

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: 154122

RQ: 2019-08-19-25

2019-11-11-57

Project: SMP1912

- 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 9/19

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.	Jon Woods	12/12/19	806	19.8	766.1	9.2	9.20	100.4	—	0.99	P/F	L/F
ICV	"	"	824	20.3	766.1	9.1	9.1	100.9	—	—	P/F	L/F
CCV	"	"	1420	19.3	763.5	9.3	9.30	100.9			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.	Jon Woods	12/12/19	806	190618F	6/2020	1000	1000	P/F	L/F
ICV	"	"	822	1908C81	6/2021	100	102.3	P/F	L/F
CCV	"	"	1421	190618F	6/2020	1000	1024	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.	Jon Woods	12/12/19	809	190618B	12/2020	7.02	19.9	7.02	-27.6	P/F	L/F
Calibr.	"	"	811	191120A	6/2021	4.00	20.3	4.00	147.7	P/F	L/F
Calibr.	"	"	817	190618C	12/2020	10.05	20.2	10.06	-192.5	P/F	L/F
ICV	"	"	820	"	"	10.05	20.2	10.04	-193.7	P/F	L/F
CCV	"	"	1423	191120A	6/2021	4.00	19.9	4.10	140.1	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 10 164.9, slope from 4 to 7 175.3 (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: 10/19

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	Jon Woods	12/12/19	819	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:

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

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Meter ID:

RQ-

Project:

- Notes:** (1) Always wait for meter to stabilize before recording any readings.
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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.											P / F	L / F
ICV											P / F	L / F
CCV											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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.								P / F	L / F
ICV								P / F	L / F
CCV								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.						7.				P / F	L / F
Calibr.						4.				P / F	L / F
Calibr.						10.				P / F	L / F
ICV										P / F	L / F
CCV										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)

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						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 STRATEGIC MONITORING PROGRAM FIELD SHEET

January 2019

Data Qualified?
Yes / No

WIN Station Name: Blue Hole Spring @ Caverns State Park

Date: 12/12/2019
(mm/dd/yyyy)

WIN/ Field ID: G2TLHR0009

WBID: 51Z

Latitude: 30.8201838

(Decimal Degrees)

County: Jackson

ORG ID: 21FLTLHR

Longitude: 85.2452327

(Decimal Degrees)

Receiving Body of Water: Chipola River

RQ- 2019-08-19-85

Sampling Team Members					WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
Jon Woods					X	X			
Paul Blair						X	X	X	

Sampling Equipment		
☒ Sample Container	☐ Van Dorn	☐ Pole
☐ Carboy	☒ Syringe	
☐ Dipper	☐ Other	
Depth Measured with SONAR		
Equipment ID #1		

Collection Method		
☐ Wading	☐ Canoe/Kayak	
☐ From Shore	☐ Electric Motor	
☒ Other Rock	☐ Gasoline Motor	

Water Level: Dry/ Pooled/ Low / Normal / High / Flooded
Meter ID# 154177
Matrix: Fresh / Marine / DI
Photos: Yes / NO / Flow: No Flow / Intestinal / Flowing / NA
Tide: Rising/ Falling/ Slack/ NA
Tide Times: High Low

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	1100	3.7	0.3	3.0	5.82	62.0	7.36	0.16	336	18.4
CEN	1104	3.2	3.2		5.52	58.9	7.31	0.16	337	18.4

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	203100	7/22/20	☒ <2
Metals	☐ W-ICPMS ☐ W-ICP	☐ Ice ☐ HNO3			☐ <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-CH-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 ☐ 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 ☐ W-PCL-SQ-R ☐ W-E8321-MS ☐ W-CARB-AA	☐ Ice			
Phytoplankton	☐ DTY-QN-C ☐ PKD-QN-C	☐ Ice			

Notes:

Place Label Here

Signature: [Signature] Date: 12/12/19

LIMS EVENT ID: WIN Import ID:

Enter Field Parameters, Verify Station ID In LIMS DMT: QC Station ID, Field Parameters In LIMS DMT:

Scan/Save Field Sheets 12-13-19 (Initials/Date) Migrate Data to WIN: (Initials/Date) Verify Data In WIN: (Initials/Date)

Florida Department of Environmental Protection
Central Laboratory Submittal Form

Customer: TLH-ROC

Project ID: SMP

Requester: Michael Eckles

Collected By: Jon WoodsField Report Prepared By: Jon WoodsSampling Agency: 8034

Location		Field/WIN ID →		Collection (comp begin or grab)		Composite end		Bottle Group(s)	
Field ID		G2TLHR0009		Date 12/12/19 Time 1100		Date		(See pg 2)	
WIN/STORE		Location ↓		Matrix (type, e.g., Salt, Fresh, etc)		mg/L Total Res. Chlorine			
Latitude		BLUE HOLE SPRING @ CAVERN		Temp (C) 7.38		mg/L % sat		A	
		Salinity (ppt) 0.16		pH		ft Sp. Conductance (umho/cm)		336	
		dd dms		Comments					
Location		Collection (comp begin or grab)		Composite end		Bottle Group(s)			
Field ID		Date		Date		Date			
WIN/STORE #		Matrix (type, e.g., Salt, Fresh, etc)		mg/L Total Res. Chlorine					
Latitude		Temp (C)		pH		ft Sp. Conductance (umho/cm)			
		dd dms		Comments					
Location		Collection (comp begin or grab)		Composite end		Bottle Group(s)			
Field ID		Date		Date		Date			
WIN/STORE #		Matrix (type, e.g., Salt, Fresh, etc)		mg/L Total Res. Chlorine					
Latitude		Temp (C)		pH		ft Sp. Conductance (umho/cm)			
		dd dms		Comments					
Location		Collection (comp begin or grab)		Composite end		Bottle Group(s)			
Field ID		Date		Date		Date			
WIN/STORE #		Matrix (type, e.g., Salt, Fresh, etc)		mg/L Total Res. Chlorine					
Latitude		Temp (C)		pH		ft Sp. Conductance (umho/cm)			
		dd dms		Comments					

Relinquished By: <u>SW</u>	Date/Time: <u>12/12/19 1414</u>	Shipping Method: <u>HL</u>	Number of Coolers Shipped: <u>1</u>	Received By: <u>[Signature]</u>	Date/Time: <u>12/12/19 1415</u>
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Group: A	Bottle Type:	P-1L	# of Bottles: 5	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: A	Bottle Type:	BP-1L	# of Bottles: 5	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
	CHLSUITE-W						
Group: A	Bottle Type:	P-500ML	# of Bottles: 5	Preservative: ICE And H2SO4	9403100	Enter Number of Bottles Sent to Lab	1
	W-NH3						
	W-NO2NO3						
	W-S-A-TP						
	W-TKN						
	W-TOC						
Group: A	Bottle Type:	P-125ML	# of Bottles: 5	Preservative: FILTER-ICE		Enter Number of Bottles Sent to Lab	1
	W-PO4-F						
Group: B	Bottle Type:	P-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	
	ALKALINITY						
	TURBIDITY						
	W-CL-IC						
	W-COLOR						
	W-F						
	W-SO4-IC						
	W-TDS						
	W-TSS						
Group: B	Bottle Type:	BP-1L	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	
	CHLSUITE-W						
Group: B	Bottle Type:	P-250ML-WO-THI	# of Bottles: 2	Preservative:	ICE	Enter Number of Bottles Sent to Lab	
	ECOL-18QT						
Group: B	Bottle Type:	P-500ML	# of Bottles: 2	Preservative: ICE And H2SO4		Enter Number of Bottles Sent to Lab	