



# Collier County™

## POLLUTION CONTROL

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Report To: Tonia Selmeski  
City of Marco Island  
50 Bald Eagle Drive  
Marco Island, FL 34145

Collected by: CCPCD  
Collection Date: 08/25/2020  
Submittal Date: 08/25/2020 @ 13:39

Report Date : 9/28/2020  
Report Time : 3:15:37PM

Project: MARCO  
Report#: 0820\_MRCO\_I

#### Data Qualifier Code Key:

- I: The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit
- U: The compound was analyzed for but not detected
- Q: Sample held beyond acceptable holding time
- J: Estimate value; the reported value failed to meet established criteria for either precision or accuracy
- V: Analyte detected in both the sample and the associated method blank
- B: Colony count is generated from plates in which the total number of colonies is outside the method indicated ideal range
- Y: The laboratory analysis was from an improperly preserved sample. The data may not be accurate.
- G: Indicates that the analyte was detected at or above the method detection limit in both the sample and the associated field blank, equipment blank, or trip blank, and the blank value was greater than 10% of the associated sample value.

Analyses performed using EPA or Standard Methods and certified to meet NELAC Standards. Data qualifiers assigned according to F.A.C. 62-160. Results contained in this report relate only to the samples collected.



Respectfully Submitted,

*Nosbel Perez*

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Nosbel Perez  
Laboratory Supervisor

## ANALYTICAL RESULTS

Report # 0820\_MRCO\_I

<i>Location:</i> JH_PARK		<i>Field ID:</i> AF61597		<i>Lab ID:</i> AF61597		<i>Collect Date/Time:</i> 8/25/20 09:10				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.489		JI	mg/L	0.200	0.500	1	09/21/2020	15:25
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	11:44
pH	FDEP FT1100	7.870	6.5 - 8.5		SU			1	08/25/2020	09:10
Specific Conductance	FDEP FT1200	48337			umho/cm			1	08/25/2020	09:10
Dissolved Oxygen Saturation	FDEP FT1500	80.8	>42		%			1	08/25/2020	09:10
Nitrogen- Total	Nitrogen- Total	0.489	<0.3	IJ	mg/L	0.200	0.500	1	09/28/2020	13:59
Chlorophyll a	SM 10200 H	5.0	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.30		V	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	1.8			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	10:02
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.033	<0.046	IJ	mg/L	0.014	0.040	2	09/11/2020	16:03

## ANALYTICAL RESULTS

Report # 0820\_MRCO\_I

<i>Location:</i> HC_CENTER		<i>Field ID:</i> AF61598		<i>Lab ID:</i> AF61598		<i>Collect Date/Time:</i> 8/25/20 09:45				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.593			mg/L	0.200	0.500	1	09/21/2020	12:19
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	11:51
pH	FDEP FT1100	7.790	6.5 - 8.5		SU			1	08/25/2020	09:45
Specific Conductance	FDEP FT1200	48115			umho/cm			1	08/25/2020	09:45
Dissolved Oxygen Saturation	FDEP FT1500	68.9	>42		%			1	08/25/2020	09:45
Nitrogen- Total	Nitrogen- Total	0.593	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	11.1	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.50		V	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	1.9			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	10:00
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.045	<0.046		mg/L	0.014	0.040	2	09/11/2020	16:06

## ANALYTICAL RESULTS

Report # 0820\_MRCO\_I

<b>Location:</b> COLLIER_BRIDGE		<b>Field ID:</b> AF61599		<b>Lab ID:</b> AF61599		<b>Collect Date/Time:</b> 8/25/20 10:09				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	109	<130		MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.628			mg/L	0.200	0.500	1	09/21/2020	12:20
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	11:56
pH	FDEP FT1100	7.770	6.5 - 8.5		SU			1	08/25/2020	10:09
Specific Conductance	FDEP FT1200	47778			umho/cm			1	08/25/2020	10:09
Dissolved Oxygen Saturation	FDEP FT1500	67.6	>42		%			1	08/25/2020	10:09
Nitrogen- Total	Nitrogen- Total	0.628	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	3.0	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.30		V	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	1.2			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:58
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.044	<0.046		mg/L	0.014	0.040	2	09/11/2020	16:07

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_I

<b>Location:</b> KENDALL		<b>Field ID:</b> AF61600		<b>Lab ID:</b> AF61600		<b>Collect Date/Time:</b> 8/25/20 10:42				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130		MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.775			mg/L	0.200	0.500	1	09/21/2020	12:22
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	12:20
pH	FDEP FT1100	7.830	6.5 - 8.5		SU			1	08/25/2020	10:42
Specific Conductance	FDEP FT1200	48408			umho/cm			1	08/25/2020	10:42
Dissolved Oxygen Saturation	FDEP FT1500	79.4	>42		%			1	08/25/2020	10:42
Nitrogen- Total	Nitrogen- Total	0.775	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	4.8	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	3.30		V	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	3.1			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:56
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.044	<0.046		mg/L	0.014	0.040	2	09/11/2020	16:08

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_I

<b>Location:</b> BARFIELD_BRIDGE		<b>Field ID:</b> AF61601		<b>Lab ID:</b> AF61601		<b>Collect Date/Time:</b> 8/25/20 11:30				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.635			mg/L	0.200	0.500	1	09/21/2020	12:23
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	12:32
pH	FDEP FT1100	7.900	6.5 - 8.5		SU			1	08/25/2020	11:30
Specific Conductance	FDEP FT1200	50664			umho/cm			1	08/25/2020	11:30
Dissolved Oxygen Saturation	FDEP FT1500	94.8	>42		%			1	08/25/2020	11:30
Nitrogen- Total	Nitrogen- Total	0.635	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	2.9	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	2.8			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:51
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.022	<0.046	I	mg/L	0.014	0.040	2	09/11/2020	16:08

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_II

<b>Location:</b> LANDMARK		<b>Field ID:</b> AF61602		<b>Lab ID:</b> AF61602		<b>Collect Date/Time:</b> 8/25/20 10:03				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	173	<130		MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.602			mg/L	0.200	0.500	1	09/21/2020	12:24
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	11:53
pH	FDEP FT1100	8.050	6.5 - 8.5		SU			1	08/25/2020	10:03
Specific Conductance	FDEP FT1200	46390			umho/cm			1	08/25/2020	10:03
Dissolved Oxygen Saturation	FDEP FT1500	101.1	>42		%			1	08/25/2020	10:03
Nitrogen- Total	Nitrogen- Total	0.602	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	4.9	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	3.10		V	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	3.1			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:30
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.098	<0.046		mg/L	0.014	0.040	2	09/11/2020	16:09

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_II

<b>Location:</b> MCILVAINE		<b>Field ID:</b> AF61604		<b>Lab ID:</b> AF61604		<b>Collect Date/Time:</b> 8/25/20 11:11				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.637			mg/L	0.200	0.500	1	09/21/2020	12:26
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	12:28
pH	FDEP FT1100	8.000	6.5 - 8.5		SU			1	08/25/2020	11:11
Specific Conductance	FDEP FT1200	50786			umho/cm			1	08/25/2020	11:11
Dissolved Oxygen Saturation	FDEP FT1500	91.5	>42		%			1	08/25/2020	11:11
Nitrogen- Total	Nitrogen- Total	0.637	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	3.9	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	3.3			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:32
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.025	<0.046	I	mg/L	0.014	0.040	2	09/11/2020	16:10

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_II

<b>Location:</b> WINDMILL		<b>Field ID:</b> AF61605		<b>Lab ID:</b> AF61605		<b>Collect Date/Time:</b> 8/25/20 08:23				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130		MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.777			mg/L	0.200	0.500	1	09/21/2020	12:27
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	11:29
pH	FDEP FT1100	7.830	6.5 - 8.5		SU			1	08/25/2020	08:23
Specific Conductance	FDEP FT1200	49212			umho/cm			1	08/25/2020	08:23
Dissolved Oxygen Saturation	FDEP FT1500	84.3	>42		%			1	08/25/2020	08:23
Nitrogen- Total	Nitrogen- Total	0.777	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	4.8	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.60		V	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	2.8			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:28
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.029	<0.046	I	mg/L	0.014	0.040	2	09/11/2020	16:11

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_II

<b>Location: HUMMINGBIRD</b>		<b>Field ID: AF61606</b>		<b>Lab ID: AF61606</b>		<b>Collect Date/Time: 8/25/20 09:15</b>				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.479		I	mg/L	0.200	0.500	1	09/21/2020	12:29
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	11:46
pH	FDEP FT1100	7.810	6.5 - 8.5		SU			1	08/25/2020	09:15
Specific Conductance	FDEP FT1200	48916			umho/cm			1	08/25/2020	09:15
Dissolved Oxygen Saturation	FDEP FT1500	74.9	>42		%			1	08/25/2020	09:15
Nitrogen- Total	Nitrogen- Total	0.479	<0.3	I	mg/L	0.200	0.500	1	09/24/2020	13:27
Chlorophyll a	SM 10200 H	3.5	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	1.7			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:22
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.032	<0.046	I	mg/L	0.014	0.040	2	09/11/2020	16:12

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_II

<b>Location: HOLLYHOCK</b>		<b>Field ID: AF61607</b>		<b>Lab ID: AF61607</b>		<b>Collect Date/Time: 8/25/20 08:52</b>				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.673			mg/L	0.200	0.500	1	09/21/2020	12:33
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	11:41
pH	FDEP FT1100	7.800	6.5 - 8.5		SU			1	08/25/2020	08:52
Specific Conductance	FDEP FT1200	49759			umho/cm			1	08/25/2020	08:52
Dissolved Oxygen Saturation	FDEP FT1500	79.4	>42		%			1	08/25/2020	08:52
Nitrogen- Total	Nitrogen- Total	0.673	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	4.8	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.40		V	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	2.2			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:41
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.018	<0.046	I	mg/L	0.014	0.040	2	09/11/2020	16:15

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_II

<b>Location:</b> SWALLOW		<b>Field ID:</b> AF61609		<b>Lab ID:</b> AF61609		<b>Collect Date/Time:</b> 8/25/20 09:40				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	121	<130		MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.675			mg/L	0.200	0.500	1	09/21/2020	12:41
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	11:49
pH	FDEP FT1100	8.000	6.5 - 8.5		SU			1	08/25/2020	09:40
Specific Conductance	FDEP FT1200	47398			umho/cm			1	08/25/2020	09:40
Dissolved Oxygen Saturation	FDEP FT1500	98.2	>42		%			1	08/25/2020	09:40
Nitrogen- Total	Nitrogen- Total	0.675	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	5.2	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	1.3			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:39
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.042	<0.046		mg/L	0.014	0.040	2	09/11/2020	16:21

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_II

<b>Location:</b> MARCO_BLANK		<b>Field ID:</b> AF61610		<b>Lab ID:</b> AF61610		<b>Collect Date/Time:</b> 8/25/20 08:34				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	1	<130	U	MPN/100 mL	1	1	1	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.200		U	mg/L	0.200	0.500	1	09/21/2020	12:43
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	11:39
pH	FDEP FT1100	NA	6.5 - 8.5		SU			1	08/25/2020	08:34
Specific Conductance	FDEP FT1200	NA			umho/cm			1	08/25/2020	08:34
Dissolved Oxygen Saturation	FDEP FT1500	NA	>42		%			1	08/25/2020	08:34
Nitrogen- Total	Nitrogen- Total	0.200	<0.3	U	mg/L	0.200	0.500	1	09/24/2020	13:40
Chlorophyll a	SM 10200 H	1.0	<4.9	U	mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	0.10		U	NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:37
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.007	<0.046	U	mg/L	0.007	0.020	1	09/11/2020	16:22

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_I

<b>Location: DUP1</b>		<b>Field ID: AF61611</b>		<b>Lab ID: AF61611</b>		<b>Collect Date/Time: 8/25/20 11:36</b>				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.591			mg/L	0.200	0.500	1	09/21/2020	12:44
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	12:35
pH	FDEP FT1100	7.920	6.5 - 8.5		SU			1	08/25/2020	11:36
Specific Conductance	FDEP FT1200	50772			umho/cm			1	08/25/2020	11:36
Dissolved Oxygen Saturation	FDEP FT1500	96.6	>42		%			1	08/25/2020	11:36
Nitrogen- Total	Nitrogen- Total	0.591	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	3.8	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.10		V	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	2.8			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:43
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.014		U	mg/L	0.014	0.040	2	09/11/2020	16:22

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_I

<b>Location: OLDE_MARCO</b>		<b>Field ID: AF61612</b>		<b>Lab ID: AF61612</b>		<b>Collect Date/Time: 8/25/20 08:33</b>				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.536			mg/L	0.200	0.500	1	09/21/2020	12:45
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	11:36
pH	FDEP FT1100	7.910	6.5 - 8.5		SU			1	08/25/2020	08:33
Specific Conductance	FDEP FT1200	51961			umho/cm			1	08/25/2020	08:33
Dissolved Oxygen Saturation	FDEP FT1500	82.7	>42		%			1	08/25/2020	08:33
Nitrogen- Total	Nitrogen- Total	0.536	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	3.7	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	2.2			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	10:06
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.015	<0.046	I	mg/L	0.014	0.040	2	09/11/2020	16:23

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_I



<b>Location:</b> MARCO_BLANK		<b>Field ID:</b> AF61613		<b>Lab ID:</b> AF61613		<b>Collect Date/Time:</b> 8/25/20 10:18				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	1	<130	U	MPN/100 mL	1	1	1	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.200		U	mg/L	0.200	0.500	1	09/21/2020	12:47
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	12:15
pH	FDEP FT1100	NA	6.5 - 8.5		SU			1	08/25/2020	10:18
Specific Conductance	FDEP FT1200	NA			umho/cm			1	08/25/2020	10:18
Dissolved Oxygen Saturation	FDEP FT1500	NA	>42		%			1	08/25/2020	10:18
Nitrogen- Total	Nitrogen- Total	0.200	<0.3	U	mg/L	0.200	0.500	1	09/24/2020	13:40
Chlorophyll a	SM 10200 H	1.0	<4.9	U	mg/m3	1.00	1.00	1	08/28/2020	12:48
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	08/28/2020	12:48
Turbidity	SM 2130 B	0.10		U	NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	10:04
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.007	<0.046	U	mg/L	0.007	0.020	1	09/11/2020	16:24

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_II

<b>Location:</b> W_WINTERBERRY_BRIDGE		<b>Field ID:</b> AF61675		<b>Lab ID:</b> AF61675		<b>Collect Date/Time:</b> 8/25/20 10:24				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.573			mg/L	0.200	0.500	1	09/21/2020	12:48
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	12:08
pH	FDEP FT1100	7.990	6.5 - 8.5		SU			1	08/25/2020	10:24
Specific Conductance	FDEP FT1200	50684			umho/cm			1	08/25/2020	10:24
Dissolved Oxygen Saturation	FDEP FT1500	85.5	>42		%			1	08/25/2020	10:24
Nitrogen- Total	Nitrogen- Total	0.573	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	7.8	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	2.6			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:35
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.030	<0.046	I	mg/L	0.014	0.040	2	09/11/2020	16:25

**ANALYTICAL RESULTS**

Report # 0820\_MRCO\_II

<b>Location: E_WINTERBERRY_BRIDGE</b>		<b>Field ID: AF61676</b>		<b>Lab ID: AF61676</b>		<b>Collect Date/Time: 8/25/20 10:45</b>				
<b>Analyte Name</b>	<b>Method</b>	<b>Result</b>	<b>Acceptable Limits</b>	<b>Qualifier</b>	<b>Units</b>	<b>MDL</b>	<b>PQL</b>	<b>DF</b>	<b>Analysis Date/Time</b>	
CC-Nitrate-N	CC-Nitrate-N	0.011		U	mg/L	0.011	0.020	1	08/28/2020	15:34
Enterococci	Enterolert/QT	20	<130		MPN/100 mL	10	10	10	08/25/2020	14:01
Nitrogen- Total Kjeldahl	EPA 351.2	0.857			mg/L	0.200	0.500	1	09/21/2020	12:50
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	08/28/2020	12:23
pH	FDEP FT1100	7.970	6.5 - 8.5		SU			1	08/25/2020	10:45
Specific Conductance	FDEP FT1200	50622			umho/cm			1	08/25/2020	10:45
Dissolved Oxygen Saturation	FDEP FT1500	88.3	>42		%			1	08/25/2020	10:45
Nitrogen- Total	Nitrogen- Total	0.857	<0.3		mg/L	0.200	0.500	1	09/23/2020	16:58
Chlorophyll a	SM 10200 H	1.6	<4.9		mg/m3	1.00	1.00	1	09/09/2020	10:02
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	08/25/2020	14:35
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	09/09/2020	10:02
Turbidity	SM 2130 B	2.2			NTU	0.10	0.50	1	08/26/2020	08:56
Digestion for TKN	SM 4500 NorgD	Complete						1	09/19/2020	09:57
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	08/26/2020	09:34
Persulfate Digestion for Total P	SM 4500-P B	Complete						1	09/09/2020	10:24
Phosphorus- Total	SM 4500-P E (P	0.024	<0.046	I	mg/L	0.014	0.040	2	09/11/2020	16:26



# Collier County™

## POLLUTION CONTROL

LIVE GREEN. SAVE BLUE.

### Field Sampling Report

**Date:** Tuesday, August 25, 2020

**Sampler:** Geoff Rosenaw

**Meter/Notes:** Danny Berger



Certificate No

[4262.01](#)

**Client:** City of Marco Island  
**Project:** Marco Island  
**Run:** I



Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

Program: MARCO

Run: I

Sample Collector: Geoff Rosenaw

Meter / Notes: Danny Berger

Date: 8/25/2020

LAB ID	TIME	STATION	Temp (°C)	Sp Cond (µS/cm)	Sal (ppt)	D.O. (% SAT)	ODO (mg/L)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61612	8:33	OLDE_MARCO	30.0	51961	34.04	82.7	5.20	7.91	0.30		1.60	1.60
AF61612B	8:34	OLDE_MARCO	30.1	51934	34.02	79.7	5.00	7.91	1.30		1.60	1.60
Collection Device	Pole Sampler; CDI: 11853		Cleaning Protocol: J			Flow:	No flow.	Staff Gauge:			pH < 2:	YES
Comments: Difficult to determine tidal movement. Tide outgoing starting at 8:15am.									Thermally Preserved Within 15 Minutes?	Yes	Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61597	9:10	JH_PARK	30.7	48337	31.36	80.8	5.09	7.87	0.30		3.10	1.70
AF61597B	9:12	JH_PARK	30.7	48557	31.52	78.8	4.96	7.86	2.80		3.10	1.70
Collection Device	Pole Sampler; CDI: 11853		Cleaning Protocol: J			Flow:	Flow.	Staff Gauge:			pH < 2:	YES
Comments: Some grass clippings in water. Visible outgoing tide.									Thermally Preserved Within 15 Minutes?	Yes	Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61598	9:45	HC_CENTER	31.0	48115	31.19	68.9	4.33	7.79	0.30		2.00	1.40
AF61598B	9:46	HC_CENTER	31.0	48253	31.29	62.6	3.93	7.78	1.70		2.00	1.40
Collection Device	Pole Sampler; CDI: 11853		Cleaning Protocol: J			Flow:	Flow.	Staff Gauge:			pH < 2:	YES
Comments: Visible outgoing tide.									Thermally Preserved Within 15 Minutes?	Yes	Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61599	10:09	COLLIER_BRIDGE	30.9	47778	30.95	67.6	4.26	7.77	0.30		1.90	1.90
AF61599B	10:10	COLLIER_BRIDGE	30.9	47891	31.03	66.9	4.21	7.78	1.60		1.90	1.90
Collection Device	Pole Sampler; CDI: 11853		Cleaning Protocol: J			Flow:	Flow.	Staff Gauge:			pH < 2:	YES
Comments: Vegetative debris specs on surface of water. Visible outgoing tide.									Thermally Preserved Within 15 Minutes?	Yes	Sample Type:	SAMP

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	<a href="#">Named storm event that impacted sampling event?</a>	No
Sites Access By:	Truck	Weather:	Upper 80s and breezy.	
Sampling SOP:	FSQM 03-04	24 HRS Prior Weather:	Similar with some PM rain.	

Prepared By: **Danny Berger** Signed: 8/28/2020 8:26:36 AM

Reviewed By: **Geoff Rosenaw** Signed: 8/25/2020 1:33:04 PM

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

Program: MARCO

Run: I

Sample Collector: Geoff Rosenaw

Meter / Notes: Danny Berger

Date: 8/25/2020

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)	
AF61613	10:18	COLLIER_BRIDGE											
Collection Device:		Sample Container:		Cleaning Protocol:		Flow:		Staff Gauge:		pH < 2:		YES	
Comments: FB taken from carboy CDI 13270.								Thermally Preserved Within 15 Minutes?		Yes	Sample Type:		FB

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)	
AF61600	10:42	KENDALL	30.8	48408	31.41	79.4	4.99	7.83	0.30		1.00	1.00	
Collection Device:		Pole Sampler; CDI: 11853		Cleaning Protocol: J		Flow: Flow.		Staff Gauge:		pH < 2:		YES	
Comments: Visible outgoing tide.								Thermally Preserved Within 15 Minutes?		Yes	Sample Type:		SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)	
AF61601	11:30	BARFIELD_BRIDGE	30.7	50664	33.06	94.8	5.92	7.90	0.30		2.60	1.50	
AF61601B	11:31	BARFIELD_BRIDGE	30.4	51252	33.50	89.0	5.57	7.91	2.30		2.60	1.50	
Collection Device:		VanDorn; CDI: 08722		Cleaning Protocol: J		Flow: Flow.		Staff Gauge:		pH < 2:		YES	
Comments: Small amount of grass clippings and vegetative debris near seawall. Visible outgoing tide.								Thermally Preserved Within 15 Minutes?		Yes	Sample Type:		SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)	
AF61611	11:36	BARFIELD_BRIDGE	30.7	50772	33.14	96.6	6.03	7.92	0.30		2.60	1.50	
AF61611B	11:39	BARFIELD_BRIDGE	30.5	50961	33.28	92.4	5.77	7.91	2.30		2.60	1.50	
Collection Device:		VanDorn; CDI: 08722		Cleaning Protocol: J		Flow: Flow.		Staff Gauge:		pH < 2:		YES	
Comments: Small amount of grass clippings and vegetative debris near seawall. Visible outgoing tide.								Thermally Preserved Within 15 Minutes?		Yes	Sample Type:		REP

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Upper 80s and breezy.	
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Similar with some PM rain.	

Prepared By: Danny Berger

Reviewed By: Geoff Rosenaw

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

Program: MARCO

Run: I

Sample Collector: Geoff Rosenaw

Meter / Notes: Danny Berger

Date: 8/25/2020

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)	
Collection Device:		Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:				
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:			

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)	
Collection Device:		Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:				
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:			

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)	
Collection Device:		Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:				
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:			

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)	
Collection Device:		Cleaning Protocol:			Flow:		Staff Gauge:		pH < 2:				
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:			

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?		No							
Sites Access By:	Truck	Weather:	Upper 80s and breezy.				Prepared By:	Danny Berger				
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Similar with some PM rain.				Reviewed By:	Geoff Rosenaw				

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

Program: MARCO

Run: I

Sample Collector: Geoff Rosenaw

Meter / Notes: Danny Berger

Date: 8/25/2020

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:	
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:	
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Field Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:	
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:	
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Upper 80s and breezy.	
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Similar with some PM rain.	

Prepared By: Danny Berger

Reviewed By: Geoff Rosenaw





**Collier County Pollution Control Department Chain of Custody**

3339 Tamiami Trail East, Bldg. Ste. 304 Naples, Florida 34112

Phone: (239) 252-2502 FAX: (239) 252-6479

NELAC Certification: #E45464

**Client Information**

**Name:** Rhonda Watkins  
**Company Name:** Collier County Natural Resources  
**Address:** 2685 South Horseshoe Drive Ste 103, Fl 34104  
**Phone:** (239) 252-2502 Ext. 6049  
**Fax:** (239) 252-6479

PRESERVATION CODES	Lot#	Prs. Vol.	Prs. Lot#	Prs. Supp.	Prs. Date	Initials
1G 500mL HDPE/Ice	73522					
2C 1L Opaque HDPE/Light-shielded/Ice	AF61275					
3S 250ml HDPE/H2SO4/Ice	CDI 14238	16 drops	RP 15845	Fisher	8/25/2020	DB, GR
4F 125ml HDPE/Filtered/Ice	CDI 13021					
5J 120mL HDPE w/Sodium Thiosulfate/Ice	CDI 13466					
14 Whatman Polydisc GW 0.45µm	A29352435					

Project	MARCO	MATRIX CODES
Sample Collector(s):	GW	Ground Water
Geoff Rosenaw	SW	Surface Water
Sample Collector Signature:	WW	Waste Water
	DW	Drinking Water
	Other	
Relinquished By: (Signature)		

Received By: (Signature)	Date/Time	8/25/20 1:39 PM
Relinquished By: (Signature)	Date/Time	8/25/20 1:39 PM
Received By: (Signature)	Date/Time	

Parameters										Sample Check-In	
Turbidity-PC Chlorophyll-PC, Pheophytin-PC, Prep-Chloro Nitrogen-TKN, Phosphorous-Total, Nitrate-Nitrite, Prep-TKN Nitrite-PC Enterolert-PC TN-PC, CC-Nitrate-N-PC										Sample(s) Intact?	
										Rec'd in wet ice?	
										Temp °C:	
										Proper Samp ID?	
										Rec'd within hold time?	
										Acid preserved samples pH<2?	
Bottle Codes										Logged In?	
										Scanned?	

Date	Time	Field pH	Sp. Cond.	Sample Depth	Location	Matrix	# of sample Containers Submitted										Lab ID #					
							1G	2C	3S	4F	5J	Calc										
8/25/2020	8:33	7.91	51961	0.30	OLDE MARCO	SW	1	1	1	1	1										AF61612	
8/25/2020	9:10	7.87	48337	0.30	JH_PARK	SW	1	1	1	1	1											AF61597
8/25/2020	9:45	7.79	48115	0.30	HC_CENTER	SW	1	1	1	1	1											AF61598
8/25/2020	10:09	7.77	47778	0.30	COLLIER_BRIDGE	SW	1	1	1	1	1											AF61599
8/25/2020	10:18	#N/A	#N/A	#N/A	COLLIER_BRIDGE	SW	1	1	1	1	1											AF61613
8/25/2020	10:42	7.83	48408	0.30	KENDALL	SW	1	1	1	1	1											AF61600
8/25/2020	11:30	7.90	50664	0.30	BARFIELD_BRIDGE	SW	1	1	1	1	1											AF61601
8/25/2020	11:36	7.92	50772	0.30	REPLICATE	SW	1	1	1	1	1											AF61611

Notes:

**Collier County Pollution Control Surface Water Field Workbook**  
**Audit Trail Worksheet**

Sheet & Cell Reference	Initial Value	Changed To	User	Date & Time	Reason For Change	Analyst E-verified Signature
Field Sheet-B15	Visible outgoing tide.	Some grass clippings in water.	\ Sampler	8/25/2020 10:02	Added grass clippings note.	Danny Berger
Chain of Custody-W9	DB	DB, GR	Sampler	8/25/2020 11:47	GR also acidified.	Danny Berger
Chain of Custody-F7:G7			PCL	8/25/2020 13:25		Danny Berger
Chain of Custody-F14:G14	1G 1000mL HDPE/Ice		PCL	8/25/2020 13:25	Incorrect initial entry.	Danny Berger
Chain of Custody-F10:G10			PCL	8/25/2020 13:25		Danny Berger
Chain of Custody-F15:G15	4F 60ml Opaque HDPE/Filtered/Ice		PCL	8/25/2020 13:26	Incorrect initial entry.	Danny Berger
Field Sheet-C44	W_WINTERBERRY_BRIDGE	KENDALL	PCL	8/25/2020 13:35	clicked wrong site. Now its alright	Danny Berger

KorDSS MEASUREMENT DATA FILE EXPORT

FILE CREATED: 8/25/2020 17:15

DATE	TIME	SITE	Barometer	Temp (°C)	Cond (µS/c)
8/25/2020	8:33:02 AM	af61612	761.1	30	56885.5
8/25/2020	8:34:13 AM	af61612	761	30.1	56951.9
8/25/2020	9:10:48 AM	af61597	761.1	30.7	53619.5
8/25/2020	9:12:24 AM	af61597	761.2	30.7	53883.5
8/25/2020	9:45:03 AM	af61598	761.2	31	53596.7
8/25/2020	9:46:12 AM	af61598	761.2	31	53767.9
8/25/2020	10:09:34 AM	af61599	761	30.9	53121.5
8/25/2020	10:10:48 AM	af61599	761.1	30.9	53257.1
8/25/2020	10:42:54 AM	af61600	761.4	30.8	53813
8/25/2020	11:30:15 AM	af61601	761.3	30.7	56165.3
8/25/2020	11:31:54 AM	af61601	761.3	30.4	56510.5
8/25/2020	11:36:46 AM	af61611	761.3	30.7	56329.5
8/25/2020	11:39:57 AM	af61611	761.3	30.5	56352.4

Sp Cond (µ Sal (ppt)	pH	pH (mV)	ODO (mg/l	ODO (% LocalB)
51961.1	34.04	7.91	-68.8	5.2 82.7
51933.6	34.02	7.91	-68.7	5 79.7
48336.8	31.36	7.87	-66.2	5.09 80.8
48557.4	31.52	7.86	-65.9	4.96 78.8
48114.9	31.19	7.79	-61.7	4.33 68.9
48252.7	31.29	7.78	-60.9	3.93 62.6
47777.8	30.95	7.77	-60.3	4.26 67.6
47890.6	31.03	7.78	-61.3	4.21 66.9
48408.2	31.41	7.83	-63.8	4.99 79.4
50663.6	33.06	7.9	-68.1	5.92 94.8
51252.4	33.5	7.91	-68.8	5.57 89
50771.6	33.14	7.92	-69.1	6.03 96.6
50961.1	33.28	7.91	-69	5.77 92.4



Activity ID	Project ID	Actual Start Date	Time	Municipality	Location ID	Activity Type	Sample Collection Type	Sample Collection Equipment Name	Matrix	Activity Depth	Total Depth (ft)	On Analyte Name	ADAPT Analyte ID	Analyte Method	On Result Value	On Result Unit	Field Back Batch ID	Equipment Back Batch ID	Master Activity ID	Trk Back Batch ID	Value Qualifier	Result Comment	Activity Comments	Sampler Name	Sample C1	Sample C2		
AF61612F	MARCO	8/25/2020	8:33	OLDE MARCO		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.60	Dissolved Oxygen	1880	FDEP FT1500	5.20	mg/L	FE_AF61613						Difficult to determine tidal movement. Tide outgoing starting at 8:11	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	8:34	OLDE MARCO		Field	Field Testing-Discrete	Misc Field Device	SW	1.30	1.60	Dissolved Oxygen	1880	FDEP FT1500	5.00	mg/L	FE_AF61613						Difficult to determine tidal movement. Tide outgoing starting at 8:11	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:10	JH PARK		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.10	Dissolved Oxygen	1880	FDEP FT1500	5.09	mg/L	FE_AF61613						Some grass clippings in water. Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:12	JH PARK		Field	Field Testing-Discrete	Misc Field Device	SW	2.80	3.10	Dissolved Oxygen	1880	FDEP FT1500	4.96	mg/L	FE_AF61613						Some grass clippings in water. Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:45	HC CENTER		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Dissolved Oxygen	1880	FDEP FT1500	4.33	mg/L	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:46	HC CENTER		Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Dissolved Oxygen	1880	FDEP FT1500	3.93	mg/L	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:09	COLLIER BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Dissolved Oxygen	1880	FDEP FT1500	4.26	mg/L	FE_AF61613						Vegetative debris specs on surface of water. Visible outgoing tide.	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:10	COLLIER BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	Dissolved Oxygen	1880	FDEP FT1500	4.21	mg/L	FE_AF61613						Vegetative debris specs on surface of water. Visible outgoing tide.	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:42	KENDALL		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Dissolved Oxygen	1880	FDEP FT1500	4.99	mg/L	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	11:30	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.60	Dissolved Oxygen	1880	FDEP FT1500	5.92	mg/L	FE_AF61613						Small amount of grass clippings and vegetative debris near seawa	DBenson/GRose	Intermedia	Van Dom	E	
AF61612F	MARCO	8/25/2020	11:31	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	2.30	2.60	Dissolved Oxygen	1880	FDEP FT1500	5.57	mg/L	FE_AF61613						Small amount of grass clippings and vegetative debris near seawa	DBenson/GRose	Intermedia	Van Dom	E	
AF61612F	MARCO	8/25/2020	11:36	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.60	Dissolved Oxygen	1880	FDEP FT1500	6.03	mg/L	FE_AF61613						Small amount of grass clippings and vegetative debris near seawa	DBenson/GRose	Intermedia	Van Dom	E	
AF61612F	MARCO	8/25/2020	11:38	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	2.30	1.60	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	82.7	%	FE_AF61613						Difficult to determine tidal movement. Tide outgoing starting at 8:11	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	8:34	OLDE MARCO		Field	Field Testing-Discrete	Misc Field Device	SW	1.30	1.60	Dissolved Oxygen Saturation	WIN-011	ETAP FT1100	79.7	%	FE_AF61613						Difficult to determine tidal movement. Tide outgoing starting at 8:11	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:10	JH PARK		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.10	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	80.8	%	FE_AF61613						Some grass clippings in water. Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:12	JH PARK		Field	Field Testing-Discrete	Misc Field Device	SW	2.80	3.10	Dissolved Oxygen Saturation	WIN-011	ETAP FT1100	79.8	%	FE_AF61613						Some grass clippings in water. Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:45	HC CENTER		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Dissolved Oxygen Saturation	WIN-011	ETAP FT1100	84.8	%	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:46	HC CENTER		Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Dissolved Oxygen Saturation	WIN-011	ETAP FT1100	87.4	%	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:09	COLLIER BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	66.9	%	FE_AF61613						Vegetative debris specs on surface of water. Visible outgoing tide.	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:42	KENDALL		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	78.4	%	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	11:30	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.60	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	94.8	%	FE_AF61613						Small amount of grass clippings and vegetative debris near seawa	DBenson/GRose	Intermedia	Van Dom	E	
AF61612F	MARCO	8/25/2020	11:31	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	2.30	2.60	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	89.0	%	FE_AF61613						Small amount of grass clippings and vegetative debris near seawa	DBenson/GRose	Intermedia	Van Dom	E	
AF61612F	MARCO	8/25/2020	11:36	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.60	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	96.6	%	FE_AF61613						Small amount of grass clippings and vegetative debris near seawa	DBenson/GRose	Intermedia	Van Dom	E	
AF61612F	MARCO	8/25/2020	11:38	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	2.30	2.60	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	92.4	%	FE_AF61613						Small amount of grass clippings and vegetative debris near seawa	DBenson/GRose	Intermedia	Van Dom	E	
AF61612F	MARCO	8/25/2020	8:33	OLDE MARCO		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.60	pH	1900	FDEP FT1100	7.91	SU	FE_AF61613						Difficult to determine tidal movement. Tide outgoing starting at 8:11	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	8:34	OLDE MARCO		Field	Field Testing-Discrete	Misc Field Device	SW	1.30	1.60	pH	1900	FDEP FT1100	7.91	SU	FE_AF61613						Difficult to determine tidal movement. Tide outgoing starting at 8:11	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:10	JH PARK		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.10	pH	1900	FDEP FT1100	7.87	SU	FE_AF61613						Some grass clippings in water. Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:12	JH PARK		Field	Field Testing-Discrete	Misc Field Device	SW	2.80	3.10	pH	1900	FDEP FT1100	7.86	SU	FE_AF61613						Some grass clippings in water. Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:45	HC CENTER		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	pH	1900	FDEP FT1100	7.79	SU	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:46	HC CENTER		Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	pH	1900	FDEP FT1100	7.78	SU	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:09	COLLIER BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	pH	1900	FDEP FT1100	7.77	SU	FE_AF61613						Vegetative debris specs on surface of water. Visible outgoing tide.	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:10	COLLIER BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	pH	1900	FDEP FT1100	7.78	SU	FE_AF61613						Vegetative debris specs on surface of water. Visible outgoing tide.	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:42	KENDALL		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	pH	1900	FDEP FT1100	7.83	SU	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	11:30	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.60	pH	1900	FDEP FT1100	7.90	SU	FE_AF61613						Small amount of grass clippings and vegetative debris near seawa	DBenson/GRose	Intermedia	Van Dom	E	
AF61612F	MARCO	8/25/2020	11:31	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	2.30	2.60	pH	1900	FDEP FT1100	7.91	SU	FE_AF61613						Small amount of grass clippings and vegetative debris near seawa	DBenson/GRose	Intermedia	Van Dom	E	
AF61612F	MARCO	8/25/2020	11:36	BARFIELD BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.60	pH	1900	FDEP FT1100	7.92	SU	FE_AF61613						Small amount of grass clippings and vegetative debris near seawa	DBenson/GRose	Intermedia	Van Dom	E	
AF61612F	MARCO	8/25/2020	8:33	OLDE MARCO		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.60	Salinity	1975	FDEP FT1300	34.04	oem	FE_AF61613						Difficult to determine tidal movement. Tide outgoing starting at 8:11	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	8:34	OLDE MARCO		Field	Field Testing-Discrete	Misc Field Device	SW	1.30	1.60	Salinity	1975	FDEP FT1300	34.02	oem	FE_AF61613						Difficult to determine tidal movement. Tide outgoing starting at 8:11	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:10	JH PARK		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.10	Salinity	1975	ETAP FT1100	31.14	oem	FE_AF61613						Some grass clippings in water. Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:12	JH PARK		Field	Field Testing-Discrete	Misc Field Device	SW	2.80	3.10	Salinity	1975	ETAP FT1100	31.14	oem	FE_AF61613						Some grass clippings in water. Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:45	HC CENTER		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.00	Salinity	1975	ETAP FT1100	31.28	oem	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	9:46	HC CENTER		Field	Field Testing-Discrete	Misc Field Device	SW	1.70	2.00	Salinity	1975	FDEP FT1300	31.03	oem	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:09	COLLIER BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Salinity	1975	FDEP FT1300	30.95	oem	FE_AF61613						Vegetative debris specs on surface of water. Visible outgoing tide.	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:10	COLLIER BRIDGE		Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	Salinity	1975	FDEP FT1300	31.03	oem	FE_AF61613						Vegetative debris specs on surface of water. Visible outgoing tide.	DBenson/GRose	Direct	GrA	Water	Bot
AF61612F	MARCO	8/25/2020	10:42	KENDALL		Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Salinity	1975	FDEP FT1300	31.41	oem	FE_AF61613						Visible outgoing tide. Flow	DBenson/GRose	Direct	GrA	Water	Bot





# Collier County™

## POLLUTION CONTROL

LIVE GREEN. SAVE BLUE.

### Field Sampling Report

**Date:** Tuesday, August 25, 2020

**Sampler:** Chris Lienhardt

**Meter/Notes:** Josh Gravlin



Certificate No

[4262.01](#)

**Client:** City of Marco Island  
**Project:** Marco Island  
**Run:** II



<b>CCV: Morning</b>		Sonde / Handheld	ProDSS #7	Serial #:	15K101015	
Date/Time:	8/25/20 6:40 AM	Operator:	Josh Gravlin	Project:	MARCO	
<b>*** Conductivity ***</b>				<b>Associated Calibration File:</b>		
Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail	Calibration_7_082420.xlsm		
70000	13886	70571	Pass			
<b>*** pH ***</b>						
pH (QA Criteria ±.2)	CDI#	Reading	Pass/Fail			
4.00						
7.00	14382	7.00	Pass	All CCV Results Pass?		
10.00				Yes		
<b>*** Dissolved Oxygen ***</b>						
D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.48	100.2	23.7	Pass	8.460	759.5
Notes:						
<b>CCV: Afternoon</b>		Date/Time:	8/25/2020 12:25	Operator:	Josh Gravlin	
<b>*** Conductivity ***</b>						
Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail			
10000	11627	9980	Pass			
70000	13886	70704	Pass			
<b>*** pH ***</b>						
pH (QA Criteria +.2)	CDI#	Reading	Pass/Fail			
4.00						
7.00	14382	7.11	Pass	All CCV Results Pass?		
10.00	14395	10.03	Pass	Yes		
<b>*** Dissolved Oxygen ***</b>						
D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.68	100.1	22.5	Pass	8.661	760
Notes:						
Surface Water Field Workbook Rev 17.1				Effective June 1st, 2020		

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

Program: MARCO

Run: II

Sample Collector: Chris Lienhardt

Meter / Notes: Josh Gravlin

Date: 8/25/2020

LAB ID	TIME	STATION	Temp (°C)	Sp Cond (µS/cm)	Sal (ppt)	D.O. (% SAT)	ODO (mg/L)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61605	8:23	WINDMILL	30.4	49212	32.01	84.3	5.32	7.83	0.30		3.70	1.60
AF61605B	8:25	WINDMILL	30.4	49745	32.40	80.9	5.09	7.86	3.40		3.70	1.60
Collection Device	VanDorn; CDI: 08721		Cleaning Protocol: J			Flow:	Flow.	Staff Gauge:			pH < 2:	Yes
Comments: Visibly outgoing tide.									Thermally Preserved Within 15 Minutes?	Yes	Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61610	8:34	WINDMILL										
Collection Device	VanDorn; CDI: 08721		Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:	Yes
Comments: FCEB collected from CDI 13269 carboy.									Thermally Preserved Within 15 Minutes?	Yes	Sample Type:	FCEB

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61607	8:52	HOLLYHOCK	30.5	49759	32.40	79.4	4.99	7.80	0.30		1.80	1.80
AF61607B	8:53	HOLLYHOCK	30.6	49919	32.52	66.0	4.14	7.78	1.50		1.80	1.80
Collection Device	Pole Sampler; CDI: 13545		Cleaning Protocol: J			Flow:	No flow.	Staff Gauge:			pH < 2:	Yes
Comments: No visible tidal movement. Grass clippings in water.									Thermally Preserved Within 15 Minutes?	Yes	Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61606	9:15	HUMMINGBIRD	30.6	48916	31.78	74.9	4.71	7.81	0.30		1.80	1.80
Collection Device	Pole Sampler; CDI: 13545		Cleaning Protocol: J			Flow:	No flow.	Staff Gauge:			pH < 2:	Yes
Comments: No visible tidal movement.									Thermally Preserved Within 15 Minutes?	Yes	Sample Type:	SAMP

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	<a href="#">Named storm event that impacted sampling event?</a>	No
Sites Access By:	Truck	Weather:	Sunny. High in the 90s.	
Sampling SOP:	FSQM 03-04	24 HRS Prior Weather:	Partly cloudy. Some afternoon rain. 90s.	

Prepared By: *Joshua Gravlin* Signed: 8/25/2020 12:43:29 PM

Reviewed By: **Christopher Lienhardt** Signed: 8/25/2020 12:40:41 PM

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

Program: MARCO

Run: II

Sample Collector: Chris Lienhardt

Meter / Notes: Josh Gravlin

Date: 8/25/2020

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61609	9:40	SWALLOW	29.7	47398	30.71	98.2	6.31	8.00	0.30		1.80	1.80
AF61609B	9:41	SWALLOW	31.5	51196	33.42	62.5	3.84	7.90	1.50		1.80	1.80
Collection Device		Pole Sampler; CDI: 13545		Cleaning Protocol: J		Flow: Flow.		Staff Gauge:			pH < 2:	Yes
Comments: Active discharge from stormwater feature at sample site. Dock repairs in progress during sampling event. Vegetative debris and trash present on water surface near sample site.								Thermally Preserved Within 15 Minutes?		Yes	Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61602	10:03	LANDMARK	29.7	46390	29.98	101.1	6.52	8.05	0.30		1.90	1.90
AF61602B	10:04	LANDMARK	31.2	49909	32.49	100.9	6.27	8.08	1.60		1.90	1.90
Collection Device		Pole Sampler; CDI: 13545		Cleaning Protocol: J		Flow: No flow.		Staff Gauge:			pH < 2:	Yes
Comments: No visible tidal movement. Very windy; entire bay very choppy.								Thermally Preserved Within 15 Minutes?		Yes	Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61675	10:24	W_WINTERBERRY_BRIDGE	30.8	50684	33.07	85.5	5.33	7.99	0.30		3.60	2.00
AF61675B	10:26	W_WINTERBERRY_BRIDGE	30.8	50715	33.09	78.7	4.91	7.98	3.30		3.60	2.00
Collection Device		VanDorn; CDI: 08721		Cleaning Protocol: J		Flow: Flow.		Staff Gauge:			pH < 2:	Yes
Comments: Visibly outgoing tide.								Thermally Preserved Within 15 Minutes?		Yes	Sample Type:	SAMP

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61676	10:45	E_WINTERBERRY_BRIDGE	31.1	50622	33.02	88.3	5.48	7.97	0.30		2.80	2.00
AF61676B	10:47	E_WINTERBERRY_BRIDGE	30.8	50938	33.26	83.1	5.17	7.99	2.50		2.80	2.00
Collection Device		VanDorn; CDI: 08721		Cleaning Protocol: J		Flow: Flow.		Staff Gauge:			pH < 2:	Yes
Comments: Visibly outgoing tide. Several boats passed by during sampling event.								Thermally Preserved Within 15 Minutes?		Yes	Sample Type:	SAMP

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Sunny. High in the 90s.	
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Partly cloudy. Some afternoon rain. 90s.	

Prepared By: Joshua Gravlin

Reviewed By: Christopher Lienhardt

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

Program: MARCO

Run: II

Sample Collector: Chris Lienhardt

Meter / Notes: Josh Gravlin

Date: 8/25/2020

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF61604	11:11	MCILVAINE	30.3	50786	33.16	91.5	5.75	8.00	0.30		3.00	1.60
AF61604B	11:13	MCILVAINE	30.2	50822	33.19	92.7	5.83	8.02	2.70		3.00	1.60
Collection Device	VanDorn; CDI: 08721		Cleaning Protocol: J			Flow: Flow.		Staff Gauge:			pH < 2:	Yes
Comments:	Visibly outgoing tide.							Thermally Preserved Within 15 Minutes?	Yes	Sample Type:	SAMP	

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:	
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:	
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device			Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:	
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?		No
Sites Access By:	Truck	Weather:	Sunny. High in the 90s.		
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Partly cloudy. Some afternoon rain. 90s.		

Prepared By: Joshua Gravlin  
Reviewed By: Christopher Lienhardt

Collier County Pollution Control Surface Water Field Workbook  
Field Sheet Worksheet

Program: MARCO

Run: II

Sample Collector: Chris Lienhardt

Meter / Notes: Josh Gravlin

Date: 8/25/2020

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device:		Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:		
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device:		Field Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:		
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device:		Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:		
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

LAB ID	TIME	STATION	TEMP. (° C)	SPEC. COND. (µmhos/cm)	SALINITY (ppt)	D.O. (% SAT)	D.O. (mg/l)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
Collection Device:		Cleaning Protocol:			Flow:		Staff Gauge:			pH < 2:		
Comments:								Thermally Preserved Within 15 Minutes?		Sample Type:		

Bottles Per Site / Shipped Per Site:	5 / 0	Matrix: SW	Named storm event that impacted sampling event?	No
Sites Access By:	Truck	Weather:	Sunny. High in the 90s.	
Sampling SOP Used:	FSQM 03-04	24 HRS Prior Weather:	Partly cloudy. Some afternoon rain. 90s.	

Prepared By: Joshua Gravlin

Reviewed By: Christopher Lienhardt



**Collier County Pollution Control Surface Water Field Workbook**  
**Audit Trail Worksheet**

Sheet & Cell Reference	Initial Value	Changed To	User	Date & Time	Reason For Change	Analyst E-verified Signature
Calibration-F5	Calibration_7_082420.xlsdm	Calibration_7_082420.xlsm	Sampler	8/25/2020 6:41	Incorrect initial entry.	Joshua Gravlin
Field Sheet-B22	No visible tidal movement.	No visible tidal movement.	Grass Sampler	8/25/2020 9:19	Added grass clippings comment.'	Joshua Gravlin
Field Sheet-H1	Brian King	Chris Lienhardt	PCL	8/25/2020 12:37	Incorrect initial entry.	Joshua Gravlin

KorDSS MEASUREMENT DATA FILE EXPORT

FILE CRE/ #####

DATE	TIME	SITE	Barometer	Temp (°C)	Sp Cond (µ	TDS (mg/L	Sal (ppt)	pH	pH (mV)
8/25/2020	#####	af61605	760.4	30.4	49211.5	31987	32.01	7.83	-90.6
8/25/2020	#####	af61605	760.4	30.4	49744.5	32334	32.4	7.86	-92.1
8/25/2020	#####	af61607	760.8	30.5	49759.1	32343	32.4	7.8	-88.7
8/25/2020	#####	af61607	760.8	30.6	49919	32447	32.52	7.78	-87.4
8/25/2020	#####	af61606	760.9	30.6	48916.2	31796	31.78	7.81	-89.3
8/25/2020	#####	af61609	761	29.7	47397.5	30808	30.71	8	-100.3
8/25/2020	#####	af61609	760.9	31.5	51196.3	33278	33.42	7.9	-94.9
8/25/2020	#####	af61602	760.9	29.7	46390.4	30154	29.98	8.05	-103.2
8/25/2020	#####	af61602	760.9	31.2	49909.3	32441	32.49	8.08	-105.3
8/25/2020	#####	w wint	760.8	30.8	50683.9	32945	33.07	7.99	-100
8/25/2020	#####	w wint	760.8	30.8	50715	32965	33.09	7.98	-99.2
8/25/2020	#####	af61676	761	31.1	50621.6	32904	33.02	7.97	-98.9
8/25/2020	#####	af61676	760.8	30.8	50937.6	33109	33.26	7.99	-99.9
8/25/2020	#####	af61604	761	30.3	50785.8	33011	33.16	8	-100.4
8/25/2020	#####	af61604	760.9	30.2	50822	33034	33.19	8.02	-101.7



ODO (% S:ODO (mg/l	ODO (% LocalB)	
84.4	5.32	84.3
81	5.09	80.9
79.5	4.99	79.4
66.1	4.14	66
75	4.71	74.9
98.3	6.31	98.2
62.6	3.84	62.5
101.2	6.52	101.1
101.1	6.27	100.9
85.6	5.33	85.5
78.8	4.91	78.7
88.4	5.48	88.3
83.2	5.17	83.1
91.6	5.75	91.5
92.8	5.83	92.7

Activity ID	Project ID	Activity Start Date/Time	Municipality/Location ID	Activity Type	Sample Collection Type	Sample Collection Equipment Name	Matrix	Activity Depth	Total Depth (ft)	On Analyte Name	ADAPT Analyte ID	Analyte Method	On Result Value	On Result Unit	Field Blank Batch ID	Equipment Blank Batch ID	Master Activity ID	Tri Blank Batch ID	Value Qualifier	Result Comment	Activity Comments	Sampler Name	Sample C1	Sample C2
AF61605F	MARCO	8/25/2020 8:23	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.70	Dissolved Oxygen	1880	FDEP FT1500	5.32	mg/L		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61605F	MARCO	8/25/2020 8:25	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	3.40	3.70	Dissolved Oxygen	1880	FDEP FT1500	5.09	mg/L		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61607F	MARCO	8/25/2020 8:52	HOLLVHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen	1880	FDEP FT1500	4.39	mg/L		EB_AF61610				No visible tidal movement. Grass clippings in water. No flow.		JGravin/CLiemh	Direct Gra	Water Bott
AF61607F	MARCO	8/25/2020 8:53	HOLLVHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Dissolved Oxygen	1880	FDEP FT1500	4.14	mg/L		EB_AF61610				No visible tidal movement. Grass clippings in water. No flow.		JGravin/CLiemh	Direct Gra	Water Bott
AF61605F	MARCO	8/25/2020 9:15	HUMMINGBIRD	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen	1880	FDEP FT1500	4.71	mg/L		EB_AF61610				No visible tidal movement. No flow.		JGravin/CLiemh	Direct Gra	Water Bott
AF61605F	MARCO	8/25/2020 9:40	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen	1880	FDEP FT1500	6.31	mg/L		EB_AF61610				Active discharge from stormwater feature at sample site. Dock req		JGravin/CLiemh	Intermedia	Van Dom E
AF61605F	MARCO	8/25/2020 9:41	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Dissolved Oxygen	1880	FDEP FT1500	3.84	mg/L		EB_AF61610				Active discharge from stormwater feature at sample site. Dock req		JGravin/CLiemh	Direct Gra	Water Bott
AF61605F	MARCO	8/25/2020 10:03	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Dissolved Oxygen	1880	FDEP FT1500	6.52	mg/L		EB_AF61610				No visible tidal movement. Very windy; entire bay very choppy. No		JGravin/CLiemh	Direct Gra	Water Bott
AF61602F	MARCO	8/25/2020 10:04	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	Dissolved Oxygen	1880	FDEP FT1500	6.22	mg/L		EB_AF61610				No visible tidal movement. Very windy; entire bay very choppy. No		JGravin/CLiemh	Direct Gra	Water Bott
AF61675F	MARCO	8/25/2020 10:24	W_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.60	Dissolved Oxygen	1880	FDEP FT1500	5.33	mg/L		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61675F	MARCO	8/25/2020 10:26	W_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	3.30	3.60	Dissolved Oxygen	1880	FDEP FT1500	4.91	mg/L		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61675F	MARCO	8/25/2020 10:45	E_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.80	Dissolved Oxygen	1880	FDEP FT1500	5.48	mg/L		EB_AF61610				Visibly outpouring tide. Several boats passed by during sampling eve		JGravin/CLiemh	Intermedia	Van Dom E
AF61675F	MARCO	8/25/2020 10:47	E_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	2.50	2.80	Dissolved Oxygen	1880	FDEP FT1500	5.17	mg/L		EB_AF61610				Visibly outpouring tide. Several boats passed by during sampling eve		JGravin/CLiemh	Intermedia	Van Dom E
AF61604F	MARCO	8/25/2020 11:11	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.00	Dissolved Oxygen	1880	FDEP FT1500	5.75	mg/L		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61604F	MARCO	8/25/2020 11:13	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	2.70	3.00	Dissolved Oxygen	1880	FDEP FT1500	5.93	mg/L		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61605F	MARCO	8/25/2020 8:23	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.70	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	84.3	%		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61605F	MARCO	8/25/2020 8:25	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	3.40	3.70	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	80.6	%		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61607F	MARCO	8/25/2020 8:52	HOLLVHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	79.4	%		EB_AF61610				No visible tidal movement. Grass clippings in water. No flow.		JGravin/CLiemh	Direct Gra	Water Bott
AF61607F	MARCO	8/25/2020 8:53	HOLLVHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	74.9	%		EB_AF61610				No visible tidal movement. No flow.		JGravin/CLiemh	Direct Gra	Water Bott
AF61605F	MARCO	8/25/2020 9:15	HUMMINGBIRD	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	74.8	%		EB_AF61610				No visible tidal movement. No flow.		JGravin/CLiemh	Direct Gra	Water Bott
AF61605F	MARCO	8/25/2020 9:40	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	98.2	%		EB_AF61610				Active discharge from stormwater feature at sample site. Dock req		JGravin/CLiemh	Intermedia	Van Dom E
AF61605F	MARCO	8/25/2020 9:41	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	62.5	%		EB_AF61610				Active discharge from stormwater feature at sample site. Dock req		JGravin/CLiemh	Direct Gra	Water Bott
AF61602F	MARCO	8/25/2020 10:03	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	101.1	%		EB_AF61610				No visible tidal movement. Very windy; entire bay very choppy. No		JGravin/CLiemh	Direct Gra	Water Bott
AF61602F	MARCO	8/25/2020 10:04	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	100.9	%		EB_AF61610				No visible tidal movement. Very windy; entire bay very choppy. No		JGravin/CLiemh	Direct Gra	Water Bott
AF61675F	MARCO	8/25/2020 10:24	W_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.60	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	85.5	%		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61675F	MARCO	8/25/2020 10:26	W_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	3.30	3.60	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	78.7	%		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61675F	MARCO	8/25/2020 10:45	E_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	88.3	%		EB_AF61610				Visibly outpouring tide. Several boats passed by during sampling eve		JGravin/CLiemh	Intermedia	Van Dom E
AF61675F	MARCO	8/25/2020 10:47	E_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	2.50	2.80	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	83.1	%		EB_AF61610				Visibly outpouring tide. Several boats passed by during sampling eve		JGravin/CLiemh	Intermedia	Van Dom E
AF61604F	MARCO	8/25/2020 11:11	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.00	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	91.5	%		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61604F	MARCO	8/25/2020 11:13	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	2.70	3.00	Dissolved Oxygen Saturation	WIN-011	FDEP FT1500	92.7	%		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61605F	MARCO	8/25/2020 8:23	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.70	pH	1900	FDEP FT1100	7.83	SU		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61605F	MARCO	8/25/2020 8:25	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	3.40	3.70	pH	1900	FDEP FT1100	7.86	SU		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61607F	MARCO	8/25/2020 8:52	HOLLVHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	pH	1900	FDEP FT1100	7.90	SU		EB_AF61610				No visible tidal movement. Grass clippings in water. No flow.		JGravin/CLiemh	Direct Gra	Water Bott
AF61607F	MARCO	8/25/2020 8:53	HOLLVHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	pH	1900	FDEP FT1100	7.78	SU		EB_AF61610				No visible tidal movement. No flow.		JGravin/CLiemh	Direct Gra	Water Bott
AF61605F	MARCO	8/25/2020 9:15	HUMMINGBIRD	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	pH	1900	FDEP FT1100	7.81	SU		EB_AF61610				No visible tidal movement. No flow.		JGravin/CLiemh	Direct Gra	Water Bott
AF61605F	MARCO	8/25/2020 9:40	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	pH	1900	FDEP FT1100	8.05	SU		EB_AF61610				Active discharge from stormwater feature at sample site. Dock req		JGravin/CLiemh	Intermedia	Van Dom E
AF61605F	MARCO	8/25/2020 9:41	SWALLOW	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	pH	1900	FDEP FT1100	7.90	SU		EB_AF61610				Active discharge from stormwater feature at sample site. Dock req		JGravin/CLiemh	Direct Gra	Water Bott
AF61602F	MARCO	8/25/2020 10:03	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.90	pH	1900	FDEP FT1100	8.05	SU		EB_AF61610				No visible tidal movement. Very windy; entire bay very choppy. No		JGravin/CLiemh	Direct Gra	Water Bott
AF61602F	MARCO	8/25/2020 10:04	LANDMARK	Field	Field Testing-Discrete	Misc Field Device	SW	1.60	1.90	pH	1900	FDEP FT1100	7.98	SU		EB_AF61610				No visible tidal movement. Very windy; entire bay very choppy. No		JGravin/CLiemh	Direct Gra	Water Bott
AF61675F	MARCO	8/25/2020 10:24	W_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.60	pH	1900	FDEP FT1100	7.99	SU		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61675F	MARCO	8/25/2020 10:26	W_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	3.30	3.60	pH	1900	FDEP FT1100	7.98	SU		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61675F	MARCO	8/25/2020 10:45	E_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	2.80	pH	1900	FDEP FT1100	7.97	SU		EB_AF61610				Visibly outpouring tide. Several boats passed by during sampling eve		JGravin/CLiemh	Intermedia	Van Dom E
AF61675F	MARCO	8/25/2020 10:47	E_WINTERBERRY_BRI	Field	Field Testing-Discrete	Misc Field Device	SW	2.50	2.80	pH	1900	FDEP FT1100	7.96	SU		EB_AF61610				Visibly outpouring tide. Several boats passed by during sampling eve		JGravin/CLiemh	Intermedia	Van Dom E
AF61604F	MARCO	8/25/2020 11:11	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.00	pH	1900	FDEP FT1100	8.01	SU		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61604F	MARCO	8/25/2020 11:13	MCILVAINE	Field	Field Testing-Discrete	Misc Field Device	SW	2.70	3.00	pH	1900	FDEP FT1100	8.02	SU		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61605F	MARCO	8/25/2020 8:23	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	3.70	Salinity	1975	FDEP FT1300	32.01	o/oh		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61605F	MARCO	8/25/2020 8:25	WINDMILL	Field	Field Testing-Discrete	Misc Field Device	SW	3.40	3.70	Salinity	1975	FDEP FT1300	32.40	o/oh		EB_AF61610				Visibly outpouring tide. Flow.		JGravin/CLiemh	Intermedia	Van Dom E
AF61607F	MARCO	8/25/2020 8:52	HOLLVHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	0.30	1.80	Salinity	1975	FDEP FT1300	32.40	o/oh		EB_AF61610				No visible tidal movement. Grass clippings in water. No flow.		JGravin/CLiemh	Direct Gra	Water Bott
AF61607F	MARCO	8/25/2020 8:53	HOLLVHOCK	Field	Field Testing-Discrete	Misc Field Device	SW	1.50	1.80	Salinity	1975	FDEP FT1300	32.52	o/oh		EB_AF61610				No visible tidal movement. Grass clippings in water. No flow.		JGravin/CLiemh	Direct Gra	Water Bott



AF61672F	MARCO	8/25/2020 10:24	W WINTERBERRY BR1	Field	Field Testino-Discrete	Misc Field Device	SW	0.30	3.60	Temperature-Water	2030	FNEP-FT1400	10.8	deg C	EB AF61610	Visible outpoino tds. Flow	JGravin/CLierh, Intermedia Van Dom E		
AF616758F	MARCO	8/25/2020 10:26	W WINTERBERRY BR1	Field	Field Testino-Discrete	Misc Field Device	SW	3.30	3.60	Temperature-Water	2030	FNEP-FT1400	10.8	deg C	EB AF61610	Visible outpoino tds. Flow	JGravin/CLierh, Intermedia Van Dom E		
AF61676F	MARCO	8/25/2020 10:45	E WINTERBERRY BR1	Field	Field Testino-Discrete	Misc Field Device	SW	0.30	2.80	Temperature-Water	2030	FNEP-FT1400	11.1	deg C	EB AF61610	Visible outpoino tds. Several boats passed by duringo samolno eve	JGravin/CLierh, Intermedia Van Dom E		
AF616768F	MARCO	8/25/2020 10:47	E WINTERBERRY BR1	Field	Field Testino-Discrete	Misc Field Device	SW	2.50	2.80	Temperature-Water	2030	FDEP-FT1400	30.8	deg C	EB AF61610	Visible outpoino tds. Several boats passed by duringo samolno eve	JGravin/CLierh, Intermedia Van Dom E		
AF61604F	MARCO	8/25/2020 11:11	MCLIVANE	Field	Field Testino-Discrete	Misc Field Device	SW	0.30	3.00	Temperature-Water	2030	FDEP-FT1400	30.3	deg C	EB AF61610	Visible outpoino tds. Flow	JGravin/CLierh, Intermedia Van Dom E		
AF616048F	MARCO	8/25/2020 11:13	MCLIVANE	Field	Field Testino-Discrete	Misc Field Device	SW	2.70	3.00	Temperature-Water	2030	FDEP-FT1400	30.2	deg C	EB AF61610	Visible outpoino tds. Flow	JGravin/CLierh, Intermedia Van Dom E		
AF61610	MARCO	8/25/2020 8:34	WINNEMILL	BLANK	BLANK	BLANK	SW	0.3	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	BLANK	FREEB collected from C201 13269 carbon.	JGravin/CLierh, Intermedia Van Dom E