Collier County™
POLLUTION CONTROL
LIVE GREEN. SAVE BLUE.

Field Sampling Report

Date: Monday, May 13, 2019
Sampler: Geoff Rosenaw
Meter/Notes: Danny Berger

NEFAP ACCREDITED
TNI
FIELD SAMPLING & MEASUREMENT ORGANIZATION

Certificate No
4262.01

Client: City of Marco Island
Project: Marco Island
Run: MARCO_I

CCV: Morning

Sonde / Handheld	ProDSS #10	Serial #:	17E102963
Date/Time:	5/13/19 7:46 AM	Operator:	Danny Berger
Project:	MARCO		

***** Conductivity *****

Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail
2000	11431	1990	Pass

Associated Calibration File: Calibration_10_051019

***** pH *****

pH (QA Criteria ±.2)	CDI#	Reading	Pass/Fail
4.00	11635	4.00	Pass
7.00			
10.00			

All CCV Results Pass? **Yes**

***** Dissolved Oxygen *****

D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	7.66	100.0	29.2	Pass	7.648	758.7

0.9982595

Notes:

CCV: Afternoon

Date/Time:	5/13/2019 13:29	Operator:	Danny Berger

***** Conductivity *****

Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail
10000	11310	9972	Pass
70000	11595	69680	Pass

***** pH *****

pH (QA Criteria +.2)	CDI#	Reading	Pass/Fail
4.00			
7.00	12082	7.04	Pass
10.00	12085	10.03	Pass

All CCV Results Pass? **Yes**

***** Dissolved Oxygen *****

D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.33	99.8	24.5	Pass	8.321	758.3

0.997763158

Notes:

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO | Run: MARCO_I | Sample Collector: Geoff Rosenaw | Meter / Notes: Danny Berger | Date: 5/13/2019

LAB ID	TIME	STATION	Temp (°C)	Sp Cond (µS/cm)	Sal (ppt)	ODO (% LocalB)	ODO (mg/L)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF54762	10:12	JH_PARK	30.0	52541	34.47	91.1	5.70	7.75	0.30		3.50	1.00
AF54762B	10:14	JH_PARK	29.8	52635	34.54	80.5	5.05	7.75	3.20		3.50	1.00

Collection Device: Pole Sampler; CDI: 11852 | Cleaning Protocol: J | Flow: Flow. | Staff Gauge: [redacted] | pH < 2: YES | Sample Type: SAMP

Comments: Tide appears to be incoming and does not match outgoing tide chart.

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)
AF54761	10:40	BARFIELD_BRIDGE	29.8	52674	34.57	97.2	6.09	7.79	0.30		2.30	1.10
AF54761B	10:41	BARFIELD_BRIDGE	29.8	52724	34.61	96.4	6.05	7.80	2.00		2.30	1.10

Collection Device: Pole Sampler; CDI: 11852 | Cleaning Protocol: J | Flow: Flow. | Staff Gauge: [redacted] | pH < 2: YES | Sample Type: SAMP

Comments: Visually outgoing tide. Sewage smell at site. Possibly coming from manholes or water treatment plant. Boat passed prior to sampling. Boat appears to not have impacted samples.

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)
AF54765	11:05	KENDALL	30.0	52308	34.29	87.6	5.48	7.79	0.30		1.30	1.00

Collection Device: Pole Sampler; CDI: 11852 | Cleaning Protocol: J | Flow: Flow. | Staff Gauge: [redacted] | pH < 2: YES | Sample Type: SAMP

Comments: Some vegetative debris floating on surface of water. Could be from yard clippings. Visible outgoing tide.

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)
AF54763	11:35	COLLIER_BRIDGE	30.8	51891	33.96	113.7	7.04	7.84	0.30		1.60	1.50
AF54763B	11:37	COLLIER_BRIDGE	30.7	51914	33.98	108.9	6.75	7.84	1.30		1.60	1.50

Collection Device: Pole Sampler; CDI: 11852 | Cleaning Protocol: J | Flow: No flow. | Staff Gauge: [redacted] | pH < 2: YES | Sample Type: SAMP

Comments: Water appeared to be slack. Hard to determine water movement due to windy conditions.

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 mostly sunny.		
Sampling SOP:	FSQM 03-03	24 HRS Prior Weather:	Similar.		

Prepared By: **Danny Berger** Signed: 5/13/2019 4:01:54 PM

Reviewed By: **Geoff Rosenaw** Signed: 5/31/2019 3:07:55 PM

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO | Run: MARCO_I | Sample Collector: Geoff Rosenaw | Meter / Notes: Danny Berger | Date: 5/13/2019

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)
AF54767	11:44	COLLIER_BRIDGE										

Collection Device: Sample Container | Cleaning Protocol: | Flow: | Staff Gauge: | pH < 2: YES | Sample Type: FB

Comments: FB taken from carboy CDI 08332.

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)
AF54764	12:05	HC_CENTER	30.7	52191	34.18	99.9	6.18	7.80	0.30		2.30	1.60
AF54764B	12:07	HC_CENTER	30.1	52208	34.22	95.4	5.96	7.80	2.00		2.30	1.60

Collection Device: Pole Sampler; CDI: 11852 | Cleaning Protocol: J | Flow: Flow. | Staff Gauge: | pH < 2: YES | Sample Type: SAMP

Comments: Very small amount of vegetative debris near edges of canal.

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)
AF54766	10:55	PERRINE										

Collection Device: | Cleaning Protocol: | Flow: | Staff Gauge: | pH < 2: | Sample Type: NO SAMPLE

Comments: Unable to access site due to new home. One photo by GR.

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: | Sample Type:

Comments:

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 mostly sunny.	Prepared By:	Danny Berger
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	Similar.	Reviewed By:	Geoff Rosenaw

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO
Run: MARCO_I
Sample Collector: Geoff Rosenaw
Meter / Notes: Danny Berger
Date: 5/13/2019

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:
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:
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:
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:
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 mostly sunny.
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	Similar.

Prepared By: Danny Berger

Reviewed By: Geoff Rosenaw

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO | Run: MARCO_I | Sample Collector: Geoff Rosenaw | Meter / Notes: Danny Berger | Date: 5/13/2019

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: | Sample Type:

Comments:

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: | Sample Type:

Comments:

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: | Sample Type:

Comments:

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: | Sample Type:

Comments:

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 mostly sunny.		
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	Similar.		

Prepared By: Danny Berger

Reviewed By: Geoff Rosenaw

Collier County
POLLUTION CONTROL
LIVE GREEN. SAVE BLUE.

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

Project	MARCO
Sample Collector(s):	
Geoff Rosenaw	
Sample Collector Signature:	
Relinquished By: (Signature)	
Received By: (Signature)	
Relinquished By: (Signature)	
Received By: (Signature)	

MATRIX CODES
GW Ground Water
SW Surface Water
WW Waste Water
DW Drinking Water
Other_____

Date/Time	5/13/19 1:53 PM
Date/Time	5/13/19 1:53 PM
Date/Time	
Date/Time	

PRESERVATION CODES	Lot#	Prs. Vol.	Prs. Lot#	Prs. Supp.	Prs. Date	Initials
2C 1L Opaque HDPE/Light-shielded/Ice	AF54380					
3S 125ml HDPE/H2SO4/Ice	72866	8 drops	RP 12594, RP 12535	Fisher	5/13/2019	DB, GR
4F 60ml Opaque HDPE/Filtered/Ice	AF51865					
5J 120mL HDPE w/Sodium Thiosulfate/Ice	CDI 12145					
6N 250ml HDPE/HNO3/H2SO4	CDI 10493	16 drops	RP 12594, RP 12535	Fisher	5/13/2019	DB, GR
14 Whatman Polydisc GW 0.45µm	A15785265, A15785267					

Date	Time	Field pH	Sp. Cond.	Sample Depth	Location	Matrix	Parameters: Chlorophyll-PC, Pheophytin-PC, Prep-Chloro	Nitrate-Nitrite-PC, Nitrogen-TKN-PC, Prep-TKN	Nitrite-PC	Enterolert-PC	Phosphorus-ICP-PC, Prep Metals	TN-PC, CC-Nitrate-N-PC	Bottle Codes: 2C	3S	4F	5J	6N	Calc	Sample Check-In: Lab ID #
													# of sample Containers Submited						
5/13/2019	10:12	7.75	52541	0.30	JH_PARK	SW	1	1	1	1	1								AF54762
5/13/2019	10:40	7.79	52674	0.30	BARFIELD_BRIDGE	SW	1	1	1	1	1								AF54761
5/13/2019	11:05	7.79	52308	0.30	KENDALL	SW	1	1	1	1	1								AF54765
5/13/2019	11:35	7.84	51891	0.30	COLLIER_BRIDGE	SW	1	1	1	1	1								AF54763
5/13/2019	11:44	#N/A	#N/A	#N/A	COLLIER_BRIDGE	SW	1	1	1	1	1								AF54767
5/13/2019	12:05	7.80	52191	0.30	HC_CENTER	SW	1	1	1	1	1								AF54764
~~5/13/2019~~	~~10:55~~			~~#N/A~~	~~PERRINE~~	~~SW~~													~~AF54766~~

Sample Check-In	
Sample(s) Intact?	
Rec'd in wet ice?	
Temp°C:	
Proper Samp ID?	
Rec'd within hold time?	
Acid preserved samples pH<2?	
Cl Residual 0 ppm?	
Logged In?	
Scanned?	

Notes:

AF54766 not sampled due to no access.

Sheet & Cell Reference	Initial Value	Changed To	User	Date & Time	Reason For Change	Analyst E-verified Signature
Field Sheet-B12	0.445138889	0.444444444	Sampler	5/13/2019 10:45	Incorrect initial entry.	Danny Berger
Field Sheet-B40	FSQM 03-03	FB taken from carboy CDI 08332.	Sampler	5/13/2019 11:50	Incorrect initial entry.	Danny Berger
Calibration-B6	111431	11431	dannyberger	5/13/2019 15:57	Incorrect initial entry.	Danny Berger
Field Sheet-M5	3.2	1	dannyberger	5/13/2019 15:59	Secchi was not that deep.	Danny Berger
Field Sheet-B15	Visually outgoing tide. Sewage smell at site. Possibly coming from manholes. Boat passed prior to sampling. Appears to not have impacted samples.	Visually outgoing tide. Sewage smell at site. Possibly coming from manholes or water treatment plant. Boat passed prior to sampling. Appears to not have impacted samples.	dannyberger	5/13/2019 16:01	Added note about water treatment plant.	Danny Berger
Field Sheet-B15	Visually outgoing tide. Sewage smell at site. Possibly coming from manholes or water treatment plant. Boat passed prior to sampling. Appears to not have impacted samples.	Visually outgoing tide. Sewage smell at site. Possibly coming from manholes or water treatment plant. Boat passed prior to sampling. Boat appears to not have impacted samples.	dannyberger	5/13/2019 16:01	Added note about the boat.	Danny Berger
Field Sheet-B29	Water appeared to be slack. Hard to determine due to wind.	Water appeared to be slack. Hard to determine water move due to windy conditions.	dannyberger	5/13/2019 16:02	Changed wording about wind.	Danny Berger
Field Sheet-B29	Water appeared to be slack. Hard to determine water move due to windy conditions.	Water appeared to be slack. Hard to determine water movement due to windy conditions.	dannyberger	5/13/2019 16:03	Changed a word.	Danny Berger

KorDSS MEASUREMENT DATA FILE EXPORT

FILE CREATED: 5/13/2019 17:41

DATE	TIME	SITE	Barometer (mmHg)	Temp (°C)	Cond (µS/cm)	Sp Cond (µS/cm)	nLFCond (µS/cm)	Sal (ppt)	Sigma-T (σ t)	Sigma (σ)	pH	pH (mV)	ORP (mV)	ODO (% Sat)	ODO (mg/L)	ODO (% LocalB)
5/13/2019	10:12:07 AM	af54762	759.9	30	57523.5	52540.9	51988.2	34.47	21.3	21.3	7.75	-86	-1182	91.1	5.7	91.1
5/13/2019	10:14:05 AM	af54762	760	29.8	57418.4	52634.5	52105.2	34.54	21.5	21.5	7.75	-86.1	-1182	80.5	5.05	80.5
5/13/2019	10:40:08 AM	af54761	759.9	29.8	57550.2	52673.6	52133.4	34.57	21.5	21.5	7.79	-88.4	-1182	97.2	6.09	97.2
5/13/2019	10:41:30 AM	af54761	759.8	29.8	57540.2	52724.3	52191.3	34.61	21.5	21.5	7.8	-89.1	-1182	96.4	6.05	96.4
5/13/2019	11:05:32 AM	af54765	759.7	30	57265.2	52307.7	51757.8	34.29	21.2	21.2	7.79	-88.5	-1182	87.5	5.48	87.6
5/13/2019	11:35:37 AM	af54763	759.8	30.8	57593.9	51891.4	51252.7	33.96	20.7	20.7	7.84	-91.3	-1182	113.6	7.04	113.7
5/13/2019	11:37:05 AM	af54763	759.8	30.7	57567.1	51914.3	51281.6	33.98	20.7	20.7	7.84	-91.1	-1181.9	108.9	6.75	108.9
5/13/2019	12:05:43 PM	af54764	759.6	30.7	57921.3	52190.7	51549	34.18	20.9	20.9	7.8	-89	-1181.9	99.8	6.18	99.9
5/13/2019	12:07:04 PM	af54764	759.8	30.1	57270.3	52207.7	51645.3	34.22	21.1	21.1	7.8	-88.9	-1182	95.3	5.96	95.4

Activity ID	Event ID	Activity Start Date Time	Monitoring Location ID	Activity Type	Sample Collection Type	Sample Collection Equipment	Bottle	Result Value	Result Unit	Result Qualifier	Characteristic Name	MDL	Detection Method	Lab Received Date	Lab Received Time	Lab Result Value	Lab Result Unit	Lab Result Qualifier	Lab Result Status	Lab Result Comment 1	Lab Result Comment 2	Lab Result Comment 3	Lab Result Comment 4	Lab Result Comment 5	Lab Result Comment 6	Lab Result Comment 7	Lab Result Comment 8	Lab Result Comment 9	Lab Result Comment 10	Activity Comment	Sample Depth	Sample Collection Time	Sample Collection Equipment
AF-Set-76-1	MARCO	6/1/2017 9:10:00	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	Unk	0.46			Dissolved Oxygen	1MG	FIELD-FT-1630			0.46	mg/L	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-2	MARCO	6/1/2017 9:10:00	SHMF-B_(1_SRID=32	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.42			Dissolved Oxygen	1MG	FIELD-FT-1630			0.42	mg/L	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-3	MARCO	6/1/2017 9:10:00	SHMF-B_(1_SRID=32	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.39			Dissolved Oxygen	1MG	FIELD-FT-1630			0.39	mg/L	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-4	MARCO	6/1/2017 9:11:00	HZNG-AL	Field	Field Testing-Discrete	Misc Field Device	Unk	1.06			Dissolved Oxygen	1MG	FIELD-FT-1630			1.06	mg/L	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-5	MARCO	6/1/2017 9:11:00	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	Unk	0.40			Dissolved Oxygen	1MG	FIELD-FT-1630			0.40	mg/L	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-6	MARCO	6/1/2017 9:11:00	COLLIER_BRIDGE	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.42			Dissolved Oxygen	1MG	FIELD-FT-1630			0.42	mg/L	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-7	MARCO	6/1/2017 9:12:00	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	Unk	1.00			Dissolved Oxygen	1MG	FIELD-FT-1630			1.00	mg/L	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-8	MARCO	6/1/2017 9:12:00	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	Unk	0.35			Dissolved Oxygen - Saturation	4MN-21	FIELD-FT-1630			8.1	%	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-9	MARCO	6/1/2017 9:12:00	JH_PARK	Field	Field Testing-Duplicate	Misc Field Device	Unk	1.03			Dissolved Oxygen - Saturation	4MN-21	FIELD-FT-1630			98.5	%	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-10	MARCO	6/1/2017 9:13:00	SHMF-B_(1_SRID=32	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.76			Dissolved Oxygen - Saturation	4MN-21	FIELD-FT-1630			67.0	%	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-11	MARCO	6/1/2017 9:13:00	SHMF-B_(1_SRID=32	Field	Field Testing-Discrete	Misc Field Device	Unk	0.92			Dissolved Oxygen - Saturation	4MN-21	FIELD-FT-1630			86.4	%	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-12	MARCO	6/1/2017 9:14:00	HZNG-AL	Field	Field Testing-Discrete	Misc Field Device	Unk	1.40			Dissolved Oxygen - Saturation	4MN-21	FIELD-FT-1630			87.6	%	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-13	MARCO	6/1/2017 9:14:00	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	Unk	0.38			Dissolved Oxygen - Saturation	4MN-21	FIELD-FT-1630			113.7	%	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-14	MARCO	6/1/2017 9:15:00	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	Unk	0.16			Dissolved Oxygen - Saturation	4MN-21	FIELD-FT-1630			98.5	%	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-15	MARCO	6/1/2017 9:15:00	HC_CENTER	Field	Field Testing-Duplicate	Misc Field Device	Unk	2.00			Dissolved Oxygen - Saturation	4MN-21	FIELD-FT-1630			94.4	%	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-16	MARCO	6/1/2017 9:16:00	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	Unk	0.20			pH	1MG	FIELD-FT-1150			7.75	SU	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-17	MARCO	6/1/2017 9:16:00	JH_PARK	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.23			pH	1MG	FIELD-FT-1150			7.79	SU	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-18	MARCO	6/1/2017 9:16:00	SHMF-B_(1_SRID=32	Field	Field Testing-Discrete	Misc Field Device	Unk	0.38			pH	1MG	FIELD-FT-1150			7.79	SU	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-19	MARCO	6/1/2017 9:17:00	HZNG-AL	Field	Field Testing-Discrete	Misc Field Device	Unk	0.40			pH	1MG	FIELD-FT-1150			7.98	SU	FD_AFSet76-1												Very small amount of vegetation debris near edges of canal. Water	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-20	MARCO	6/1/2017 9:17:00	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	Unk	0.42			pH	1MG	FIELD-FT-1150			7.98	SU	FD_AFSet76-1												Very small amount of vegetation debris near edges of canal. Water	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-21	MARCO	6/1/2017 9:18:00	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	Unk	0.38			pH	1MG	FIELD-FT-1150			7.86	SU	FD_AFSet76-1												Very small amount of vegetation debris near edges of canal. Water	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-22	MARCO	6/1/2017 9:18:00	HC_CENTER	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.32			pH	1MG	FIELD-FT-1150			7.86	SU	FD_AFSet76-1												Very small amount of vegetation debris near edges of canal. Water	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-23	MARCO	6/1/2017 9:19:00	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Salinity	1SP	FIELD-FT-1300			34.61	ppt	FD_AFSet76-1												Very small amount of vegetation debris near edges of canal. Water	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-24	MARCO	6/1/2017 9:19:00	JH_PARK	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.33			Salinity	1SP	FIELD-FT-1300			34.64	ppt	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-25	MARCO	6/1/2017 9:19:00	JH_PARK	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.33			Salinity	1SP	FIELD-FT-1300			34.61	ppt	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-26	MARCO	6/1/2017 9:20:00	SHMF-B_(1_SRID=32	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Salinity	1SP	FIELD-FT-1300			34.61	ppt	FD_AFSet76-1												Visually outgoing tide. Sewage smell at site. Flo visibly running from manholes or wash. Nearshore plant. Boat secured prior to sampling. Boat appears to not have inspected samples. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-27	MARCO	6/1/2017 9:21:00	HZNG-AL	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Depth, Secchi Disk Depth	4MN-SD	FIELD-FT-1720			1.30	m	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-28	MARCO	6/1/2017 9:21:00	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	Unk	0.32			Depth, Secchi Disk Depth	4MN-SD	FIELD-FT-1720			1.62	m	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-29	MARCO	6/1/2017 9:22:00	COLLIER_BRIDGE	Field	Field Testing-Duplicate	Misc Field Device	Unk	1.00			Depth, Secchi Disk Depth	4MN-SD	FIELD-FT-1720			1.62	m	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-30	MARCO	6/1/2017 9:22:00	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Depth, Secchi Disk Depth	4MN-SD	FIELD-FT-1720			1.62	m	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-31	MARCO	6/1/2017 9:23:00	HC_CENTER	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.30			Salinity	1SP	FIELD-FT-1300			34.19	ppt	FD_AFSet76-1												Very small amount of vegetation debris near edges of canal. Water	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-32	MARCO	6/1/2017 9:23:00	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Salinity	1SP	FIELD-FT-1300			34.22	ppt	FD_AFSet76-1												Very small amount of vegetation debris near edges of canal. Water	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-33	MARCO	6/1/2017 9:24:00	JH_PARK	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.30			Depth, Secchi Disk Depth	4MN-SD	FIELD-FT-1720			1.50	m	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-34	MARCO	6/1/2017 9:24:00	SHMF-B_(1_SRID=32	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Depth, Secchi Disk Depth	4MN-SD	FIELD-FT-1720			1.50	m	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-35	MARCO	6/1/2017 9:25:00	HZNG-AL	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Specific Conductance	1K10	FIELD-FT-1200			52.304	mS/cm	FD_AFSet76-1												Visually outgoing tide. Sewage smell at site. Flo visibly running from manholes or wash. Nearshore plant. Boat secured prior to sampling. Boat appears to not have inspected samples. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-36	MARCO	6/1/2017 9:25:00	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Specific Conductance	1K10	FIELD-FT-1200			51.961	mS/cm	FD_AFSet76-1												Some vegetation debris floating on surface of water. Could be [illegible]	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-37	MARCO	6/1/2017 9:26:00	COLLIER_BRIDGE	Field	Field Testing-Duplicate	Misc Field Device	Unk	1.00			Specific Conductance	1K10	FIELD-FT-1200			51.961	mS/cm	FD_AFSet76-1												Water suspected to be oiled. Hard to determine water.	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-38	MARCO	6/1/2017 9:26:00	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Specific Conductance	1K10	FIELD-FT-1200			52.514	mS/cm	FD_AFSet76-1												Water suspected to be oiled. Hard to determine water.	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-39	MARCO	6/1/2017 9:27:00	HC_CENTER	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.30			Specific Conductance	1K10	FIELD-FT-1200			52.514	mS/cm	FD_AFSet76-1												Very small amount of vegetation debris near edges of canal. Water	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-40	MARCO	6/1/2017 9:27:00	JH_PARK	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Temperature, Water	2WX	FIELD-FT-1400			30.0	deg C	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-41	MARCO	6/1/2017 9:28:00	JH_PARK	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.33			Temperature, Water	2WX	FIELD-FT-1400			29.8	deg C	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-42	MARCO	6/1/2017 9:28:00	SHMF-B_(1_SRID=32	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Temperature, Water	2WX	FIELD-FT-1400			29.8	deg C	FD_AFSet76-1												Visually outgoing tide. Sewage smell at site. Flo visibly running from manholes or wash. Nearshore plant. Boat secured prior to sampling. Boat appears to not have inspected samples. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-43	MARCO	6/1/2017 9:29:00	SHMF-B_(1_SRID=32	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.30			Temperature, Water	2WX	FIELD-FT-1400			30.0	deg C	FD_AFSet76-1												Visually outgoing tide. Sewage smell at site. Flo visibly running from manholes or wash. Nearshore plant. Boat secured prior to sampling. Boat appears to not have inspected samples. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-44	MARCO	6/1/2017 9:29:00	HZNG-AL	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Temperature, Water	2WX	FIELD-FT-1400			30.0	deg C	FD_AFSet76-1												Some vegetation debris floating on surface of water. Could be [illegible]	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-45	MARCO	6/1/2017 9:30:00	COLLIER_BRIDGE	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Temperature, Water	2WX	FIELD-FT-1400			30.4	deg C	FD_AFSet76-1												Water suspected to be oiled. Hard to determine water.	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-46	MARCO	6/1/2017 9:30:00	COLLIER_BRIDGE	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.30			Temperature, Water	2WX	FIELD-FT-1400			30.4	deg C	FD_AFSet76-1												Water suspected to be oiled. Hard to determine water.	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-47	MARCO	6/1/2017 9:31:00	HC_CENTER	Field	Field Testing-Discrete	Misc Field Device	Unk	0.30			Temperature, Water	2WX	FIELD-FT-1400			30.7	deg C	FD_AFSet76-1												Very small amount of vegetation debris near edges of canal. Water	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-48	MARCO	6/1/2017 9:32:00	HC_CENTER	Field	Field Testing-Duplicate	Misc Field Device	Unk	0.30			Temperature, Water	2WX	FIELD-FT-1400			30.1	deg C	FD_AFSet76-1												Very small amount of vegetation debris near edges of canal. Water	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-1	MARCO	6/1/2017 9:10:00	COLLIER_BRIDGE	Field	Field Duplicate	Misc Field Device	Unk	0.5	ft	FD_AFSet76-1	Depth, Bottom	1DEP	FIELD-FT-1720			1.5	m	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle
AF-Set-76-2	MARCO	6/1/2017 9:10:00	SHMF-B_(1_SRID=32	Field	Field Duplicate	Misc Field Device	Unk	0.5	ft	FD_AFSet76-1	Depth, Bottom	1DEP	FIELD-FT-1720			1.5	m	FD_AFSet76-1												Tide equation is for mooring and does not match outgoing tide visual. Flow	0.5ft rgh 40%water rem	Grab	Water Bottle

Description: Unable to access site due to new home.

Collier County™
POLLUTION CONTROL
LIVE GREEN. SAVE BLUE.

Field Sampling Report

Date: Monday, May 13, 2019
Sampler: Chris Lienhardt
Meter/Notes: Josh Gravlin

NEFAP ACCREDITED
TNI
FIELD SAMPLING & MEASUREMENT ORGANIZATION

Certificate No
4262.01

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

CCV: Morning

Sonde / Handheld	ProDSS #7	Serial #:	15K101015
Date/Time:	5/13/19 7:24 AM	Operator:	Josh Gravlin
Project:	MARCO		

***** Conductivity *****

Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail
70000	11595	70647	Pass

Associated Calibration File: Calibration_7_051019.xlsm

***** pH *****

pH (QA Criteria ±.2)	CDI#	Reading	Pass/Fail
4.00			
7.00			
10.00	12085	10.08	Pass

All CCV Results Pass? **Yes**

***** Dissolved Oxygen *****

D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.20	99.9	25.4	Pass	8.186	758.6

0.9981579

Notes:

CCV: Afternoon

Date/Time:	5/13/2019 13:13	Operator:	Josh Gravlin

***** Conductivity *****

Standard (µmhos/cm) ± 5%	CDI#	Reading	Pass/Fail
10000	11310	10032	Pass
70000	11595	70345	Pass

***** pH *****

pH (QA Criteria +.2)	CDI#	Reading	Pass/Fail
4.00			
7.00	12082	7.05	Pass
10.00	12085	10.08	Pass

All CCV Results Pass? **Yes**

***** Dissolved Oxygen *****

D.O. (QA Criteria ±3mg/l)	mg/L	%	°C	Pass/Fail	True Value	Barometric Pressure
CCV Readings --->	8.40	99.9	24.1	Pass	8.387	758.6

0.9981578955

Notes:

Collier County Pollution Control Surface Water Field Workbook
Field Sheet Worksheet

Program: MARCO | Run: II | Sample Collector: Chris Lienhardt | Meter / Notes: Josh Gravlin | Date: 5/13/2019

LAB ID	TIME	STATION	Temp (°C)	Sp Cond (µS/cm)	Sal (ppt)	ODO (% LocalB)	ODO (mg/L)	pH	SAMPLE DEPTH (meters)	STAFF GAUGE (feet)	WATER DEPTH (meters)	SECCHI DEPTH (meters)
AF54768	9:52	WINDMILL	[redacted]									

Collection Device	VanDorn; CDI: 05512	Cleaning Protocol:	[redacted]	Flow:	[redacted]	Staff Gauge: [redacted]
Comments:	EB collected from CDI 08334 Carboy.					pH < 2: Yes; Sample Type: EB

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)
AF54755	10:03	WINDMILL	29.3	53216	34.99	88.8	5.60	7.82	0.30	[redacted]	3.10	1.20
AF54755B	10:05	WINDMILL	29.2	53249	35.02	86.1	5.43	7.84	2.80		3.10	1.20

Collection Device	Pole Sampler; CDI: 10882	Cleaning Protocol:	J	Flow:	Flow.	Staff Gauge: [redacted]
Comments:	Visibly outgoing tide. Bats living under bridge upstream of sample site.					pH < 2: 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)
AF54756	10:36	HOLLYHOCK	29.3	52686	34.60	86.2	5.45	7.83	0.30	[redacted]	1.70	1.70
AF54756B	10:38	HOLLYHOCK	29.2	52797	34.68	73.9	4.67	7.79	1.40		1.70	1.70

Collection Device	Pole Sampler; CDI: 10882	Cleaning Protocol:	J	Flow:	No flow.	Staff Gauge: [redacted]
Comments:	No visible tidal movement. Vegetative debris on water surface. Comb jellies present at sample site.					pH < 2: 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)
AF54769	10:42	HOLLYHOCK	29.3	52729	34.63	87.9	5.56	7.83	0.30	[redacted]	1.70	1.70
AF54769B	10:44	HOLLYHOCK	29.2	52871	34.74	71.6	4.53	7.78	1.40		1.70	1.70

Collection Device	Pole Sampler; CDI: 10882	Cleaning Protocol:	J	Flow:	No flow.	Staff Gauge: [redacted]
Comments:	No visible tidal movement. Vegetative debris on water surface. Comb jellies present at sample site.					pH < 2: 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:	Sunny. High in the 80s		
Sampling SOP:	FSQM 03-03	24 HRS Prior Weather:	Similar		

Prepared By: Joshua Gravlin Signed: 5/14/2019 1:58:48 PM

Reviewed By: Christopher Lienhardt Signed: 5/13/2019 3:05:55 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: 5/13/2019

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)
AF54757	11:00	HUMMINGBIRD	29.9	52518	34.45	101.5	6.37	7.87	0.30	[redacted]	1.70	1.30
AF54757B	11:02	HUMMINGBIRD	29.8	52524	34.46	101.7	6.38	7.89	1.40		1.70	1.30
Collection Device	Pole Sampler; CDI: 10882		Cleaning Protocol:	J	Flow:	Flow.		Staff Gauge:			pH < 2:	Yes
Comments:	Visibly outgoing tide. Vegetative debris on water surface. Construction occurring across canal.										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)
AF54758	11:26	MCILVAINE	29.3	53997	35.57	96.4	6.06	7.88	0.30	[redacted]	1.70	1.40
AF54758B	11:28	MCILVAINE	29.2	53982	35.56	95.0	5.99	7.91	1.40		1.70	1.40
Collection Device	Pole Sampler; CDI: 10882		Cleaning Protocol:	J	Flow:	Flow.		Staff Gauge:			pH < 2:	Yes
Comments:	Visibly outgoing tide. Vegetative debris on water surface. Construction occurring across canal.										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)
AF54759	11:52	E_WINTERBERRY_BRIDGE	29.9	52957	34.78	97.9	6.12	7.89	0.30	[redacted]	2.10	1.50
AF54759B	11:53	E_WINTERBERRY_BRIDGE	29.9	52947	34.77	98.1	6.14	7.91	1.80		2.10	1.50
Collection Device	Pole Sampler; CDI: 10882		Cleaning Protocol:	J	Flow:	Flow.		Staff Gauge:			pH < 2:	Yes
Comments:	Vegetative debris on water surface. Visibly outgoing tide. Bridge upstream of sample site has bat living underneath it.										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)
AF54760	12:12	W_WINTERBERRY_BRIDGE	29.9	53384	35.09	103.3	6.44	7.87	0.30	[redacted]	2.80	1.30
AF54760B	12:14	W_WINTERBERRY_BRIDGE	29.6	53486	35.18	84.2	5.28	7.86	2.50		2.80	1.30
Collection Device	VanDorn; CDI: 05512		Cleaning Protocol:	J	Flow:	Flow.		Staff Gauge:			pH < 2:	Yes
Comments:	Vegetative debris on water surface. Visibly outgoing tide. Dead catfish floating in water upstream of sample site.										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 80s	Prepared By:	Joshua Gravlin
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	Similar	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: 5/13/2019

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:
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:
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:
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:
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 80s	
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	Similar	

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: 5/13/2019

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: | Sample Type:

Comments:

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: | Sample Type:

Comments:

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: | Sample Type:

Comments:

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: | Sample Type:

Comments:

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 80s	Prepared By:	Joshua Gravlin
Sampling SOP Used:	FSQM 03-03	24 HRS Prior Weather:	Similar	Reviewed By:	Christopher Lienhardt

Collier County POLLUTION CONTROL
LIVE GREEN. SAVE BLUE.

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

Project	MARCO
Sample Collector(s):	
Chris Lienhardt	
Sample Collector Signature:	
Relinquished By: (Signature)	
Received By: (Signature)	
Relinquished By: (Signature)	
Received By: (Signature)	

MATRIX CODES	
GW	Ground Water
SW	Surface Water
WW	Waste Water
DW	Drinking Water
Other	

Date/Time 5/13/19 1:39 PM
Date/Time 5/13/19 1:39 PM
Date/Time
Date/Time

PRESERVATION CODES	Lot#	Prs. Vol.	Prs. Lot#	Prs. Supp.	Prs. Date	Initials
2C 1L Opaque HDPE/Light-shielded/Ice	AF54361 / AF54394					
3S 125ml HDPE/H2SO4/Ice	72866	8 drops	RP12536 / RP12595	Fisher	5/13/2019	JAG/CTL
4F 60ml Opaque HDPE/Filtered/Ice	72866					
5J 120mL HDPE w/Sodium Thiosulfate/Ice	CDI12145					
6N 250ml HDPE/HNO3/H2SO4	CDI10493	16 drops	RP12536 / RP12595	Fisher	5/13/2019	JAG/CTL
14 Whatman Polydisc GW 0.45µm	A15785265					

Date	Time	Field pH	Sp. Cond.	Sample Depth	Location	Matrix	Parameters: Chlorophyll-PC, Pheophytin-PC, Prep-Chloro	Nitrate-Nitrite-PC, Nitrogen-TKN-PC, Prep-TKN	Nitrite-PC	Enterolert-PC	Phosphorus-ICP-PC, Prep Metals	TN-PC, CC-Nitrate-N-PC	Bottle Codes: 2C	3S	4F	5J	6N	Calc	# of sample Containers Submited	Lab ID #
5/13/2019	9:52	#N/A	#N/A	#N/A	WINDMILL	SW							1	1	1	1	1			AF54768
5/13/2019	10:03	7.82	53216	0.30	WINDMILL	SW							1	1	1	1	1			AF54755
5/13/2019	10:36	7.83	52686	0.30	HOLLYHOCK	SW							1	1	1	1	1			AF54756
5/13/2019	10:42	7.83	52729	0.30	REPLICATE	SW							1	1	1	1	1			AF54769
5/13/2019	11:00	7.87	52518	0.30	HUMMINGBIRD	SW							1	1	1	1	1			AF54757
5/13/2019	11:26	7.88	53997	0.30	MCILVAINE	SW							1	1	1	1	1			AF54758
5/13/2019	11:52	7.89	52957	0.30	E_WINTERBERRY_BRIDGE	SW							1	1	1	1	1			AF54759
5/13/2019	12:12	7.87	53384	0.30	W_WINTERBERRY_BRIDGE	SW							1	1	1	1	1			AF54760

Sample Check-In	
Sample(s) Intact?	
Rec'd in wet ice?	
Temp°C:	
Proper Samp ID?	
Rec'd within hold time?	
Acid preserved samples pH<2?	
Cl Residual 0 ppm?	
Logged In?	
Scanned?	

Notes:

Sheet & Cell Reference	Initial Value	Changed To	User	Date & Time	Reason For Change	Analyst E-verified Signature
Field Sheet-B54	Vegetative debris on water surface. Visibly outgoing tide.	Vegetative debris on water surface. Visibly outgoing tide. Bridge upstream of sample site has bat living underneath it.	Sampler	5/13/2019 12:00	Added bats comment	Joshua Gravlin
Field Sheet-B15	Visibly outgoing tide.	Visibly outgoing tide. Bats living under rbidge upsrteam of sample site.	Sampler	5/13/2019 12:01	Added bats comment.	Joshua Gravlin
Chain of Custody-H7	AF54361	AF54361 / AF54394	Sampler	5/13/2019 12:28	Added additional lot #	Joshua Gravlin
Chain of Custody-W8	JAG	JAG/CTL	Sampler	5/13/2019 13:24	Incorrect initial entry.	Joshua Gravlin
Field Sheet-B15	Visibly outgoing tide. Bats living under rbidge upsrteam of sample site.	Visibly outgoing tide. Bats living under bridge upstream of sample site.	ChristopherLienhardt	5/13/2019 14:48	spelling	Christopher Lienhardt

KorDSS MEASUREMENT DATA FILE EXPORT

FILE CREATED: 5/13/2019 16:35

DATE	TIME	SITE	Barometer (mmHg)	Temp (°C)	Sp Cond (µS/cm)	TDS (mg/L)	Sal (ppt)	pH	pH (mV)	ODO (% Sat)	ODO (mg/L)	ODO (% LocalB)
5/13/2019	10:03:54 AM	af54755	759.7	29.3	53215.8	34590	34.99	7.82	-65.5	88.8	5.6	88.8
5/13/2019	10:05:07 AM	af54755	759.7	29.2	53248.6	34612	35.02	7.84	-66.8	86.1	5.43	86.1
5/13/2019	10:36:50 AM	af54756	759.9	29.3	52686.4	34246	34.6	7.83	-66.2	86.2	5.45	86.2
5/13/2019	10:38:06 AM	af54756	759.9	29.2	52796.5	34318	34.68	7.79	-63.6	73.8	4.67	73.9
5/13/2019	10:42:20 AM	af54769	759.8	29.3	52728.9	34274	34.63	7.83	-66.3	87.9	5.56	87.9
5/13/2019	10:44:02 AM	af54769	759.9	29.2	52870.8	34366	34.74	7.78	-63	71.6	4.53	71.6
5/13/2019	11:00:22 AM	af54757	759.8	29.9	52518.3	34137	34.45	7.87	-68.7	101.5	6.37	101.5
5/13/2019	11:02:02 AM	af54757	759.8	29.8	52524	34141	34.46	7.89	-69.9	101.7	6.38	101.7
5/13/2019	11:26:10 AM	af54758	760	29.3	53997.2	35098	35.57	7.88	-69.2	96.4	6.06	96.4
5/13/2019	11:28:17 AM	af54758	759.9	29.2	53981.9	35088	35.56	7.91	-70.9	95	5.99	95
5/13/2019	11:52:07 AM	af54759	760	29.9	52956.7	34422	34.78	7.89	-69.6	97.9	6.12	97.9
5/13/2019	11:53:19 AM	af54759	760	29.9	52947.4	34416	34.77	7.91	-71	98.1	6.14	98.1
5/13/2019	12:12:07 PM	af54760	759.6	29.9	53383.5	34699	35.09	7.87	-68.8	103.2	6.44	103.3
5/13/2019	12:14:12 PM	af54760	759.6	29.6	53486.3	34766	35.18	7.86	-67.9	84.2	5.28	84.2

Collier County Pollution Control

Data Export Worksheet

Collier County™
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www.LiveGreenSaveBlue.com

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

Collected by: CCPCD
Collection Date: 05/13/2019
Submittal Date: 05/13/2019 @ 13:39

Report Date : 6/3/2019
Report Time : 11:24:53AM

Project: MARCO
Report#: 0519_MRCO_II

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.

NEFAP ACCREDITED TNI FIELD SAMPLING & MEASUREMENT ORGANIZATION

NELAP ACCREDITED TNI LABORATORY

Respectfully Submitted,

Nosbel Perez

Nosbel Perez
Laboratory Supervisor

ANALYTICAL RESULTS

Report # 0519_MRCO_II

Location: WINDMILL	*Field ID:* AF54755		*Lab ID:* AF54755		*Collect Date/Time:* 5/13/19 10:03				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019 14:19
Enterococci	Enterolert/QT	450	<130		MPN/100 mL	10	10	10	05/13/2019 14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019 09:30
Phosphorus- Total	EPA 200.8	0.064	<0.046	I	mg/L	0.032	0.080	8	05/17/2019 14:12
Nitrogen- Total Kjeldahl	EPA 351.2	0.230		U	mg/L	0.230	0.500	1	05/20/2019 12:45
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019 10:50
pH	FDEP FT1100	7.8	6.5 - 8.5		SU			1	05/13/2019 10:03
Nitrogen- Total	Nitrogen- Total	<MDL	<0.3	U	mg/L	0.230	0.500	1	05/20/2019 15:28
Chlorophyll a	SM 10200 H	5.7	<4.9		mg/m3	1.00	1.00	1	05/17/2019 09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019 14:00
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	05/17/2019 09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019 13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019 11:31

ANALYTICAL RESULTS

Report # 0519_MRCO_II

Location: HOLLYHOCK	*Field ID:* AF54756		*Lab ID:* AF54756		*Collect Date/Time:* 5/13/19 10:36				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019 14:19
Enterococci	Enterolert/QT	10	<130	J	MPN/100 mL	10	10	10	05/13/2019 14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019 09:30
Phosphorus- Total	EPA 200.8	0.078	<0.046	I	mg/L	0.032	0.080	8	05/17/2019 14:21
Nitrogen- Total Kjeldahl	EPA 351.2	0.461		I	mg/L	0.230	0.500	1	05/20/2019 12:44
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019 10:51
pH	FDEP FT1100	7.8	6.5 - 8.5		SU			1	05/13/2019 10:36
Nitrogen- Total	Nitrogen- Total	0.461	<0.3	I	mg/L	0.230	0.500	1	05/20/2019 15:28
Chlorophyll a	SM 10200 H	10.3	<4.9	J	mg/m3	1.00	1.00	1	05/17/2019 09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019 14:00
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	05/17/2019 09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019 13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019 11:32

ANALYTICAL RESULTS

Report # 0519_MRCO_II

Location: HUMMINGBIRD	*Field ID:* AF54757		*Lab ID:* AF54757		*Collect Date/Time:* 5/13/19 11:00				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019 14:19
Enterococci	Enterolert/QT	327	<130		MPN/100 mL	10	10	10	05/13/2019 14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019 09:30
Phosphorus- Total	EPA 200.8	0.063	<0.046	I	mg/L	0.032	0.080	8	05/17/2019 14:25

Nitrogen- Total Kjeldahl	EPA 351.2	0.836			mg/L	0.230	0.500	1	05/20/2019	12:48
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019	10:53
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/13/2019	11:00
Nitrogen- Total	Nitrogen- Total	0.836	<0.3		mg/L	0.230	0.500	1	05/20/2019	15:28
Chlorophyll a	SM 10200 H	7.9	<4.9		mg/m3	1.00	1.00	1	05/17/2019	09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019	14:00
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	05/17/2019	09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019	13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019	11:33

ANALYTICAL RESULTS

Report # 0519_MRCO_II

Location: **MCILVAINE** ***Field ID:*** **AF54758** ***Lab ID:*** **AF54758** ***Collect Date/Time:*** **5/13/19 11:26**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time	
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019	14:19
Enterococci	Enterolert/QT	10	<130		MPN/100 mL	10	10	10	05/13/2019	14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019	09:30
Phosphorus- Total	EPA 200.8	0.069	<0.046	I	mg/L	0.032	0.080	8	05/17/2019	14:28
Nitrogen- Total Kjeldahl	EPA 351.2	0.638			mg/L	0.230	0.500	1	05/20/2019	12:46
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019	10:55
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/13/2019	11:26
Nitrogen- Total	Nitrogen- Total	0.638	<0.3		mg/L	0.230	0.500	1	05/20/2019	15:28
Chlorophyll a	SM 10200 H	5.2	<4.9		mg/m3	1.00	1.00	1	05/17/2019	09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019	14:00
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	05/17/2019	09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019	13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019	11:34

ANALYTICAL RESULTS

Report # 0519_MRCO_II

Location: **E_WINTERBERRY_BRIDGE** ***Field ID:*** **AF54759** ***Lab ID:*** **AF54759** ***Collect Date/Time:*** **5/13/19 11:52**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time	
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019	14:19
Enterococci	Enterolert/QT	10	<130		MPN/100 mL	10	10	10	05/13/2019	14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019	09:30
Phosphorus- Total	EPA 200.8	0.058	<0.046	I	mg/L	0.032	0.080	8	05/17/2019	14:31
Nitrogen- Total Kjeldahl	EPA 351.2	1.08		J	mg/L	0.460	1.000	2	05/20/2019	14:10
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019	10:56
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/13/2019	11:52
Nitrogen- Total	Nitrogen- Total	1.08	<0.3	J	mg/L	0.230	0.500	1	05/20/2019	15:28
Chlorophyll a	SM 10200 H	7.2	<4.9		mg/m3	1.00	1.00	1	05/17/2019	09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019	14:00

Pheophytin	SM 10200 H	2.00			mg/m3	1.00	1.00	1	05/17/2019	09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019	13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019	11:35

ANALYTICAL RESULTS Report # 0519_MRCO_II

Location: W_WINTERBERRY_BRIDGE	*Field ID:* AF54760		*Lab ID:* AF54760		*Collect Date/Time:* 5/13/19 12:12				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	0.016		I	mg/L	0.011	0.020	1	05/14/2019 14:19
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/13/2019 14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019 09:30
Phosphorus- Total	EPA 200.8	0.053	<0.046	I	mg/L	0.032	0.080	8	05/17/2019 14:34
Nitrogen- Total Kjeldahl	EPA 351.2	1.02			mg/L	0.230	0.500	1	05/20/2019 12:59
Nitrate-Nitrite (N)	EPA 353.2	0.016		I	mg/L	0.011	0.020	1	05/14/2019 11:03
pH	FDEP FT1100	7.9	6.5 - 8.5		SU			1	05/13/2019 12:12
Nitrogen- Total	Nitrogen- Total	1.04	<0.3		mg/L	0.230	0.500	1	05/20/2019 15:28
Chlorophyll a	SM 10200 H	5.5	<4.9		mg/m3	1.00	1.00	1	05/17/2019 09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019 14:00
Pheophytin	SM 10200 H	1.60			mg/m3	1.00	1.00	1	05/17/2019 09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019 13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019 11:39

ANALYTICAL RESULTS Report # 0519_MRCO_I

Location: BARFIELD_BRIDGE	*Field ID:* AF54761		*Lab ID:* AF54761		*Collect Date/Time:* 5/13/19 10:40				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019 14:19
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/13/2019 14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019 09:30
Phosphorus- Total	EPA 200.8	0.070	<0.046	I	mg/L	0.032	0.080	8	05/17/2019 14:37
Nitrogen- Total Kjeldahl	EPA 351.2	0.815			mg/L	0.230	0.500	1	05/20/2019 12:38
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019 10:38
pH	FDEP FT1100	7.8	6.5 - 8.5		SU			1	05/13/2019 10:40
Nitrogen- Total	Nitrogen- Total	0.815	<0.3		mg/L	0.230	0.500	1	05/20/2019 15:28
Chlorophyll a	SM 10200 H	7.2	<4.9		mg/m3	1.00	1.00	1	05/17/2019 09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019 14:00
Pheophytin	SM 10200 H	1.80			mg/m3	1.00	1.00	1	05/17/2019 09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019 13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019 11:24

ANALYTICAL RESULTS Report # 0519_MRCO_I

Location: JH_PARK	*Field ID:* AF54762		*Lab ID:* AF54762		*Collect Date/Time:* 5/13/19 10:12				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019 14:19

Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/13/2019	14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019	09:30
Phosphorus- Total	EPA 200.8	0.066	<0.046	I	mg/L	0.032	0.080	8	05/17/2019	14:40
Nitrogen- Total Kjeldahl	EPA 351.2	0.725			mg/L	0.230	0.500	1	05/20/2019	12:32
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019	11:08
pH	FDEP FT1100	7.8	6.5 - 8.5		SU			1	05/13/2019	10:12
Nitrogen- Total	Nitrogen- Total	0.725	<0.3		mg/L	0.230	0.500	1	05/20/2019	15:28
Chlorophyll a	SM 10200 H	7.4	<4.9		mg/m3	1.00	1.00	1	05/17/2019	09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019	14:00
Pheophytin	SM 10200 H	1.30			mg/m3	1.00	1.00	1	05/17/2019	09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019	13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019	11:44

ANALYTICAL RESULTS

Report # 0519_MRCO_I

Location: **COLLIER_BRIDGE** ***Field ID:*** **AF54763** ***Lab ID:*** **AF54763** ***Collect Date/Time:*** **5/13/19 11:35**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time	
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019	14:19
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/13/2019	14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019	09:30
Phosphorus- Total	EPA 200.8	0.051	<0.046	I	mg/L	0.032	0.080	8	05/17/2019	14:43
Nitrogen- Total Kjeldahl	EPA 351.2	0.721			mg/L	0.230	0.500	1	05/20/2019	12:39
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019	10:45
pH	FDEP FT1100	7.8	6.5 - 8.5		SU			1	05/13/2019	11:35
Nitrogen- Total	Nitrogen- Total	0.721	<0.3		mg/L	0.230	0.500	1	05/20/2019	15:28
Chlorophyll a	SM 10200 H	6.3	<4.9		mg/m3	1.00	1.00	1	05/17/2019	09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019	14:00
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	05/17/2019	09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019	13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019	11:28

ANALYTICAL RESULTS

Report # 0519_MRCO_I

Location: **HC_CENTER** ***Field ID:*** **AF54764** ***Lab ID:*** **AF54764** ***Collect Date/Time:*** **5/13/19 12:05**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time	
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019	14:19
Enterococci	Enterolert/QT	10	<130		MPN/100 mL	10	10	10	05/13/2019	14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019	09:30
Phosphorus- Total	EPA 200.8	0.048	<0.046	I	mg/L	0.032	0.080	8	05/17/2019	15:03
Nitrogen- Total Kjeldahl	EPA 351.2	0.748			mg/L	0.230	0.500	1	05/20/2019	12:41
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019	10:46
pH	FDEP FT1100	7.8	6.5 - 8.5		SU			1	05/13/2019	12:05

Nitrogen- Total	Nitrogen- Total	0.748	<0.3		mg/L	0.230	0.500	1	05/20/2019	15:28
Chlorophyll a	SM 10200 H	5.3	<4.9		mg/m3	1.00	1.00	1	05/17/2019	09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019	14:00
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	05/17/2019	09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019	13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019	11:29

ANALYTICAL RESULTS

Report # 0519_MRCO_I

Location: **KENDALL** ***Field ID:*** **AF54765** ***Lab ID:*** **AF54765** ***Collect Date/Time:*** **5/13/19 11:05**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time	
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019	14:19
Enterococci	Enterolert/QT	10	<130		MPN/100 mL	10	10	10	05/13/2019	14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019	09:30
Phosphorus- Total	EPA 200.8	0.067	<0.046	I	mg/L	0.032	0.080	8	05/17/2019	15:12
Nitrogen- Total Kjeldahl	EPA 351.2	0.874			mg/L	0.230	0.500	1	05/20/2019	12:42
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019	10:43
pH	FDEP FT1100	7.8	6.5 - 8.5		SU			1	05/13/2019	11:05
Nitrogen- Total	Nitrogen- Total	0.874	<0.3		mg/L	0.230	0.500	1	05/20/2019	15:28
Chlorophyll a	SM 10200 H	7.4	<4.9		mg/m3	1.00	1.00	1	05/17/2019	09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019	14:00
Pheophytin	SM 10200 H	4.80			mg/m3	1.00	1.00	1	05/17/2019	09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019	13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019	11:27

ANALYTICAL RESULTS

Report # 0519_MRCO_I

Location: **FCEB_MARCO** ***Field ID:*** **AF54767** ***Lab ID:*** **AF54767** ***Collect Date/Time:*** **5/13/19 11:44**

Analyte Name	Method	Result	Acceptable Limits	Qualifier	Units	MDL	PQL	DF	Analysis Date/Time	
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019	14:19
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/13/2019	14:59
Digestion for Metals	EPA 200.8	Completed						1	05/16/2019	09:30
Phosphorus- Total	EPA 200.8	0.004	<0.046	U	mg/L	0.004	0.010	1	05/17/2019	15:22
Nitrogen- Total Kjeldahl	EPA 351.2	0.230		U	mg/L	0.230	0.500	1	05/20/2019	12:37
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019	10:48
pH	FDEP FT1100	NA	6.5 - 8.5		SU			1	05/13/2019	11:44
Nitrogen- Total	Nitrogen- Total	<MDL	<0.3	U	mg/L	0.230	0.500	1	05/20/2019	15:28
Chlorophyll a	SM 10200 H	1.0	<4.9	U	mg/m3	1.00	1.00	1	05/17/2019	09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019	14:00
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	05/17/2019	09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019	13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019	11:30

ANALYTICAL RESULTS

Report # 0519_MRCO_II

Location: EB_MARCO	*Field ID:* AF54768		*Lab ID:* AF54768		*Collect Date/Time:* 5/13/19 09:52				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019 14:19
Enterococci	Enterolert/QT	10	<130	U	MPN/100 mL	10	10	10	05/13/2019 14:59
Digestion for Metals	EPA 200.8	Completed						1	05/16/2019 09:30
Phosphorus- Total	EPA 200.8	0.004	<0.046	U	mg/L	0.004	0.010	1	05/17/2019 15:18
Nitrogen- Total Kjeldahl	EPA 351.2	0.230		U	mg/L	0.230	0.500	1	05/28/2019 12:11
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019 11:06
pH	FDEP FT1100	NA	6.5 - 8.5		SU			1	05/13/2019 09:52
Nitrogen- Total	Nitrogen- Total	0.230	<0.3	U	mg/L	0.230	0.500	1	05/20/2019 15:28
Chlorophyll a	SM 10200 H	1.0	<4.9	U	mg/m3	1.00	1.00	1	05/17/2019 09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019 14:00
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	05/17/2019 09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/21/2019 10:24
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019 11:42

ANALYTICAL RESULTS

Report # 0519_MRCO_II

Location: DUP1	*Field ID:* AF54769		*Lab ID:* AF54769		*Collect Date/Time:* 5/13/19 10:42				
Analyte Name	**Method**	**Result**	**Acceptable Limits**	**Qualifier**	**Units**	**MDL**	**PQL**	**DF**	**Analysis Date/Time**
CC-Nitrate-N	CC-Nitrate-N	<MDL		U	mg/L	0.011	0.020	1	05/14/2019 14:19
Enterococci	Enterolert/QT	20	<130	J	MPN/100 mL	10	10	10	05/13/2019 14:59
Digestion for Metals	EPA 200.8	Completed						8	05/16/2019 09:30
Phosphorus- Total	EPA 200.8	0.069	<0.046	I	mg/L	0.032	0.080	8	05/17/2019 15:15
Nitrogen- Total Kjeldahl	EPA 351.2	0.775			mg/L	0.230	0.500	1	05/20/2019 13:01
Nitrate-Nitrite (N)	EPA 353.2	0.011		U	mg/L	0.011	0.020	1	05/14/2019 11:07
pH	FDEP FT1100	7.8	6.5 - 8.5		SU			1	05/13/2019 10:42
Nitrogen- Total	Nitrogen- Total	0.775	<0.3		mg/L	0.230	0.500	1	05/20/2019 15:28
Chlorophyll a	SM 10200 H	7.6	<4.9	J	mg/m3	1.00	1.00	1	05/17/2019 09:47
Filtration for Chlorophyll and Phe	SM 10200 H	Completed						1	05/14/2019 14:00
Pheophytin	SM 10200 H	1.00		U	mg/m3	1.00	1.00	1	05/17/2019 09:47
Digestion for TKN	SM 4500 NorgD	Complete						1	05/14/2019 13:10
Nitrite (N)	SM 4500-NO2 B	0.002		U	mg/L	0.002	0.005	1	05/14/2019 11:43