

Appendix 21: 2021 Calibration Data



Project : MEL
 Location : Manta 30+
 Date range : 03-11-2021 - 11-27-2021

Parameter	Type	Sample date	3/11/2021	3/12/2021	6/20/2021	7/9/2021	7/9/2021	7/9/2021	8/14/2021	9/5/2021	9/6/2021	9/7/2021	11/27/2021
4													
pH	Initial	pH units	4	4.01	4.01	-	-	-	4.09	3.99	3.98	4.01	4.19
pH	Final	pH units	4.01	4.02	4	-	-	-	3.98	4.03	4.05	4	3.85
7													
pH	Initial	pH units	6.98	7.17	6.97	-	-	-	7.07	7	6.98	7.01	7.02
pH	Final	pH units	7.01	7.02	7	-	-	-	7.01	7	7.02	7	7.03
10													
pH	Initial	pH units	8.97	10.18	10.18	-	-	-	9.97	9.97	10.2	10.01	10.25
pH	Final	pH units	10.01	9.96	9.99	-	-	-	10	10	10	9.99	10.01
100													
Dissolved oxygen	Initial	%	98	101.3	98	-	-	-	97.19	-	101.3	97.67	99.5
Dissolved oxygen	Final	%	100	100.6	100	-	-	-	100.2	-	101.3	100.4	101.7
1413													
Conductivity	Initial	uS/cm	1362	1449	1413	1485	1440	1420	1346	1414	1395	-	-
Conductivity	Final	uS/cm	1413	1410	0	1412	1413	1416	1413	1413	1413	-	-
12880													
Conductivity	Initial	uS/cm	-	-	-	-	-	-	-	-	-	12890	12730
Conductivity	Final	uS/cm	-	-	-	-	-	-	-	-	-	12880	12870



Project : MEL
 Location : Oakton PCS 4
 Date range : 07-03-2021 - 07-03-202

Sample date			7/3/2021
Parameter	Type	Unit	
4			
pH	Initial	pH units	4.86
pH	Final	pH units	4
7			
pH	Initial	pH units	7.81
pH	Final	pH units	7.04
10			
pH	Initial	pH units	10.7
pH	Final	pH units	10.12
1413			
Conductivity	Initial	uS/cm	1612
Conductivity	Final	uS/cm	1413



Project : MEL
 Location : YSI 1
 Date range : 01-01-2021 - 10-18-2021

			9/26/2021	9/27/2021	10/1/2021	10/3/2021	10/4/2021	10/5/2021	10/8/2021	10/9/2021
Parameter	Type	Sample date Unit								
4										
pH	Initial	pH units	4.12	4.07	4	3.94	3.94	4.04	4.89	3.98
pH	Final	pH units	4.01	4.01	4	4	4	4.01	3.9	4.02
7										
pH	Initial	pH units	6.92	6.96	7.07	7.17	6.99	7.06	7.65	7.14
pH	Final	pH units	7.02	7	7	7.02	7	7	7.02	6.98
10										
pH	Initial	pH units	10.18	10.62	10.04	10.38	10.2	9.98	10.07	-
pH	Final	pH units	10.02	10.04	10	10	10	10.07	10.12	-
100										
Dissolved oxygen	Initial	%	76.9	102	Not Taken	109.4	89.4	96.3	100.59	98.1
Dissolved oxygen	Final	%	99.9	100	Not Taken	Not Taken	100	97.6	100	98.1
1413										
Conductivity	Initial	uS/cm	1397	1615	1403	1410	-	1470	-	1398
Conductivity	Final	uS/cm	1413	1413	1413	1413	-	1413	-	1415
5000										
Conductivity	Initial	uS/cm	-	-	-	-	-	-	-	-
Conductivity	Final	uS/cm	-	-	-	-	-	-	-	-
12880										
Conductivity	Initial	uS/cm	-	-	-	-	20228	-	12618	-
Conductivity	Final	uS/cm	-	-	-	-	12887	-	12885	-



Project : MEL
 Location : YSI 1
 Date range : 01-01-2021 - 10-18-2021

			10/10/2021	10/10/2021	10/12/2021	10/16/2021	10/17/2021	10/18/2021
Parameter	Type	Sample date Unit						
4								
pH	Initial	pH units	4.12	3.97	3.98	3.96	4.05	3.96
pH	Final	pH units	4.04	4.02	4.02	4.02	0	4.01
7								
pH	Initial	pH units	7.24	6.91	7.01	6.97	7.03	7
pH	Final	pH units	6.93	6.98	7	6.99	6.99	7
10								
pH	Initial	pH units	-	NO DATA	-	-	-	-
pH	Final	pH units	-	9.77	-	-	-	-
100								
Dissolved oxygen	Initial	%	105.1	85.2	101	101.58	100.2	96
Dissolved oxygen	Final	%	98	98.2	98.5	99	98.7	99.01
1413								
Conductivity	Initial	uS/cm	1458	1420	-	1428	-	-
Conductivity	Final	uS/cm	1413	1414	-	1413	-	-
5000								
Conductivity	Initial	uS/cm	-	-	1394	-	4932	4995
Conductivity	Final	uS/cm	-	-	1412	-	5001	5004
12880								
Conductivity	Initial	uS/cm	-	-	-	-	-	-
Conductivity	Final	uS/cm	-	-	-	-	-	-



Project : MEL
 Location : YSI 2
 Date range : 01-07-2021 - 12-06-2021

			1/7/2021	3/8/2021	6/2/2021	6/5/2021	6/6/2021	6/7/2021	6/8/2021	6/9/2021
Parameter	Type	Sample date Unit								
4										
pH	Initial	pH units	4.07	3.92	0				4.11	
pH	Final	pH units	4	4	3.98				4.04	
7										
pH	Initial	pH units	7.01	6.97	0				7.12	
pH	Final	pH units	6.99	7.01	6.98				7.07	
10										
pH	Initial	pH units	9.96	9.94	0	-	-	-	10.1	-
pH	Final	pH units	10.01	10.02	10.12	-	-	-	10.01	-
100										
Dissolved oxygen	Initial	%	95.8	95.4	0	-	-	-	104.6	-
Dissolved oxygen	Final	%	99	98.7	98.5	-	-	-	99.6	-
1413										
Conductivity	Initial	uS/cm	-	1409	0	0	0	0	1400	0
Conductivity	Final	uS/cm	-	1413	1417	1415	1414	1413	1413	1414
5000										
Conductivity	Initial	uS/cm	-	-	-	-	-	-	-	-
Conductivity	Final	uS/cm	-	-	-	-	-	-	-	-
12880										
Conductivity	Initial	uS/cm	12807	-	-	-	-	-	-	-
Conductivity	Final	uS/cm	12881	-	-	-	-	-	-	-



Project : MEL
 Location : YSI 2
 Date range : 01-07-2021 - 12-06-2021

			6/16/2021	7/3/2021	7/7/2021	7/15/2021	7/15/2021	7/17/2021	7/19/2021	7/19/2021
Parameter	Type	Sample date Unit								
4										
pH	Initial	pH units	3.24		4.22	4.2	3.87	4.02	3.98	
pH	Final	pH units	4		4	4.03	4.01	4	3.96	
7										
pH	Initial	pH units	6.75		7.1	7.18	6.84	7	7.07	
pH	Final	pH units	7		7	7.04	7.02	7.09	7.07	
10										
pH	Initial	pH units	10.08	-	9.95	10.08	9.74	9.98	9.78	-
pH	Final	pH units	10.01	-	10	9.9	9.95	10	9.95	-
100										
Dissolved oxygen	Initial	%	-	91.6	96.7	98.9	95	108.9	101.6	-
Dissolved oxygen	Final	%	-	99.1	100.1	100.2	99.8	99.2	99.5	-
1413										
Conductivity	Initial	uS/cm	1356	-	1296	-	-	1304	1509	-
Conductivity	Final	uS/cm	1414	-	1413	-	-	1413	1415	-
5000										
Conductivity	Initial	uS/cm	-	-	-	-	-	-	-	-
Conductivity	Final	uS/cm	-	-	-	-	-	-	-	-
12880										
Conductivity	Initial	uS/cm	-	-	-	12604	12572	-	-	12572
Conductivity	Final	uS/cm	-	-	-	12860	12884	-	-	12884



Project : MEL
 Location : YSI 2
 Date range : 01-07-2021 - 12-06-2021

			7/20/2021	7/26/2021	8/6/2021	8/7/2021	8/8/2021	8/9/2021	8/10/2021	8/11/2021
Parameter	Type	Sample date Unit								
4										
pH	Initial	pH units	3.98	3.88	4.08	3.96	4	4.07	4.01	4.01
pH	Final	pH units	3.98	4.13	4.02	7.04	4.04	4	3.99	4
7										
pH	Initial	pH units	7.11	6.79	6.96	6.91	7.02	7.01	7.05	6.98
pH	Final	pH units	7.11	7.14	7.02	7.05	7	6.99	6.99	7.02
10										
pH	Initial	pH units	9.98	9.89	10.05	10.01	9.96	9.96	10.1	9.92
pH	Final	pH units	9.96	10.02	10.04	10.02	10.01	10.01	10	10
100										
Dissolved oxygen	Initial	%	98.3	-	-	98.8	97	95.8	-	-
Dissolved oxygen	Final	%	99	-	-	99	96.9	99	-	-
1413										
Conductivity	Initial	uS/cm	1417	1382	1585	1260	1427	-	-	1460
Conductivity	Final	uS/cm	1413	1415	1411	1413	1413	-	-	1413
5000										
Conductivity	Initial	uS/cm	-	-	-	-	-	-	-	-
Conductivity	Final	uS/cm	-	-	-	-	-	-	-	-
12880										
Conductivity	Initial	uS/cm	-	-	-	-	-	12807	12401	-
Conductivity	Final	uS/cm	-	-	-	-	-	12881	12582	-



Project : MEL
 Location : YSI 2
 Date range : 01-07-2021 - 12-06-2021

			8/13/2021	8/14/2021	8/15/2021	8/16/2021	8/18/2021	8/25/2021	8/30/2021	9/2/2021
Parameter	Type	Sample date Unit								
4										
pH	Initial	pH units	3.95	4.01	3.9	3.95	3.93	3.6	3.98	3.75
pH	Final	pH units	4.01	4	4.01	4.01	4.04	4.05	4.02	3.95
7										
pH	Initial	pH units	6.98	6.95	6.98	6.95	7.01	6.75	6.8	6.77
pH	Final	pH units	7.04	7.02	7	7.01	7.02	7.08	7.02	7.02
10										
pH	Initial	pH units	9.95	9.93	9.96	10.08	10.05	9.98	9.9	9.91
pH	Final	pH units	10.01	10.03	10.04	10.04	10.02	10.04	10.03	10.05
100										
Dissolved oxygen	Initial	%	-	93.1	-	-	-	92.2	95.2	-
Dissolved oxygen	Final	%	-	98	-	-	-	98.6	100.01	-
1413										
Conductivity	Initial	uS/cm	-	-	-	-	-	1408	1385	1357
Conductivity	Final	uS/cm	-	-	-	-	-	1413	1413	1413
5000										
Conductivity	Initial	uS/cm	-	-	-	-	-	-	-	-
Conductivity	Final	uS/cm	-	-	-	-	-	-	-	-
12880										
Conductivity	Initial	uS/cm	12850	13049	-	-	12686	-	-	-
Conductivity	Final	uS/cm	12881	0	-	-	12886	-	-	-



Project : MEL
 Location : YSI 2
 Date range : 01-07-2021 - 12-06-2021

			9/3/2021	9/5/2021	9/6/2021	9/10/2021	9/11/2021	9/12/2021	9/13/2021	10/8/2021
Parameter	Type	Sample date Unit								
4										
pH	Initial	pH units	3.82	4.02	3.98	4.04	3.91	3.96	3.98	3.88
pH	Final	pH units	4.06	4.02	4.05	4.03	4.01	4	3.99	4.01
7										
pH	Initial	pH units	6.87	6.98	6.98	7.02	7.12	7.06	7.01	6.28
pH	Final	pH units	7.05	7.03	7.02	7.02	7.01	7.02	7.01	7
10										
pH	Initial	pH units	10.02	9.99	10.2	9.81	10.07	9.86	-	9.89
pH	Final	pH units	10.02	10.03	10	10	9.98	10	-	10.04
100										
Dissolved oxygen	Initial	%	-	-	-	95.5	108	93	-	156.6
Dissolved oxygen	Final	%	-	-	-	99	99.1	99.9	-	98
1413										
Conductivity	Initial	uS/cm	1407	-	-	-	-	-	-	1435
Conductivity	Final	uS/cm	1413	-	-	-	-	-	-	1414
5000										
Conductivity	Initial	uS/cm	-	-	-	-	-	-	-	-
Conductivity	Final	uS/cm	-	-	-	-	-	-	-	-
12880										
Conductivity	Initial	uS/cm	-	12580	12725	12694	12742	13044	12636	-
Conductivity	Final	uS/cm	-	12883	12882	12880	12883	12882	12878	-



Project : MEL
 Location : YSI 2
 Date range : 01-07-2021 - 12-06-2021

			10/9/2021	10/10/2021	10/12/2021	11/30/2021	12/6/2021
Parameter	Type	Sample date Unit					
4							
pH	Initial	pH units	4.01	4.04	4.05	3.81	4.09
pH	Final	pH units	3.96	4.04	4.01	4.05	3.98
7							
pH	Initial	pH units	7.01	7.27	7.05	7	7.29
pH	Final	pH units	7.1	7.02	7	6.98	7.15
10							
pH	Initial	pH units	9.72	no data	-	9.99	9.88
pH	Final	pH units	10	9.76	-	10.04	9.9
100							
Dissolved oxygen	Initial	%	66.5	98.1	94	91.5	98.1
Dissolved oxygen	Final	%	98.3	98.1	98.5	96.6	99
1413							
Conductivity	Initial	uS/cm	1408	-	1402	-	-
Conductivity	Final	uS/cm	1414	-	1413	-	-
5000							
Conductivity	Initial	uS/cm	-	4886	-	-	-
Conductivity	Final	uS/cm	-	5001	-	-	-
12880							
Conductivity	Initial	uS/cm	-	-	-	12315	12670
Conductivity	Final	uS/cm	-	-	-	12880	12889



Project : MEL
 Location : YSI 25m
 Date range : 07-10-2021 - 07-10-2021

			Sample date
Parameter	Type	Unit	7/10/2021
4			
pH	Initial	pH units	4.02
pH	Final	pH units	4
7			
pH	Initial	pH units	7.17
pH	Final	pH units	7.03
10			
pH	Initial	pH units	10.08
pH	Final	pH units	9.99
1413			
Conductivity	Initial	uS/cm	1443
Conductivity	Final	uS/cm	1413



Project : MEL
 Location : YSI 3
 Date range : 01-07-2021 -12-17-2021

			9/13/2021	9/19/2021	10/9/2021	10/19/2021	10/22/2021	12/17/2021
Parameter	Type	Sample date Unit						
4								
pH	Initial	pH units	3.98	4.06	7.03	4.01	3.95	4.35
pH	Final	pH units	4	4.01	7.09	3.99	4.01	4
7								
pH	Initial	pH units	6.99	7.14	3.99	7.34	7.01	7.27
pH	Final	pH units	7	7	4.8	7.02	7.01	7
10								
pH	Initial	pH units	9.7	10.32	9.38	10.42	10.04	9.69
pH	Final	pH units	9.96	10	10	9.99	10	10.02
100								
Dissolved oxygen	Initial	%	96.2	101.8	100.9	97.7	94.3	93
Dissolved oxygen	Final	%	100	100	100	99.9	99.2	99
1413								
Conductivity	Initial	uS/cm	1412	1425	1384	1208	1270	1402
Conductivity	Final	uS/cm	1413	1415	1413	1413	1413	1415
20								
Turbidity	Initial	NTU	-	-	-	-	-	21
Turbidity	Final	NTU	-	-	-	-	-	21