



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

February 2016

PAGE 1 OF

Data Qualified?
Yes / No

STORET Station Name: Moriah Creek 100 meters upstream of Newport Rd.

Date: 04/27/216

(mm/dd/yyyy)

STORET Station ID: G1WA0057

Latitude: 30.1857

(Decimal Degrees)

WBID: 1121

RQ: 2016-04-25-64

ORG ID: 21FLWQA

Longitude: -84.1929

(Decimal Degrees)

Receiving Body of Water: St. Marks River

Field ID: G1WA0057

County: Wakulla

Sampling Team Members							WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Duplicate Collection	Blank Collection	
Curtis Musson														
Ben Ralys														
Justin Wallheiser														

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 / Low / <u>Normal</u> / High / Flooded	Matrix: <u>Fresh</u> / Marine / DI
Meter ID# <u>Biology #2</u>	Photos: <u>Yes</u> / No
	Tide Falling: Yes / No / <u>NA</u>

Field Sample

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°)
<u>EST</u>	<u>1:05pm</u>	<u>0.2</u>	<u>0.4</u>	<u>5.54</u>	<u>63.2</u>	<u>7.47</u>	<u>0.19</u>	<u>100B</u>	<u>298</u>	<u>21.23</u>
CEN										

Biological Samples Collected: None HA SCI LVS RPS LVI Other							
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	SA 5259020	09/16/20106	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP			☐ Ice ☐ HNO2			☐ <2
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter			☒ Ice			
Chlorophyll	☒ CHLSUITE-W			☒ Ice			
Physical/Aggregate (Kit A/C)	☒ Alkalinity / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY / ☐ W-CH-IC / ☐ W-COLOR / ☐ W-SO4-IC / ☐ W-TDS			☒ Ice			
Physical/Aggregate (Kit B/D)	☐ Alkalinity / ☐ W-F / ☐ W-TSS / ☐ TURBIDITY			☐ Ice			
Macroinvertebrates	☐ MI-FW-QLDC			☐ Formalin			
Microbiology	☐ E Coli ☐ F Coli ☐ Entero ☐ QPCR			☐ Ice			
Periphyton	☐ ALGAE-ID			☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH			☐ Ice ☐ Other			

Contains
1:1
Sulfuric Acid
SA-5259020
EXP: 09/16/16
Warning!
See MSDS

Preservative Sticker(s) Here
(if Available)

QA/QC Sample Information

Duplicate

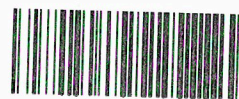
Time Zone: EST CEN		Sample Depth (m): _____		Field ID: _____	
Time: _____		Total Depth (m): _____			
Parameter Suite	Parameter Methods	Preservation	Acid Lot#	Expiration	pH Check
Preserved Nutrients	☐ W-NH3 / ☐ W-NO2NO3 / ☐ W-TKN / ☐ W-TOC / ☐ W-S-A-TP	☐ Ice ☐ H ₂ SO ₄	SA 5259020	09/16/2016	☐ < 2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO ₃			☐ < 2
Filtered Nutrients	☐ W-PO4-F ☐ Field Filtered 0.45 µm Filter	☐ Ice	Place Preservative Sticker(s) Here (If Available)		
Chlorophyll	☐ CHLSUITE-W	☐ Ice			
Physical/Aggregate (Kit A/C)	☐ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☐ Ice			
Physical/Aggregate (Kit B/D)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice			
Microbiology	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR	☐ Ice			
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other			

Blank

Time Zone: <u>EST</u> CEN		Time: <u>945</u>		Field ID: G1WA0028B		Location: Wakulla River Below US 98	
☒ Field Blank ☐ Equipment Blank ☐ Field Cleaned Equipment Blank		Equipment ID: _____					
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 ☒ H ₂ SO ₄	SA 5259020	09/16/2016	☒ < 2		
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice			☐ < 2		
Filtered Nutrients	☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter	☒ Ice	Place Preservative Sticker(s) Here (If Available)				
Chlorophyll	☒ CHLSUITE-W	☒ Ice					
Physical/Aggregate (Kit A/C)	☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-Cl-IC / W-COLOR / W-SO4-IC / W-TDS	☒ Ice					
Physical/Aggregate (Kit B/D)	☐ Alkalinity / W-F / W-TSS / TURBIDITY	☐ Ice					
Microbiology	☐ E Coli ☐ F Coli ☐ Enteroc ☐ QPCR	☐ Ice					
Pesticides	☐ W-PSNP-TQ ☐ W-AHERB-AA ☐ W-PYR-AA-R ☐ W-PC-AA-SF ☐ W-UHERB-AA ☐ W-GLYPH	☐ Ice ☐ Other					

Notes:

SB#0176043



G1WA0057 27 April 2016

Moriah Creek 100 meters upstream of Newport Rd.

Signature: [Signature]Date: 4-27-16Field Parameters Entered into LIMS: Cm 4/28/16

(Initials/Date)

Field Parameters QC in LIMS: _____

(Initials/Date)

Date Migrated to STORET: _____

(Initials/Date)

Field Sheets Scanned/Saved: _____

(Initials/Date)

DEP FORM FD 9000-25 Rapid Periphyton Survey Field Sheet

Site: Moriah Creek upstream of New Port Rd

County: Walculer

Date: 04/27/2016

Investigators: Curtis MRS

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	
0	1	N			60	1				
	2					2				
	3					3				
	4					4				
	5			96		5			96	
	6					6				
	7					7				
	8					8				
	9					9				
10	1				70	1				
	2					2				
	3					3				
	4					4				
	5			96		5			96	
	6					6				
	7					7				
	8					8				
	9					9				
20	1				80	1				
	2					2				
	3					3				
	4					4				
	5			96		5			96	
	6					6				
	7					7				
	8					8				
	9					9				
30	1				90	1				
	2					2				
	3					3				
	4					4				
	5			96		5			96	
	6					6				
	7					7				
	8					8				
	9					9				
40	1				100	1				
	2					2				
	3					3				
	4					4				
	5			96		5			96	
	6					6				
	7					7				
	8					8				
	9					9				
50	1					1				
	2					2				
	3					3				
	4					4				
	5			96		5				
	6					6				
	7					7				
	8					8				
	9					9				

STORET Station Number: 61WAO057

total depth 0.4

Secchi depth W13
Estimated? N

points ranked 4-6 0
total points assessed 99
% points ranked 4-6 0

Check accompanying data collected at same site/date.

Algal mat sample ☐
Linear Veg Survey ☒
Habitat Assessment ☒
SCI/Biorecon ☒
Water sample ☒

RQ-2016-04-25-64

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

SBto: 76043

Rps: 7924

Entered Cm 4/28/16

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%.

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

SAMPLE ID G1WA0057 ORG ID 21FLWQA LATITUDE 30.1857
COUNTY Wakulla STORET # G1WA0057 LONGITUDE -84.1929
DATE 04/27/2016 TIME _____ SAMPLING AGENCY FDEP
SITE NAME Moriah Creek 100 Meters Upstream of Newport Rd.
FIELD ID/NAME G1WA0057 RECEIVING BODY OF WATER St. Marks River

RIPARIAN ZONE / STREAM FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category): Forest/Natural <u>93.2</u> Silviculture <u>0.3</u> Field/Pasture <u>0.0</u> Agricultural <u>0.0</u> Residential <u>4.3</u> Commercial <u>0.2</u> Industry <u>1.8</u> Other (Specify) <u>Reservoirs</u> <u>0.2</u>								Landscape Development Intensity Index (LDI) <u>1.7</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>2</u> m wide <u>-</u> m/s <u>.25</u> m/s <u>-</u> m/s <u>-</u> m deep <u>0.4</u> m deep <u>-</u> m deep
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</u>				
High Water Mark: <u>0.2</u> + <u>0.4</u> = <u>0.6</u> (m) (above present water level) (present depth) (above bed)				Artificially Impounded ☐ Yes ☒ No				
Artificially ☐ No ☒ Mostly recovered, more sinuous Channelized: ☐ Some recovery ☐ Recent, severe				Canopy Cover % <u>100%</u> ☐ 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 ☐		
SUBSTRATE TYPE Assessment Tool: ☒ SCI ☒ RPS ☒ LVS ☐ LCI ☐ BioRecon % Coverage INVERT # Times Sampled PERI # Times Sampled Woody Debris (Snags) <u>2</u> <u>5</u> <u>-</u> Undercut Banks / Roots <u>2</u> <u>5</u> <u>-</u> Leaf Packs or Mat <u>90</u> <u>5</u> <u>-</u> Aquatic Vegetation <u>5</u> <u>5</u> <u>-</u> Rock or Shell Rubble.. <u>0</u> <u>0</u> <u>-</u> Sand..... <u>1</u> <u>0</u> <u>-</u> Mud / Muck / Silt <u>-</u> <u>0</u> <u>-</u> Other <u>-</u> <u>-</u> <u>-</u> Other <u>-</u> <u>-</u> <u>-</u>			WATER QUALITY Depth (M) Temp. (°C) pH (SU) D.O. (MG/L) D.O. Sat (%) Cond. (UMHO/CM) Salinity (PPT) SECCHI (M) Top: <u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u> Mid: <u>0.2</u> <u>21.73</u> <u>7.47</u> <u>5.54</u> <u>63.2</u> <u>398</u> <u>0.19</u> ☒ VOB Bottom: <u>0.4</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u> <u>-</u> TOTAL DEPTH <u>0.4</u> Meter ID: <u>Biology #2</u>					
Water Odors Normal ☒ Petroleum ☐ Sewage ☐ Chemical ☐ Other ☐			Water Surface Oils Normal ☒ Sheen ☐ Globs ☐ Slick ☐ Other ☐			Color Tannic ☐ Green (Algae) ☐ Clear ☒ Other (Specify) ☐		
Water Sample Taken? ☒ Yes ☐ No Sample Preserved? ☒ Yes ☐ No Lot Number: <u>5259020</u> Exp: <u>1-16-16</u>			Algae Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot Number: _____ 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) ☐					
AMBIENT FIELD CONDITIONS / NOTES: ☒ The antecedent hydrologic conditions have been met to my best knowledge.								

SAMPLING TEAM

Curtis Mussen, Ben Rains, Justin Wallheiser

SIGNATURE:

Curtis Mussen

DATE:

4/27/2016

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

SAMPLING AGENCY: Florida Department of Environmental Protection		STORET STATION NUMBER: <u>GLWA0057</u>	DATE (MM/DD/YY): <u>4/27/16</u>	RECEIVING BODY OF WATER: <u>St. Marks</u>
REMARKS: <u>SMP</u>	COUNTY: <u>Wakulla</u>	LOCATION: <u>Marion creek at New Port</u>	FIELD ID/NAME: <u>GLWA0057</u>	

Habitat Parameter	Optimal	Suboptimal	Marginal	Poor
Primary Habitat Components <u>Snag Leaf Aquatic Vegetation</u> <u>Roots Rock</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>16</u>	20 19 18 17 <u>16</u>	15 14 13 12 11	10 9 8 7 6	5 4 3 2 1
Substrate Availability <u>19</u> <u>790</u> %	Greater than 30% major productive habitat present at site (100% 83% 66% 48% 30.5%) 20 <u>19</u> 18 17 16	16% to 30% major productive habitat, by aerial extent (30.4% 27% 23% 20% 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>15</u> <u>0.25</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 20 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 <u>15</u> 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>5</u> ----- Primary Score <u>55</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 11	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. <u>5</u> 4 3 2 1
Secondary Habitat Components Artificial Channelization <u>16</u>	Expected sinuosity given the stream width. No evidence of dredging or artificial straightening. No spoil banks. 20 19 18 17 <u>16</u>	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 Pipe Clay, Bed Rock 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. (+, +, +) <u>10</u> 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>16</u> Left Bank <u>16</u>	Width of vegetation greater than 18 m <u>16</u> 9	Width of vegetation > 12 to 18 m 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>16</u> ----- Secondary Score <u>76</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. <u>10</u> 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

131

TOTAL SCORE

Date: <u>4/27/16</u>	Analyst: <u>Ben Ralys, Curtis Mussen</u>	Signature: <u>Ben R</u>
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Justin Wallheiser

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

Waterbody: Wakulla River Below US 98 *McCrigh Creek* Date: 4/27/2016 County: Wakulla Storet Number: G1WA0028 *57*

Analyst: Curtis Musson *at New Art Rd* Signature: *Curtis Musson*

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 monnieri												Nuphar luteum											
Bidens mitis												Orontium aquaticum	<i>X</i>	<i>DD</i>	<i>X</i>	<i>CC</i>	<i>X</i>	<i>X</i>	<i>X</i>				
Boehmeria cylindrica												Panicum hemitomon											
Centella asiatica												Panicum repens											
Ceratophyllum demersum												Panicum rigidulum											
Chara												Pistia stratioides											
Cicuta maculata												Polygonum glabra											
Cladium jamaicense												Polygonum hydropiperoides											
Colocasia esculenta												Polygonum punctatum											
Commelina diffusa												Pontedaria cordata											
Commelina virginica												Potamogeton illinoensis											
Crinum americanum	<i>X</i>	<i>X</i>	<i>CC</i>	<i>X</i>	<i>CC</i>	<i>X</i>	<i>X</i>	<i>X</i>			Rhynchospora inundata												
Diodia virginiana												Rosa palustris											
Eichhornia crassipes												Ruellia simplex											
Eleocharis (wispy viviparous)												Rumex verticillatus											
Hydrilla verticillata												Sacciolepis striata											
Hydrocotyle												Sagittaria kurziana											
Hygrophila polysperma												Sagittaria lancifolia											
Hymenocallis												Sagittaria latifolia											
Lachnanthes caroliniana												Salvinia minima											
Landoltia punctata												Samolus parviflora											
Lemna												Saururus cernuus				<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>				
Limnophila sessiflora												Scirpus (schenoplectus) californicus											
Ludwigia leptocarpa												Sparganium americanum											
Ludwigia palustris												Typha											
Ludwigia peruviana												Vallisneria americana											
Ludwigia repens										<i>X</i>		Zizania aquatica											
Luziola fluitans																							
Micranthemum glomeratum												<i>Lycops americanus</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>					
Micranthemum umbrosum												<i>Peltandra Sagittifolia</i>				<i>X</i>	<i>X</i>	<i>X</i>					
Mikania scandens																							
Myriophyllum aquaticum																							
If no Dominant or Co-Dominant were selected, indicate with "X"																							
Indicate % cover macrophytes per section																							
0-5% Macrophyte Coverage	<i>X</i>				<i>X</i>	<i>X</i>		<i>X</i>	<i>X</i>	<i>X</i>													
>5 and ≤10% Macrophyte Coverage		<i>X</i>	<i>X</i>				<i>X</i>																
>10 and ≤25% Macrophyte Coverage	<i>X</i>																						
>25 and ≤50% Macrophyte Coverage																							
> 50% Macrophyte Coverage																							

Interval Cm 4/28/16 *0 10 20 30 40 50 60 70 80 90* *SBto: 76043*
 62-160.800, F.A.C. *10 20 30 40 50 60 70 80 90* *VP: 9679*
 page 1 of 2 *Revision Date: March 1, 2014*

Macrophyte Field Data

er Data Existing Data

Search Method
Macrophyte ID
Visit ID (SBIO Sample ID)
STORET Station Number

Search:
76043

STORET Station:

Visit ID (SBIO Sample ID):
76043

Macrophyte ID:
9679

ation Visit Information
Station: G1WA0057
Sample Date: 4/27/2016
Lead Sampler: Ralys, Benjamin
Macrophyte ID: 9679
Identifier: Musson, Curtis

SCINAME	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	
Crinum americanum	P	P	C	D	P	C	C	P	P	P	ck
Ludwigia repens								P			ok
Lycopus americanus	P	P	P	P	P		P				ck
Orontium aquaticum	P	D	C	P	D	C	C	P	P	P	ok
Peltandra sagittifolia				P	P		P				
Saururus cernuus					P	P	P	P			ck

CM 4/27/16

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 Bios 1 # 2

RQ- RQ-2016-04-25-64

Project SMP

- Notes:** (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 03/04/2016

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	4/27/16	0711	23.5	8.5	8.50	100.0	71.7	-	P	L
ICV	Curtis Musson	4-27-16	0713	23.5	8.5	8.50	100.0	71.7	-	P	L
CCV	Curtis Musson	4/27/16	1538	30.1	7.55	7.60	100.0	52.3	-	P	L
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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	4/27/16	0717	CC14162	10/15/16	996	996	P	L
ICV	Curtis Musson	4/27/16	0721	CC13882	7/15/16	101.1	101	P	L
CCV	Curtis Musson	4/27/16	1540	CC14162	10/15/16	996	1022	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

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.	Justin Wallhiser	4/29/16	0723	153035	07/10/17	7.0	7.00	-86	P	L
Calibr.	Justin Wallhiser	4/29/16	0724	154634	07/10/17	4.0	4.01	165.3	P	L
Calibr.	Justin Wallhiser	4/29/16	0726	146934	10/20/16	10.0	10.02	-189.2	P	L
ICV	Justin Wallhiser	4/29/16	0728	153035	07/10/17	7.0	6.96	-8	P	L
CCV	Curtis Musson	4/27/16	1542	146934	10/20/16	10.0	10.04	-189.4	P	L
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU;

mV pH7 Range 0 ± 50 ;

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

mV pH 10 Range -180 ± 50 ;

Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification _____

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

Florida Department of Environmental Protection

Central Laboratory Submittal Form

Customer: WQAP

Project ID: SMP

Requester: Benjamin Ralys

Field Report Prepared By:

Curtis Mussen

Collected By:

Benjamin Ralys, Curtis Mussen

Sampling Agency:

FDEP

Location Wakulla River Below US 98		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 4/27/16 Time 0930		☒ Eastern ☐ Central		Composite end Date _____ Time _____		Bottle Group(s) (See pg 2)	
Field ID G1WA0028		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 5.04		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L) _____		A, DE	
STORET # G1WA0028		Temp (C) 20.96		pH 7.57		Sample Depth 0.3		Sp. Conductance (umho/cm) 340			
Latitude 30.17607		☒ dd ☐ dms		Longitude -84.2429		☐ dd ☐ dms		Salinity (ppt) 0.16		Comments SMP	
Location Wakulla River Below US 98		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 4/27/16 Time 0930		☒ Eastern ☐ Central		Composite end Date _____ Time _____		Bottle Group(s)	
Field ID G1WA0028 D		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 5.04		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L) _____		D	
STORET # G1WA0028		Temp (C) 20.96		pH 7.57		Sample Depth 0.3		Sp. Conductance (umho/cm) 340			
Latitude 30.17607		☒ dd ☐ dms		Longitude -84.2429		☒ dd ☐ dms		Salinity (ppt) 0.16		Comments Duplicate	
Location Wakulla River Below US 98		☐ Comp ☐ Grab		Collection (comp begin or grab) Date 4/27/16 Time 0945		☒ Eastern ☐ Central		Composite end Date _____ Time _____		Bottle Group(s)	
Field ID G1WA0028 B		Matrix (type, e.g., Salt, Fresh, etc) DI		Diss. Oxygen —		☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L) <		E	
STORET # Gen NA		Temp (C) —		pH —		Sample Depth DI		Sp. Conductance (umho/cm) —			
Latitude 30.17607		☐ dd ☐ dms		Longitude -84.2427		☐ dd ☐ dms		Salinity (ppt) —		Comments Field Blank DI water	
Location		☐ Comp ☐ Grab		Collection (comp begin or grab)		☐ Eastern ☐ Central		Composite end		Bottle Group(s)	
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L)			
STORET #		Temp (C)		pH		Sample Depth		Sp. Conductance (umho/cm)			
Latitude		☐ dd ☐ dms		Longitude		☐ dd ☐ dms		Salinity (ppt)		Comments	

Relinquished By: Curtis Mussen	Date/Time 4/27/16	Shipping Method Dropoff	Number of Coolers Shipped:	Received By: SK	Date/Time 4/27/16/3:16
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WQAP

15:21

Moriah Creek, Wakulla River Below Highway 98 Bridge

Central Laboratory Submittal Form

last revised Apr 7, 2016

Customer: WQAP

Requester: Benjamin Ralys

Field Report Prepared By:

Curtis Mussen

Project ID: SMP

Collected By:

Benjamin Ralys

Sampling Agency:

FDGP

Location Moriah Creek at St Marks River		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 4/27/16 Time 11:00		☒ Eastern ☐ Central		Composite end Date Time		Bottle Group(s) (See pg 2)	
Field ID GIWA0037		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 4.96		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)		A	
STORET # GIWA0037		Temp (C) 20.82		pH 7.42		Sample Depth 0.3		Sp. Conductance (umho/cm) 354			
Latitude 30.18194		☒ dd ☐ dms		Longitude 84.18967		☒ dd ☐ dms		Salinity (ppt) 0.17		Comments SMP	
Location Moriah Creek at US 98		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 4/27/16 Time 13:00		☒ Eastern ☐ Central		Composite end Date Time		Bottle Group(s)	
Field ID GIWA0027		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 4.57		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)		A	
STORET # GIWA0027		Temp (C) 21.92		pH 7.32		Sample Depth 0.15		Sp. Conductance (umho/cm) 393			
Latitude 30.1961		☒ dd ☐ dms		Longitude -84.1965		☒ dd ☐ dms		Salinity (ppt) 0.19		Comments SMP	
Location Moriah Creek 100 Meters Upstream		☐ Comp ☒ Grab		Collection (comp begin or grab) Date 4/27/16 Time 13:05		☒ Eastern ☐ Central		Composite end Date Time		Bottle Group(s)	
Field ID GIWA0057		Matrix (type, e.g., Salt, Fresh, etc) Fresh		Diss. Oxygen 5.54		☒ mg/L ☐ % sat		Total Res. Chlorine (mg/L)		A, B	
STORET # GIWA0057		Temp (C) 21.76		pH 7.47		Sample Depth 0.2		Sp. Conductance (umho/cm) 398			
Latitude 30.1857		☒ dd ☐ dms		Longitude -84.1929		☒ dd ☐ dms		Salinity (ppt) 0.19		Comments SMP	
Location		☐ Comp ☐ Grab		Collection (comp begin or grab) Date Time		☐ Eastern ☐ Central		Composite end Date Time		Bottle Group(s)	
Field ID		Matrix (type, e.g., Salt, Fresh, etc)		Diss. Oxygen		☐ mg/L ☐ % sat		Total Res. Chlorine (mg/L)			
STORET #		Temp (C)		pH		Sample Depth		Sp. Conductance (umho/cm)			
Latitude		☐ dd ☐ dms		Longitude		☐ dd ☐ dms		Salinity (ppt)		Comments	

Relinquished By: Curtis Mussen	Date/Time 4/27/16/15:21	Shipping Method Drop off	Number of Coolers Shipped:	Received By: SK	Date/Time 4/27-16/3:16
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Group: D	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
BOD-UNIN							
Group: D	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
CHLSUITE-W							
Group: D	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
W-NH3							
W-NO2NO3							
W-S-A-TP							
W-TKN							
W-TOC							
Group: D	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	1
W-PO4-F							
Group: E	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
ALKALINITY							
TURBIDITY							
W-CL-IC							
W-COLOR							
W-F							
W-TDS							
W-TSS							
Group: E	Bottle Type:	P-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
BOD-UNIN							
Group: E	Bottle Type:	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
CHLSUITE-W							
Group: E	Bottle Type:	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
W-NH3							
W-NO2NO3							
W-S-A-TP							
W-TKN							
W-TOC							
Group: E	Bottle Type:	P-125ML	# of Bottles: 1	Preservative:	ICE-FLTR	Enter Number of Bottles Sent to Lab	1
W-PO4-F							

Date of Request: 12-APR-2016
 Created By: RALYS_B On: 12-APR-2016
 Modified By: SWANSON_C On: 13-APR-2016
 Customer: WQAP
 Project: SMP
 Division:
 District:
 Sampling Event: Moriah Creek, Wakulla River Below Highway 98 Bridge

Send Coolers To:

Phone: 850-245-8443
 2600 Blair Stone Rd
 MS #3560
 Tallahassee, FL 32399-2400
 Attn: Benjamin Ralys

Program Module Number:

Priority: 3
 Event Status: S
 Criminal Investigation: NO
 Chemistry Request Reviewed By: WATTS_J On: 12-APR-2016
 Biology Request Reviewed By: SWANSON_C On: 13-APR-2016
 Sampling Kit Required: YES Ship on: 18-APR-2016
 Sampling Kit Shipped: YES On: 18-APR-2016
 Sampling Kit Packed By: SHAIK_A
 Preservatives Needed: NO
 Date to Receive Samples: 27-APR-2016
 Received By:

Send Final Report To:

2600 Blair Stone Rd
 MS #3560
 Tallahassee, FL 32399-2400
 Attn: Katrina Sanders

Report Type: Final Only
 FTP Data: NO
 QC Report: YES
 Date Log: NO
 Authorization Log: NO

Comments: Bottle Group A: Freshwater Chemistry bottle set
 Bottle Group B: Biology (SCI)
 Bottle Group C: Biology Algal
 Bottle Group D: Freshwater Chemistry bottle set Duplicate
 Bottle Group E: Freshwater Chemistry bottle set field blank

4 - liters of DI water

Bottle Group A (Water) With 3 Samples:

Bottle Type: P-1L	Number of Bottles: 3	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO ₃ /L
Total Alkalinity		
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
Turbidity		
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
Chloride		
W-COLOR	Template: DEFAULT	(SM 2120 B) True Color measured at 450 nm
Color (true)		
W-F	Template: DEFAULT	(SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
Fluoride		
W-TDS	Template: DEFAULT	(SM 2540 C-97) Total Dissolved Solids in aqueous matrices
TDS		
W-TSS	Template: DEFAULT	(SM 2540 D-97) Total Suspended Solids in aqueous matrices
TSS		

Bottle Type: P-1L	Number of Bottles: 3	Preserved With: ICE
BOD-UNIN	Template: DEFAULT	(SM 5210 B) BOD, NOT nitrogen-inhibited
Biochemical Oxygen Demand-5 Day		

Bottle Type: BP-1L	Number of Bottles: 3	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry
Chlorophyll/Phaeophytin Ratio		
Chlorophyll-a, Corrected		

Bottle Group A (Water) With 3 Samples:

Bottle Type: BP-1L	Number of Bottles: 3	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry
Chlorophyll-a, Uncorrected		
Phaeophytin-a		
Bottle Type: P-500ML	Number of Bottles: 3	Preserved With: ICE And H2SO4
W-NH3	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
Ammonia-N		
W-NO2NO3	Template: DEFAULT	(EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
NO2NO3-N		
W-S-A-TP	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
Total-P		
W-TKN	Template: DEFAULT	(EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
Kjeldahl Nitrogen		
W-TOC	Template: DEFAULT	(SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices
Organic Carbon		
Bottle Type: P-125ML	Number of Bottles: 3	Preserved With: ICE-FLTR
W-PO4-F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L
O-Phosphate-P		

Bottle Group B (Biological) With 2 Samples:

Bottle Type: PJ-2L	Number of Bottles: 4	Preserved With: Formalin
MI-FW-QLDC	Template: DEFAULT	(SOP-IZ06) No. Taxa of FW macroinverts, qual samp, 20 dipnets.
*Macroinvert-FW-Qual-DipnetX20-#Taxa-Rep2		
*Stream Condition Index (SCI)		

Bottle Group C (Biological) With 2 Samples:

Bottle Type: PT-50ML	Number of Bottles: 2	Preserved With: ICE
ALGAL_ID	Template: DEFAULT	(SOP-AB05) Qualitative assessment of algal taxa present without counts
*Dominant sample taxon		

Bottle Group D (Water) With 1 Samples:

Bottle Type: BP-1L	Number of Bottles: 1	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry
Chlorophyll/Phaeophytin Ratio		
Chlorophyll-a, Corrected		
Chlorophyll-a, Uncorrected		
Phaeophytin-a		
Bottle Type: P-500ML	Number of Bottles: 1	Preserved With: ICE And H2SO4
W-NH3	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
Ammonia-N		
W-NO2NO3	Template: DEFAULT	(EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
NO2NO3-N		
W-S-A-TP	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
Total-P		
W-TKN	Template: DEFAULT	(EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
Kjeldahl Nitrogen		
W-TOC	Template: DEFAULT	(SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices
Organic Carbon		
Bottle Type: P-125ML	Number of Bottles: 1	Preserved With: ICE-FLTR
W-PO4-F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L
O-Phosphate-P		
Bottle Type: P-1L	Number of Bottles: 1	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO3/L
Total Alkalinity		
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
Turbidity		
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
Chloride		
W-COLOR	Template: DEFAULT	(SM 2120 B) True Color measured at 450 nm
Color (true)		

Bottle Group D (Water) With 1 Samples:

Bottle Type: P-1L	Number of Bottles: 1	Preserved With: ICE
W-F	Template: DEFAULT	(SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
Fluoride		
W-TDS	Template: DEFAULT	(SM 2540 C-97) Total Dissolved Solids in aqueous matrices
TDS		
W-TSS	Template: DEFAULT	(SM 2540 D-97) Total Suspended Solids in aqueous matrices
TSS		
Bottle Type: P-1L	Number of Bottles: 1	Preserved With: ICE
BOD-UNIN	Template: DEFAULT	(SM 5210 B) BOD, NOT nitrogen-inhibited
Biochemical Oxygen Demand-5 Day		

Bottle Group E (Water) With 1 Samples:

Bottle Type: P-1L	Number of Bottles: 1	Preserved With: ICE
ALKALINITY	Template: DEFAULT	(SM 2320 B-97) Alkalinity in aqueous matrices as mg CaCO3/L
Total Alkalinity		
TURBIDITY	Template: DEFAULT	(EPA 180.1 Rev. 2.0) Turbidity in aqueous matrices
Turbidity		
W-CL-IC	Template: DEFAULT	(EPA 300.0 Rev. 2.1) Chloride in aqueous matrices
Chloride		
W-COLOR	Template: DEFAULT	(SM 2120 B) True Color measured at 450 nm
Color (true)		
W-F	Template: DEFAULT	(SM 4500 F-C-97) Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
Fluoride		
W-TDS	Template: DEFAULT	(SM 2540 C-97) Total Dissolved Solids in aqueous matrices
TDS		
W-TSS	Template: DEFAULT	(SM 2540 D-97) Total Suspended Solids in aqueous matrices
TSS		
Bottle Type: P-1L	Number of Bottles: 1	Preserved With: ICE
BOD-UNIN	Template: DEFAULT	(SM 5210 B) BOD, NOT nitrogen-inhibited
Biochemical Oxygen Demand-5 Day		
Bottle Type: BP-1L	Number of Bottles: 1	Preserved With: ICE
CHLSUITE-W	Template: DEFAULT	(SM 10200 H (mod.)) Phytoplankton chlorophyll-a corrected, uncorrected, phaeophytin and ratio by spectrophotometry
Chlorophyll/Phaeophytin Ratio		
Chlorophyll-a, Corrected		
Chlorophyll-a, Uncorrected		
Phaeophytin-a		
Bottle Type: P-500ML	Number of Bottles: 1	Preserved With: ICE And H2SO4
W-NH3	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
Ammonia-N		
W-NO2NO3	Template: DEFAULT	(EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
NO2NO3-N		
W-S-A-TP	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
Total-P		
W-TKN	Template: DEFAULT	(EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
Kjeldahl Nitrogen		
W-TOC	Template: DEFAULT	(SM 5310 B-00) Nonpurgeable Organic Carbon in aqueous matrices
Organic Carbon		
Bottle Type: P-125ML	Number of Bottles: 1	Preserved With: ICE-FLTR
W-PO4-F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L
O-Phosphate-P		

* - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.

Cooler Packing Worksheet for Request: RQ-2016-04-25-64

Moriah Creek, Wakulla River Below Highway 98 Bridge

Ship Cooler On: 4/12/2016

Customer/Project: WQAP/SMP

Requester: Benjamin Ralys

Priority: 3

850-245-8443
2600 Blair Stone Rd
MS #3560
Tallahassee, FL 32399-2400
Attn: Benjamin Ralys

Comments:

No preservatives needed.

Bottle Group A: Freshwater Chemistry bottle set

Bottle Group B: Biology (SCI)

Bottle Group C: Biology Algal

Bottle Group D: Freshwater Chemistry bottle set Duplicate

Bottle Group E: Freshwater Chemistry bottle set field blank

4 - liters of DI water

Requested Analyses:

Bottle Group: A

of Sites: 3

Container ID: P-1L

Qty: 3 Preservation: ICE

Lot # 00064563

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

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)

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices

Container ID: P-1L

Qty: 3 Preservation: ICE

Lot # 00064563

Description: Plastic Bottle 1L

Analysis

BOD-UNIN

Description

BOD, NOT nitrogen-inhibited

Container ID: BP-1L

Qty: 3 Preservation: ICE

Lot # 1166621

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 3 Preservation: ICE And H2SO4

Lot # 00064521

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: 3 Preservation: ICE-FLTR

Lot # 00064632

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: PJ-2L

Qty: 4 Preservation: Formalin

Lot # 03064824

Description: Plastic Jar 2 L

Analysis

MI-FW-QLDC

Description

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

Bottle Group: C

of Sites: 2

Container ID: PT-50ML

Qty: 2 Preservation: ICE

Lot # 03715003

Description: Plastic Tube 50 mL

Analysis

ALGAL_ID

Description

Qualitative assessment of algal taxa present without counts

Bottle Group: D**# of Sites: 1**

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00064523

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

W-TDS

W-TSS

DescriptionAlkalinity 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)

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00064523

Description: Plastic Bottle 1L

Analysis

BOD-UNIN

Description

BOD, NOT nitrogen-inhibited

Container ID: BP-1L

Qty: 1 Preservation: ICE

Lot # 1166621

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 1 Preservation: ICE And H₂SO₄Lot # 00064521

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

AnalysisW-NH₃W-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: 1 Preservation: ICE-FLTR

Lot # 00064634

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

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

Bottle Group: E

of Sites: 1

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00064523

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

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)

Total Dissolved Solids in aqueous matrices

Total Suspended Solids in aqueous matrices

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00064523

Description: Plastic Bottle 1L

Analysis

BOD-UNIN

Description

BOD, NOT nitrogen-inhibited

Container ID: BP-1L

Qty: 1 Preservation: ICE

Lot # 1166621

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 1 Preservation: ICE And H₂SO₄

Lot # 00064521

Description: Plastic Bottle 500 mL

Affix YELLOW sulfuric acid dot to container.

Analysis

W-NH₃

W-NO₂NO₃

Description

Ammonia in aqueous matrices as mg N/L

Nitrite/Nitrate in aqueous matrices as mg N/L

W-S-A-TP

W-TKN

W-TOC

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: 1 Preservation: ICE-FLTR

Lot #

0064682

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

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

Cooler Packed By:

RTB

Date:

4-18-16

DEP Cooler ID #(s):

3

Kit must also include:

- ☒ Field Sheets
- ☒ Temperature Control Bottle (1 per cooler)
- ☐ FedEx Bills, if applicable (1 per cooler)
- ☒ Plastic Bags
- ☐ Zip Ties

If Preservation Included:

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

PLEASE RETURN ALL COOLERS FOR RQ-2016-04-25-64