

Impact Water Quality Monitoring for Dredging Activities at SB CMP 2

Sampling Date	Tide	Station	Time	Depth	Depth (m)	Current Direction	Current Velocity (m/s)	Water Temp (°C)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)	pH	SS (mg/L)
2013/12/18	MF	DS1	7:10:31	B	2.0	253.4	0.53	18.00	31.31	92.86	7.29	8.39	7.96	9
2013/12/18	MF	DS1	7:11:20	T	1.0	208.1	0.26	17.95	31.30	91.06	7.15	8.29	8.00	19
2013/12/18	MF	DS1	7:12:15	B	2.1	237.4	0.88	18.01	31.31	90.85	7.13	8.49	8.01	9
2013/12/18	MF	DS1	7:13:23	T	1.0	259.8	0.97	17.98	31.28	90.75	7.13	7.79	7.99	21
2013/12/18	MF	DS1	7:14:12	B	2.0	192.4	0.76	18.01	31.26	90.64	7.11	7.09	7.98	10
2013/12/18	MF	DS1	7:15:11	T	0.9	259.8	0.97	18.04	31.25	90.54	7.10	7.19	7.97	21
2013/12/18	MF	DS2	7:21:18	B	2.0	221.6	0.02	17.92	31.22	92.20	7.25	9.99	7.80	8
2013/12/18	MF	DS2	7:22:28	T	1.0	320.7	0.55	17.89	31.20	91.00	7.16	8.99	7.88	10
2013/12/18	MF	DS2	7:23:34	B	2.0	3.7	0.31	17.89	31.19	90.79	7.15	9.49	7.90	10
2013/12/18	MF	DS2	7:24:33	T	1.0	238.9	0.48	17.86	31.16	90.79	7.15	8.89	7.90	11
2013/12/18	MF	DS2	7:25:21	B	2.0	353.9	0.52	17.88	31.15	90.68	7.14	8.79	7.90	10
2013/12/18	MF	DS2	7:26:08	T	1.1	288.8	0.68	17.84	31.14	90.78	7.15	8.49	7.89	11
2013/12/18	MF	DS3	7:33:57	B	1.7	195.5	0.97	17.80	30.96	90.73	7.15	11.99	7.86	12
2013/12/18	MF	DS3	7:34:45	T	1.0	195.5	0.97	17.88	30.95	90.63	7.14	11.59	7.87	13
2013/12/18	MF	DS3	7:35:28	B	1.7	195.5	0.97	17.89	30.94	90.53	7.14	11.79	7.88	11
2013/12/18	MF	DS3	7:36:11	T	1.0	195.5	0.97	17.86	30.94	90.52	7.14	10.59	7.88	9
2013/12/18	MF	DS3	7:36:57	B	1.7	298.4	0.39	17.85	30.91	90.32	7.13	10.49	7.87	8
2013/12/18	MF	DS3	7:37:39	T	1.0	174.5	0.22	17.85	30.89	90.42	7.13	11.19	7.87	15
2013/12/18	MF	DS4	7:45:10	B	2.0	187.5	0.49	17.74	30.69	90.87	7.19	17.58	7.79	13
2013/12/18	MF	DS4	7:46:14	T	1.0	174.5	0.22	17.77	30.69	90.37	7.15	18.68	7.83	16
2013/12/18	MF	DS4	7:47:07	B	2.0	12.3	0.63	17.74	30.68	90.36	7.15	18.68	7.84	14
2013/12/18	MF	DS4	7:48:07	T	1.0	232.0	0.87	17.76	30.67	90.26	7.14	18.38	7.85	18
2013/12/18	MF	DS4	7:49:12	B	2.0	351.2	0.79	17.71	30.63	90.35	7.16	16.08	7.84	13
2013/12/18	MF	DS4	7:50:08	T	1.0	287.4	0.72	17.70	30.61	90.25	7.15	15.58	7.85	17
2013/12/18	MF	DS5	7:56:03	B	3.0	108.0	0.84	17.87	30.79	92.41	7.29	10.89	7.62	13
2013/12/18	MF	DS5	7:57:11	T	1.0	323.2	0.67	17.61	29.98	89.91	7.17	9.29	7.76	11
2013/12/18	MF	DS5	7:58:08	B	3.0	337.1	0.47	17.84	30.65	90.01	7.11	10.99	7.82	12
2013/12/18	MF	DS5	7:59:11	T	1.1	79.4	0.25	17.76	30.28	89.60	7.11	11.69	7.83	7
2013/12/18	MF	DS5	8:00:33	B	3.3	148.0	0.26	17.77	30.72	90.29	7.14	9.19	7.85	11
2013/12/18	MF	DS5	8:01:27	T	1.0	8.5	0.32	17.70	30.16	89.59	7.12	11.29	7.84	12
2013/12/18	MF	US1	8:37:47	B	2.0	302.3	0.74	18.39	32.14	92.87	7.20	15.98	7.93	18
2013/12/18	MF	US1	8:38:32	T	1.0	285.3	1.06	18.38	32.13	92.37	7.16	14.49	8.00	15
2013/12/18	MF	US1	8:39:16	B	2.0	267.9	0.37	18.39	32.12	92.17	7.15	15.08	8.03	20
2013/12/18	MF	US1	8:40:27	T	1.0	285.3	1.06	18.38	32.11	92.07	7.14	15.78	8.07	15
2013/12/18	MF	US1	8:41:23	B	2.0	268.1	0.45	18.38	32.09	91.96	7.13	16.38	8.08	17
2013/12/18	MF	US1	8:42:26	T	1.0	111.0	0.49	18.37	32.08	91.96	7.13	15.48	8.08	16
2013/12/18	MF	US2	8:48:23	B	2.9	265.2	0.33	18.87	32.22	91.92	7.06	13.49	7.89	14
2013/12/18	MF	US2	8:49:20	T	1.1	252.7	0.48	18.87	32.22	90.23	6.93	14.09	7.99	15
2013/12/18	MF	US2	8:50:08	B	3.0	209.5	0.69	18.88	32.21	89.93	6.90	14.79	8.02	16
2013/12/18	MF	US2	8:51:10	T	1.0	191.9	0.56	18.87	32.20	89.72	6.89	13.29	8.05	15
2013/12/18	MF	US2	8:52:07	B	3.0	281.4	0.39	18.86	32.19	89.72	6.89	12.89	8.05	13
2013/12/18	MF	US2	8:53:04	T	1.1	191.9	0.56	18.86	32.19	89.71	6.89	12.59	8.05	14
2013/12/18	MF	MW1	7:23:18	B	18.4	3.0	0.78	19.68	32.71	89.45	6.75	9.60	7.95	10
2013/12/18	MF	MW1	7:24:09	M	10.2	104.0	0.35	19.68	32.72	89.11	6.72	9.50	7.98	8
2013/12/18	MF	MW1	7:24:59	T	1.0	145.0	0.08	19.65	32.69	89.01	6.72	8.51	8.00	11
2013/12/18	MF	MW1	7:26:09	B	18.0	15.9	0.52	19.68	32.74	88.98	6.71	8.30	8.01	11
2013/12/18	MF	MW1	7:26:59	M	10.1	104.8	0.57	19.67	32.73	88.92	6.71	9.67	8.02	10
2013/12/18	MF	MW1	7:27:59	T	1.1	36.1	0.21	19.62	32.71	88.89	6.71	7.51	8.02	15
2013/12/18	MF	MW1	7:29:09	B	17.8	231.3	1.00	19.68	32.75	88.86	6.70	8.82	8.02	13
2013/12/18	MF	MW1	7:29:59	M	10.1	108.7	0.36	19.69	32.75	88.89	6.70	8.36	8.03	12
2013/12/18	MF	MW1	7:30:59	T	0.9	169.5	0.37	19.64	32.72	88.90	6.71	7.49	8.03	13
2013/12/18	MF	THB1	8:31:39	B	2.7	144.5	1.02	18.00	31.37	92.33	7.24	12.26	8.04	15
2013/12/18	MF	THB1	8:32:29	T	1.1	147.1	0.34	17.78	31.05	92.32	7.29	6.75	8.03	9
2013/12/18	MF	THB1	8:33:09	B	2.9	116.5	0.99	18.01	31.38	91.76	7.20	12.19	8.03	13
2013/12/18	MF	THB1	8:33:59	T	1.3	55.6	0.46	17.77	30.99	91.74	7.24	7.04	8.03	10
2013/12/18	MF	THB1	8:35:54	B	3.0	113.4	0.79	18.02	31.44	92.59	7.26	11.10	8.04	14
2013/12/18	MF	THB1	8:36:39	T	1.2	265.2	0.33	17.95	31.27	91.82	7.21	8.82	8.03	9
2013/12/18	MF	THB2	8:36:44	M	1.3	40.0	0.03	18.42	30.26	82.41	6.46	7.08	7.61	15
2013/12/18	MF	THB2	8:37:44	M	1.3	40.0	0.03	18.43	30.24	79.01	6.19	7.38	7.69	12
2013/12/18	MF	THB2	8:38:40	M	1.3	40.0	0.03	18.46	30.28	78.40	6.14	7.69	7.74	13
2013/12/18	MF	WSR45C	8:00:29	B	12.0	231.9	0.70	19.14	32.49	90.14	6.87	17.03	8.03	17
2013/12/18	MF	WSR45C	8:01:19	M	7.0	299.1	0.22	19.15	32.49	89.98	6.86	16.08	8.04	18
2013/12/18	MF	WSR45C	8:02:04	T	1.0	55.0	0.09	19.13	32.49	90.11	6.87	13.47	8.04	14
2013/12/18	MF	WSR45C	8:04:49	B	12.2	349.6	0.46	19.15	32.48	90.18	6.88	18.86	8.04	23
2013/12/18	MF	WSR45C	8:05:39	M	6.8	246.5	0.46	19.14	32.47	90.08	6.87	15.37	8.04	21
2013/12/18	MF	WSR45C	8:06:24	T	1.1	273.9	0.19	19.12	32.46	90.23	6.89	11.53	8.04	16
2013/12/18	MF	WSR45C	8:07:39	B	11.8	216.6	0.53	19.15	32.48	89.86	6.85	19.08	8.04	18
2013/12/18	MF	WSR45C	8:08:34	M	6.9	284.5	0.98	19.15	32.47	89.92	6.86	14.16	8.04	22
2013/12/18	MF	WSR45C	8:09:19	T	1.0	268.8	0.56	19.13	32.47	90.13	6.88	12.11	8.04	18
2013/12/18	MF	WSR46	9:06:59	B	8.9	303.9	1.06	18.41	32.19	94.10	7.29	14.65	8.07	17
2013/12/18	MF	WSR46	9:07:59	M	5.5	310.9	1.14	18.59	32.25	92.98	7.18	13.58	8.07	16
2013/12/18	MF	WSR46	9:08:59	T	0.9	255.8	0.57	18.64	32.27	92.68	7.14	14.47	8.07	14
2013/12/18	MF	WSR46	9:10:19	B	9.0	319.1	0.70	18.58	32.25	92.62	7.15	16.32	8.07	18
2013/12/18	MF	WSR46	9:11:04	M	5.6	26.8	0.43	18.80	32.32	92.08	7.08	14.92	8.06	18
2013/12/18	MF	WSR46	9:11:59	T	1.0	273.5	0.58	18.81	32.32	91.93	7.06	13.17	8.06	17
2013/12/18	MF	WSR46	9:14:29	B	9.0	323.7	0.20	18.83	32.32	91.87	7.05	18.14	8.06	18
2013/12/18	MF	WSR46	9:15:14	M	5.5	12.1	0.67	18.82	32.31	91.81	7.05	15.48	8.06	20
2013/12/18	MF	WSR46	9:16:15	T	1.0	334.9	0.94	18.82	32.31	91.94	7.06	12.26	8.06	11

Impact Water Quality Monitoring for Dredging Activities at SB CMP 2

Sampling Date	Tide	Station	Time	Depth	Depth (m)	Current Direction	Current Velocity (m/s)	Water Temp (°C)	Salinity (ppt)	D.O. Saturation (%)	D.O. (mg/L)	Turbidity (NTU)	pH	SS (mg/L)
2013/12/18	ME	DS1	12:17:41	B	3.0	344.2	0.70	19.20	32.85	91.55	6.96	8.45	8.16	10
2013/12/18	ME	DS1	12:18:59	T	1.0	157.8	0.63	19.21	32.87	91.03	6.92	7.75	8.16	10
2013/12/18	ME	DS1	12:19:42	T	3.0	344.2	0.70	19.21	32.87	90.93	6.91	8.05	8.16	10
2013/12/18	ME	DS1	12:20:29	T	1.0	157.8	0.63	19.21	32.87	91.02	6.92	7.75	8.17	9
2013/12/18	ME	DS1	12:21:19	B	3.0	344.2	0.70	19.20	32.88	90.81	6.90	8.15	8.17	8
2013/12/18	ME	DS1	12:22:43	T	1.0	157.8	0.63	19.20	32.88	91.00	6.92	7.55	8.18	9
2013/12/18	ME	DS2	12:28:54	B	3.0	285.0	0.31	19.22	32.86	91.54	6.96	7.15	8.18	8
2013/12/18	ME	DS2	12:30:13	B	1.0	72.0	0.64	19.22	32.86	91.03	6.92	7.15	8.19	7
2013/12/18	ME	DS2	12:31:37	B	3.0	355.5	0.62	19.22	32.86	90.92	6.91	6.95	8.18	8
2013/12/18	ME	DS2	12:32:39	T	1.0	183.1	0.22	19.22	32.86	91.21	6.93	6.85	8.18	9
2013/12/18	ME	DS2	12:33:54	B	3.0	55.6	0.17	19.21	32.86	91.10	6.92	6.75	8.18	9
2013/12/18	ME	DS2	12:35:04	T	1.0	252.3	1.57	19.21	32.85	91.29	6.94	6.55	8.19	7
2013/12/18	ME	DS3	12:41:11	B	7.0	322.2	0.47	19.21	32.86	91.33	6.94	7.65	8.18	9
2013/12/18	ME	DS3	12:42:14	M	4.5	156.8	0.49	19.22	32.86	90.72	6.89	7.15	8.18	8
2013/12/18	ME	DS3	12:43:11	T	1.0	252.3	1.57	19.23	32.86	90.91	6.91	6.65	8.19	8
2013/12/18	ME	DS3	12:44:42	B	7.3	124.2	0.46	19.30	32.90	91.30	6.93	7.75	8.16	8
2013/12/18	ME	DS3	12:45:11	M	4.5	205.7	0.24	19.34	32.92	91.19	6.91	7.75	8.16	7
2013/12/18	ME	DS3	12:46:06	T	1.0	160.0	0.44	19.34	32.92	90.49	6.86	6.35	8.17	8
2013/12/18	ME	DS3	12:47:11	B	7.0	74.6	0.45	19.30	32.89	90.08	6.83	6.85	8.17	9
2013/12/18	ME	DS3	12:48:10	M	4.5	114.8	0.37	19.24	32.86	90.57	6.88	6.85	8.17	7
2013/12/18	ME	DS3	12:49:13	T	1.1	41.5	0.09	19.23	32.84	90.96	6.91	6.45	8.18	8
2013/12/18	ME	DS4	12:55:00	B	5.0	52.4	0.19	19.31	32.91	92.30	7.00	6.95	8.18	9
2013/12/18	ME	DS4	12:56:07	B	3.5	74.7	0.02	19.30	32.89	90.80	6.89	6.75	8.18	8
2013/12/18	ME	DS4	12:57:08	T	1.0	94.6	0.66	19.30	32.89	90.49	6.87	6.45	8.18	7
2013/12/18	ME	DS4	13:00:57	B	5.0	217.8	0.99	19.38	32.96	90.56	6.86	7.35	8.16	8
2013/12/18	ME	DS4	13:01:40	M	3.5	348.2	0.28	19.29	32.90	90.05	6.83	7.15	8.16	8
2013/12/18	ME	DS4	13:02:57	T	1.0	94.6	0.66	19.26	32.87	90.04	6.84	7.15	8.17	8
2013/12/18	ME	DS4	13:03:45	B	5.0	149.8	0.45	19.35	32.96	89.24	6.76	7.95	8.17	8
2013/12/18	ME	DS4	13:04:15	M	3.5	94.4	0.52	19.25	32.87	89.53	6.80	7.25	8.17	9
2013/12/18	ME	DS4	13:04:55	T	1.0	94.6	0.66	19.25	32.86	90.22	6.85	6.65	8.17	8
2013/12/18	ME	DS5	13:10:15	B	6.0	90.2	0.39	19.51	33.03	92.26	6.97	5.85	8.17	8
2013/12/18	ME	DS5	13:11:09	M	4.0	322.9	0.76	19.50	33.02	90.26	6.82	5.55	8.15	10
2013/12/18	ME	DS5	13:12:23	T	1.0	345.9	0.63	19.50	33.02	90.25	6.82	5.45	8.16	8
2013/12/18	ME	DS5	13:13:55	B	6.0	220.2	0.14	19.49	33.02	91.33	6.90	5.85	8.16	9
2013/12/18	ME	DS5	13:14:49	M	3.9	131.3	0.34	19.49	33.01	90.43	6.83	5.35	8.16	7
2013/12/18	ME	DS5	13:15:37	T	1.0	345.9	0.63	19.48	33.00	89.82	6.79	5.45	8.16	7
2013/12/18	ME	DS5	13:18:43	B	6.0	41.7	0.34	19.46	33.00	90.39	6.83	6.35	8.15	9
2013/12/18	ME	DS5	13:19:29	M	4.0	85.9	0.46	19.41	32.95	90.19	6.83	5.25	8.16	9
2013/12/18	ME	DS5	13:20:14	T	1.0	345.9	0.63	19.42	32.96	90.48	6.85	5.05	8.16	8
2013/12/18	ME	US1	13:34:11	B	3.0	322.1	0.03	18.56	32.35	95.11	7.34	15.35	8.16	11
2013/12/18	ME	US1	13:35:10	T	1.0	142.2	0.54	18.52	32.20	93.21	7.21	12.05	8.17	13
2013/12/18	ME	US1	13:36:12	B	3.1	33.3	1.05	18.55	32.31	92.61	7.15	13.65	8.17	14
2013/12/18	ME	US1	13:37:29	T	1.0	31.8	0.51	18.52	32.22	92.80	7.17	11.55	8.15	13
2013/12/18	ME	US1	13:39:43	B	3.0	270.3	0.19	18.55	32.34	92.58	7.15	12.55	8.15	13
2013/12/18	ME	US1	13:40:43	T	1.0	31.8	0.51	18.54	32.24	92.97	7.18	12.05	8.15	12
2013/12/18	ME	US2	13:46:22	B	1.9	118.8	0.95	18.00	31.57	95.09	7.45	10.25	8.14	10
2013/12/18	ME	US2	13:47:08	T	1.1	31.8	0.51	17.98	31.53	93.80	7.35	8.55	8.14	8
2013/12/18	ME	US2	13:48:08	B	2.0	115.6	0.75	17.96	31.49	93.49	7.33	8.35	8.15	10
2013/12/18	ME	US2	13:49:09	T	1.0	0.9	1.29	17.96	31.48	93.48	7.33	8.45	8.15	10
2013/12/18	ME	US2	13:50:03	B	2.0	79.9	0.89	17.97	31.48	93.37	7.32	8.55	8.15	10
2013/12/18	ME	US2	13:51:08	T	1.0	46.0	0.20	17.98	31.49	93.66	7.35	8.75	8.14	9
2013/12/18	ME	MW1	13:58:14	B	17.8	29.0	0.26	19.72	32.89	90.02	6.78	7.76	8.06	12
2013/12/18	ME	MW1	13:59:24	M	10.2	75.5	0.67	19.72	32.89	89.76	6.76	8.34	8.06	10
2013/12/18	ME	MW1	14:00:09	T	1.1	33.5	0.93	19.72	32.89	89.85	6.76	5.67	8.06	8
2013/12/18	ME	MW1	14:01:19	B	18.0	89.3	0.46	19.72	32.89	89.59	6.74	7.59	8.06	9
2013/12/18	ME	MW1	14:02:05	M	10.6	40.4	0.27	19.71	32.89	89.66	6.75	6.50	8.06	8
2013/12/18	ME	MW1	14:02:59	T	1.0	33.5	0.93	19.71	32.89	89.77	6.76	5.54	8.06	9
2013/12/18	ME	MW1	14:05:05	B	17.6	39.1	0.43	19.72	32.89	89.53	6.74	7.83	8.06	16
2013/12/18	ME	MW1	14:05:59	M	10.2	3.4	0.97	19.70	32.88	89.65	6.75	6.88	8.06	10
2013/12/18	ME	MW1	14:06:59	T	1.0	190.1	0.81	19.70	32.88	89.72	6.76	5.61	8.06	9
2013/12/18	ME	THB1	12:31:44	B	3.1	89.4	0.78	18.32	31.77	94.64	7.36	12.54	8.01	12
2013/12/18	ME	THB1	12:32:29	T	1.1	137.4	0.80	18.32	30.76	94.35	7.43	7.25	8.02	8
2013/12/18	ME	THB1	12:33:19	B	3.0	94.1	0.17	18.30	31.69	93.53	7.28	12.31	8.03	14
2013/12/18	ME	THB1	12:34:00	T	1.2	28.3	0.60	18.09	30.99	93.92	7.37	8.01	8.03	10
2013/12/18	ME	THB1	12:34:59	B	2.8	229.9	0.81	18.12	31.08	93.67	7.34	10.78	8.03	13
2013/12/18	ME	THB1	12:35:59	T	0.9	31.1	0.77	18.00	30.65	93.87	7.40	7.22	8.03	8
2013/12/18	ME	THB2	12:36:34	M	1.4	40.0	0.03	18.09	30.88	93.72	7.36	12.29	7.86	20
2013/12/18	ME	THB2	12:37:41	M	1.4	40.0	0.03	18.15	30.85	91.54	7.18	12.29	7.91	23
2013/12/18	ME	THB2	12:38:36	M	1.4	40.0	0.03	18.18	30.85	90.97	7.13	12.60	7.92	31
2013/12/18	ME	WSR45C	13:05:49	B	12.0	99.5	0.47	19.69	32.84	90.23	6.80	6.65	8.06	8
2013/12/18	ME	WSR45C	13:06:39	M	7.0	53.7	0.41	19.62	32.80	90.01	6.79	4.96	8.05	9
2013/12/18	ME	WSR45C	13:07:29	T	1.1	99.1	0.06	19.29	32.56	91.59	6.96	5.20	8.05	6
2013/12/18	ME	WSR45C	13:09:00	B	11.9	91.9	0.99	19.69	32.85	89.62	6.75	6.08	8.05	6
2013/12/18	ME	WSR45C	13:09:59	M	7.0	187.6	0.76	19.64	32.82	89.69	6.76	4.91	8.05	10
2013/12/18	ME	WSR45C	13:10:59	T	1.0	314.0	0.95	19.29	32.55	91.47	6.95	5.16	8.04	7
2013/12/18	ME	WSR45C	13:11:59	B	12.0	177.2	0.17	19.70	32.85	89.61	6.75	6.44	8.05	7
2013/12/18	ME	WSR45C	13:12:59	M	7.0	37.1	0.13	19.61	32.80	89.53	6.76	4.99	8.05	8
2013/12/18	ME	WSR45C	13:13:59	T	1.0	62.2	0.73	19.39	32.62	90.87	6.89	4.77	8.04	6
2013/12/18	ME	WSR46	12:03:39	B	9.0	112.6	0.24	19.00	32.28	91.69	7.02	10.38	7.93	12
2013/12/18	ME	WSR46	12:04:29	M	5.6	211.3	0.75	18.99	32.29	91.16	6.98	10.24	7.97	12
2013/12/18	ME	WSR46	12:05:19	T	1.0	177.3	0.55	18.98	32.29	91.33	6.99	9.78	7.99	11
2013/12/18	ME	WSR46	12:06:19	B	8.7	203.3	0.40	18.98	32.30	90.95	6.97	9.87	7.99	12
2013/12/18	ME	WSR46	12:07:05	M	5.5	338.9	0.76	18.97	32.30	91.13	6.98	10.02	8.00	12
2013/12/18	ME	WSR46	12:07:59	T	1.1	278.4	0.11	18.97	32.30	91.20	6.99	9.34	8.00	12
2013/12/18	ME	WSR46	12:08:59	B	8.9	76.9	0.70	18.91	32.33	90.69	6.94	10.78	8.01	13
2013/12/18	ME	WSR46	12:09:59	M	5.4	70.0	0.20	18.98	32.32					