



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Date Qualified?

Yes / No

WIN Station Name: Richlander Creek at CR 65B

Date: 12/11/2019

WIN/ Field ID: G1WA0093

WBID: 680

Latitude: 30.5228

(mm/dd/yyyy)

County: Gadsden

ORG ID: 21FLWQA

Longitude: -84.5544

(Decimal Degrees)

Receiving Body of Water: Little River

RQ- 2019-11-04-27

Sampling Team Members						WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check	Sampling Equipment					
Curtis Musson											☒ Sample Container	☐ Van Dorn	☐ Pole			
Blake Spencer											☐ Carboy	☒ Syringe				
											☐ Dipper	☐ Other				
											Depth Measured with <u>Water Stick</u>					
											Equipment ID					
Collection Method																
☒ Wading						☐ Canoe/Kayak										
☐ From Shore						☐ Electric Motor										
☐ Other						☐ Gasoline Motor										
Water Level: Dry/ Pooled/ Low / <u>Normal</u> / High / Flooded						Meter ID# Biology #2						Matrix: <u>Fresh</u> Marine / DI				
Photos: Yes / <u>No</u>		Flow: No Flow / Intestinal / <u>Flowing</u> / NA		Tide: Rising/ Falling/ Slack/ <u>NA</u>		Tide Times: High <u>NA</u> Low <u>NA</u>										
Time Zone	Time	Total Depth (m)	Sample Depth (m)	Secchi Disk (m)	DO (mg/L)	DO (%SAT)	pH	Salinity (PPT)	Sp COND (umhos/cm)	Temp. (C°)						
EST	1/29	0.4	0.2	10B	9.77	94.7	7.60	0.03	62	13.87						
CEN																
Biological Samples Collected: None HA SCI RPS Algae ID LVS LVI Other:																
SBIO ID Numbers: SBIO-ID: HA-ID: RPS-ID: Macrophyte-ID: LIMS#:																
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		SA9129100		5/9/20 ☒ <2						
Metals		☒ W-ICPMS ☒ W-ICP				☒ Ice ☒ HNO3		NA9189080		7/8/20 ☒ <2						
Filtered Nutrients		☒ W-PO4-F ☒ Field Filtered 0.45 um 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-BR-IC / ☐ 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-BacR ☐ PCR-GULL2				☐ Ice										
		☒ PCR-HF183 ☒ PCR-DG3 ☐ PCR-GFD				☐ Ice										
Tracers		☒ W-E8321-DI ☒ W-E8321-MS				☐ Ice										
Pesticides		☐ W-PSNP-TQ ☐ W-CT-CL-R ☐ W-E8321-DI				☐ Ice										
		☐ W-PCL-SQ-R ☐ WE8321-MS ☐ W-CARB-AA				☐ Ice										
Phytoplankton		☐ DTY-QN-C ☐ PKD-QN-C				☐ Ice										
Notes:																
Signature: <u>[Signature]</u>						Date: 12/11/19										
LIMS EVENT ID: <u>WAS-SMCT-2019-12-11-03</u>						WIN Import ID:										
Enter Field Parameters, Verify Station ID in LIMS DMT: <u>12/19/19</u>						QC Station ID, Field Parameters in LIMS DMT: <u>Cm 12/30/2019</u>										
Scan/Save Field Sheets <u>Cm 12/30/19</u>						Migrate Data to WIN: <u>[Signature]</u>										
						Verify Data in WIN: <u>[Signature]</u>										

WIN ID / FILED ID

G1WA0093

Location

Richlander Creek at CR 65B

LIMS EVENT ID: WAS-SMCT-2019-12-11-03

WIN Import ID:

Enter Field Parameters, Verify Station ID in LIMS DMT: 12/19/19

QC Station ID, Field Parameters in LIMS DMT: Cm 12/30/2019

Scan/Save Field Sheets Cm 12/30/19 (Initials/Date)

Migrate Data to WIN: (Initials/Date)

Verify Data in WIN: (Initials/Date)

585 12/19/19
 RG-2019-11-04-27 2019-07-22-11
 RQ-2019-12-02-28

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

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

Meter ID:

Bio #2

RQ:

2019-11-04-27

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.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro-meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	12/11/19	703	19.35	760	9.202	9.21	100.0	74.7	-	P/F	L/F
ICV	Curtis Musson	12/11/19	705	19.36	760	9.202	9.20	99.9	74.7	-	P/F	L/F
CCV	Blake Spencer	12/11/19	1330	16.00	760	9.870	9.87	100.0	69.6	-	P/F	L/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 (Pro DSS 0.75 to 1.50); 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	12/11/19	707	190618F	06/2020	1000	1000	P/F	L/F
ICV	Curtis Musson	12/11/19	708	190618F	06/2020	1000	999	P/F	L/F
CCV	Blake Spencer	12/11/19	1333	29,04081	03/2021	100	99	P/F	L/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	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	12/11/19	712	190618B	12/2020	7.02	20.48	7.02	-29.8	P/F	L/F
Calibr.	Curtis Musson	12/11/19	716	191120A	06/2021	4.00	20.45	4.00	142	P/F	L/F
Calibr.	Curtis Musson	12/11/19	719	190618C	12/2020	10.05	20.58	10.03	-199.6	P/F	L/F
ICV	Curtis Musson	12/11/19	721	190618C	12/2020	10.04	20.35	10.01	-198.5	P/F	L/F
CCV	Blake Spencer	12/11/19	1336	191120A	06/2021	7.02	20.48	4.07	138.4	P/F	L/F
CCV						7.02				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)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: _____

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last 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	12/11/19	710	0.00	0.00	P/F	L/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

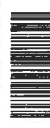
Project ID: SMP

Requester: Curtis Musson

Field Report Prepared By: Blake Spencer

Collected By: Blake Spencer & Curtis Musson

Sampling Agency: FAEP

Location	WIN ID / FILED ID	WIN/STORET #	Latitude	Longitude	dd	dms	Comp	Grab	Collection (comp begin or grab)	Date	Time	Eastern	Central	Composite end	Date	Time	Bottle Group(s)
Double Branch at CR159		G1WA0091					☒	☐	Matrix (type, e.g., Salt, Fresh, etc)	12/11/19	1203	☒	☐	Diss. Oxygen	80.4	80.4	A
							☐	☐	Temp (C)	14.91	8.04	☐	☐	Sample Depth	0.1	50	
							☐	☐	pH			☐	☐	Sp. Conductance (umho/cm)			
							☐	☐	Salinity (ppt)	0.02		☐	☐				
Lewis Creek Upstream of 157		G1WA0075					☒	☐	Matrix (type, e.g., Salt, Fresh, etc)	12/11/19	1236	☒	☐	Diss. Oxygen	90.4	90.4	A
							☐	☐	Temp (C)	13.47	6.78	☐	☐	Sample Depth	0.15		
							☐	☐	pH			☐	☐	Sp. Conductance (umho/cm)			
							☐	☐	Salinity (ppt)	0.03		☐	☐				
Richlander Creek at CR 65B		G1WA0093					☒	☐	Matrix (type, e.g., Salt, Fresh, etc)	12/11/19	1129	☒	☐	Diss. Oxygen	94.7	94.7	B
							☐	☐	Temp (C)	13.87	7.60	☐	☐	Sample Depth	0.2	62	
							☐	☐	pH			☐	☐	Sp. Conductance (umho/cm)			
							☐	☐	Salinity (ppt)	0.03		☐	☐				
Coon Creek 100 meters upstream of CR 69		G2WA0005					☒	☐	Matrix (type, e.g., Salt, Fresh, etc)	12/11/19	1029	☒	☐	Diss. Oxygen			C
							☐	☐	Temp (C)			☐	☐	Sample Depth	0.15		
							☐	☐	pH			☐	☐	Sp. Conductance (umho/cm)			
							☐	☐	Salinity (ppt)			☐	☐				

Relinquished By: 	Date/Time: 12/11/19 1323	Shipping Method: Hand Delivered	Number of Coolers Shipped: 1	Received By: 	Date/Time: 12/11/19 1323
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Group: A	Bottle Type:	P-1L	# of Bottles: 5	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
	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	2
	CHLSUITE-W						
Group: A	Bottle Type:	P-120ML-WC-THI	# of Bottles: 10	Preservative:	ICE	Enter Number of Bottles Sent to Lab	
	ECOLI-18QT						
Group: A	Bottle Type:	P-500ML	# of Bottles: 5	Preservative:	HNO3	Enter Number of Bottles Sent to Lab	2
	W-ICP				HNO3		
	W-ICPMS				LOT# NA918986 F-EXP: 07/08/23		
Group: A	Bottle Type:	P-500ML	# of Bottles: 5	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	2
	W-NH3						
	W-NO2NO3				H2SO4		
	W-S-A-TP				LOT# SA9129100		
	W-TKN				EXP: 05/09/2020		
	W-TOC						
Group: A	Bottle Type:	P-125ML	# of Bottles: 5	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	4
	W-PO4-F						
Group: B	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-SO4-IC						
	W-TDS						
	W-TSS						

Group: B	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
Group: B	Bottle Type: ECOLI-18QT	P-120ML-WC-THI	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
Group: B	Bottle Type: PCR-BACR PCR-DG3 PCR-HF183	QPCR-P-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
Group: B	Bottle Type: W-E8321-DI W-E8321-MS	BG-500ML	# of Bottles: 1	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
Group: B	Bottle Type: W-ICP W-ICPMS	P-500ML	# of Bottles: 1	Preservative:	HNO3 HNO3 LOT# NR9189080 F-EXP: 07/08/20	Enter Number of Bottles Sent to Lab	1
Group: B	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4 H2SO4 LOT# SA9129100 EXP: 05/09/2020	Enter Number of Bottles Sent to Lab	1
Group: B	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	1
Group: C	Bottle Type: ECOLI-18QT	P-120ML-WC-THI	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2

Cooler Packing Worksheet for Request: RQ-2019-11-04-27

Group 2

Ship Cooler On: 10/31/2019
Customer/Project: WAS-SECT/SMP

Assigned To: KLUG_K
Requester: Curtis Musson
Priority: 3

850-245-8453
2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

Group A: Nutrients, Metals, E. coli
WBIDs 1154, 512, 680, 440, 630: Big Branch, Willson Mill Creeks. Richlander, Lewis C., Double B.

Group B: Nutrients E. coli, Metals, Tracers, qPCR
WBID 1075 Stone Mile

Group C: E. coli
WBID 885, Coon Creek

Packing Notes:

No FedEx Labels

No Trash Bags

1 - case of sulfuric acid/2 sets of labels

1 - case of nitric acid/2 sets of labels

Requested Analyses:

Bottle Group: A

of Sites: 5

Container ID: P-1L

Qty: 5 Preservation: ICE

Lot # 00075296

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 using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 5 Preservation: ICE

Lot # 1259820

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-120ML-WC-THI

Qty: 10 Preservation: ICE

Lot # 8105-TN

Description: 120 ml Sterilized White Cap with
tablet

Analysis

ECOLI-18QT

Description

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

Container ID: P-500ML

Qty: 5 Preservation: HNO3

Lot # 00075342

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: 5 Preservation: ICE And H2SO4

Lot # 00075342

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 # 00074430(3)
00075709(2)

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: 1

Container ID: P-1L

Qty: 1 Preservation: ICE

Lot # 00075290

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 using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 1 Preservation: ICE

Lot # 1259820

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-120ML-WC-THI

Qty: 2 Preservation: ICE

Lot # 8205-TN

Description: 120 ml Sterilized White Cap with
tablet

Analysis

ECOLI-18QT

Description

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

Container ID: QPCR-P-500ML

Qty: 1 Preservation: ICE

Lot # 00073849

Description: 500ml Sterile Nalgene

Affix PCR Instruction Label to container

Analysis

PCR-BACR

PCR-DG3

PCR-HF183

Description

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

Detection and quantification of canine-specific DG3 Bacteroides genetic marker with quantitative polymerase chain reaction

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

Container ID: BG-500ML

Qty: 1 Preservation: ICE

Lot # 00075224

Description: Brown Glass Bottle 500ML

Affix BLUE dot to container.

Analysis

Description

W-E8321-DI
W-E8321-MS

Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS
Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS

Container ID: P-500ML

Qty: 1

Preservation: HNO3

Lot # 00075342

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: 1

Preservation: ICE And H2SO4

Lot # 00075342

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: 1

Preservation: FILTER-ICE

Lot # 00075709

Description: Plastic Bottle 125 mL

Analysis

W-PO4-F

Description

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

Bottle Group: C

of Sites: 1

Container ID: P-120ML-WC-THI

Qty: 2

Preservation: ICE

Lot # 8105-TN

Description: 120 ml Sterilized White Cap with tablet

Analysis

ECOLI-18QT

Description

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

Cooler Packed By: KK Number of Coolers: _____ Date: 10-28-19

Kit must also include:

- ☒ Field Sheets
- ☒ Temperature Control Bottle
- ☐ FedEx Bills, if applicable
- ☐ Plastic Bags/Zip Ties
- ☐ Acid Labels (sets of 24)

If Preservation Included:

ID	<u>Sulfuric Acid</u>	Exp	<u>7-22-20</u>	Lot #	<u>SA 9703100</u>
ID	<u>Nitric Acid</u>	Exp	<u>7-8-20</u>	Lot #	<u>NA 9189080</u>
ID	_____	Exp	_____	Lot #	_____
ID	_____	Exp	_____	Lot #	_____
ID	_____	Exp	_____	Lot #	_____

PLEASE RETURN ALL COOLERS FOR RQ-2019-11-04-27