

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: Stitch

RQ: 2022-09-26-35

Project: Algae Response Georgia Lake

- 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 11/14/22

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.	<u>Katrin Villinger</u>	<u>11/30/22</u>	<u>730</u>	<u>22.4</u>	<u>763.1</u>	<u>8.7</u>	<u>-</u>	<u>100.4</u>	<u>-</u>	<u>1.062</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
ICV			<u>733</u>	<u>22.1</u>	<u>763.1</u>	<u>8.8</u>	<u>8.75</u>	<u>100.2</u>	<u>-</u>	<u>1.062</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
CCV			<u>1519</u>	<u>22.2</u>	<u>762.3</u>	<u>8.7</u>	<u>8.73</u>	<u>100.2</u>	<u>-</u>	<u>1.062</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
CCV											<u>P</u> / <u>F</u>	<u>L</u> / <u>F</u>

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.	<u>K Villinger</u>	<u>11/30/22</u>	<u>735</u>	<u>220719A</u>	<u>7/23</u>	<u>1000</u>	<u>1000</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
ICV			<u>741</u>	<u>210917A</u>	<u>3/23</u>	<u>100.0</u>	<u>100.7</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
CCV			<u>1521</u>	<u>210917A</u>	<u>3/23</u>	<u>100</u>	<u>102.6</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
CCV								<u>P</u> / <u>F</u>	<u>L</u> / <u>F</u>

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.	<u>K Villinger</u>	<u>11/30/22</u>	<u>744</u>	<u>M118-15</u>	<u>5/2/24</u>	<u>7.01</u>	<u>22.6</u>	<u>32.8</u>	<u>-32.6</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
Calibr.			<u>750</u>	<u>L344-18</u>	<u>12/29/23</u>	<u>4.00</u>	<u>22.3</u>	<u>4.00</u>	<u>142.9</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
Calibr.			<u>755</u>	<u>M403-01</u>	<u>4/19/24</u>	<u>10.02</u>	<u>22.5</u>	<u>10.02</u>	<u>-206.8</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
ICV			<u>759</u>	<u>L344-18</u>	<u>12/29/23</u>	<u>4.00</u>	<u>22.3</u>	<u>4.02</u>	<u>141.8</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
CCV			<u>1523</u>	<u>M118-15</u>	<u>5/2/24</u>	<u>7.01</u>	<u>22.5</u>	<u>7.08</u>	<u>-36.1</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>
CCV										<u>P</u> / <u>F</u>	<u>L</u> / <u>F</u>

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 10 174.2, slope from 4 to 7 175.5 (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: 11/14/22

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	<u>K Villinger</u>	<u>11/30/22</u>	<u>800</u>	<u>0.000</u>	<u>0.000</u>	<u>P</u> / <u>F</u>	<u>C</u> / <u>F</u>

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:



Cyanobacteria Bloom Response Field Data Sheet (2022-08-15 v1)

Email scanned submittal forms to lab.receiving@FloridaDEP.gov

RQ - 2022-09-26-35				Collected By:		Katrin Villinger , Brian Davis					
Customer:		WQMP		Field Report Prepared By:		K VILLINGER					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: George's Lake @ Center HAB				Comments:							
Field ID: NEHAB0098				Coordinates:		29.79390, -81.84907					
WIN Secondary Resource Type: Lake				Collection Equip:		WaterBottle					
WIN ID: NEHAB0098				High Tide Time:				Low Tide Time:			
Matrix:		Fresh		Grab		Tide:		☐ Rising ☐ Falling ☐ Slack ☒ N/A			
Water Quality											
Date	Time ■ EST □ CEN	D.O. (%)	D.O. (mg/L)	Temp (°C)	pH (SU)	Sample Depth (m)	Total Depth (m)	Secchi Disk (m)	Sp. Cond. (µmho/cm)	Salinity (PPTH)	
11/30/2022	10:50	102.2	9.27	20	6.32	0.3	4.73	1.1	51.9	0.02	
	10:55	98	8.92	19.8	6.15	2			52	0.02	
	10:51	84.2	7.76	19.3	5.9	4.2			52.4	0.02	
Bloom Observations											
Algal Bloom Observed? ☒ Yes ☐ No											
Water Clarity		☐ Clear		☒ Slightly Turbid		☐ Turbid		☐ Opaque			
Bloom Color		☒ Green		☐ Red		☐ Brown		☐ Other:			
Algae Type		☒ Planktonic		☐ Filamentous		☐ Other:					
Algae Accumulation		☐ Mat		☒ Specks		☐ Scum		☐ Glob			
Algae Distribution		☐ Surface-Entire		☐ Surf-Localized		☐ Surf-Windblown		☒ Suspended		☐ Benthic ☐ Epiphytic	
Parameter Suite		Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group	
Algal ID (PT-50mL)		☐ ALGAL-ID				☐ Ice					
Bloom ID (PT-50mL)		☒ BLOOM-ID				☒ Ice			1	A	
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	B	
Toxins (P-125/BG-250)		☒ W-MCYST-AA ☒ W-SAXTN-MS ☒ OV-TOXN				☒ Ice			1	B	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP SA2229010 Acid Lot: Exp:				☒ Ice ☒ H2SO4 8/30/23		☒ <2	1	B	
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45um Filter Filter Lot # 175533		☒ Ice			1	B	
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped				Received By:		Date/Time	
K VILLINGER		11/30/2022 16:30		1							

Cooler Packing Worksheet for Request: RQ-2022-11-14-22

LSJR Palatka 2022

Ship Cooler On: 11/11/22

Customer/Project: NE-DIST/SMP

Assigned To: ROBERTS_Z

Requester: Jeremy M. Parrish

Priority: 3

904-256-1700
 8800 Baymeadows Way West
 Suite 100
 Jacksonville, FL 32256
 Attn: Jeremy Parrish

Please return
 packing list with
 sample submittal
 forms.

Comments:

Group A:(Surf.-Fresh)Nutrient,Metal, Pesticides, PCR,ecoli
 site(20030577)

Group B:(Surf.-Fresh)Nutrient, Bacteria, Pesticides
 site (G2NE0001)

Group C:(Surf.Fresh)Metal, Pesticides,Bacteria
 site(20030681)

Group D:(Surf.Fresh)Bacteria
 sites(G2NE0001)

Group E:(Fresh) Nutrient ecoli, tracer
 site (G2NE1211)

Ecoli-18QT

Packing Notes:

#####

Buffer Solution for W-CARB-AA Bottle Needed= 3 vials

#####

W-TR-SQ-R (sunscreen)

Wash your hands thoroughly and wear gloves. Refrain from using sunscreens on the day of sample collection.

#####

Requested Analyses:

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

Container ID: P-1L

Qty: 1

Preservation: ICE

Lot # 00024406

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

Description

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm (not valid for NPDES monitoring)

W-F	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-SO4-IC	Sulfate in aqueous matrices
W-TDS	Total Dissolved Solids in aqueous matrices
W-TSS	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 1 Preservation: ICE

Lot # 1362301

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-250ML-WO-THI

Qty: 1 Preservation: ICE

Lot # 122143

Description: 250 ml Sterilized no tablet

Analysis

ECOLI-18QT

Description

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

Container ID: QPCR-P-500ML

Qty: 1 Preservation: ICE

Lot # 00071457

Description: 500ml Sterile Nalgene

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: CH2CICOOH and Ice

Lot # 00083894

Description: Brown Glass Bottle 500ML *FILL Completely* Affix BLUE dot to container.

Analysis

W-CARB-AA

Description

Carbamates in water matrices by HPLC/MS/MS

Container ID: BG-500ML FILL TO TOP Qty: 4 Preservation: ICE

Lot # 00083894

Description: Brown Glass Bottle 500ML *Fill Completely* Affix BLUE dot to container.

Analysis

W-CT-CI-R

W-PCB-TQ-R

W-PCL-TQ-R

Description

Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization

PCBs in water matrices by GC/MS/MS

Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS

Container ID: BG-500ML

Qty: 1

Preservation: ICE

Lot # 00083894

Description: Brown Glass Bottle 500ML *FILL Completely*

Affix BLUE dot to container.

Analysis

W-E8321-DI

W-E8321-MS

Description

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 # 00084030

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-HARD

W-ICP

W-ICPMS

Description

Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3

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 # 00084030

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: BG-1L

Qty: 4

Preservation: ICE

Lot # 00083636

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-PSNP-TQ

W-TR-SQ-R

Description

Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM

Bottle Group: B

of Sites: 1

Container ID: P-1L

Qty: 1

Preservation: ICE

Lot # 00084406

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

Description

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

W-COLOR	True Color measured at 450 nm (not valid for NPDES monitoring)
W-F	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)
W-SO4-IC	Sulfate in aqueous matrices
W-TDS	Total Dissolved Solids in aqueous matrices
W-TSS	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 1 Preservation: ICE

Lot # 1262301

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-250ML-WO-THI

Qty: 1 Preservation: ICE

Lot # 122143

Description: 250 ml Sterilized no tablet

Analysis

ECOLI-18QT

Description

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

Container ID: BG-500ML

Qty: 1 Preservation: CH2ClCOOH and Ice

Lot # 00083894

Description: Brown Glass Bottle 500ML *FILL Completely*

Affix BLUE dot to container.

Analysis

W-CARB-AA

Description

Carbamates in water matrices by HPLC/MS/MS

Container ID: BG-500ML FILL TO TOP Qty: 2 Preservation: ICE

Lot # 00083894

Description: Brown Glass Bottle 500ML *Fill Completely*

Affix BLUE dot to container.

Analysis

W-CT-CI-R

W-PCB-TQ-R

W-PCL-TQ-R

Description

Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization

PCBs in water matrices by GC/MS/MS

Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS

Container ID: BG-500ML

Qty: 1 Preservation: ICE

Lot # 00083894

Description: Brown Glass Bottle 500ML *FILL Completely*

Affix BLUE dot to container.

Analysis

W-E8321-DI

W-E8321-MS

Description

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: ICE And H2SO4

Lot # 00084030

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: BG-1L

Qty: 2 Preservation: ICE

Lot # 00083636

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-PSNP-TQ

W-TR-SQ-R

Description

Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM

Bottle Group: C

of Sites: 1

Container ID: P-250ML-WO-THI

Qty: 1 Preservation: ICE

Lot # L22143

Description: 250 ml Sterilized no tablet

Analysis

ECOLI-18QT

Description

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

Container ID: BG-500ML

Qty: 1 Preservation: CH2CICOOH and Ice

Lot # 00083894

Description: Brown Glass Bottle 500ML *FILL Completely*

Affix BLUE dot to container.

Analysis

W-CARB-AA

Description

Carbamates in water matrices by HPLC/MS/MS

Container ID: BG-500ML FILL TO TOP

Qty: 2 Preservation: ICE

Lot # 00083894

Description: Brown Glass Bottle 500ML *Fill Completely*

Affix BLUE dot to container.

Analysis

W-CT-CI-R

W-PCB-TQ-R

W-PCL-TQ-R

Description

Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization

PCBs in water matrices by GC/MS/MS

Organochlorine pesticides, pyrethroids and tracers in water matrices by GC/MS/MS

Container ID: BG-500ML

Qty: 1

Preservation: ICE

Lot # 0008389 4

Description: Brown Glass Bottle 500ML *FILL Completely*

Affix BLUE dot to container.

Analysis

W-E8321-DI

W-E8321-MS

Description

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 # 00084030

Description: Plastic Bottle 500 mL

Affix RED nitric acid dot to container.

Analysis

W-HARD

W-ICP

W-ICPMS

Description

Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3

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: BG-1L

Qty: 2

Preservation: ICE

Lot # 00083636

Description: Brown Glass Bottle 1L

Affix BLUE dot to container.

Analysis

W-PSNP-TQ

W-TR-SQ-R

Description

Organonitrogen and phosphorus pesticides in water matrices by GC/MS/MS

Analysis of Sunscreen Compounds and Flame Retardants in Water by GC/MS-SIM

Bottle Group: D

of Sites: 1

Container ID: P-250ML-WO-THI

Qty: 1

Preservation: ICE

Lot # L22(4)

Description: 250 ml Sterilized no tablet

Analysis

ECOLI-18QT

Description

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

Bottle Group: E

of Sites: 1

Container ID: P-1L

Qty: 1

Preservation: ICE

Lot # 00084406

Description: Plastic Bottle 1L

Analysis

ALKALINITY

TURBIDITY

W-CL-IC

W-COLOR

W-F

Description

Alkalinity in aqueous matrices as mg CaCO3/L

Turbidity in aqueous matrices

Chloride in aqueous matrices

True Color measured at 450 nm (not valid for NPDES monitoring)

Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)

W-SO4-IC

Sulfate in aqueous matrices

W-TDS

Total Dissolved Solids in aqueous matrices

W-TSS

Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample

Container ID: BP-1L

Qty: 1

Preservation: ICE

Lot # 1362301

Description: Brown Plastic Bottle 1L

Analysis

CHLSUITE-W

Description

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

Container ID: P-250ML-WO-THI

Qty: 1

Preservation: ICE

Lot # 122143

Description: 250 ml Sterilized no tablet

Analysis

ECOLI-18QT

Description

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

Container ID: BG-500ML

Qty: 1

Preservation: ICE

Lot # 00083894

Description: Brown Glass Bottle 500ML *FILL Completely*

Affix BLUE dot to container.

Analysis

W-E8321-DI

W-E8321-MS

Description

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: ICE And H2SO4

Lot # 00084030

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

Cooler Packed By: MR

Number of Coolers: 4

Date: 11-14-2022

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	MCAA BUFFER SOL. SER: # 128343 EXP: 02/04/2023	Exp	Lot #
ID		Exp	Lot #
ID		Exp	Lot #
ID		Exp	Lot #

PLEASE RETURN ALL COOLERS FOR RQ-2022-11-14-22