

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: 2021-10-25-41

Project: Algae bloom response

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 11/10/21

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.	Katrin Villinger	11/18/21	850	21.0	767.2	9.0	—	100.9	—	1.0180	(P) F	(L) F
ICV	↓	↓	855	21.2	767.3	9.0	9.0	101.3	—	1.0180	(P) F	(L) F
CCV	Brian Davis	11/18/21	1648	21.3	765.3	8.9	8.88	100.3	✓	1.02	(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.	Katrin Villinger	11/18/21	900	210917B	09/22	1000	1000	(P) F	(L) F
ICV	↓	↓	905	210426A	05/22	100	102.1	(P) F	(L) F
CCV	Brian Davis	11/18/21	1650	210917C	9/22	50,000	50,044	(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.	Katrin Villinger	11/18/21	910	2109M25	9/23	7.01	21.8	7.01	-32.1	(P) F	(L) F
Calibr.	↓	↓	920	2107640	7/23	4.00	22.0	4.0	145.4	(P) F	(L) F
Calibr.	↓	↓	925	2012E08	6/22	10.03	21.9	10.03	-203.8	(P) F	(L) F
ICV	↓	↓	930	2109M25	9/23	7.02	21.8	7.0	-31.1	(P) F	(L) F
CCV	Brian Davis	11/18/21	1654	21012E09	6/22	10.04	21.0	9.98	-203.7	(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 10 171.7, slope from 4 to 7 177.5 (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: 11/10/21

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last verification: 11/10/21

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	Katrin Villinger	11/18/21	935	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:

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021- 10-25-41		Collected By: Kim Appleby + Katrin Villingner	
Customer: ZIFLA	Field Report Prepared By: Kim Appleby		
Project ID: BLOOM_RESP	Sampling Agency: FDEP		

WIN ID/Field ID:  NEHAB0037

COJ St Johns Marina

Comments: Was unable to measure Secchi depth due to swift current.

Matrix: Marine	Collection Equipment: Ortho K ⁹ Kit #7
Tide: ☐ Rising ☒ Falling ☐ Slack ☐ N/A	Coordinates: 30.319880, -81.661600
High Tide Time: 930	Low Tide Time: 1557

Water Quality										
Date	Time ☒ EST ☐ CEN	D.O. (mg/L)	D.O. (%)	Temp °C	pH (SU)	Sample Depth (m)	Cond. (umho/cm)	Salinity (PPTH)	Secchi Disk (m)	Total Depth (m)
11/18/21	1515	8.10	89.1	18.9	7.60	0.3	6661	3.66	NA	1.525
	1517	8.10	89.1	18.9	7.60	1.061	6660	3.66		

Bloom Observations					
Algal Bloom Observed? ☐ Yes ☒ No					
Water Surface	☒ Clear	☐ Scum	☐ Globs	☐ Slick	
Water Clarity	☐ Clear	☒ Slightly Turbid	☐ Turbid	☐ Opaque	
Bloom Color	☐ Green	☐ Red	☐ Brown	☐ Other: _____	
Algae Distribution	☐ Suspended in water column		☐ On surface	☐ Other: _____	
Water Odors	☒ Normal	☐ Sewage	☐ Petroleum	☐ Chemical	Other: _____

Parameter Suite	Parameter Methods	Preservation	pH Check	#Bottles Sent to Lab	Bottle Group
Bloom ID (PT-50ML)	☒ BLOOM-ID	☒ Ice		1	A
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	B
Toxins (BG-WD250)	☒ W-MCYST-AA	☒ Ice		1	B
Preserved Nutrients (500mL HDPE)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP	☒ Ice ☒ H2SO4	☒ <2	1	B
	Lot: SA1105060	Exp: 4/30/22	☐ <2		
Filtered Nutrients (P125mL)	☒ W-PO4-F	☒ Field Filtered 0.45um Filter	☒ Ice	1	B
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C	☐ Ice ☐ Lugols			

Relinquished By: Kim Appleby	Date/Time: 11/18/21 1800	Number of Coolers Shipped: 2	Received By:	Date/Time:
------------------------------	--------------------------	------------------------------	--------------	------------

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021- 10-25-41		Collected By: Katrin Villinger & Kim Appleby	
Customer	21 FLA	Field Report Prepared By: Katrin Villinger	
Project ID:	BLOOM_RESP	Sampling Agency:	FDEP

WIN ID/Field ID:	 NEHAB0041	Comments: Calm, no wind. No algae seen
LSJR @ Worth Dr S		Collection Equipment: ortho kit #7

Matrix:	Marine	(Grab)	Coordinates:	30.271450 -81.655080
Tide:	☐ Rising ☒ Falling ☐ Slack ☐ N/A	High Tide Time:	930	Low Tide Time: 1400

Water Quality										
Date	Time ☒ EST ☐ CEN	D.O. (mg/L)	D.O. (%)	Temp °C	pH (SU)	Sample Depth (m)	Cond. (umho/cm)	Salinity (PPTH)	Secchi Disk (m)	Total Depth (m)
11/18/21	1400	8.48 94.4	94.9	19.9	7.63	0.3	5524	3.00	0.826 (5) VOS	0.826

Bloom Observations					
Algal Bloom Observed? ☐ Yes ☒ No					
Water Surface	☒ Clear	☐ Scum	☐ Globs	☐ Slick	
Water Clarity	☐ Clear	☒ Slightly Turbid	☐ Turbid	☐ Opaque	
Bloom Color	☐ Green	☐ Red	☐ Brown	☐ Other: _____	
Algae Distribution	☐ Suspended in water column		☐ On surface	☐ Other: _____	
Water Odors	☒ Normal	☐ Sewage	☐ Petroleum	☐ Chemical	Other: _____

Parameter Suite	Parameter Methods	Preservation	pH Check	#Bottles Sent to Lab	Bottle Group
Bloom ID (PT-50ML)	☒ BLOOM-ID	☒ Ice		1	A
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice		1	B
Toxins (BG-WD250)	☒ W-MCYST-AA	☒ Ice		1	B
Preserved Nutrients (500mL HDPE)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP	☒ Ice ☒ H2SO4	☒ <2	1	B
	Lot SA1105060	Exp: 4/30/22	☐ <2		
Filtered Nutrients (P125mL)	☒ W-PO4-F	☒ Field Filtered 0.45um Filter	☒ 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
Kim Appleby	11/18/21 1600	2		

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021- 10-25-41		Collected By: Katrin Villingers + Kim Appleby									
Customer: 21 FLA	Field Report Prepared By: Katrin Villingers										
Project ID: BLOOM_RESP	Sampling Agency: FDEP										
Field ID:		Comments: Plant debris on surface									
WIN ID/Field ID:  NEHAB0038											
Canal to Marco Lake		Collection Equipment: Ortho kit #7									
Matrix: Marine	Grab	Coordinates: 30.301370 -81.658210									
Tide: ☐ Rising ☒ Falling ☐ Slack ☐ N/A	High Tide Time: 930	Low Tide Time: 1400									
Water Quality											
Date	Time ☒ EST ☐ CEN	D.O. (mg/L)	D.O. (%)	Temp °C	pH (SU)	Sample Depth (m)	Cond. (umho/cm)	Salinity (PPTH)	Secchi Disk (m)	Total Depth (m)	
11/18/21	1440	8.03	88.6	19.2	7.58	0.3	6350	3.45	0.6	1.387	
Bloom Observations											
Algal Bloom Observed? ☐ Yes ☒ No											
Water Surface	☒ Clear	☐ Scum	☐ Globs	☐ Slick							
Water Clarity	☐ Clear	☒ Slightly Turbid	☐ Turbid	☐ Opaque							
Bloom Color	☐ Green	☐ Red	☐ Brown	☐ Other: _____							
Algae Distribution	☐ Suspended in water column	☐ On surface	☐ Other: _____								
Water Odors	☒ Normal	☐ Sewage	☐ Petroleum	☐ Chemical	Other: _____						
Parameter Suite	Parameter Methods		Preservation		pH Check	#Bottles Sent to Lab	Bottle Group				
Bloom ID (PT-50ML)	☒ BLOOM-ID		☒ Ice			1	A				
Chlorophyll (BP-1L)	☒ CHLSUITE-W		☒ Ice			1	B				
Toxins (BG-WD250)	☒ W-MCYST-AA		☒ Ice			1	B				
Preserved Nutrients (500mL HDPE)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP		☒ Ice	☒ H2SO4	☒ <2	1	B				
	Lot	SA1105060	Exp:	4/30/22	☐ <2						
Filtered Nutrients (P125mL)	☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ 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				
Kim Appleby	11/18/21 1600		2								

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021- 10-25-41		Collected By: Kim Appleby + Katrin Villinger								
Customer	21 FLA	Field Report Prepared By: Kim Appleby + Katrin Villinger								
Project ID:	BLOOM_RESP	Sampling Agency: FDEP								
Field ID:		Comments:								
WIN ID/Field ID:  NEHAB0057		Sporadic algae streaks seen around boat ramp dock.								
Doctor's Lake @ Mill Cove		Collection Equipment: ortho kit #7								
Matrix:	Fresh	(Grab) Coordinates: 30.123150 -81.727500								
Tide:	☐ Rising ☒ Falling ☐ Slack ☐ N/A	High Tide Time: 1122	Low Tide Time: 643 1843							
Water Quality										
Date	Time ☒ EST ☐ CEN	D.O. (mg/L)	D.O. (%)	Temp °C	pH (SU)	Sample Depth (m)	Cond. (umho/cm)	Salinity (PPT)	Secchi Disk (m)	Total Depth (m)
11/18/21	1200	10.98	120.4	19.3	8.24	0.3	2537	1.32	0.732 (5)	0.732
Bloom Observations										
Algal Bloom Observed? ☒ Yes ☐ No										
Water Surface ☐ Clear ☒ Scum ☐ Globs ☐ Slick										
Water Clarity ☐ Clear ☒ Slightly Turbid ☐ Turbid ☐ Opaque										
Bloom Color ☒ Green ☐ Red ☐ Brown ☐ Other: _____										
Algae Distribution ☒ Suspended in water column ☒ On surface ☐ Other: _____										
Water Odors ☒ Normal ☐ Sewage ☐ Petroleum ☐ Chemical ☐ Other: _____										
Parameter Suite		Parameter Methods		Preservation		pH Check	#Bottles Sent to Lab	Bottle Group		
Bloom ID (PT-50ML)		☒ BLOOM-ID		☒ Ice			1	A		
Chlorophyll (BP-1L)		☒ CHLSUITE-W		☒ Ice			1	B		
Toxins (BG-WD250)		☒ W-MCYST-AA		☒ Ice			1	10A B		
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP		☒ Ice ☒ H2SO4		☒ <2	1	B		
		Lot SA1105060		Exp: 4/30/22		☐ <2				
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ 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		
Kim Appleby		11/18/21 1600		2						