



FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
STRATEGIC MONITORING PROGRAM FIELD SHEET

PAGE 1 OF

March 2017

Data Qualified?

Yes / No

Location/STORET Station Name: Harbinwood Estates Drain

Date: 10/10/2017

(mm/dd/yyyy)

STORET # GIWA0034

WBID: 746A

Latitude:

County: Leon RQ - 2017-10-09-23

ORG ID: 21FLWQA

Longitude:

(Decimal Degrees)

Receiving Body of Water: Lake Jackson

Field ID: GIWA0034_10102017

(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				☐ 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# <u>Bio #2</u>				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°)		
<u>EST</u>	<u>11:30</u>	<u>0.1</u>	<u>0.2</u>	<u>3.66</u>	<u>46.6</u>	<u>7.28</u>	<u>0.06</u>	<u>VOR</u>	<u>127</u>	<u>27.7</u>		
CEN												
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>1935394</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	SA 7233030	8/21/18	☒ <u>2</u>		
Metals	☒ W-ICPMS ☒ W-ICP						☒ Ice ☒ HNO3	7086060	3/27/18	☒ <u>1</u>		
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 ☒ 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					

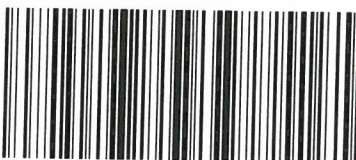
Notes:

PCR- Filter

Field ID →

Harbinwood
Estates Drain

Oct 10, 2017



GIWA0034_10102017

Harbinwood
Estates Drain

STORET ↓



GIWA0034

Signature:

Curtis M.

Date:

10/10/17

Field Parameters Entered into LIMS:

cm 10/10/17

Field Parameters QC in LIMS:

ALL 4/11/19

Migrated to STORET:

(Initials/Date)

Field Sheets Scanned/Saved:

(Initials/Date)

(Initials/Date)

(Initials/Date)

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: 2017-10-09-16 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 Musson	10/9/17	1541	22.87	8.598	8.60	100.0	52	~	P/F	L/F
ICV	Curtis Musson	10/9/17	1543	22.89	8.595	8.60	100.0	52	~	P/F	L/F
CCV	Curtis Musson	10/10/17	1541	24.37	8.356	8.59	104.7	53	~	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; 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	10/9/17	1545	170614 E	6/2018	1000	1000	P/F	L/F
ICV	Curtis Musson	10/9/17	1546	170614 E	6/2018	1000	1000	P/F	L/F
CCV	Curtis Musson	10/10/17	1543	170614 D	6/2018	100	105	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	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	Curtis Musson	10/9/17	1547	170310 B	9/18	7.0	7.00	44	P/F	L/F
Calibr.	Curtis Musson	10/9/17	1551	170614 A	6/18	4.01	4.01	215	P/F	L/F
Calibr.	Curtis Musson	10/9/17	1552	170310 C	9/18	10.01	9.94	-107	P/F	L/F
ICV	Curtis Musson	10/9/17	1554	170614 A	6/18	4.01	3.82	222	P/F	L/F
CCV	Curtis Musson	10/10/17	1544	170310 C	9/18	10.01	10.06	-109	P/F	L/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						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:

Swamp, Salem, Talavanna, Arrowhead, AJ, Harbinwoo Requester: Curtis Musson
Customer: WAS-SECT
Project ID: SMP

Field Report Prepared By: Curtis Musson
Sampling Agency: FDEP

Collected By: Curtis Musson, Ben Ralls

Loc		STORET ↓ Aj Henry Park Pond Middle Field ID: → Aj Henry Park Pond Middle Oct 10, 2017 G1WA0058_10102017		Collection (comp begin or grab) Date 10/10/17 Time 8:27		Eastern Central		Collection (comp begin or grab) Date / Time /		Bottle Group(s) A	
File		Matrix (Grab, Fresh) Fresh		Diss. Oxygen (mg/L) 8.18		Sample Depts (m) 0.3		Sp. Conductance (umho/cm) 70			
STOI		Temp (C) 27.36		pH 7.86		Comments					
		Salinity (ppt) 0.03									
Loc		STORET ↓ Lake Arrowhead at Boat Dock At Turtle Crk Ln Near Outlet Field ID: → Lake Arrowhead at boat dock at Turtle Crk Ln near outlet Oct 10, 2017 G1WA0004_10102017		Collection (comp begin or grab) Date 10/10/17 Time 7:50		Eastern Central		Collection (comp begin or grab) Date / Time /		Bottle Group(s) A	
File		Matrix (Grab, Fresh) Fresh		Diss. Oxygen (mg/L) 9.85		Sample Depts (m) 0.3		Sp. Conductance (umho/cm) 75			
ST		Temp (C) 27.81		pH 9.33		Comments					
		Salinity (ppt) 0.03									
Loc		STORET ↓ Tallavanna Lake Middle Field ID: → Tallavanna Lake Middle Oct 10, 2017 G1WA0045_10102017		Collection (comp begin or grab) Date 10/10/17 Time 9:30		Eastern Central		Collection (comp begin or grab) Date / Time /		Bottle Group(s) A, B, C G, H	
File		Matrix (Grab, Fresh) Fresh		Diss. Oxygen (mg/L) 9.18		Sample Depts (m) 0.3		Sp. Conductance (umho/cm) 236			
S		Temp (C) 27.34		pH 9.38		Comments					
		Salinity (ppt) 0.11									
Loc		STORET ↓ Aj Henry Park Pond Middle Field ID: → Aj Henry Park Pond Middle Oct 10, 2017 G1WA0058_10102017		Collection (comp begin or grab) Date 10/10/17 Time 8:27		Eastern Central		Collection (comp begin or grab) Date / Time /		Bottle Group(s) A	
File		Matrix (Grab, Fresh) Fresh		Diss. Oxygen (mg/L) 8.18		Sample Depts (m) 0.3		Sp. Conductance (umho/cm) 70			
STOI		Temp (C) 27.36		pH 7.86		Comments					
		Salinity (ppt) 0.03									

Relinquished By: Curtis Musson
Date/Time: 10/10/17 1355
Number of Coolers: 5
Received By: J.R.
Date/Time: 10/10/17 2:03

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Central Lab Sample Submittal Form

Request Number: RA-2017-10-09-23 Page 2 of 5
 Swamp, Salem, Talavanna, Arrowhead, AJ, Harbinwood Requester: Curtis Musson Field Report Prepared By: Curtis Musson
 Customer: WAS-SECT Sampling Agency: FDEP
 Project ID: SMP Collected By: Curtis Musson, Ben Ralys

Locat		Collection (comp begin or grab)		Collection (comp begin or grab)		Collection (comp begin or grab)		Bottle Group(s)	
Field	ST	Comp	Grab	Date	Time	Date	Time	Date	Time
Swamp Creek upstream of Railroad	ST	☒	☐	10/10/17	1040	10/10/17	1040	10/10/17	1040
Field ID → Swamp Creek upstream of Railroad	ST	Matrix (Salt, Fresh) Fresh		Diss. Oxygen (mg/L) 6.75	pH 6.90	Sample Depts (m) 0.3	Sp. Conductance (umho/cm) 79	A, C D, E	
Salinity (ppt) 0.04	ST	Comments		Latitude (Decimal Degrees)		Longitude (Decimal Degrees)			
Field ID → Salem Branch downstream of SR 159	ST	☒	☐	10/10/17	1015	10/10/17	1015	10/10/17	1015
Field ID → Salem Branch downstream of SR 159	ST	Matrix (Salt, Fresh) Fresh		Diss. Oxygen (mg/L) 6.32	pH 7.51	Sample Depts (m) 0.3	Sp. Conductance (umho/cm) 177	C, D, F	
Salinity (ppt) 0.08	ST	Comments		Latitude (Decimal Degrees)		Longitude (Decimal Degrees)			
Field ID → Harbinwood Estates Drain	ST	☒	☐	10/10/17	1130	10/10/17	1130	10/10/17	1130
Field ID → Harbinwood Estates Drain	ST	Matrix (Salt, Fresh) Fresh		Diss. Oxygen (mg/L) 3.66	pH 7.28	Sample Depts (m) 0.1	Sp. Conductance (umho/cm) 127	A, B, C, D E	
Salinity (ppt) 0.06	ST	Comments		Latitude (Decimal Degrees)		Longitude (Decimal Degrees)			

Relinquished By: Curtis Musson Date/Time: 1-10/17/1355 Number of Coolers: 5 Received By: A. J. D. Date/Time: 11/10/17 2:08

Request Number: RA-2017-10-04-23		FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION		Page 3 of 5	
Swamp, Salem, Talavanna, Arrowhead, AJ, Harbinwoo Requester: Curtis Musson		Central Lab Sample Submittal Form		Field Report Prepared By: Curtis Musson	
Customer: WAS-SECT		Curtis Musson		Sampling Agency: FDEP	
Project ID: SMP		Collected By: Curtis Musson, Ben Ralys			
Loc		Collection (comp begin or grab)		Collection (comp begin or grab)	
File		Date 10/10/17 Time 1225		Date	
STO		Matrix (Salt, Fresh) FRESH		Sample Depts (m)	
Field ID →		Diss. Oxygen (mg/L) 4.27		Sp. Conductance (umho/cm) 209	
Megginis Arm Run Downstream of Sharer		pH 6.81			
Field ID →		Comments			
STO		Salinity (ppt) 0.10			
Oct 10, 2017		Latitude (Decimal Degrees)		Longitude (Decimal Degrees)	
Loc		Collection (comp begin or grab)		Collection (comp begin or grab)	
File		Date 10/10/17 Time 1300		Date	
STC		Matrix (Salt, Fresh) Fresh		Sample Depts (m)	
Field ID →		Diss. Oxygen (mg/L) 3.84		Sp. Conductance (umho/cm) 198	
Godby Drainage Ditch at Progress Dr.		pH 7.02			
Field ID →		Comments			
STC		Salinity (ppt) 0.09			
Oct 10, 2017		Latitude (Decimal Degrees)		Longitude (Decimal Degrees)	
Loc		Collection (comp begin or grab)		Collection (comp begin or grab)	
File		Date 10/10/17 Time 1335		Date	
STO		Matrix (Salt, Fresh) Fresh		Sample Depts (m)	
Field ID →		Diss. Oxygen (mg/L) 8.04		Sp. Conductance (umho/cm) 224	
Central Drainage Ditch downstream of Orange Ave.		pH 7.71			
Field ID →		Comments			
STC		Salinity (ppt) 0.10			
Oct 10, 2017		Latitude (Decimal Degrees)		Longitude (Decimal Degrees)	
Relinquished By: Curtis Musson		Number of Coolers 5		Received By: J.D.	
Date/Time 10/10/17 1355				Date/Time 10/10/17 2:08	

Group: A	Bottle Type: ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS	P-1L	# of Bottles: 8	Preservative: ICE	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 8	Preservative: ICE	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC	P-500ML	# of Bottles: 8	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	8
Group: A	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 8	Preservative: ICE-FLTR	Enter Number of Bottles Sent to Lab	8
Group: B	Bottle Type: W-ICP W-ICPMS	P-500ML	# of Bottles: 1 2 Added	Preservative: HNO3	Enter Number of Bottles Sent to Lab	3
Group: C	Bottle Type: ECOLI-18QT	P-250ML-WO-THI	# of Bottles: 7	Preservative: ICE	Enter Number of Bottles Sent to Lab	7
Group: D	Bottle Type: W-AHERB-AA W-SUC-AA-R W-UHERB-AA	BG-1L	# of Bottles: 5	Preservative: ICE	Enter Number of Bottles Sent to Lab	5
Group: E	Bottle Type: PCR-FILTER PCR-HF183	QPCR-P-250ML	# of Bottles: 4	Preservative: ICE	Enter Number of Bottles Sent to Lab	4
Group: F	Bottle Type: PCR-FILTER	QPCR-P-250ML	# of Bottles: 2	Preservative: ICE	Enter Number of Bottles Sent to Lab	2

Group: F	Bottle Type: PCR-GFD	QPCR-P-250ML	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	2
Group: G	Bottle Type: PCR-FILTER	QPCR-P-250ML	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	6
Group: H	Bottle Type: W-AHERB-AA W-GLYPH W-PYR-AA-R W-SUC-AA-R W-UHERB-AA	BG-1L	# of Bottles: 4	Preservative:	ICE	Enter Number of Bottles Sent to Lab	4
Group: H	Bottle Type: W-CT-CI-R W-PCL-SQ-R	BG-500ML	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	6
Group: H	Bottle Type: W-PSNP-TQ	BG-1L	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	6

Cooler Packing Worksheet for Request: RQ-2017-10-09-23
SWamp, Salem, Talavanna, Arrowhead, AJ, Harbinwood, Meginnis, Godby, Central

Ship Cooler On: 10/3/2017
Customer/Project: WAS-SECT/SMP

Assigned To: SEARSON_C
Requester: Curtis Musson
Priority: 3

850-245-8453
2600 Blair Stone Rd

Tallahassee, FL 32399

Attn: Curtis Musson

Comments:

No preservatives needed.

Group A: Nutrients, CHLA, Physical Aggregates
Group B: Metals
Group C: Microbiology (Bacteria)
Group D: Organics (Wastewater Tracers) AHERB Short List
Group E: PCR (HF183, FILTER)
Group F: PCR (GFD, FILTER)
Group G: PCR (FILTER)
Group H: Pesticides AHERB Long List

Requested Analyses:

Bottle Group: A

of Sites: 8

Container ID: P-1L

Qty: 8 Preservation: ICE

Lot # 00068657

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: 8 Preservation: ICE

Lot # 1208913

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: BG-1L

Qty: 5 Preservation: ICE

Lot # 00068050

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: 2

Container ID: QPCR-P-250ML

Qty: 4 Preservation: ICE

Lot # 00067801

Description:

Analysis

PCR-FILTER

PCR-HF183

Description

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

Bottle Group: F

of Sites: 1

Container ID: QPCR-P-250ML

Qty: 2 Preservation: ICE

Lot # 00067801

Description:

Analysis

PCR-FILTER

PCR-GFD

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

Bottle Group: G

of Sites: 3

Container ID: QPCR-P-250ML

Qty: 6 Preservation: ICE

Lot # 00067801

Description:

Analysis

PCR-FILTER

Description

Preparation of Samples by Filtration and held for qPCR Analysis

Bottle Group: H

of Sites: 2