



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

March 2017

PAGE 1 OF

Data Qualified?

Yes ☒ No ☐

Location/STORET Station Name: Wakulla River Below US 98

Date: 10/25/2017

(mm/dd/yyyy)

STORET # G1WA0028

WBID: 1006VA

Latitude: 30.17607

County: Wakulla

RQ - 2017-10-23-20

ORG ID: 21FLWQA

Longitude: -84.2429

(Decimal Degrees)

Receiving Body of Water: St. Marks River, GOM

Field ID: G1WA0028_10252017

(Decimal Degrees)

Sampling Team Members				WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Ray Stuart				☒	☒			
Curtis Musson					☒	☒	☒	☒

Sampling Equipment			
☒ Sample Container	☐ Van Dorn	☐ Pole	
☐ Carboy	☒ Syringe		
☐ Dipper	☐ Other		
Equipment ID			

Collection Method			
☐ Wading	☐ Via Boat		
☐ From Shore	☐ Canoe/Kayak		
☐ Other (note below)	☐ Electric Motor		
	☒ Gasoline Motor		

Water Level: Dry / Pooled / Low / <u>Normal</u> / High / Flooded				Matrix: <u>Fresh</u> / Marine / DI							
Meter ID# Bio 2				Photos: Yes / <u>No</u>				Tide Falling: Yes / No / <u>NA</u>			
Time Zone	Time	Sample Depth (m)	Total Depth (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (ppt)	Secchi Disk (m)	Sp COND (µmhos/cm)	Temp. (C°)	
EST	9:10	0.3	3.1	5.62	60.8	8.49	0.16	VOB	335	19.22	
CEN	9:15	2.6		5.44	59.0	8.25	0.16		338	19.21	

Biological Samples Collected: <u>None</u> HA SCI RPS Algae ID LVS LVI Other									
SBIO ID Numbers: SBIO-ID: RPS-ID: Macrophyte-ID: LIMS#: <u>1939969</u>									

Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP	☒ Ice ☒ H2SO4	SA7233030	8/21/18	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice			
Chlorophyll	☒ CHLSUITE-W	☒ Ice			
Physical/Aggregate (Fresh)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CI-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice			
Physical/Aggregate (Marine)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC	☐ Formalin			
Periphyton	☐ ALGAE-ID	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enterococci ☐ qPCR	☐ Ice			
Tracers	☐ W-SUC-AA-R ☐ W-UHERB-AA ☐ W-AHERB-AA	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R	☐ Ice			
	☐ W-PCL-SQ-R ☐ W-UHERB-AA ☐ W-GLYPH ☐ W-SUC-AA-R	☐ Other			

SULFURIC ACID <51%

DAVOC'S 7664-93-8 7724-16-8

Contains 1:1 Sulfuric Acid

LOT No: SA7233030

Expires: 08/21/18

See Safety Data Sheet (SDS)

Contains 1:1 Sulfuric Acid

LOT No: SA7233030

Expires: 08/21/18

See Safety Data Sheet (SDS)

Notes:
KIT A

Field ID: →

Wakulla River
Below Highway
98 Bridge

OCT 25, 2017



G1WA0028_10252017

Wakulla River
Below Highway
98 Bridge

STORET ↓



G1WA0028

Signature:

Date:

Field Parameters Entered into LIMS:

Cm 10/26/17

(Initials/Date)

Field Parameters QC in LIMS:

SA 4/1/18

(Initials/Date)

Date Migrated to STORET:

(Initials/Date)

Field Sheets Scanned/Saved:

4-13-18

(Initials/Date)

Wakula, Moriah, (and), Vandal

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there is qualified data on this page.

Meter ID: BIO #2 RQ: 2017-10-23-20 Project: SMP

- Notes: (1) Always wait for meter to stabilize before recording any readings.
(2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).
(3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Curtis Mussen	10/25/17	708	20.77	8.96	8.96	100.0	51	-	⓪/F	⓪/F
ICV	Curtis Mussen	10/25/17	709	20.77	8.96	8.95	100.0	51	-	⓪/F	⓪/F
CCV	Curtis Mussen	10/25/17	1416	20.30	9.03	9.23	102.1	51	-	⓪/F	⓪/F
CCV										P/F	L/F

DO Acceptance criteria from Table ± 0.3 mg/L.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis Mussen	10/25/17	712	171005 D	10/2018	1000	1000	⓪/F	⓪/F
ICV	Curtis Mussen	10/25/17	713	171005 D	10/2018	1000	1001	⓪/F	⓪/F
CCV	Curtis Mussen	10/25/17	1418	170614 D	6/2018	100	105	⓪/F	⓪/F
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Curtis Mussen	10/25/17	715	170614 B	12/2018	7.0	6.99	48	⓪/F	⓪/F
Calibr.	Curtis Mussen	10/25/17	718	171005 A	10/2018	4.01	4.01	218	⓪/F	⓪/F
Calibr.	Curtis Mussen	10/25/17	720	170310 C	9/2018	10.01	9.95	-105	⓪/F	⓪/F
ICV	Curtis Mussen	10/25/17	722	170310 C	9/2018	10.01	9.93	-104	⓪/F	⓪/F
CCV	Curtis Mussen	10/25/17	1420	171005 A	10/2018	4.01	4.19	208	⓪/F	⓪/F
CCV									P/F	L/F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? Yes / No If yes, list date of last quarterly depth verification

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value meters	Pass / Fail	Lab / Field
Pressure mode in air	Curtis Mussen	10/25/17	723	0.000	0.00	⓪/F	⓪/F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:

Request Number: RQ-2017-10-23-20

Wakulla, Moriah, Caney, Ward

Customer: WAS-SECT

Project ID: SMP

Wakulla River
Below Highway
98 Bridge

Field ID →
Wakulla River
Below Highway
98 Bridge
OCT 25, 2017

Moriah Creek 100
meters upstream
of Newport Rd.

Field ID →
Moriah Creek 100
meters upstream
of Newport Rd.
OCT 25, 2017

Wards Creek
upstream of
bridge at
CR 259

Field ID →
Wards Creek
upstream of
bridge at
CR 259
OCT 25, 2017

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Lab Sample Submittal Form

Requester: Curtis Musson

Collected By: Curtis Musson, Raymond Stuart

Field Report Prepared By: Raymond
Sampling Agency: FDEP

☐ Comp ☒ Grab	Collection (comp begin or grab)	Date	Time	Collection (comp begin or grab)	Date	Time	Bottle Group(s)
Matrix (Salt Fresh)	10/25/17	9:10 am	5.62	Eastern	0.3	335	A
Temp (C)	19.22	pH	8.49	Sample Depts (m)			
Salinity (ppt)	0.16	Comments					
Latitude (Decimal Degrees)	30.17607	Longitude (Decimal Degrees)	-84.2429				
☐ Comp ☒ Grab	Collection (comp begin or grab)	Date	Time	Collection (comp begin or grab)	Date	Time	Bottle Group(s)
Matrix (Salt Fresh)	10/25/17	9:55 am	7.05	Eastern	0.15	463	A
Temp (C)	15.92	pH	8.09	Sample Depts (m)			
Salinity (ppt)	0.22	Comments					
Latitude (Decimal Degrees)	30.1857	Longitude (Decimal Degrees)	-84.1929				
☐ Comp ☒ Grab	Collection (comp begin or grab)	Date	Time	Collection (comp begin or grab)	Date	Time	Bottle Group(s)
Matrix (Salt Fresh)	10/25/17	11:00 am	9.23	Eastern	0.15	103	A C D E
Temp (C)	17.14	pH	7.90	Sample Depts (m)			
Salinity (ppt)	0.05	Comments					
Latitude (Decimal Degrees)	30.5325	Longitude (Decimal Degrees)	-83.9501				

Received By: [Signature]

Date/Time: 10/25/17 1:28 pm

Number of Coolers: 2

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Lab Sample Submittal Form

Request Number: RQ-2017-10-23-20
Wakulla, Moriah, Caney, Ward
Customer: WAS-SECT
Project ID: SMP
Requester: Curtis Musson

Field Report Prepared By: FDEP
Sampling Agency: FDEP

Collected By:

Caney Creek
Upstream of
US 90

Field ID →

STI

OCT 25, 2017

Field ID →

Caney Creek
Upstream of
US 90

STI

OCT 25, 2017

Matrix (Salt, Fresh)	Date	Time	Collection (comp begin or grab)	Eastern Central	Date	Time	Bottle Group(s)
☒ Grab	10/25/17	11:40 am					A B C D E
Diss. Oxygen (mg/L)	1.43						
pH	6.03						
Temp (C)	17.08						
Salinity (ppt)	0.02						
Latitude (Decimal Degrees)	30.605						
Longitude (Decimal Degrees)	-83.893257						

Caney Creek
Downstream of 158A

Field ID →

STI

OCT 25, 2017

Field ID →

Caney Creek
Downstream of 158A

STI

OCT 25, 2017

Matrix (Salt, Fresh)	Date	Time	Collection (comp begin or grab)	Eastern Central	Date	Time	Bottle Group(s)
☒ Grab	10/25/17	12:27 pm					A B C D E
Diss. Oxygen (mg/L)	8.84						
pH	7.08						
Temp (C)	17.43						
Salinity (ppt)	0.05						
Latitude (Decimal Degrees)	30.52						
Longitude (Decimal Degrees)	-83.94						

Matrix (Salt, Fresh)	Date	Time	Collection (comp begin or grab)	Eastern Central	Date	Time	Bottle Group(s)
☐ Comp ☐ Grab							
Diss. Oxygen (mg/L)							
pH							
Temp (C)							
Salinity (ppt)							
Latitude (Decimal Degrees)							
Longitude (Decimal Degrees)							

Relinquished By:	Date/Time	Number of Coolers	Received By:	Date/Time
				10-25-17/1:46

Group: A	Bottle Type: P-1L	# of Bottles: 5	Preservative: ICE	Enter Number of Bottles Sent to Lab	5
ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS					
Group: A	Bottle Type: BP-1L	# of Bottles: 5	Preservative: ICE	Enter Number of Bottles Sent to Lab	5
CHLSUITE-W					
Group: A	Bottle Type: P-500ML	# of Bottles: 5	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	5
W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC					
Group: A	Bottle Type: P-125ML	# of Bottles: 5	Preservative: FILTER-ICE	Enter Number of Bottles Sent to Lab	5
W-PO4-F					
Group: B	Bottle Type: P-500ML	# of Bottles: 2	Preservative: HNO3	Enter Number of Bottles Sent to Lab	2
W-ICP W-ICPMS					
Group: C	Bottle Type: P-250ML-WO-THI	# of Bottles: 3	Preservative: ICE	Enter Number of Bottles Sent to Lab	3
ECOLI-18QT					
Group: D	Bottle Type: BG-1L	# of Bottles: 3	Preservative: ICE	Enter Number of Bottles Sent to Lab	3
W-AHERB-AA W-SUC-AA-R W-UHERB-AA					
Group: E	Bottle Type: QPCR-P-250ML	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab	2
PCR-FILTER PCR-GFD PCR-HF183					
Group: F	Bottle Type: QPCR-P-250ML	# of Bottles: 4	Preservative: ICE	Enter Number of Bottles Sent to Lab	4

Group: F

Bottle Type:

PCR-BACR

PCR-FILTER

PCR-HF183

QPCR-P-250ML

of Bottles: 4

Preservative:

ICE

Enter Number of Bottles Sent to Lab

4

Cooler Packing Worksheet for Request: RQ-2017-10-23-20

Wakulla, Moriah, Caney, Ward

Ship Cooler On: 10/20/2017

Customer/Project: WAS-SECT/SMP

Assigned To: SHAIK_A

Requester: Curtis Musson

Priority: 3

850-245-8453

2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

Group A: Freshwater Kit

Group B: Metals

Group C: ECOLI

Group D: Tracers (AHERB Short list)

Group E: PCR Filter, HF183, GFD

Group F: PCR Filter, HF183, BacR

1 - case of sulfuric acid

No FedEx labels

Requested Analyses:

Bottle Group: A

of Sites: 5

Container ID: P-1L

Qty: 5 Preservation: ICE

Lot # 00065122

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

W-SO4-IC

W-TDS

W-TSS

Description

Alkalinity in aqueous matrices as mg CaCO₃/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm

Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)

Sulfate in aqueous matrices

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices

Container ID: BP-1L

Qty: 5 Preservation: ICE

Lot # 1204544

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-500ML

Qty: 5

Preservation: ICE And H2SO4

Lot # 00068654

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH3

W-NO2NO3

W-S-A-TP

W-TKN

W-TOC

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

Total Phosphorus in aqueous matrices as mg P/L

Total Kjeldahl Nitrogen in aqueous matrices

Nonpurgeable Organic Carbon in aqueous matrices

Container ID: P-125ML

Qty: 5

Preservation: FILTER-ICE

Lot # 0008347

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Group: B

of Sites: 2

Container ID: P-500ML

Qty: 2

Preservation: HNO3

Lot # 00068654

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-ICP

W-ICPMS

Description

Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects

Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects

Bottle Group: C

of Sites: 3

Container ID: P-250ML-WO-THI

Qty: 3

Preservation: ICE

Lot # L16292

Description:

Analysis

ECOLI-18QT

Description

Escherichia coli by Colilert 18 Quanti-Tray method - non-chlorinated water systems

Bottle Group: D

of Sites: 3

Container ID: BG-1L

Qty: 3 Preservation: ICE

Lot # 0006117

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-AHERB-AA

W-SUC-AA-R

W-UHERB-AA

Description

Chlorinated (phenoxy acid) herbicides in water matrices by HPLC/MS/MS

Analysis of sucralose in water matrices by HPLC/MS/MS

Urea herbicides and other chemicals in water matrices by HPLC/MS/MS

Bottle Group: E

of Sites: 1

Container ID: QPCR-P-250ML

Qty: 2 Preservation: ICE

Lot # 00068679

Description:

Analysis

PCR-FILTER

PCR-GFD

PCR-HF183

Description

Preparation of Samples by Filtration and held for qPCR Analysis

Detection and quantification of bird specific Helicobacter GFD genetic marker with quantitative polymerase chain reaction

Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction

Bottle Group: F

of Sites: 2

Container ID: QPCR-P-250ML

Qty: 4 Preservation: ICE

Lot # 00068679

Description:

Analysis

PCR-BACR

PCR-FILTER

PCR-HF183

Description

Detection and quantification of Ruminant specific Bacteroidetes BacR genetic marker with quantitative polymerase chain reaction

Preparation of Samples by Filtration and held for qPCR Analysis

Detection and quantification of human-specific HF183 Bacteroides genetic marker with quantitative polymerase chain reaction

Cooler Packed By: AB

Number of Coolers: 2

Date: 10-20-17

Kit must also include:

- ☒ Field Sheets
- ☐ Temperature Control Bottle
- ☒ FedEx Bills, if applicable
- ☒ Plastic Bags
- ☒ Zip Ties

If Preservation Included:

ID <u>425041.1</u>	Exp <u>8-21-17</u>	Lot # <u>SA 7233030</u>
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____

PLEASE RETURN ALL COOLERS FOR RQ-2017-10-23-20