

(Initials/Date)

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

Handwritten "X" in box with text: "Handwritten 'X' in this box indicates there is qualified data on this page."

Meter ID: Bio #2 RQ: 2017-10-30-16 Project: Snp

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

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

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification _____

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	Curtis Mussen	703	11/1/17	20.65	9.074	9.00	100.0	Sc	—	P/F	L/F
ICV	Curtis Mussen	704	11/1/17	20.54	9.074	9.00	100.0	Sc	—	P/F	L/F
CCV	Curtis Mussen	1611	11/1/17	21.63	8.812	8.43	96.0	49	—	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 Mussen	705	11/1/17	17100SD	10/2018	1000	1000	P/F	L/F
ICV	Curtis Mussen	706	11/1/17	17100SD	10/2018	1000	1000	P/F	L/F
CCV	Curtis Mussen	1614	11/1/17	17100SE	10/2018	100	100	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 Mussen	11/1/17	708	120614B	2/2018	7.0	7.0	45	P/F	L/F
Calibr.	Curtis Mussen	11/1/17	710	12100SA	10/2018	4.0	4.01	213	P/F	L/F
Calibr.	Curtis Mussen	11/1/17	711	120310C	9/2018	10.01	9.97	-111	P/F	L/F
ICV	Curtis Mussen	11/1/17	713	120210C	9/2018	10.01	9.92	709	P/F	L/F
CCV	Curtis Mussen	11/1/17	1616	120614B	12/2018	7.0	6.56	73	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	Curtis Mussen	11/1/17	707	0.000	0.000	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

Request Number: RQ-2017-10-30-16
 Customer: WAS-SECT
 Project ID: SMP

Requester: Curtis Musson

Field Report Prepared By: *Jamiele Greenwood*
 Sampling Agency: FDEP

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Collected By: *Curtis Musson, Jamiele Greenwood*

STREET ↓
Aj Henry Park
Pond Middle
 Field ID →
 Aj Henry Park
 Pond Middle
 Nov 01, 2017
GIWA0058_11012017

STREET ↓
Lake Arrowhead at
Boat Dock At Turtle
Crk Ln Near Outlet
 Field ID →
 Lake Arrowhead
 at boat dock at
 Turtle Crk Ln
 near outlet
 Nov 1, 2017
GIWA0004_11012017

STREET ↓
Tallavanna
Lake Middle
 Field ID →
 Tallavanna
 Lake Middle
 Nov 1, 2017
GIWA0045_11012017

☐ Comp ☒ Grab	Collection (comp begin or grab) Date 11/1/17 Time 8:18	Collection (comp begin or grab) Date	Bottle Group(s)
Matrix (Salt, Fresh) Fresh	Diss. Oxygen (mg/L) 10.30		A
Temp (C) 16.93	pH 9.34	Sample Depts (m) 0.3	
Salinity (ppt) 0.03	Comments	Sp. Conductance (umho/cm) 70	
Latitude (Decimal Degrees) 30.508			
Longitude (Decimal Degrees) -84.216			

☐ Comp ☒ Grab	Collection (comp begin or grab) Date 11/1/17 Time 8:56	Collection (comp begin or grab) Date	Bottle Group(s)
Matrix (Salt, Fresh) Fresh	Diss. Oxygen (mg/L) 10.07		A
Temp (C) 16.98	pH 9.06	Sample Depts (m) 0.3	
Salinity (ppt) 0.03	Comments	Sp. Conductance (umho/cm) 65	
Latitude (Decimal Degrees) 30.568517			
Longitude (Decimal Degrees) -84.218058			

☐ Comp ☒ Grab	Collection (comp begin or grab) Date 11/1/17 Time 9:55	Collection (comp begin or grab) Date	Bottle Group(s)
Matrix (Salt, Fresh) Fresh	Diss. Oxygen (mg/L) 9.43		A/B/C F
Temp (C) 18.85	pH 9.55	Sample Depts (m) 0.3	
Salinity (ppt) 0.12	Comments	Sp. Conductance (umho/cm) 255	
Latitude (Decimal Degrees) 30.59862			
Longitude (Decimal Degrees) -84.46593			

Relinquished By: <i>[Signature]</i>	Date/Time 11/1/17 14:48
Received By: <i>[Signature]</i>	Date/Time 11-1-17 14:48

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Central Lab Sample Submittal Form

Request Number: RQ-2017-10-30-16

Salem, Arrowhead, AJ, Megginis, Swamp, Godby

Customer: WAS-SECT
 Project ID: SMP

Requester: Curtis Musson

Field Report Prepared By: _____
 Sampling Agency: FDEP

Page ____ of ____

Collected By: _____

**Swamp Creek
upstream of
Railroad**

Field ID →
Swamp Creek
upstream of
Railroad
Nov 1, 2017

STRET ↓
G1WA0052_11012017

**Salem Branch
downstream of
SR 159**

Field ID →
Salem Branch
downstream of
SR 159
Nov 1, 2017

STRET ↓
G1WA0053_11012017

**Harbinwood
Estates Drain**

Field ID →
Harbinwood
Estates Drain
Nov 01, 2017

STRET ↓
G1WA0034_11012017

Collection (comp begin or grab)		Collection (comp begin or grab)		Collection (comp begin or grab)	
Comp	Grab	Comp	Grab	Comp	Grab
☒	☐	☒	☐	☒	☐
Matrix (Salt, Fresh)	Matrix (Salt, Fresh)	Matrix (Salt, Fresh)	Matrix (Salt, Fresh)	Matrix (Salt, Fresh)	Matrix (Salt, Fresh)
Fresh	Fresh	Fresh	Fresh	Fresh	Fresh
Temp (C)	Temp (C)	Temp (C)	Temp (C)	Temp (C)	Temp (C)
11.80	11.80	16.76	16.76	17.39	17.39
pH	pH	pH	pH	pH	pH
6.54	6.54	8.09	8.09	7.42	7.42
Diss. Oxygen (mg/L)	Diss. Oxygen (mg/L)	Diss. Oxygen (mg/L)	Diss. Oxygen (mg/L)	Diss. Oxygen (mg/L)	Diss. Oxygen (mg/L)
10.87	10.87	8.69	8.69	7.45	7.45
Sample Depts (m)	Sample Depts (m)	Sample Depts (m)	Sample Depts (m)	Sample Depts (m)	Sample Depts (m)
0.3	0.3	0.2	0.2	0.05	0.05
Sp. Conductance (umho/cm)	Sp. Conductance (umho/cm)	Sp. Conductance (umho/cm)	Sp. Conductance (umho/cm)	Sp. Conductance (umho/cm)	Sp. Conductance (umho/cm)
71	71	330	330	105	105
Latitude (Decimal Degrees)	Latitude (Decimal Degrees)	Latitude (Decimal Degrees)	Latitude (Decimal Degrees)	Latitude (Decimal Degrees)	Latitude (Decimal Degrees)
30.663	30.663	30.63082	30.63082	30.5193	30.5193
Longitude (Decimal Degrees)	Longitude (Decimal Degrees)	Longitude (Decimal Degrees)	Longitude (Decimal Degrees)	Longitude (Decimal Degrees)	Longitude (Decimal Degrees)
-84.448	-84.448	-84.43155	-84.43155	-84.3357	-84.3357
Collection Date	Collection Date	Collection Date	Collection Date	Collection Date	Collection Date
11/1/17	11/1/17	11/1/17	11/1/17	11/1/17	11/1/17
Time	Time	Time	Time	Time	Time
10:50	10:50	11:30	11:30	12:00	12:00
Bottle Group(s)	Bottle Group(s)	Bottle Group(s)	Bottle Group(s)	Bottle Group(s)	Bottle Group(s)
A/C/D E/C	A/C/D E/C	C/D/C	C/D/C	A/B/C D/C	A/B/C D/C

Relinquished By: _____	Date/Time _____	Number of Coolers _____	Received By: ABG	Date/Time 11-1-17 1448
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Group: A	Bottle Type: P-1L	# of Bottles: 8	Preservative: ICE	Enter Number of Bottles Sent to Lab	8
ALKALINITY TURBIDITY W-CL-IC W-COLOR W-F W-SO4-IC W-TDS W-TSS					
Group: A	Bottle Type: BP-1L	# of Bottles: 8	Preservative: ICE	Enter Number of Bottles Sent to Lab	8
CHLSUITE-W					
Group: A	Bottle Type: P-500ML	# of Bottles: 8	Preservative: ICE And H2SO4	Enter Number of Bottles Sent to Lab	8
W-NH3 W-NO2NO3 W-S-A-TP W-TKN W-TOC					
Group: A	Bottle Type: P-125ML	# of Bottles: 8	Preservative: FILTER-ICE	Enter Number of Bottles Sent to Lab	8
W-PO4-F					
Group: B	Bottle Type: P-500ML	# of Bottles: 3	Preservative: HNO3	Enter Number of Bottles Sent to Lab	3
W-ICP W-ICPMS					
Group: C	Bottle Type: P-250ML-WO-THI	# of Bottles: 7	Preservative: ICE	Enter Number of Bottles Sent to Lab	7
ECOLI-18QT					
Group: D	Bottle Type: BG-1L	# of Bottles: 5	Preservative: ICE	Enter Number of Bottles Sent to Lab	5
W-AHERB-AA W-SUC-AA-R W-UHERB-AA					
Group: E	Bottle Type: QPCR-P-250ML	# of Bottles: 4	Preservative: ICE	Enter Number of Bottles Sent to Lab	4
PCR-FILTER PCR-HF183					
Group: F	Bottle Type: BG-1L	# of Bottles: 4	Preservative: ICE	Enter Number of Bottles Sent to Lab	4
W-AHERB-AA					

Group: F	Bottle Type: 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: F	Bottle Type: W-CT-Cl-R W-PCL-SQ-R	BG-500ML	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	6
Group: F	Bottle Type: W-PSNP-TQ	BG-1L	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	6
Group: G	Bottle Type: PCR-FILTER	QPCR-P-250ML	# of Bottles: 6	Preservative:	ICE	Enter Number of Bottles Sent to Lab	6

Container ID: BG-1L

Qty: 6

Preservation: ICE

Lot # 68869348

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-PSNP-TQ

Description

Organonitrogen and phosphorus pesticides (ultra trace level) in water matrices by GC/MS/MS

Bottle Group: G

of Sites: 3

Container ID: QPCR-P-250ML

Qty: 6

Preservation: ICE

Lot # 00068707

Description:

Analysis

PCR-FILTER

Description

Preparation of Samples by Filtration and held for qPCR Analysis

Cooler Packed By: Tyler R. Number of Coolers: 6 Date: 10/25/17

Kit must also include:

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

If Preservation Included:

ID <u>nitric acid</u>	Exp <u>6/18/18</u>	Lot # <u>7261120</u>
ID <u>sulfuric acid</u>	Exp <u>10/02/18</u>	Lot # <u>7275016</u>
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____

PLEASE RETURN ALL COOLERS FOR RQ-2017-10-30-16

Container ID: BP-1L

Qty: 8 Preservation: ICE

Lot # 120 8913

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-500ML

Qty: 8 Preservation: ICE And H2SO4

Lot # 08069255

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: 8 Preservation: FILTER-ICE

Lot # 08068347

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: 3

Container ID: P-500ML

Qty: 3 Preservation: HNO3

Lot # 08069255

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-ICP

W-ICPMS

Description

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

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

Bottle Group: C

of Sites: 7

Container ID: P-250ML-WO-THI

Qty: 7 Preservation: ICE

Lot # 117048

Description:

Analysis

Description