< 0.00005	2.30
14-May-19	5	< 0.01	< 0.00004	0.886	< 0.003	5.29	0.00256	8.56	< 0.00005	1.56
21-May-19	6	< 0.01	< 0.00004	1.12	< 0.003	5.53	0.00296	10.1	< 0.00005	1.20
28-May-19	7	< 0.01	< 0.00004	1.06	< 0.003	5.51	0.00237	9.56	< 0.00005	0.96
4-Jun-19	8	< 0.01	< 0.00004	1.09	< 0.003	4.83	0.00260	7.87	< 0.00005	0.75
11-Jun-19	9	< 0.01	< 0.00004	0.903	< 0.003	4.68	0.00207	7.91	< 0.00005	0.71
18-Jun-19	10	0.01	< 0.00004	0.771	< 0.003	4.06	0.00210	7.83	< 0.00005	0.67
25-Jun-19	11									
2-Jul-19	12	< 0.01	0.00007	0.517	< 0.003	4.55	0.00164	7.55	< 0.00005	0.84
9-Jul-19	13									
16-Jul-19	14	< 0.01	0.00053	0.657	< 0.003	5.36	0.00143	6.50	< 0.00005	0.56
23-Jul-19	15									
30-Jul-19	16	< 0.01	0.00138	0.624	< 0.003	6.02	0.00165	7.93	< 0.00005	0.68
6-Aug-19	17									
13-Aug-19	18	< 0.01	< 0.00004	0.636	< 0.003	5.47	0.00183	7.31	< 0.00005	0.51
20-Aug-19	19									
27-Aug-19	20	< 0.01	< 0.00004	0.705	< 0.003	7.83	0.00234	10.6	< 0.00005	0.49
3-Sep-19	21									
10-Sep-19	22									
17-Sep-19	23									
24-Sep-19	24	< 0.01	0.00009	0.789	< 0.003	9.72	0.00244	13.4	< 0.00005	0.57
1-Oct-19	25									
8-Oct-19	26									
15-Oct-19	27									
22-Oct-19	28	< 0.01	0.00007	0.525	< 0.003	6.80	0.00248	11.9	< 0.00005	0.29
29-Oct-19	29									
5-Nov-19	30									
12-Nov-19	31									
19-Nov-19	32	< 0.01	0.00045	0.652	< 0.003	9.09	0.00327	16.2	< 0.00005	0.60
26-Nov-19	33									
3-Dec-19	34									
10-Dec-19	35									
17-Dec-19	36	< 0.01	< 0.00004	0.597	< 0.003	7.91	0.00296	14.2	< 0.00005	0.30
24-Dec-19	37									
31-Dec-19	38									
7-Jan-20	39									
14-Jan-20	40	< 0.01	0.00014	0.589	< 0.003	8.07	0.00268	14.8	< 0.00005	0.53

HC 4 = 12-VR-04 44-48

Date	Cycle	Sr mg/L	S mg/L	Tl mg/L	Sn mg/L	Ti mg/L	U mg/L	V mg/L	Zn mg/L
16-Apr-19	1	0.373	161	0.000095	< 0.00006	0.00018	0.0140	0.00003	1.95
23-Apr-19	2	0.335	166	0.000053	0.00007	0.00009	0.00568	0.00001	2.03
30-Apr-19	3	0.231	84.5	0.000060	< 0.00006	0.00009	0.00419	0.00002	1.98
7-May-19	4	0.168	52.9	0.000063	< 0.00006	0.00012	0.00449	0.00002	1.97
14-May-19	5	0.146	48.0	0.000066	< 0.00006	< 0.00005	0.00571	0.00001	2.36
21-May-19	6	0.147	51.3	0.000082	< 0.00006	0.00021	0.00954	0.00001	3.63
28-May-19	7	0.117	44.8	0.000083	< 0.00006	0.00020	0.00852	0.00001	3.44
4-Jun-19	8	0.0915	38.1	0.000092	< 0.00006	0.00020	0.0115	< 0.00001	4.36
11-Jun-19	9	0.0640	31.9	0.000071	< 0.00006	0.00018	0.00867	< 0.00001	3.80
18-Jun-19	10	0.0560	33.1	0.000075	< 0.00006	0.00007	0.00838	0.00001	3.21
25-Jun-19	11								
2-Jul-19	12	0.0302	29.3	0.000092	< 0.00006	0.00030	0.00853	< 0.00001	3.24
9-Jul-19	13								
16-Jul-19	14	0.0287	32.2	0.000109	< 0.00006	0.00006	0.00721	< 0.00001	3.49
23-Jul-19	15								
30-Jul-19	16	0.0217	37.9	0.000147	< 0.00006	0.00031	0.00911	0.00001	2.96
6-Aug-19	17								
13-Aug-19	18	0.0180	36.3	0.000226	< 0.00006	0.00054	0.0117	< 0.00001	2.39
20-Aug-19	19								
27-Aug-19	20	0.0164	55.6	0.000224	0.00020	0.00093	0.0134	< 0.00001	2.21
3-Sep-19	21								
10-Sep-19	22								
17-Sep-19	23								
24-Sep-19	24	0.0146	67.1	0.000385	< 0.00006	0.00158	0.0134	< 0.00001	1.86
1-Oct-19	25								
8-Oct-19	26								
15-Oct-19	27								
22-Oct-19	28	0.01048	40.7	0.000356	< 0.00006	0.00161	0.0107	< 0.00001	1.09
29-Oct-19	29								
5-Nov-19	30								
12-Nov-19	31								
19-Nov-19	32	0.0133	81.7	0.000489	0.00124	0.00421	0.0115	0.00002	1.37
26-Nov-19	33								
3-Dec-19	34								
10-Dec-19	35								
17-Dec-19	36	0.0125	89.5	0.000479	< 0.00006	0.00405	0.0108	0.00003	1.19
24-Dec-19	37								
31-Dec-19	38								
7-Jan-20	39								
14-Jan-20	40	0.0122	88.4	0.000511	0.00022	0.00427	0.00946	0.00005	1.03

HC 4 = 12-VR-04 44-48								
Date	Cycle	Zr mg/L	SGS File #		Major Anions	Major Cations	Diff	Diff %
16-Apr-19	1	< 0.002	CA15355-APR19		11.23	10.35	-0.88	-4.1%
23-Apr-19	2	< 0.002	CA15405-APR19		8.19	7.66	-0.53	-3.4%
30-Apr-19	3	< 0.002	CA15034-MAY19		4.79	4.71	-0.08	-0.9%
7-May-19	4	< 0.002	CA15159-MAY19		3.40	3.22	-0.17	-2.6%
14-May-19	5	< 0.002	CA15322-MAY19		2.83	2.81	-0.02	-0.4%
21-May-19	6	< 0.002	CA15433-MAY19		3.02	2.89	-0.13	-2.3%
28-May-19	7	< 0.002	CA15611-MAY19		2.69	2.84	0.15	2.8%
4-Jun-19	8	< 0.002	CA15096-JUN19		2.69	2.72	0.03	0.6%
11-Jun-19	9	< 0.002	CA15242-JUN19		2.33	2.42	0.09	1.8%
18-Jun-19	10	< 0.002	CA15360-JUN19		2.04	2.33	0.29	6.6%
25-Jun-19	11							
2-Jul-19	12	< 0.002	CA15041-JUL19		1.88	1.96	0.09	2.3%
9-Jul-19	13							
16-Jul-19	14	< 0.002	CA12738-JUL19		1.88	2.09	0.22	5.5%
23-Jul-19	15							
30-Jul-19	16	< 0.002	CA15028-AUG19		2.38	2.44	0.07	1.4%
6-Aug-19	17							
13-Aug-19	18	< 0.002	CA15190-AUG19		2.90	2.41	-0.49	-9.2%
20-Aug-19	19							
27-Aug-19	20	< 0.002	CA15479-AUG19		3.58	3.30	-0.28	-4.1%
3-Sep-19	21							
10-Sep-19	22							
17-Sep-19	23							
24-Sep-19	24	< 0.002	CA15459-SEP19		4.10	4.05	-0.05	-0.6%
1-Oct-19	25							
8-Oct-19	26							
15-Oct-19	27							
22-Oct-19	28	< 0.002	CA15516-OCT19		4.44	4.06	-0.38	-4.5%
29-Oct-19	29							
5-Nov-19	30							
12-Nov-19	31							
19-Nov-19	32	< 0.002	CA15385-NOV19		4.75	4.86	0.11	1.1%
26-Nov-19	33							
3-Dec-19	34							
10-Dec-19	35							
17-Dec-19	36	< 0.002	CA15295-DEC19		4.96	4.58	-0.38	-4.0%
24-Dec-19	37							
31-Dec-19	38							
7-Jan-20	39							
14-Jan-20	40	< 0.002	CA15262-JAN20		4.81	4.43	-0.38	-4.1%

HC 5 = 12-VR-06 118- 122

Date	Cycle	Volume mL		pH	Cond. umhos/cm	Acidity (pH 4.5) mgCaCO3/L	Acidity (pH 8.3) mgCaCO3/L	Alkalinity mgCaCO3/L
		Input	Output					
16-Apr-19	1	500	300	6.94	219	#N/A	3.8	5.4
23-Apr-19	2	500	465	7.15	262	#N/A	4.9	4.1
30-Apr-19	3	500	450	7.66	198	#N/A	6.0	3.1
7-May-19	4	500	435	7.55	149	#N/A	6.2	3.0
14-May-19	5	500	435	7.01	121	#N/A	4.6	1.3
21-May-19	6	500	435	6.71	137	#N/A	5.5	1.4
28-May-19	7	500	460	5.91	115	#N/A	4.7	0.4
4-Jun-19	8	500	445	5.19	113	#N/A	4.8	0.4
11-Jun-19	9	500	425	6.16	72	#N/A	14.0	1.3
18-Jun-19	10	500	430	5.08	121	#N/A	6.5	1.4
25-Jun-19	11	500	435	5.17	115			
2-Jul-19	12	500	420	4.87	113	#N/A	11.0	1.6
9-Jul-19	13	500	465	5.40	149			
16-Jul-19	14	500	435	5.32	120	#N/A	23.8	0.5
23-Jul-19	15	500	440	5.21	150			
30-Jul-19	16	500	440	5.05	143	#N/A	30.8	1.1
6-Aug-19	17	500	420	5.06	169			
13-Aug-19	18	500	445	5.23	144	#N/A	34.9	<0.1
20-Aug-19	19	500	440	5.17	145			
27-Aug-19	20	500	440	5.04	135	#N/A	30.8	<0.1
3-Sep-19	21	500	430	5.01	152			
10-Sep-19	22	500	445	4.84	132			
17-Sep-19	23	500	440	4.81	135			
24-Sep-19	24	500	435	4.54	145	1.2	35.2	<0.1
1-Oct-19	25	500	445	4.07	151			
8-Oct-19	26	500	450	4.11	148			
15-Oct-19	27	500	435	4.23	166			
22-Oct-19	28	500	435	3.94	167	7.1	28.5	#N/A
29-Oct-19	29	500	435	3.84	166			
5-Nov-19	30	500	430	3.74	189			
12-Nov-19	31	500	425	4.34	192			
19-Nov-19	32	500	435	3.84	207	7.5	30.7	#N/A
26-Nov-19	33	500	440	3.77	228			
3-Dec-19	34	500	430	4.23	229			
10-Dec-19	35	500	430	4.15	235			
17-Dec-19	36	500	425	3.75	256	12.8	51.2	#N/A
24-Dec-19	37	500	420	4.19	238			
31-Dec-19	38	500	435	3.89	243			
7-Jan-20	39	500	430	3.63	267			
14-Jan-20	40	500	420	3.91	247	10.6	41.2	#N/A

HC 5 = 12-VR-06 118- 122

Date	Cycle	Sulphate (mg/L)	Hardness CaCO3 mg/L	Al mg/L	Sb mg/L	As mg/L	Ba mg/L	Be mg/L	Bi mg/L
16-Apr-19	1	83	62.0	0.004	< 0.0009	< 0.0002	0.0134	0.000022	< 0.000007
23-Apr-19	2	99	80.3	0.003	< 0.0009	< 0.0002	0.00943	0.000008	< 0.000007
30-Apr-19	3	86	67.3	0.003	< 0.0009	< 0.0002	0.00942	0.000010	< 0.000007
7-May-19	4	53	45.9	0.002	< 0.0009	< 0.0002	0.00703	0.000014	< 0.000007
14-May-19	5	55	42.4	0.004	< 0.0009	< 0.0002	0.00705	0.000021	< 0.000007
21-May-19	6	51	41.2	0.013	< 0.0009	< 0.0002	0.00861	0.000036	< 0.000007
28-May-19	7	44	36.0	0.017	< 0.0009	< 0.0002	0.00927	0.000051	< 0.000007
4-Jun-19	8	44	33.3	0.022	< 0.0009	< 0.0002	0.0108	0.000076	< 0.000007
11-Jun-19	9	25	19.9	0.015	< 0.0009	< 0.0002	0.00814	0.000044	< 0.000007
18-Jun-19	10	47	36.5	0.049	< 0.0009	< 0.0002	0.0142	0.000119	< 0.000007
25-Jun-19	11	48							
2-Jul-19	12	43	31.0	0.075	< 0.0009	< 0.0002	0.0123	0.000171	< 0.000007
9-Jul-19	13	61							
16-Jul-19	14	47	31.4	0.097	< 0.0009	< 0.0002	0.0140	0.000209	< 0.000007
23-Jul-19	15	46							
30-Jul-19	16	51	28.4	0.139	< 0.0009	0.0002	0.0142	0.000274	< 0.000007
6-Aug-19	17	68							
13-Aug-19	18	54	20.4	0.151	< 0.0009	0.0005	0.0145	0.000254	< 0.000007
20-Aug-19	19	51							
27-Aug-19	20	52	22.1	0.198	< 0.0009	0.0002	0.01508	0.000340	< 0.000007
3-Sep-19	21	57							
10-Sep-19	22	49							
17-Sep-19	23	48							
24-Sep-19	24	51	20.2	0.819	< 0.0009	0.0004	0.02210	0.000656	< 0.000007
1-Oct-19	25	46							
8-Oct-19	26	40							
15-Oct-19	27	46							
22-Oct-19	28	51	17.9	1.38	< 0.0009	0.0005	0.0233	0.00097	< 0.000007
29-Oct-19	29	46							
5-Nov-19	30	51							
12-Nov-19	31	63							
19-Nov-19	32	62	25.9	2.88	< 0.0009	0.0009	0.0438	0.00138	< 0.000007
26-Nov-19	33	68							
3-Dec-19	34	75							
10-Dec-19	35	71							
17-Dec-19	36	85	33.6	4.11	< 0.0009	0.0010	0.0426	0.00165	< 0.000007
24-Dec-19	37	76							
31-Dec-19	38	83							
7-Jan-20	39	98							
14-Jan-20	40	79	35.2	4.50	< 0.0009	0.0015	0.0421	0.00169	< 0.000007

HC 5 = 12-VR-06 118- 122

Date	Cycle	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Li
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	0.004	0.000063	16.2	< 0.00008	0.0508	0.0010	0.377	< 0.00001	0.0181
23-Apr-19	2	0.004	0.000017	20.7	< 0.00008	0.01442	0.0004	< 0.007	< 0.00001	0.0085
30-Apr-19	3	0.004	0.000040	17.4	< 0.00008	0.0169	0.0012	0.010	< 0.00001	0.0102
7-May-19	4	0.003	0.000018	12.1	< 0.00008	0.0163	0.0003	0.013	0.00001	0.0093
14-May-19	5	0.004	0.000045	10.8	< 0.00008	0.0241	0.0006	0.043	0.00001	0.0094
21-May-19	6	0.003	0.000071	10.6	< 0.00008	0.0417	0.0049	0.148	0.00003	0.0117
28-May-19	7	0.004	0.000079	9.15	< 0.00008	0.0472	0.0017	0.193	0.00006	0.0127
4-Jun-19	8	0.005	0.000100	8.34	< 0.00008	0.0616	0.0014	0.308	0.00006	0.0110
11-Jun-19	9	0.002	0.000056	5.08	< 0.00008	0.0448	0.0014	0.306	0.00007	0.0060
18-Jun-19	10	0.003	0.000116	9.49	< 0.00008	0.102	0.0025	1.19	0.00016	0.0131
25-Jun-19	11									
2-Jul-19	12	0.008	0.000132	8.02	< 0.00008	0.113	0.0027	3.52	0.00012	0.0078
9-Jul-19	13									
16-Jul-19	14	0.004	0.000164	7.99	< 0.00008	0.164	0.0017	8.45	0.00027	0.0090
23-Jul-19	15									
30-Jul-19	16	0.004	0.000173	6.88	< 0.00008	0.193	0.0016	12.00	0.00046	0.0116
6-Aug-19	17									
13-Aug-19	18	< 0.002	0.000155	5.13	< 0.00008	0.185	0.0041	11.6	0.00033	0.0060
20-Aug-19	19									
27-Aug-19	20	0.004	0.000158	5.44	< 0.00008	0.184	0.0028	11.9	0.00022	0.0089
3-Sep-19	21									
10-Sep-19	22									
17-Sep-19	23									
24-Sep-19	24	< 0.002	0.000238	4.63	< 0.00008	0.191	0.0098	8.0	0.00061	0.0110
1-Oct-19	25									
8-Oct-19	26									
15-Oct-19	27									
22-Oct-19	28	0.007	0.000222	3.47	0.00008	0.109	0.0119	3.95	0.00088	0.0155
29-Oct-19	29									
5-Nov-19	30									
12-Nov-19	31									
19-Nov-19	32	0.003	0.000389	5.12	0.00019	0.153	0.0288	1.04	0.00143	0.0253
26-Nov-19	33									
3-Dec-19	34									
10-Dec-19	35									
17-Dec-19	36	< 0.002	0.000450	5.54	0.00039	0.148	0.0439	0.136	0.00207	0.0332
24-Dec-19	37									
31-Dec-19	38									
7-Jan-20	39									
14-Jan-20	40	0.002	0.000395	5.38	0.00050	0.139	0.0576	0.122	0.00494	0.0373

HC 5 = 12-VR-06 118- 122

Date	Cycle	Mg	Mn	Hg	Mo	Ni	P	K	Se	Si	Ag
		mg/L	mg/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	5.26	0.289	< 0.01	0.00014	0.156	< 0.003	13.8	0.00085	0.90	< 0.00005
23-Apr-19	2	6.94	0.441	< 0.01	0.00052	0.0720	< 0.003	13.5	0.00131	1.25	< 0.00005
30-Apr-19	3	5.81	0.476	< 0.01	0.00021	0.0698	< 0.003	12.1	0.00113	2.17	< 0.00005
7-May-19	4	3.84	0.388	< 0.01	0.00014	0.0595	< 0.003	8.63	0.00080	2.44	< 0.00005
14-May-19	5	3.74	0.460	< 0.01	0.00009	0.0797	< 0.003	8.37	0.00080	2.75	< 0.00005
21-May-19	6	3.59	0.554	< 0.01	0.00005	0.127	< 0.003	8.05	0.00085	3.53	< 0.00005
28-May-19	7	3.19	0.559	< 0.01	< 0.00004	0.136	< 0.003	7.45	0.00069	4.01	< 0.00005
4-Jun-19	8	3.04	0.595	< 0.01	0.00011	0.169	< 0.003	6.44	0.00091	3.76	< 0.00005
11-Jun-19	9	1.75	0.346	< 0.01	0.00095	0.117	< 0.003	3.32	0.00046	2.20	< 0.00005
18-Jun-19	10	3.12	0.756	0.01	< 0.00004	0.266	< 0.003	4.77	0.00088	3.42	< 0.00005
25-Jun-19	11										
2-Jul-19	12	2.67	0.766	< 0.01	0.00005	0.263	< 0.003	3.61	0.00085	2.35	< 0.00005
9-Jul-19	13										
16-Jul-19	14	2.78	0.705	< 0.01	0.00064	0.507	< 0.003	3.69	0.00107	2.26	< 0.00005
23-Jul-19	15										
30-Jul-19	16	2.72	0.659	< 0.01	0.00093	0.564	< 0.003	3.42	0.00133	2.46	< 0.00005
6-Aug-19	17										
13-Aug-19	18	1.85	0.505	< 0.01	< 0.00004	0.554	< 0.003	2.61	0.00126	2.37	< 0.00005
20-Aug-19	19										
27-Aug-19	20	2.07	0.472	< 0.01	< 0.00004	0.556	< 0.003	3.24	0.00122	2.79	< 0.00005
3-Sep-19	21										
10-Sep-19	22										
17-Sep-19	23										
24-Sep-19	24	2.10	0.426	< 0.01	0.00006	0.518	< 0.003	4.62	0.00093	3.49	< 0.00005
1-Oct-19	25										
8-Oct-19	26										
15-Oct-19	27										
22-Oct-19	28	2.25	0.320	< 0.01	0.00021	0.375	< 0.003	3.73	0.00063	2.89	< 0.00005
29-Oct-19	29										
5-Nov-19	30										
12-Nov-19	31										
19-Nov-19	32	3.19	0.511	0.01	0.00057	0.504	< 0.003	7.57	0.00099	4.52	< 0.00005
26-Nov-19	33										
3-Dec-19	34										
10-Dec-19	35										
17-Dec-19	36	4.81	0.511	< 0.01	< 0.00004	0.491	< 0.003	9.49	0.00076	5.17	< 0.00005
24-Dec-19	37										
31-Dec-19	38										
7-Jan-20	39										
14-Jan-20	40	5.29	0.367	< 0.01	0.00010	0.456	< 0.003	9.35	0.00065	5.72	< 0.00005

HC 5 = 12-VR-06 118- 122

Date	Cycle	Na	Sr	S	Tl	Sn	Ti	U	V	Zn
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
16-Apr-19	1	4.86	0.0636	26.0	0.000073	0.00017	< 0.00005	0.000263	0.00002	0.038
23-Apr-19	2	5.33	0.0752	44.4	0.000049	0.00007	< 0.00005	0.000083	0.00004	0.010
30-Apr-19	3	3.80	0.0640	31.7	0.000057	0.00010	< 0.00005	0.000074	0.00005	0.013
7-May-19	4	2.06	0.0443	18.9	0.000040	0.00009	< 0.00005	0.000066	0.00002	0.016
14-May-19	5	1.70	0.0386	20.3	0.000045	0.00011	< 0.00005	0.000063	0.00003	0.029
21-May-19	6	1.18	0.0422	19.3	0.000053	0.00010	< 0.00005	0.000146	0.00002	0.067
28-May-19	7	0.87	0.0363	15.8	0.000056	0.00012	< 0.00005	0.000176	0.00003	0.081
4-Jun-19	8	0.62	0.0356	14.8	0.000057	< 0.00006	< 0.00005	0.000373	< 0.00001	0.125
11-Jun-19	9	0.35	0.0209	7.6	0.000030	< 0.00006	< 0.00005	0.000214	< 0.00001	0.098
18-Jun-19	10	0.52	0.0407	15.1	0.000047	< 0.00006	< 0.00005	0.000501	0.00001	0.243
25-Jun-19	11									
2-Jul-19	12	0.66	0.0312	15.7	0.000036	0.00008	< 0.00005	0.000724	0.00001	0.289
9-Jul-19	13									
16-Jul-19	14	0.33	0.0337	18.0	0.000032	< 0.00006	< 0.00005	0.001008	< 0.00001	0.360
23-Jul-19	15									
30-Jul-19	16	0.42	0.0289	19.9	0.000030	< 0.00006	< 0.00005	0.001040	0.00001	0.391
6-Aug-19	17									
13-Aug-19	18	0.27	0.0251	14.6	0.000040	0.00008	0.00010	0.00148	0.00001	0.408
20-Aug-19	19									
27-Aug-19	20	0.26	0.0231	17.8	0.000036	0.00020	< 0.00005	0.00156	< 0.00001	0.417
3-Sep-19	21									
10-Sep-19	22									
17-Sep-19	23									
24-Sep-19	24	0.30	0.0171	16.0	0.000070	< 0.00006	< 0.00005	0.00361	< 0.00001	0.601
1-Oct-19	25									
8-Oct-19	26									
15-Oct-19	27									
22-Oct-19	28	0.31	0.01065	16.5	0.000095	0.00008	< 0.00005	0.00412	< 0.00001	0.532
29-Oct-19	29									
5-Nov-19	30									
12-Nov-19	31									
19-Nov-19	32	0.37	0.0137	20.9	0.000170	0.00067	< 0.00005	0.00698	< 0.00001	1.05
26-Nov-19	33									
3-Dec-19	34									
10-Dec-19	35									
17-Dec-19	36	0.24	0.0122	28.1	0.000257	0.00270	0.00008	0.0118	< 0.00001	1.17
24-Dec-19	37									
31-Dec-19	38									
7-Jan-20	39									
14-Jan-20	40	0.43	0.00948	30.1	0.000288	0.00021	0.00026	0.00999	0.00003	0.872

HC 5 = 12-VR-06 118- 122

Date	Cycle	Zr mg/L	SGS File #	Major Anions	Major Cations	Diff	Diff %
16-Apr-19	1	< 0.002	CA15355-APR19	1.84	1.84	0.01	0.2%
23-Apr-19	2	< 0.002	CA15405-APR19	2.14	2.20	0.06	1.3%
30-Apr-19	3	< 0.002	CA15034-MAY19	1.85	1.84	-0.01	-0.3%
7-May-19	4	< 0.002	CA15159-MAY19	1.16	1.25	0.08	3.5%
14-May-19	5	< 0.002	CA15322-MAY19	1.17	1.16	-0.01	-0.6%
21-May-19	6	< 0.002	CA15433-MAY19	1.09	1.12	0.03	1.3%
28-May-19	7	< 0.002	CA15611-MAY19	0.93	0.99	0.06	3.4%
4-Jun-19	8	< 0.002	CA15096-JUN19	0.92	0.91	-0.01	-0.7%
11-Jun-19	9	< 0.002	CA15242-JUN19	0.55	0.54	-0.01	-0.8%
18-Jun-19	10	< 0.002	CA15360-JUN19	1.01	0.99	-0.01	-0.7%
25-Jun-19	11						
2-Jul-19	12	< 0.002	CA15041-JUL19	0.93	0.99	0.06	3.2%
9-Jul-19	13						
16-Jul-19	14	< 0.002	CA12738-JUL19	0.99	1.26	0.27	12.2%
23-Jul-19	15						
30-Jul-19	16	< 0.002	CA15028-AUG19	1.08	1.40	0.31	12.6%
6-Aug-19	17						
13-Aug-19	18	< 0.002	CA15190-AUG19	1.13	1.18	0.06	2.5%
20-Aug-19	19						
27-Aug-19	20	< 0.002	CA15479-AUG19	1.08	1.25	0.17	7.3%
3-Sep-19	21						
10-Sep-19	22						
17-Sep-19	23						
24-Sep-19	24	< 0.002	CA15459-SEP19	1.06	1.11	0.05	2.4%
1-Oct-19	25						
8-Oct-19	26						
15-Oct-19	27						
22-Oct-19	28	< 0.002	CA15516-OCT19	1.06	0.99	-0.07	-3.4%
29-Oct-19	29						
5-Nov-19	30						
12-Nov-19	31						
19-Nov-19	32	< 0.002	CA15385-NOV19	1.29	1.32	0.03	1.1%
26-Nov-19	33						
3-Dec-19	34						
10-Dec-19	35						
17-Dec-19	36	< 0.002	CA15295-DEC19	1.77	1.64	-0.13	-3.7%
24-Dec-19	37						
31-Dec-19	38						
7-Jan-20	39						
14-Jan-20	40	< 0.002	CA15262-JAN20	1.65	1.65	0.01	0.2%