



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2018

Data Qualified?

Yes / No

WIN Station Name: Wakulla At Boat Tram

Date: 1/17/18

WIN/ Field ID: 44059

WBID: 1006

Latitude: 30.23458

(mm/dd/yyyy)

County: Wakulla

ORG ID: 21FLWQA

Longitude: -84.29447

(Decimal Degrees)

Receiving Body of Water: St. Marks River

RQ-2018- 01-15-02

(Decimal Degrees)

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment				
Curtis Musson							X	X	X	X		☐ Sample Container	☐ Van Dorn	☐ Pole	
Ben Ralys						X	X	X	X		☐ Carboy	☐ Syringe			
											☐ Dipper	☐ Other			
											Depth Measured with Equipment ID				
											Collection Method				
											☐ Wading	☐ Canoe/Kayak			
											☐ From Shore	☐ Electric Motor			
											☐ Other	☐ Gasoline Motor			
Water Level: Dry/ Pooled/ Low / Normal / High / Flooded						Meter ID# Biology #2				Matrix: Fresh / Marine / DI					
Photos: Yes / No		Flow: No Flow / Intestinal / Flowing / NA				Tide: Rising/ Falling/ Slack/ NA				Tide Times: High NA Low NA					
Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (µmhos/cm)	Temp. (C°)					
EST	10:25	1.0	0.3	VOB	3.39	37.6	8.21	021	429	20.28					
CEN															
Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:															
SBIO ID Numbers: SBIO-ID: 78174 HA-ID: 15024 RPS-ID: 8910 Macrophyte-ID: 10815 LIMS#: 1959532															
Parameter Suite		Parameter Methods				Preservation		Lot#	Expiration	pH Check					
Preserved Nutrients		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☒ H2SO4		7233030	8/21/18	X <2					
Metals		☒ W-ICPMS ☒ W-ICP				☒ Ice ☒ HNO3		7261120	9/18/18	X <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-Cl-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				☐ Ice									
Molecular		☐ PCR-FILTER ☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-GULL2 ☐ PCR-GFD				☐ Ice									
Tracers		☒ W-SUC-AA-R ☒ W-UHERB-AA ☒ W-AHERB-AA				☒ Ice									
Pesticides		☐ W-PSNP-TQ ☐ W-UHERB-AA ☐ W-AHERB-AA ☐ W-CARB-AA				☐ Ice									
		☐ W-PCL-SQ-R ☐ W-PYR-AA-R ☐ W-GLYPH ☐ W-SUC-AA-R				☐ Other									

Notes:

Kit-C, SCI,
Algae, RPS
LVS

↓ Location ↓

WIN ID/Field ID



44059



Wakulla River Boat Tram

Signature:

[Signature]

Date:

1-17-18

Enter Field Parameters, Verify Station ID In LIMS DMT:

2/21/18

QC Station ID, Field Parameters In LIMS DMT:

Cm 4-9-18

Scan/Save Field Sheets

4-9-18 Cm

Migrate Data to WIN:

Verify Data In WIN:

(Initials/Date)

(Initials/Date)

(Initials/Date)

(Initials/Date)

SBIO: 78174

RDS ID: 7818910

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: <u>Wakulla at boat ramp</u>					County: <u>Wakulla</u>		Date: <u>1-17-18</u>		Investigators: <u>Curtis Mussen / Ben Ralx</u>	
STORST Station Number: <u>44059</u>										
Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	Transect (m)	Point 1=right 9=left	Algal Thickness Rank (N-6, X)	Estimated	Canopy Cover	
6	1	X			6	1	X			
	2	4				2	6			
	3	6				3	6			
	4	6				4	6			
	5	6				5	6			
	6	6				6	6			
	7	6				7	6			
	8	6				8	6			
	9	6				9	6			
6	1	X			4	1	6			
	2	6				2	6			
	3	6				3	6			
	4	6				4	6			
	5	6				5	6			
	6	6				6	6			
	7	6				7	6			
	8	6				8	6			
	9	6				9	6			
5	1	X			4	1	X			
	2	4				2	6			
	3	6				3	6			
	4	6				4	6			
	5	6				5	6			
	6	6				6	6			
	7	6				7	6			
	8	6				8	6			
	9	6				9	6			
7	1	X			5	1	X			
	2	4				2	6			
	3	6				3	6			
	4	6				4	6			
	5	6				5	6			
	6	6				6	6			
	7	6				7	6			
	8	6				8	6			
	9	6				9	6			
5	1	X			4	1	X			
	2	6				2	6			
	3	6				3	6			
	4	6				4	6			
	5	6				5	6			
	6	6				6	6			
	7	6				7	6			
	8	6				8	6			
	9	6				9	6			
5	1	X			4	1	X			
	2	6				2	6			
	3	6				3	6			
	4	6				4	6			
	5	6				5	6			
	6	6				6	6			
	7	6				7	6			
	8	6				8	6			
	9	6				9	6			
5	1	X			4	1	X			
	2	6				2	6			
	3	6				3	6			
	4	6				4	6			
	5	6				5	6			
	6	6				6	6			
	7	6				7	6			
	8	6				8	6			
	9	6				9	6			

Secchi depth 0.8
Estimated? no

points ranked 4-6 57
total points assessed 88
% points ranked 4-6 65%

(Exclude X's) 211

Check accompanying data collected at same site/date.

Algal mat sample X
Linear Veg Survey X
Habitat Assessment X
SCI/Bioscience X
Water sample X

RQ: 2018-01-15-02

Algal Thickness Rank	
N	rough, no algae, slimy, algae up to 1mm
3	>1mm - 6mm
4	>6mm - 20mm
5	>20mm - 10 cm
6	>10 cm

(> 3 considered smothered)

(N to 1 mm)

(3) 6mm

(4) 20mm

(5) 10cm

(6)

Record "N" and check "Estimated" for points deeper than the Secchi depth; algae are presumed absent. Check "Estimated" if thickness estimated for deep points which can be seen but not reached.

Record "X" for points shallower than Secchi depth for which substrate cannot be seen or reached with the hand. No estimated rank.

Record canopy cover as the number of small densiometer quadrants (out of 96) that HAVE canopy cover. Measure facing upstream at point 4, 5, or 6.

Collect algal mat sample following DEP SOP FS 7240 if the percentage of total sampled points with a thickness rank of 4, 5, or 6 is >20%.

Entered by: Blubb 2/21/18

SRIO: 78174 Macrophyte ID: 10815

DEP FORM FD 9000-32: LINEAR VEGETATION SURVEY FIELD SHEET

Waterbody: Wakulla at Boat Team Date: 1-17-18 County: Vaquilla Storet Number: 44059
 Analyst: Curtis M. Wilson Signature: Curtis M. Wilson

Comments: SMP Sampling

Instructions: Note taxa growing in the water with a checkmark if present, "D" if dominant, and "C" if codominant (dominance only if 1 m² of taxa present). Note in the boxes below if no dominant are selected, and note total macrophyte abundance rank for each section. Only the most common taxa are listed, so use blank spaces for additional taxa names.

HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)	HERBACEOUS SPECIES	Meter Mark										Specimen collected (check)
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100			0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
Alternanthera philoxeroides												Myriophyllum heterophyllum											
Bacopa caroliniana												Najas guadelupensis											
Bacopa monneri												Nuphar luteum											
Bidens mitis												Orontium aquaticum											
Boehmeria cylindrica												Panicum hemitomon											
Centella asiatica												Panicum repens											
Ceratophyllum demersum												Panicum rigidulum											
Chara												Peltandra virginica											
Cicuta maculata	X	X	X	X	X	X	X	X	X	X		Pistia stratioides											
Cladium jamaicense	X											Polygonum glabra	X	X	X	X	X	X	X	X	X	X	
Colocasia esculenta												Polygonum hydropiperoides											
Commelina diffusa												Polygonum punctatum											
Commelina virginica												Pontedaria cordata	X	X	X	X	X	X	X	X	X	X	
Crinum americanum												Potamogeton illinoensis											
Diodia virginiana												Rhynchospora inundata	X	X	X	X	X	X	X	X	X	X	
Eichhornia crassipes												Rosa palustris											
Eleocharis (wispy viviparous)												Ruellia simplex											
Hydrilla verticillata	V	X		X	X	X	X	X	X	X		Rumex verticillatus	X	X		X	X	X	X	X	X	X	
Hydrocotyle					X	X	X	X	X	X		Sacciolepis striata											
Hygrophila polysperma												Sagittaria kurziana	X	X	X	X	X	X	X	X	X	X	
Hymenocallis	X	X	X									Sagittaria lancifolia	X	X	X	X	X	X	X	X	X	X	
Lachnanthes caroliniana												Sagittaria latifolia											
Landoltia punctata												Salvinia minima											
Lemna	X	X	X	X	X	X	X	X	X	X		Samolus parviflora											
Limnophila sessiflora												Saururus cernuus											
Ludwigia leptocarpa												Scirpus (schenoplectus) californicus	X	X			X	X					
Ludwigia palustris												Sparganium americanum											
Ludwigia peruviana												Typha				X	X						
Ludwigia repens				X	X	X						Vallisneria americana	X	X	X	X	X	X	X	X	X	X	
Luziola fluitans												Zizania aquatica											
Micranthemum glomeratum												Azoid SP.	X	X	X	X	X	X	X	X	X	X	
Micranthemum umbrosum												Running man Livermor	X	X	X	X	X	X	X	X	X	X	
Mikania scandens	X	X	X	X	X	X	X	X	X	X		Hydrilla	X	X	X	X	X	X	X	X	X	X	
Myriophyllum aquaticum												Riccia-SP.											

If no Dominant or Co-Dominant were selected, indicate with "X"

Indicate % cover macrophytes per section

0-5% Macrophyte Coverage																							
>5 and ≤10% Macrophyte Coverage																							
>10 and ≤25% Macrophyte Coverage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							

Notes:

☐ < 2m2

Entered by: B. Wilson 2/21/18

Macrophyte QC Report

STORET: 44059

Visit ID: 78174

Macrophyte ID: 10815

LIMS ID:

Sample Date: 1/17/2018

Collector Name: Musson, Curtis

Identifier Name: Musson, Curtis

Macrophyte Sample Comments:

[illegible]

QC 4.9.18
↓

This data has not been fully approved at this time.

SBIO: 78174 HA ID: 15024

DEP Form FD 9000-5 Stream/River Habitat Assessment Field Sheet

SAMPLING AGENCY: Florida Department of Environmental Protection		STORET STATION NUMBER: 44059	DATE (MM/DD/YY): 1-17-18	RECEIVING BODY OF WATER: St. Marks / Gulf of Mexico
REMARKS:	COUNTY: Wakulla	LOCATION: Wakulla at boat ramp		FIELD ID/NAME: 44059

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components <u>Snag</u> <u>Leaf</u> <u>Roots</u> <u>Rock</u> <u>Aquatic Vegetation</u>	Four or more major productive habitats present (snags, tree roots, aquatic vegetation, leaf packs (partially decayed), rock)	Three major productive habitats present. Adequate habitat. Some substrates may be new fall (fresh leaves or snags)	Two major productive habitats present. Less than desirable habitat, frequently disturbed or removed	One or less major productive habitat. Lack of habitat is obvious, substrates unstable or smothered
Substrate Diversity <u>8</u>	20 19 18 17 16	15 14 13 12 11	10 9 <u>8</u> 7 6	5 4 3 2 1
Substrate Availability <u>20</u> <u>73%</u>	Major productive habitat present at site (>30% 27.2% 25.8% 24.4% 26.6%) <u>20</u> 19 18 17 16	Major productive habitat, by aerial extent (21.6% 20.2% 18.8% 17.4% 16%) 15 14 13 12 11	6% to 15% major productive habitat (15% 13% 11% 9% 6%) 10 9 8 7 6	Less than 5% major productive habitat 5 4 3 2 1
Water Velocity <u>20</u> <u>0.05</u> m/s	Max. observed at typical transect: > 0.25 m/sec. But < 1 m/sec ≥0.33 0.31 0.29 0.27 >0.25 <u>20</u> 19 18 17 16	Max. observed at typical transect: >0.1 to 0.25 m/sec 0.25 0.21 0.17 0.13 >0.1 15 14 13 12 11	Max. observed at typical transect: 0.05 to 0.1 m/sec 0.1 0.09 0.07 0.06 0.05 10 9 8 7 6	Max. observed at typical transect: <0.05 m/sec; or spate occurring: > 1 m/sec <0.05 0.04 0.03 0.01 <0.01 5 4 3 2 1
Habitat Smothering <u>11</u> ----- Primary Score <u>59</u>	Adequate number of stable pools (1-2 per 12 times width) and <25% of habitats affected by sand, silt, or algae. 20 19 18 17 16	Adequate number of stable pools (1-2 per 12 times width) and >25% of habitats affected by sand, silt, or algae. 15 14 13 12 <u>11</u>	Does not have required number of stable pools (1-2 per 12 x width) and/or has shallow pools (<2 x prevailing depth). 10 9 8 7 6	Stable pools are absent. Most habitats affected by sand, silt, or algae accumulation. 5 4 3 2 1
Secondary Habitat Components Artificial Channelization <u>20</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 16	Good sinuosity within old channelized area. Evidence of dredging in the past (>25 yrs) but mostly recovered. 15 14 13 12 11	Straightened with trapezoidal cross section, but has a small degree of sinuosity developed within channelized area. 10 9 8 7 6	Straightened or engineered by dredging, has trapezoidal or box cut cross section, lacks required pools. May have spoil banks. 5 4 3 2 1
Bank Stability Right Bank <u>10</u> Left Bank <u>10</u> If Banks are PipeClay, BedRock or Concrete at Bank full: Optimal	Bankfull > 60% of bank height. Slope of bank ≤ 60° from bankfull to top of bank. Bankfull is within or above the root zone with few raw, eroded areas. (+,+,+) 10 9	Only meets 2 of the 3 requirements for optimal bank stability. (+,-,-) 8 7 6	Only meets 1 of the 3 requirements for optimal bank stability. (+,-,-) 5 4	Bankfull < 60% of bank height. Slope of bank > 60°. Bankfull is below the root zone with raw, eroded areas. (-,-,-) 3 2 1
Riparian Buffer Zone Width Right Bank <u>10</u> Left Bank <u>10</u>	Width of vegetation greater than 18 m 10 9	Width of vegetation >12 to 18m 8 7 6 (18m 15m 12m)	Width of vegetation 6 to 12 m. human activities close to system 5 4 (9m)	Less than 6 m of buffer zone due to intensive human activities 3 2 1 (6-5m) (4-3m) (<2m)
Riparian Zone Vegetation Quality Right Bank <u>10</u> Left Bank <u>10</u> ----- Secondary Score <u>80</u>	Over 80% of riparian surfaces consist of normal, expected plant community for given sunlight & habitat conditions (e.g., native plants; tree, shrub, and forbs represented, if appropriate). Minimal disturbance. 10 9	>50% to 80% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Some disruption in community observed. 8 7 6	25% to 50% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). Disruption obvious. 5 4	Less than 25% of riparian zone is undisturbed (normal, expected plant community for given sunlight & habitat conditions). 3 2 1

139

TOTAL SCORE

Date: 1-17-18	Analyst: Curtis Messon / Ben Ralys	Signature:
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Entered by: 2/21/18

QC by Curtis Messon 4-3-18

DEP Form FD 9000-3 Physical/Chemical Characterization Field Sheet

SAMPLE ID 78174 ORG ID 21FWQ01 LATITUDE 30.23458
 COUNTY Wakulla STORET # 44059 LONGITUDE -84.29447
 DATE 1-17-18 TIME 10125 SAMPLING AGENCY FDEP
 SITE NAME Wakulla AT Boat TRAM
 FIELD ID/NAME 44059 RECEIVING BODY OF WATER ST. MARKS, GULF OF MEXICO

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>78</u> Silviculture <u>0</u> Field/Pasture <u>2</u> Agricultural <u>0.9</u> Residential <u>17</u> Commercial <u>0.7</u> Industry <u>0.9</u> Other (Specify) <u>0.5</u>							Landscape Development Intensity Index (LDI) <u>1.2</u>
Local Watershed Erosion (select one): ☒ None ☐ Slight ☐ Moderate ☐ Heavy Local Watershed NPS Pollution: ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy				Typical Width (m) Depth (m)/Velocity (m/sec) Transect <u>85</u> m wide m/s <u>0.5</u> m/s <u>0.5</u> m/s			
Width of Riparian Vegetation (m) on Each Buffer Side Left Bank: <u>718</u> Right Bank: <u>718</u>		Hydrologic Modification Score (per FT 3101) <u>3-4</u>		m/s <u>0.5</u> m/s <u>0.5</u> m/s			
High Water Mark: <u>0.1</u> + <u>1.0</u> = <u>1.1</u> (m) (above present water level) (present depth) (above bed)		Artificially Impounded ☐ Yes ☒ No		m deep <u>1.0</u> m deep <u>1.0</u> m deep <u>1.0</u>			
Artificially ☒ No ☐ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe		Canopy Cover % ☒ Open ☐ Lightly Shaded (11-45%) ☐ Heavily Shaded ☐ Moderate Shaded (46-80%)					

SEDIMENT / SUBSTRATE

Sediment Oils ☒ Absent ☐ Slight ☐ Moderate ☐ Profuse	Sediment Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Anaerobic ☐ Other (Specify):	Smothering of Substrates Sand Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Silt Smothering: None ☐ Slight ☒ Moderate ☐ Severe ☐ Algae Smothering: None ☐ Slight ☐ Moderate ☐ Severe ☒
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SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon				WATER QUALITY							
				Depth (M)	Temp. (°C)	pH (SU)	D.O. (MG/L)	D.O. Sat (%)	Cond. (UMHO/CM)	Salinity (PPT)	SECCHI (M)
Top:				<u>0.3</u>	<u>20.28</u>	<u>8.21</u>	<u>3.39</u>	<u>37.6</u>	<u>429</u>	<u>0.21</u>	
Mid:											☒ VOB
Bottom:											
Meter ID: <u>B10 #2</u>				TOTAL DEPTH <u>1.0</u>							
Woody Debris (Snags) <u><1</u> <u>7</u> Undercut Banks / Roots <u>0</u> <u>0</u> Leaf Packs or Mat <u>0</u> <u>0</u> Aquatic Vegetation <u>>30</u> <u>7</u> Rock or Shell Rubble <u>>50</u> <u>6</u> Sand <u>0</u> <u>0</u> Mud / Muck / Silt <u>0</u> <u>0</u> Other <u>0</u> <u>0</u> Other <u>0</u> <u>0</u>				Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐				Water Surface Oils Normal ☒ Sheen ☐ Globbs ☐ Slick ☐ Other ☐			
				Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>See Run Sheet</u>				Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐			
				Algae Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>For</u> Exp:				Clarity Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque ☐			

ABUNDANCE Not Obs. Rare Common Abundant Periphyton: ☐ ☐ ☐ ☒ Fish: ☐ ☐ ☒ ☐ Aquatic Plants: ☐ ☐ ☐ ☒ Iron/Sulfur Bacteria: ☒ ☐ ☐ ☐				System Type: Stream ☒ Lake ☐ Wetland ☐ Estuary ☐ Other (Specify) ☒ <u>SPRINGS</u> AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.							
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SAMPLING TEAM Curtis Mussen / Ben Ralys SIGNATURE: Curtis Mussen DATE: 1-17-18

Wapukila BMAP, Boat TRAM
~~SMP Ochlocknee River~~ CM

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 name.

Meter ID: Bio #2 RQ: Project: SMP/BMAP

- 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 Musson	1-17-18	713	18.54	9.371	9.36	100.0	50.2	—	☒ F	☒ F
ICV	Curtis Musson	1-17-18	714	18.56	9.352	9.35	99.9	50.2	—	☒ F	☒ F
CCV	Curtis Musson	1-17-18	1232	18.27	9.409	9.56	101.5	49.2	—	☒ F	☒ F
CCV										P / F	L / F

DO Acceptance criteria from Table ± 0.3 mg/L.

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

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

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

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	1-17-18	716	17100SD	10/2018	1000	1000	☒ F	☒ F
ICV	Curtis Musson	1-17-18	717	17100SD	10/2018	1000	1001	☒ F	☒ F
CCV	Curtis Musson	1-17-18	1234	17100SE	10/2018	100	103	☒ F	☒ 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 Musson	1-17-18	719	170614B	12/2018	7.0	7.00	21	☒ F	☒ F
Calibr.	Curtis Musson	1-17-18	721	17100SA	10/2018	4.01	4.01	185	☒ F	☒ F
Calibr.	Curtis Musson	1-17-18	723	17100SC	04/2019	10.01	9.98	735.9	☒ F	☒ F
ICV	Curtis Musson	1-17-18	724	17100SC	04/2019	10.01	10.00	137	☒ F	☒ F
CCV	Curtis Musson	1-17-18	1236	17100SA	10/2018	4.01	4.2	172	☒ F	☒ 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 Musson	1-17-18	718	0.000	0.000	☒ F	☒ F

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

COMMENTS:

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Customer: WAS-SECT

Requester: Curtis Musson

Field Report Prepared By: Curtis Musson

Project ID: BMAP

Collected By: Curtis Musson, Ben GaltSampling Agency: FDEP

Location		↓ Location ↓		☐ Comp	Collection (comp begin or grab)		Eastern	Composite end		Bottle Group(s) (See pg 2)
Field ID	WIN ID/Field ID			☒ Grab	Date	Time	Central	Date	Time	
STORET #	44059	Wakulla River Boat Tram		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L	Total Res. Chlorine (mg/L)		A.B.C
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Temp (C)	pH	Sample Depth	☐ ft ☒ m	Sp. Conductance (umho/cm)		
				Salinity (ppt)	Comments					
Location				☐ Comp	Collection (comp begin or grab)		Eastern	Composite end		Bottle Group(s)
Field ID				☐ Grab	Date	Time	Central	Date	Time	
STORET #				Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L	Total Res. Chlorine (mg/L)		
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)		
				Salinity (ppt)	Comments					
Location				☐ Comp	Collection (comp begin or grab)		Eastern	Composite end		Bottle Group(s)
Field ID				☐ Grab	Date	Time	Central	Date	Time	
STORET #				Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L	Total Res. Chlorine (mg/L)		
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)		
				Salinity (ppt)	Comments					
Location				☐ Comp	Collection (comp begin or grab)		Eastern	Composite end		Bottle Group(s)
Field ID				☐ Grab	Date	Time	Central	Date	Time	
STORET #				Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen	☐ mg/L	Total Res. Chlorine (mg/L)		
Latitude	☐ dd ☐ dms	Longitude	☐ dd ☐ dms	Temp (C)	pH	Sample Depth	☐ ft ☐ m	Sp. Conductance (umho/cm)		
				Salinity (ppt)	Comments					

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
<u>Curtis Musson</u>	<u>1-17-18/1136</u>	<u>Drop off</u>	<u>1 cooler, 1 SEC Jug</u>	<u>[Signature]</u>	<u>1/17/18</u>

Cooler Packing Worksheet for Request: RQ-2018-01-15-02

Wakulla BMAP

Ship Cooler On: 1/1/2018

Customer/Project: WAS-SECT/BMAP

Assigned To: REAVES_S

Requester: Curtis Musson

Priority: 3

850-245-8453

2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

No preservatives needed.

Group A: Freshwater Kit With Metals

Group B: SCI, Algae_ID

Group C: Tracers (AHERB Short Lits)

Packing Notes

No FedEx labems needed

Requested Analyses:

Bottle Group: A

of Sites: 2

Container ID: P-1L

Qty: 2 Preservation: ICE

Lot # 00069122

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: 2 Preservation: ICE

Lot # 1200289

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Bottle Group: C

of Sites: 2

Container ID: BG-1L

Qty: 2 Preservation: ICE

Lot # 00069604

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

Cooler Packed By: SK

Number of Coolers: 2

Date: 1-2-18

Kit must also include:

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

If Preservation Included:

ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____

PLEASE RETURN ALL COOLERS FOR RQ-2018-01-15-02

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

Container ID: P-500ML

Qty: 2 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: 2 Preservation: FILTER-ICE

Lot # 00068895

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: PT-50ML

Qty: 2 Preservation: ICE

Lot # 430897

Description: Plastic Tube 50 mL

Analysis

ALGAL_ID

Description

Qualitative assessment of algal taxa present without counts

Container ID: PJ-2L

Qty: 4 Preservation: Formalin

Lot # B10 WASH

Description: Plastic Jar 2 L

Analysis

MI-FW-QLDC

Description

No. Taxa of FW macroinverts, qual samp, 20 dipnets.