

2020 Mississippi River Water Quality Data - Ford

Station	Sample Time	Sample type	Air Temperature (°F)	Water Temperature (°C)	Conductivity (µS/cm)	Specific Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH	Salinity (ppt)	Transparency (cm)	Alkalinity (mg/L)	Ammonia Nitrogen (mg/L)	Carbonaceous Biological Oxygen Demand 5-day (mg/L)	Chemical Oxygen Demand (mg/L)	Chlorophyll-a (µg/l)
Ford	03/12/2020 08:25	Grab	42	4.2	256.6	425.2	13.35	7.9	0.20	71	169	0.09	1.7	22.0	10.0
Ford	06/18/2020 08:15	Grab	75	24.5	416.8	420.8	8.19	8.6	0.20	79	174	< 0.06	1.5	20.0	26.0
Ford	08/06/2020 08:25	Grab	70	23.8	352.7	361.3	8.70	8.9	0.17	81	145	< 0.06	1.1	31.0	37.0
Ford	10/01/2020 08:20	Grab	48	15.5	305.8	373.8	10.17	8.7	0.18	> 100	156	< 0.06	1.2	22.0	14.0

2020 Mississippi River Water Quality Data - Meeker

Station	Sample Time	Sample type	Air Temperature (°F)	Water Temperature (°C)	Conductivity (µS/cm)	Specific Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH	Salinity (ppt)	Transparency (cm)	Alkalinity (mg/L)	Ammonia Nitrogen (mg/L)	Carbonaceous Biological Oxygen Demand 5-day (mg/L)	Chemical Oxygen Demand (mg/L)	Chlorophyll-a (µg/l)
Meeker	02/12/2020 09:00	Grab	30	0.4	229.2	432.5	14.91	8.1	0.20	> 100	184	0.06	0.8	26.0	4.2
Meeker	03/12/2020 09:05	Grab	42	2.3	234.4	413.3	14.45	7.8	0.20	70	167	0.08	1.5	26.0	12.0
Meeker	05/21/2020 08:25	Grab	65	18.1	375.7	432.3	9.94	7.6	0.21	75	177	< 0.02	1.8	21.0	24.0
Meeker	06/05/2020 08:25	Grab	81	22.0	412.8	431.1	8.83	7.7	0.21	51	183	< 0.06	3.0	28.0	
Meeker	06/18/2020 08:30	Grab	75	24.1	414.5	421.7	7.98	8.4	0.20	72	171	< 0.06	1.4	19.0	21.0
Meeker	07/02/2020 07:50	Grab	80	26.9	396.2	382.0	8.24	7.8	0.18	69	160	< 0.06	1.4	30.0	21.0
Meeker	07/17/2020 08:25	Grab	77	25.2	414.6	413.1	8.50	8.8	0.20	78	173	< 0.06	2.1	28.0	48.0
Meeker	08/06/2020 08:40	Grab	70	23.1	347.6	360.7	8.64	8.3	0.17	87	151	< 0.06	1.0	29.0	29.0
Meeker	08/20/2020 08:25	Grab	72	23.0	316.4	328.8	9.16	8.4	0.16	56	140	< 0.06	1.6	35.0	42.0
Meeker	09/03/2020 08:15	Grab	63	20.7	311.8	339.4	9.25	8.4	0.16	67	145	< 0.06	1.3	40.0	20.0
Meeker	09/17/2020 08:00	Grab	46	18.3	329.2	377.7	9.41	8.6	0.18	98	163	< 0.06	0.8	30.0	13.0
Meeker	10/01/2020 08:35	Grab	55	15.1	302.5	373.2	10.30	8.6	0.18	> 100	164	< 0.06	1.8	24.0	12.0
Meeker	10/15/2020 08:10	Grab	35	12.0	279.3	371.6	11.90	8.6	0.18	> 100	154	< 0.06	1.3	27.0	12.0
Meeker	11/13/2020 08:55	Grab	16	4.3	225.4	373.0	13.48	8.5	0.18	73	154	< 0.06	1.3	22.1	19.0
Meeker	11/24/2020 08:45	Grab	34	2.2	204.0	361.2	14.02	8.6	0.17	> 100	140	< 0.06	0.9	24.5	9.6
Meeker	12/03/2020 09:00	Grab	27	0.8	213.1	395.6	14.38	8.5	0.19	> 100	164	< 0.06	0.9	26.8	8.5

2020 Mississippi River Water Quality Data - Ford continued

Station	Sample Time	Sample type	Chloride (mg/L)	Dissolved Phosphorus (mg/L)	Ortho Phosphate (mg/L)	Total Phosphorus (mg/L)	Hardness (mg/L CaCO3)	Total Kjeldahl Nitrogen (mg/L)	Nitrate (mg/L)	Nitrate-Nitrite (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Biological Oxygen Demand 5-day (mg/L)	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Copper (mg/L)
Ford	03/12/2020 08:25	Grab	16.8	~ 0.03	0.04	0.12	159	0.75	1.55	1.55	< 0.06	12.2	1.9			
Ford	06/18/2020 08:15	Grab	21.7	< 0.02	~ 0.01	~ 0.04	191	0.46	0.39	0.39	< 0.06	54.7	1.8			
Ford	08/06/2020 08:25	Grab	15.7	0.12	0.02	0.10	136	0.85	0.28	0.28	< 0.06	11.1	1.7			
Ford	10/01/2020 08:20	Grab	17.6	< 0.02	< 0.01	< 0.02	134	0.59	0.28	0.28	< 0.06	11.1	1.2			

2020 Mississippi River Water Quality Data - Meeker continued

Station	Sample Time	Sample type	Chloride (mg/L)	Dissolved Phosphorus (mg/L)	Ortho Phosphate (mg/L)	Total Phosphorus (mg/L)	Hardness (mg/L CaCO3)	Total Kjeldahl Nitrogen (mg/L)	Nitrate (mg/L)	Nitrate-Nitrite (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Biological Oxygen Demand 5-day (mg/L)	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Copper (mg/L)
Meeker	02/12/2020 09:00	Grab	22.6	< 0.02	~ 0.01	< 0.02	180	0.58	1.05	1.05	< 0.06	13.5	0.7			
Meeker	03/12/2020 09:05	Grab	17.1	~ 0.05	0.03	0.07	185	0.69	1.26	1.26	< 0.06	11.9	1.8			
Meeker	05/21/2020 08:25	Grab	20.2	~ 0.03	0.01	0.06	198	0.78	1.78	1.78	< 0.06	14.1	2.0	< 0.00006	~ 0.00042	~ 0.00041
Meeker	06/05/2020 08:25	Grab	22.1	< 0.02	< 0.01	0.06	200	0.90	0.65	0.65	< 0.06	15.6	3.5			
Meeker	06/18/2020 08:30	Grab	22.0	< 0.02	~ 0.01	~ 0.05	194	0.44	0.45	0.45	< 0.06	14.8	1.5			
Meeker	07/02/2020 07:50	Grab	19.0	~ 0.02	0.01	0.06	161	0.59	0.33	0.33	< 0.06	10.9	1.6			
Meeker	07/17/2020 08:25	Grab	20.7	~ 0.02	0.01	0.06	220	0.89	0.28	0.28	< 0.06	15.9	2.8			
Meeker	08/06/2020 08:40	Grab	17.3	< 0.02	0.02	0.08	166	0.77	0.29	0.29	< 0.06	10.9	1.5			
Meeker	08/20/2020 08:25	Grab	13.5	~ 0.02	0.02	0.12	144	0.97	0.20	0.20	< 0.06	8.4	2.3			
Meeker	09/03/2020 08:15	Grab	13.4	~ 0.04	0.03	0.07	165	0.92	0.32	0.32	< 0.06	9.9	1.2			
Meeker	09/17/2020 08:00	Grab	17.2	~ 0.03	0.01	~ 0.05	194	0.73	0.47	0.47	< 0.06	11.2	1.0			
Meeker	10/01/2020 08:35	Grab	17.2	< 0.02	< 0.01	< 0.02	173	0.55	0.30	0.30	< 0.06	11.0	1.2			
Meeker	10/15/2020 08:10	Grab	17.2	< 0.02	< 0.01	~ 0.03	147	0.54	0.23	0.23	< 0.06	10.3	1.4			
Meeker	11/13/2020 08:55	Grab	17.4	< 0.02	< 0.01	~ 0.02	163	0.54	0.46	0.46	< 0.06	10.9	1.4			
Meeker	11/24/2020 08:45	Grab	16.2	< 0.02	< 0.01	< 0.02	163	0.54	0.51	0.51	< 0.06	11.3	0.9			
Meeker	12/03/2020 09:00	Grab	18.2	< 0.02	< 0.01	~ 0.03	137	0.57	0.67	0.67	< 0.06	15.3	0.9			

2020 Mississippi River Water Quality Data - Ford continued

Station	Sample Time	Sample type	Total Lead (mg/L)	Total Nickel (mg/L)	Total Zinc (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Suspended Solids (mg/L)	Volatile Suspended Solids (mg/L)
Ford	03/12/2020 08:25	Grab				243	7.7	5	~ 2
Ford	06/18/2020 08:15	Grab				251	7.5	5	~ 2
Ford	08/06/2020 08:25	Grab				234	10.3	8	~ 4
Ford	10/01/2020 08:20	Grab				231	9.3	5	~ 2

2020 Mississippi River Water Quality Data - Meeker continued

Station	Sample Time	Sample type	Total Lead (mg/L)	Total Nickel (mg/L)	Total Zinc (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Suspended Solids (mg/L)	Volatile Suspended Solids (mg/L)
Meeker	02/12/2020 09:00	Grab				262	7.4	4	~ 1
Meeker	03/12/2020 09:05	Grab				245	7.3	7	~ 2
Meeker	05/21/2020 08:25	Grab	< 0.00026	0.0011	~ 0.0014	258	8.3	12	3
Meeker	06/05/2020 08:25	Grab				266	8.3	16	7
Meeker	06/18/2020 08:30	Grab				256	7.5	5	3
Meeker	07/02/2020 07:50	Grab				236	6.9	17	6
Meeker	07/17/2020 08:25	Grab				254	8.0	9	5
Meeker	08/06/2020 08:40	Grab				225	10.4	7	4
Meeker	08/20/2020 08:25	Grab				214	10.6	23	9
Meeker	09/03/2020 08:15	Grab				211	12.2	10	4
Meeker	09/17/2020 08:00	Grab				246	11.2	6	~ 2
Meeker	10/01/2020 08:35	Grab				234	9.0	4	~ 2
Meeker	10/15/2020 08:10	Grab				225	9.3	4	~ 2
Meeker	11/13/2020 08:55	Grab				223	8.6	5	~ 2
Meeker	11/24/2020 08:45	Grab				221	9.7	~ 2	~ 2
Meeker	12/03/2020 09:00	Grab				237	8.2	~ 2	3

Station	Sample Time	Sample type	Air Temperature (°F)	Water Temperature (°C)	Conductivity (µS/cm)	Specific Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH	Salinity (ppt)	Transparency (cm)	Alkalinity (mg/L)	Ammonia Nitrogen (mg/L)	Carbonaceous Biological Oxygen Demand 5-day (mg/L)	Chemical Oxygen Demand (mg/L)
Wash	01/09/2020 10:25	Grab	30	-0.1	242.1	465.3	15.69	8.4	0.22	> 100	185	~ 0.06	1.1	25.0
Wash	02/12/2020 09:45	Grab	30	0.6	230.6	431.5	14.20	8.0	0.19	> 100	193	0.07	0.5	26.0
Wash	03/12/2020 09:45	Grab	42	2.2	239.9	425.6	13.95	7.6	0.20	59	177	~ 0.04	1.6	25.0
Wash	05/21/2020 08:35	Grab	65	18.2	384.7	442.0	9.72	7.0	0.21	78	178	< 0.02	1.9	24.0
Wash	06/05/2020 08:38	Grab	81	22.7	411.1	429.6	8.84	7.5	0.21	47	177	< 0.06	3.2	29.0
Wash	06/18/2020 08:40	Grab	75	23.1	404.2	419.5	7.90	8.1	0.20	75	180	< 0.06	1.3	23.0
Wash	07/02/2020 08:05	Grab	80	27.1	394.6	379.7	8.25	7.9	0.18	47	160	< 0.06	1.3	29.0
Wash	07/17/2020 08:45	Grab	78	24.8	410.4	412.0	8.17	7.9	0.20	77	176	< 0.06	2.0	26.0
Wash	08/06/2020 08:50	Grab	70	23.0	349.0	362.6	8.62	7.7	0.17	85	148	< 0.06	1.1	32.0
Wash	08/20/2020 08:35	Grab	72	23.0	313.8	326.4	9.41	8.4	0.16	50	141	< 0.06	1.7	35.0
Wash	09/03/2020 08:30	Grab	65	21.0	312.4	338.2	9.38	8.4	0.16	61	140	< 0.06	1.1	39.0
Wash	09/17/2020 08:15	Grab	49	18.0	326.2	376.9	9.58	8.6	0.18	89	156	< 0.06	1.0	27.0
Wash	10/01/2020 08:45	Grab	55	14.8	300.5	373.0	10.27	8.6	0.18	> 100	152	< 0.06	1.1	24.0
Wash	10/15/2020 08:25	Grab	35	11.8	277.0	370.5	12.02	8.5	0.18	> 100	156	< 0.06	1.3	26.0
Wash	11/13/2020 09:20	Grab	18	4.3	231.0	381.8	13.39	8.4	0.18	74	151	< 0.06	1.3	24.1
Wash	11/24/2020 09:10	Grab	34	2.4	206.0	363.0	13.76	8.5	0.17	> 100	147	< 0.06	0.8	22.6
Wash	12/03/2020 09:25	Grab	28	0.6	211.5	395.7	14.50	8.4	0.19	> 100	164	< 0.06	0.8	22.9

Station	Sample Time	Sample type	Chlorophyll-a (µg/l)	Chloride (mg/L)	Dissolved Phosphorus (mg/L)	Ortho Phosphate (mg/L)	Total Phosphorus (mg/L)	Hardness (mg/L CaCO3)	Total Kjeldahl Nitrogen (mg/L)	Nitrate (mg/L)	Nitrate-Nitrite (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Biological Oxygen Demand 5-day (mg/L)
Wash	01/09/2020 10:25	Grab	3.6	18.7	< 0.02	~ 0.01	~ 0.03	171	0.59	0.95	0.95	< 0.06	13.9	1.1
Wash	02/12/2020 09:45	Grab	3.6	22.1	< 0.02	~ 0.01	< 0.02	209	0.54	1.19	1.19	< 0.06	12.2	0.7
Wash	03/12/2020 09:45	Grab	16.0	19.3	0.05	0.04	0.09	177	0.72	1.44	1.44	< 0.06	12.8	2.0
Wash	05/21/2020 08:35	Grab	24.0	22.2	< 0.02	0.01	0.06	187	0.83	1.80	1.80	< 0.06	14.6	1.9
Wash	06/05/2020 08:38	Grab		23.1	< 0.02	< 0.01	0.06	191	0.88	0.62	0.62	< 0.06	16.6	3.6
Wash	06/18/2020 08:40	Grab	16.0	21.6	< 0.02	0.01	~ 0.05	182	0.30	0.49	0.49	< 0.06	14.5	1.4
Wash	07/02/2020 08:05	Grab	19.0	18.6	< 0.02	0.01	0.07	166	0.62	0.31	0.31	< 0.06	10.8	1.6
Wash	07/17/2020 08:45	Grab	57.0	20.6	0.08	0.01	0.07	203	1.10	0.32	0.32	< 0.06	15.6	2.7
Wash	08/06/2020 08:50	Grab	34.0	17.2	~ 0.02	0.02	0.19	172	0.87	0.30	0.30	< 0.06	11.6	1.5
Wash	08/20/2020 08:35	Grab	41.0	13.1	~ 0.04	0.02	0.10	145	0.93	0.20	0.20	< 0.06	8.2	2.0
Wash	09/03/2020 08:30	Grab	22.0	14.0	~ 0.04	0.03	0.06	161	0.82	0.34	0.34	< 0.06	9.9	1.2
Wash	09/17/2020 08:15	Grab	14.0	16.4	~ 0.03	0.02	0.06	175	0.72	0.42	0.42	< 0.06	11.0	1.1
Wash	10/01/2020 08:45	Grab	12.0	17.2	< 0.02	< 0.01	~ 0.03	138	0.60	0.29	0.29	< 0.06	10.8	1.1
Wash	10/15/2020 08:25	Grab	13.0	16.6	~ 0.02	< 0.01	~ 0.03	162	0.56	0.23	0.23	< 0.06	10.3	1.4
Wash	11/13/2020 09:20	Grab	22.0	20.1	< 0.02	< 0.01	~ 0.03	130	0.66	0.43	0.43	< 0.06	11.5	1.5
Wash	11/24/2020 09:10	Grab	11.0	16.7	< 0.02	< 0.01	~ 0.03	149	0.56	0.51	0.51	< 0.06	11.3	0.8
Wash	12/03/2020 09:25	Grab	8.8	19.0	< 0.02	< 0.01	~ 0.04	129	0.72	0.78	0.78	< 0.06	15.6	1.0

2020 Mississippi River Water Quality Data - Wash continued

Station	Sample Time	Sample type	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Copper (mg/L)	Total Lead (mg/L)	Total Nickel (mg/L)	Total Zinc (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Suspended Solids (mg/L)	Volatile Suspended Solids (mg/L)
Wash	01/09/2020 10:25	Grab							225	8.4	3	~ 1
Wash	02/12/2020 09:45	Grab							282	7.5	~ 2	~ 1
Wash	03/12/2020 09:45	Grab							260	7.6	10	3
Wash	05/21/2020 08:35	Grab	< 0.00006	~ 0.00041	~ 0.00051	< 0.00026	0.0011	~ 0.0015	261	8.3	12	4
Wash	06/05/2020 08:38	Grab							269	7.8	17	7
Wash	06/18/2020 08:40	Grab							249	7.3	5	3
Wash	07/02/2020 08:05	Grab							222	6.8	20	7
Wash	07/17/2020 08:45	Grab							249	8.1	9	4
Wash	08/06/2020 08:50	Grab							224	10.5	8	~ 4
Wash	08/20/2020 08:35	Grab							216	10.4	18	6
Wash	09/03/2020 08:30	Grab							209	12.2	11	4
Wash	09/17/2020 08:15	Grab							239	10.7	7	~ 2
Wash	10/01/2020 08:45	Grab							231	9.1	4	~ 2
Wash	10/15/2020 08:25	Grab							227	9.2	4	~ 2
Wash	11/13/2020 09:20	Grab							225	8.6	6	~ 2
Wash	11/24/2020 09:10	Grab							215	9.2	3	~ 1
Wash	12/03/2020 09:25	Grab							232	8.6	3	~ 1

Station	Sample Time	Sample type	Air Temperature (°F)	Water Temperature (°C)	Conductivity (µS/cm)	Specific Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH	Salinity (ppt)	Transparency (cm)	Alkalinity (mg/L)	Ammonia Nitrogen (mg/L)	Biological Oxygen Demand 5-day (mg/L)	Chemical Oxygen Demand (mg/L)
Boom	02/12/2020 08:40	Grab	30	1.5	228.6	414.2	13.78	7.4	0.20	> 100	187	< 0.02	1.0	25.0
Boom	03/12/2020 08:55	Grab	41	3.0	244.4	422.1	13.60	7.4	0.20	84	174	0.07	1.5	27.0
Boom	05/21/2020 09:30	Grab	65	18.4	368.1	421.5	9.26	7.3	0.20	91	171	< 0.02	1.9	23.0
Boom	06/05/2020 09:30	Grab	85	23.1	400.5	415.7	8.66	7.6	0.20	58	175	< 0.06	2.6	52.0
Boom	06/18/2020 09:25	Grab	75	23.1	400.6	415.3	7.50	7.9	0.20	80	177	< 0.06	1.0	20.0
Boom	07/02/2020 08:55	Grab	80	27.2	389.7	374.3	7.54	7.9	0.18	68	158	< 0.06	1.3	24.0
Boom	07/17/2020 09:55	Grab	80	25.4	409.7	406.8	8.39	7.7	0.19	74	178	< 0.06	1.9	28.0
Boom	08/06/2020 09:45	Grab	72	23.6	344.7	354.5	8.47	8.0	0.17	86	143	< 0.06	1.2	33.0
Boom	08/20/2020 09:25	Grab	72	23.0	310.3	322.8	8.62	8.3	0.15	81	139	< 0.06	1.8	38.0
Boom	09/03/2020 09:50	Grab	68	21.2	309.8	334.4	8.64	8.4	0.16	69	141	< 0.06	0.9	37.0
Boom	09/17/2020 09:20	Grab	52	18.1	321.2	369.8	9.38	8.6	0.19	> 100	158	< 0.06	0.8	25.0
Boom	10/01/2020 09:45	Grab	55	15.0	297.1	367.7	9.92	8.6	0.18	> 100	149	< 0.06	1.0	23.0
Boom	10/15/2020 09:25	Grab	35	11.7	273.3	366.5	11.01	8.6	0.18	> 100	154	< 0.06	1.5	27.0
Boom	11/13/2020 09:45	Grab	20	4.2	223.5	371.4	13.74	8.4	0.18	> 100	156	< 0.06	1.2	27.9
Boom	11/24/2020 09:35	Grab	34	2.3	204.7	361.3	13.79	8.4	0.17	> 100	157	< 0.06	1.0	22.6
Boom	12/03/2020 09:55	Grab	30	0.6	211.8	397.3	14.12	8.4	0.19	> 100	162	< 0.06	0.8	28.3

Station	Sample Time	Sample type	Chlorophyll-a (µg/l)	Chloride (mg/L)	Dissolved Phosphorus (mg/L)	Ortho Phosphate (mg/L)	Total Phosphorus (mg/L)	Hardness (mg/L CaCO3)	Total Kjeldahl Nitrogen (mg/L)	Nitrate (mg/L)	Nitrate-Nitrite (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Biological Oxygen Demand 5-day (mg/L)
Boom	02/12/2020 08:40	Grab	3.5	19.0	~ 0.04	~ 0.01	< 0.02	200	0.59	1.04	1.04	< 0.06	11.3	0.7
Boom	03/12/2020 08:55	Grab	15.0	16.9	0.07	0.06	0.12	171	0.93	1.45	1.45	< 0.06	13.0	2.1
Boom	05/21/2020 09:30	Grab	22.0	19.6	~ 0.04	0.01	~ 0.04	202	0.80	1.49	1.49	< 0.06	13.5	1.8
Boom	06/05/2020 09:30	Grab		21.7	< 0.02	< 0.01	0.06	191	0.97	0.59	0.59	< 0.06	14.1	3.3
Boom	06/18/2020 09:25	Grab	16.0	21.0	~ 0.02	0.01	0.06	199	0.42	0.48	0.48	< 0.06	14.1	1.3
Boom	07/02/2020 08:55	Grab	19.0	16.9	< 0.02	0.01	0.06	150	0.62	0.31	0.31	< 0.06	10.7	1.5
Boom	07/17/2020 09:55	Grab	46.0	20.4	0.05	0.01	0.06	197	0.78	0.28	0.28	< 0.06	15.0	2.5
Boom	08/06/2020 09:45	Grab	31.0	16.1	~ 0.03	0.01	0.13	160	0.84	0.21	0.21	< 0.06	11.3	1.8
Boom	08/20/2020 09:25	Grab	32.0	12.5	0.06	0.02	0.13	136	0.94	0.20	0.20	< 0.06	8.1	1.8
Boom	09/03/2020 09:50	Grab	19.0	13.2	~ 0.04	0.03	0.08	158	0.88	0.35	0.35	< 0.06	7.3	1.1
Boom	09/17/2020 09:20	Grab	17.0	15.5	~ 0.03	0.01	0.05	178	0.69	0.38	0.38	< 0.06	10.9	1.1
Boom	10/01/2020 09:45	Grab	12.0	16.4	< 0.02	< 0.01	< 0.02	114	0.58	0.26	0.26	< 0.06	10.5	1.5
Boom	10/15/2020 09:25	Grab	12.0	16.3	< 0.02	< 0.01	~ 0.03	146	0.52	0.24	0.24	< 0.06	10.0	1.3
Boom	11/13/2020 09:45	Grab	17.0	17.0	< 0.02	< 0.01	< 0.02	154	0.56	0.49	0.49	< 0.06	10.9	1.4
Boom	11/24/2020 09:35	Grab	9.6	14.4	< 0.02	< 0.01	< 0.02	109	0.53	0.53	0.53	< 0.06	11.2	0.9
Boom	12/03/2020 09:55	Grab	8.1	16.9	< 0.02	< 0.01	~ 0.04	167	0.59	0.68	0.68	< 0.06	15.3	1.0

Station	Sample Time	Sample type	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Copper (mg/L)	Total Lead (mg/L)	Total Nickel (mg/L)	Total Zinc (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Suspended Solids (mg/L)	Volatile Suspended Solids (mg/L)
Boom	02/12/2020 08:40	Grab							261	7.5	3	~ 1
Boom	03/12/2020 08:55	Grab							254	7.4	7	3
Boom	05/21/2020 09:30	Grab	< 0.00006	~ 0.00038	~ 0.00035	< 0.00026	0.0011	~ 0.0012	250	8.4	12	3
Boom	06/05/2020 09:30	Grab							260	8.0	15	7
Boom	06/18/2020 09:25	Grab							241	7.4	5	~ 2
Boom	07/02/2020 08:55	Grab							230	7.0	18	5
Boom	07/17/2020 09:55	Grab							251	8.0	8	4
Boom	08/06/2020 09:45	Grab							223	10.4	8	5
Boom	08/20/2020 09:25	Grab							209	10.5	20	7
Boom	09/03/2020 09:50	Grab							209	12.2	10	4
Boom	09/17/2020 09:20	Grab							224	10.1	7	~ 2
Boom	10/01/2020 09:45	Grab							226	9.3	4	~ 2
Boom	10/15/2020 09:25	Grab							221	8.9	3	~ 2
Boom	11/13/2020 09:45	Grab							226	8.3	4	~ 2
Boom	11/24/2020 09:35	Grab							220	9.5	3	~ 1
Boom	12/03/2020 09:55	Grab							233	8.2	~ 2	~ 1

Station	Sample Time	Sample type	Air Temperature (°F)	Water Temperature (°C)	Conductivity (µS/cm)	Specific Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH	Salinity (ppt)	Transparency (cm)	Alkalinity (mg/L)	Ammonia Nitrogen (mg/L)	Biological Oxygen Demand 5-day (mg/L)	Chemical Oxygen Demand (mg/L)
MWMO	01/09/2020 11:15	Grab	30	-0.1	223.7	429.5	15.40	8.6	0.20	> 100	166	~ 0.05	1.4	31
MWMO	02/12/2020 09:20	Grab	32	1.1	222.3	409.4	13.86	7.5	0.19	> 100	177	0.06	1.1	28
MWMO	03/12/2020 09:20	Grab	41	2.8	225.4	391.3	13.58	7.4	0.19	90	166	0.08	1.2	24
MWMO	05/21/2020 09:35	Grab	65	18.4	373.7	427.7	9.43	7.2	0.21	86	181	< 0.02	1.9	23
MWMO	06/05/2020 09:36	Grab	85	23.4	404.1	416.6	8.94	7.5	0.20	62	177	< 0.06	2.7	27
MWMO	06/18/2020 09:30	Grab	75	23.8	399.8	409.3	7.74	7.9	0.20	77	171	< 0.06	1.1	19
MWMO	07/02/2020 06:30	Grab	77	26.6	381.7	370.1	7.20	8.1	0.18	71	154	< 0.06	1.1	22
MWMO	07/17/2020 10:00	Grab	80	25.4	405.5	402.8	8.82	7.5	0.19	72	172	< 0.06	2.2	27
MWMO	08/06/2020 09:55	Grab	72	23.6	343.1	352.7	8.77	7.7	0.17	77	139	< 0.06	1.3	31
MWMO	08/20/2020 09:35	Grab	73	23.1	311.4	323.1	8.73	8.3	0.15	70	139	< 0.06	1.5	34
MWMO	09/03/2020 10:00	Grab	70	21.3	312.1	335.8	9.09	8.5	0.16	71	134	< 0.06	1.0	38
MWMO	09/17/2020 09:30	Grab	52	18.2	320.9	368.5	9.53	8.6	0.18	> 100	153	< 0.06	1.1	28
MWMO	10/01/2020 09:55	Grab	55	15.1	297.2	366.4	10.09	8.6	0.18	> 100	149	< 0.06	1.0	23
MWMO	10/15/2020 09:40	Grab	36	11.8	274.0	366.8	10.85	8.6	0.18	> 100	153	< 0.06	1.2	26
MWMO	11/13/2020 10:10	Grab	20	3.8	215.6	362.9	13.68	8.4	0.17	> 100	137	< 0.06	1.1	20.1
MWMO	11/24/2020 09:50	Grab	34	1.9	195.2	348.8	13.64	8.5	0.17	> 100	143	< 0.06	1.1	44.2
MWMO	12/03/2020 10:10	Grab	30	0.7	204.8	382.4	13.96	8.4	0.18	> 100	155	< 0.06	0.8	22.9

Station	Sample Time	Sample type	Chlorophyll-a (µg/l)	Chloride (mg/L)	Dissolved Phosphorus (mg/L)	Ortho Phosphate (mg/L)	Total Phosphorus (mg/L)	Hardness (mg/L CaCO3)	Total Kjeldahl Nitrogen (mg/L)	Nitrate (mg/L)	Nitrate-Nitrite (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Biological Oxygen Demand 5-day (mg/L)
MWMO	01/09/2020 11:15	Grab	3.2	18.1	< 0.02	~ 0.01	~ 0.03	160	0.65	0.91	0.91	< 0.06	11.6	1.1
MWMO	02/12/2020 09:20	Grab	4.4	18.1	< 0.02	~ 0.01	0.05	172	0.50	1.07	1.07	< 0.06	11.0	0.7
MWMO	03/12/2020 09:20	Grab	12.0	16.4	~ 0.03	0.02	0.10	174	0.75	1.08	1.08	< 0.06	10.7	1.8
MWMO	05/21/2020 09:35	Grab	23.0	18.8	~ 0.02	0.01	0.06	177	0.90	1.68	1.68	< 0.06	14.3	1.8
MWMO	06/05/2020 09:36	Grab		20.9	< 0.02	< 0.01	0.06	185	0.87	0.51	0.51	< 0.06	14.4	2.9
MWMO	06/18/2020 09:30	Grab	17.0	20.6	< 0.02	0.01	~ 0.04	177	0.52	0.46	0.46	< 0.06	13.8	1.3
MWMO	07/02/2020 06:30	Grab	18.0	18.6	< 0.02	0.01	0.05	157	0.58	0.32	0.32	< 0.06	10.2	1.2
MWMO	07/17/2020 10:00	Grab	46.0	20.4	~ 0.03	< 0.01	0.08	201	0.89	0.26	0.26	< 0.06	14.6	2.9
MWMO	08/06/2020 09:55	Grab	36.0	16.7	~ 0.03	0.01	0.08	176	0.91	0.21	0.21	< 0.06	10.5	2.0
MWMO	08/20/2020 09:35	Grab	32.0	12.6	~ 0.02	0.02	0.10	127	0.89	0.22	0.22	< 0.06	7.6	1.6
MWMO	09/03/2020 10:00	Grab	19.0	13.2	0.05	0.03	0.08	166	0.90	0.34	0.34	< 0.06	6.7	1.2
MWMO	09/17/2020 09:30	Grab	14.0	15.8	~ 0.03	0.01	0.07	184	0.69	0.39	0.39	< 0.06	10.7	1.1
MWMO	10/01/2020 09:55	Grab	12.0	15.9	< 0.02	< 0.01	~ 0.03	117	0.57	0.27	0.27	< 0.06	10.4	1.1
MWMO	10/15/2020 09:40	Grab	15.0	16.6	< 0.02	< 0.01	< 0.02	151	0.51	0.24	0.24	< 0.06	10.3	1.2
MWMO	11/13/2020 10:10	Grab	20.0	17.2	< 0.02	< 0.01	~ 0.02	136	0.60	0.43	0.43	< 0.06	9.9	1.3
MWMO	11/24/2020 09:50	Grab	9.4	15.4	< 0.02	< 0.01	~ 0.03	138	0.55	0.49	0.49	< 0.06	10.0	1.0
MWMO	12/03/2020 10:10	Grab	8.3	18.0	< 0.02	< 0.01	~ 0.03	123	0.50	0.68	0.68	< 0.06	14.0	1.1

Station	Sample Time	Sample type	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Copper (mg/L)	Total Lead (mg/L)	Total Nickel (mg/L)	Total Zinc (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Suspended Solids (mg/L)	Volatile Suspended Solids (mg/L)
MWMO	01/09/2020 11:15	Grab							248	8.6	3	~ 1
MWMO	02/12/2020 09:20	Grab							263	7.4	3	~ 1
MWMO	03/12/2020 09:20	Grab							249	7.4	6	~ 2
MWMO	05/21/2020 09:35	Grab	< 0.00006	0.00052	~ 0.00044	< 0.00026	0.0011	~ 0.0014	252	8.5	12	3
MWMO	06/05/2020 09:36	Grab							260	8.0	14	6
MWMO	06/18/2020 09:30	Grab							239	7.6	6	~ 2
MWMO	07/02/2020 06:30	Grab							227	7.1	11	4
MWMO	07/17/2020 10:00	Grab							247	8.4	9	4
MWMO	08/06/2020 09:55	Grab							218	10.4	9	5
MWMO	08/20/2020 09:35	Grab							200	10.5	19	6
MWMO	09/03/2020 10:00	Grab							204	12.1	10	4
MWMO	09/17/2020 09:30	Grab							240	10.9	7	~ 2
MWMO	10/01/2020 09:55	Grab							227	9.3	4	~ 2
MWMO	10/15/2020 09:40	Grab							225	8.8	4	~ 2
MWMO	11/13/2020 10:10	Grab							212	7.9	5	~ 2
MWMO	11/24/2020 09:50	Grab							225	9.5	3	~ 1
MWMO	12/03/2020 10:10	Grab							236	8.7	~ 2	~ 2

Station	Sample Time	Sample type	Air Temperature (°F)	Water Temperature (°C)	Conductivity (µS/cm)	Specific Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH	Salinity (ppt)	Transparency (cm)	Alkalinity (mg/L)	Ammonia Nitrogen (mg/L)	Biological Oxygen Demand 5-day (mg/L)	Chemical Oxygen Demand (mg/L)
Shingle Up	02/12/2020 09:45	Grab	32	0.9	221.4	409.8	13.89	7.5	0.19	> 100	180	~ 0.04	1.0	25.0
Shingle Up	03/12/2020 09:40	Grab	41	3.0	333.1	574.0	13.48	7.2	0.28	88	185	0.12	2.1	24.0
Shingle Up	05/21/2020 09:45	Grab	65	18.4	384.8	440.0	9.61	7.2	0.21	85	189	< 0.02	1.9	26.0
Shingle Up	06/05/2020 09:43	Grab	85	23.5	407.8	419.6	9.38	7.3	0.2	51	179	< 0.06	2.4	27.0
Shingle Up	06/18/2020 09:40	Grab	75	23.7	397.2	407.0	8.07	7.8	0.19	78	169	< 0.06	1.0	21.0
Shingle Up	07/02/2020 09:15	Grab	80	26.9	382.4	368.7	7.90	7.7	0.17	45	159	< 0.06	1.4	23.0
Shingle Up	07/17/2020 10:10	Grab	82	25.6	413.8	408.9	9.26	7.7	0.19	65	176	< 0.06	1.8	29.0
Shingle Up	08/06/2020 10:02	Grab	72	23.6	344.2	353.4	9.14	7.7	0.17	75	149	< 0.06	1.2	32.0
Shingle Up	08/20/2020 09:45	Grab	73	22.9	313.8	327.0	8.91	8.3	0.16	60	137	< 0.06	1.6	34.0
Shingle Up	09/03/2020 10:10	Grab	70	21.0	308.0	333.3	9.18	8.5	0.16	62	140	< 0.06	1.2	36.0
Shingle Up	09/17/2020 09:40	Grab	52	18.1	318.9	367.4	9.78	8.7	0.18	> 100	144	0.06	1.2	29.0
Shingle Up	10/01/2020 10:05	Grab	55	14.9	294.4	364.5	10.48	8.6	0.18	> 100	150	< 0.06	1.2	24.0
Shingle Up	10/15/2020 09:45	Grab	35	11.1	273.4	365.1	11.49	8.6	0.18	> 100	154	< 0.06	1.4	30.0
Shingle Up	11/13/2020 10:25	Grab	20	4.0	226.3	377.5	13.57	8.5	0.18	> 100	148	< 0.06	1.1	22.1
Shingle Up	11/24/2020 10:25	Grab	34	2.0	207.5	369.5	13.91	8.4	0.18	> 100	152	< 0.06	1.2	24.5
Shingle Up	12/03/2020 10:30	Grab	30	0.8	213.6	397.1	14.27	8.4	0.19	> 100	166	< 0.06	0.8	20.9

Station	Sample Time	Sample type	Chlorophyll-a (µg/l)	Chloride (mg/L)	Dissolved Phosphorus (mg/L)	Ortho Phosphate (mg/L)	Total Phosphorus (mg/L)	Hardness (mg/L CaCO3)	Total Kjeldahl Nitrogen (mg/L)	Nitrate (mg/L)	Nitrate-Nitrite (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Biological Oxygen Demand 5-day (mg/L)
Shingle Up	02/12/2020 09:45	Grab	4.4	17.9	< 0.02	~ 0.01	~ 0.02	195	0.54	1.02	1.02	< 0.06	11.1	0.5
Shingle Up	03/12/2020 09:40	Grab	18	56.1	0.08	0.05	0.12	203	1.00	1.60	1.6	< 0.06	22.3	2.6
Shingle Up	05/21/2020 09:45	Grab	22	18.1	~ 0.02	0.01	0.08	197	0.87	1.89	1.89	< 0.06	15.0	1.8
Shingle Up	06/05/2020 09:43	Grab		19.7	< 0.02	< 0.01	0.06	193	0.93	0.58	0.58	< 0.06	14.9	3.0
Shingle Up	06/18/2020 09:40	Grab	16	18.3	< 0.02	0.01	~ 0.05	189	0.38	0.45	0.45	< 0.06	13.8	1.4
Shingle Up	07/02/2020 09:15	Grab	15	16.0	< 0.02	0.01	0.06	175	0.58	0.35	0.35	< 0.06	9.5	1.5
Shingle Up	07/17/2020 10:10	Grab	44	19.0	0.07	0.01	0.06	155	0.77	0.27	0.27	< 0.06	16.1	2.4
Shingle Up	08/06/2020 10:02	Grab	33	14.8	< 0.02	0.01	0.05	152	0.88	0.20	0.2	< 0.06	11.1	1.9
Shingle Up	08/20/2020 09:45	Grab	36	12.3	~ 0.02	0.03	0.09	143	0.87	< 0.20	< 0.2	< 0.06	8.2	1.6
Shingle Up	09/03/2020 10:10	Grab	16	13.1	0.07	0.03	0.11	166	0.91	0.35	0.35	< 0.06	8.9	1.4
Shingle Up	09/17/2020 09:40	Grab	16	15.3	~ 0.03	0.01	0.05	186	0.68	0.36	0.36	< 0.06	10.8	1.1
Shingle Up	10/01/2020 10:05	Grab	12	15.9	< 0.02	< 0.01	~ 0.05	119	0.56	0.26	0.26	< 0.06	10.2	1.1
Shingle Up	10/15/2020 09:45	Grab	15	15.7	~ 0.02	< 0.01	< 0.02	148	0.51	0.23	0.23	< 0.06	10.2	1.3
Shingle Up	11/13/2020 10:25	Grab	15	17.3	< 0.02	< 0.01	~ 0.03	155	0.57	0.44	0.44	< 0.06	11.5	1.4
Shingle Up	11/24/2020 10:25	Grab	10	14.8	< 0.02	< 0.01	< 0.02	112	0.54	0.53	0.53	< 0.06	11.9	1.0
Shingle Up	12/03/2020 10:30	Grab	10	17.1	< 0.02	< 0.01	~ 0.03	156	0.68	0.66	0.66	< 0.06	15.8	1.0

Station	Sample Time	Sample type	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Copper (mg/L)	Total Lead (mg/L)	Total Nickel (mg/L)	Total Zinc (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Suspended Solids (mg/L)	Volatile Suspended Solids (mg/L)
Shingle Up	02/12/2020 09:45	Grab							268	7.4	3	~ 1
Shingle Up	03/12/2020 09:40	Grab							339	7.1	8	3
Shingle Up	05/21/2020 09:45	Grab	< 0.00006	~ 0.00042	~ 0.00048	< 0.00026	0.0012	~ 0.0017	256	8.4	12	3
Shingle Up	06/05/2020 09:43	Grab							266	8.0	15	6
Shingle Up	06/18/2020 09:40	Grab							238	7.3	5	~ 2
Shingle Up	07/02/2020 09:15	Grab							229	7.0	16	5
Shingle Up	07/17/2020 10:10	Grab							252	8.4	8	4
Shingle Up	08/06/2020 10:02	Grab							220	10.3	9	5
Shingle Up	08/20/2020 09:45	Grab							211	10.4	18	6
Shingle Up	09/03/2020 10:10	Grab							206	12.0	10	4
Shingle Up	09/17/2020 09:40	Grab							234	10.7	8	3
Shingle Up	10/01/2020 10:05	Grab							226	9.2	4	~ 2
Shingle Up	10/15/2020 09:45	Grab							222	9.0	4	~ 2
Shingle Up	11/13/2020 10:25	Grab							227	8.1	4	~ 2
Shingle Up	11/24/2020 10:25	Grab							190	9.7	3	~ 1
Shingle Up	12/03/2020 10:30	Grab							235	8.1	~ 2	~ 2

Station	Sample Time	Sample type	Air Temperature (°F)	Water Temperature (°C)	Conductivity (µS/cm)	Specific Conductivity (µS/cm)	Dissolved Oxygen (mg/L)	pH	Salinity (ppt)	Transparency (cm)	Alkalinity (mg/L)	Ammonia Nitrogen (mg/L)	Biological Oxygen Demand 5-day (mg/L)	Chemical Oxygen Demand (mg/L)
Upper	01/09/2020 12:15	Grab	30	0.1	275.6	526.0	16.60	8.3	0.25	> 100	204	0.06	1	27.0
Upper	02/12/2020 10:20	Grab	30	0.5	249.3	467.8	14.26	7.7	0.22	> 100	201	~ 0.06	0.8	23.0
Upper	03/12/2020 10:00	Grab	40	2.3	253.3	446.7	13.88	7.3	0.21	83	184	0.11	2.3	31.0
Upper	05/21/2020 10:30	Grab	66	18.3	437.1	502.0	10.17	7.3	0.24	76	199	~ 0.03	2.1	21.0
Upper	06/05/2020 09:40	Grab	85	23.8	530.0	542.0	9.60	7.4	0.26		202	< 0.06	2.8	27.0
Upper	06/18/2020 08:52	Grab	75	23.3	422.5	436.8	8.12	7.8	0.21	> 100	177	< 0.06	1.2	20.0
Upper	07/02/2020 06:08	Grab	76	26.2	440.2	430.5	7.08	8.6	0.21	65	174	< 0.06	1.2	23.0
Upper	07/17/2020 09:25	Grab	78							76	187	< 0.06	1.7	27.0
Upper	08/06/2020 09:17	Grab	72							65	148	< 0.06	1.5	32.0
Upper	08/20/2020 09:05	Grab	73	23.0	337.9	351.5	8.80	8.4	0.17	50	150	< 0.06	1.9	38.0
Upper	09/03/2020 09:05	Grab	65	21.1	352.2	380.8	8.79	8.5	0.18	45	152	< 0.06	1.3	40.0
Upper	09/17/2020 09:00	Grab	50	16.0	307.4	371.0	9.83	8.4	0.18	98	152	< 0.06	1.1	28.0
Upper	10/01/2020 08:27	Grab	55	13.2	295.7	381.4	10.48	8.6	0.18	> 100	157	< 0.06	1.2	27.0
Upper	10/15/2020 08:55	Grab	35	11.6	326.7	439.5	10.42	8.5	0.21	> 100	169	< 0.06	1.4	22.0
Upper	11/13/2020 10:50	Grab	20	4.4	237.2	393.9	13.78	8.5	0.19	> 100	155	< 0.06	1.2	20.1
Upper	11/24/2020 09:35	Grab	33	2.3	215.8	380.4	13.76	8.3	0.18	> 100	159	< 0.06	1.1	18.6
Upper	12/03/2020 11:00	Grab	30	1.1	218.2	402.1	14.31	8.4	0.19	> 100	174	< 0.06	1.2	22.9

Station	Sample Time	Sample type	Chlorophyll-a (µg/l)	Chloride (mg/L)	Dissolved Phosphorus (mg/L)	Ortho Phosphate (mg/L)	Total Phosphorus (mg/L)	Hardness (mg/L CaCO3)	Total Kjeldahl Nitrogen (mg/L)	Nitrate (mg/L)	Nitrate-Nitrite (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Total Biological Oxygen Demand 5-day (mg/L)
Upper	01/09/2020 12:15	Grab	4.6	20.7	< 0.02	~ 0.01	~ 0.03	215	0.56	1.21	1.21	< 0.06	18.5	1.1
Upper	02/12/2020 10:20	Grab	4.6	25.5	< 0.02	~ 0.01	~ 0.03	221	0.58	1.07	1.07	< 0.06	17.6	0.5
Upper	03/12/2020 10:00	Grab	17.0	18.6	0.08	0.07	0.15	178	0.87	1.83	1.83	< 0.06	15.0	2.7
Upper	05/21/2020 10:30	Grab	22.0	28.7	~ 0.02	0.02	0.06	239	0.80	2.22	2.22	< 0.06	21.1	2.0
Upper	06/05/2020 09:40	Grab		40.3	< 0.02	< 0.01	0.07	238	0.85	0.72	0.72	< 0.06	27.8	3.6
Upper	06/18/2020 08:52	Grab	15.0	21.9	< 0.02	0.01	~ 0.05	198	0.50	0.54	0.54	< 0.06	16.4	1.3
Upper	07/02/2020 06:08	Grab	16.0	24.8	~ 0.02	0.02	0.06	176	0.59	0.40	0.40	< 0.06	14.3	1.5
Upper	07/17/2020 09:25	Grab	45.0	29.9	~ 0.04	0.01	0.08	210	0.86	0.32	0.32	< 0.06	21.7	2.3
Upper	08/06/2020 09:17	Grab	35.0	17.2	0.08	0.01	0.06	162	0.84	< 0.20	< 0.20	< 0.06	13.3	2.2
Upper	08/20/2020 09:05	Grab	45.0	15.8	~ 0.04	0.02	0.10	153	0.92	< 0.20	< 0.20	< 0.06	10.4	2.1
Upper	09/03/2020 09:05	Grab	24.0	19.8	~ 0.03	0.03	0.09	187	0.89	0.29	0.29	< 0.06	14.6	1.5
Upper	09/17/2020 09:00	Grab	15.0	20.0	~ 0.03	0.01	0.06	165	0.75	0.34	0.34	< 0.06	13.8	1.0
Upper	10/01/2020 08:27	Grab	15.0	17.4	< 0.02	< 0.01	~ 0.03	161	0.59	0.24	0.24	< 0.06	11.9	1.5
Upper	10/15/2020 08:55	Grab	13.0	27.9	~ 0.02	< 0.01	< 0.02	167	0.49	0.20	0.20	< 0.06	17.7	1.3
Upper	11/13/2020 10:50	Grab	17.0	19.8	< 0.02	< 0.01	~ 0.03	139	0.60	0.42	0.42	< 0.06	13.1	1.3
Upper	11/24/2020 09:35	Grab	10.0	17.2	< 0.02	< 0.01	~ 0.03	164	0.55	0.54	0.54	< 0.06	13.1	0.9
Upper	12/03/2020 11:00	Grab	11.0	22.9	< 0.02	< 0.01	~ 0.04	136	0.61	0.71	0.71	< 0.06	19.9	1.1

2020 Mississippi River Water Quality Data - Upper continued

Station	Sample Time	Sample type	Total Cadmium (mg/L)	Total Chromium (mg/L)	Total Copper (mg/L)	Total Lead (mg/L)	Total Nickel (mg/L)	Total Zinc (mg/L)	Total Dissolved Solids (mg/L)	Total Organic Carbon (mg/L)	Total Suspended Solids (mg/L)	Volatile Suspended Solids (mg/L)
Upper	01/09/2020 12:15	Grab							302	8.3	3	~ 2
Upper	02/12/2020 10:20	Grab							306	7.5	3	~ 1
Upper	03/12/2020 10:00	Grab							271	7.8	8	3
Upper	05/21/2020 10:30	Grab	< 0.00006	~ 0.00044	~ 0.00068	< 0.00026	0.0012	~ 0.0015	299	8.1	9	~ 2
Upper	06/05/2020 09:40	Grab							331	7.6	12	6
Upper	06/18/2020 08:52	Grab							250	7.3	4	~ 1
Upper	07/02/2020 06:08	Grab							266	6.8	11	~ 3
Upper	07/17/2020 09:25	Grab							275	7.5	8	4
Upper	08/06/2020 09:17	Grab							234	10.3	8	5
Upper	08/20/2020 09:05	Grab							223	11.5	20	8
Upper	09/03/2020 09:05	Grab							241	11.8	12	5
Upper	09/17/2020 09:00	Grab							241	10.5	6	~ 2
Upper	10/01/2020 08:27	Grab							232	9.2	4	~ 2
Upper	10/15/2020 08:55	Grab							204	8.9	3	~ 2
Upper	11/13/2020 10:50	Grab							236	8.5	5	~ 2
Upper	11/24/2020 09:35	Grab							215	9.2	3	~ 2
Upper	12/03/2020 11:00	Grab							254	8.0	3	~ 2