Cyanobacteria Bloom Response Field Data Sheet (2023-06-12 v1)

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

RQ - 2023-07-24-49		**Collected By:**	Katrin Villinger
Customer:	NE-DIST	**Field Report Prepared By:**	Kvillinger
Project ID:	BLOOM_RESP	**Sampling Agency:**	NEROC
Location: Georges Lake - Boat Ramp		**Comments:**	
Field ID: NEHAB0099		**Coordinates:**	29.80224, -81.84552
WIN Secondary Resource Type: Lake		**Collection Equip:**	WaterBottle
WIN ID: NEHAB0099		**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)
08/14/2023	11:40	94.1	6.78	32.8	6.22	0.3	0.83	0.83	54.9	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
Algae (PT-50mL)	☐ ALGAL-ID ■ 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
Physical/Aggregate	■ W-COLOR	■ Ice		1	B
Preserved Nutrients (500mL HDPE)	■ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP	■ Ice ■ H2SO4	■ <2	1	B
	Acid Lot: SA3013020	Exp: 1/25/24			
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
Kvillinger	08/14/2023 16:30	1		

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: Bruce RQ- 2023-07-24-49 Project: Algae Resp Georges 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 5/23/23

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.	KVillinger	8/14/23	927	20.6	762	9.0	—	100.3	—	1.02	P / F	L / F
ICV			929	20.4	762	9.0	9.04	100.2	—	1.02	P / F	L / F
CCV			1347	20.9	761	8.9	8.98	100.5	—	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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	KVillinger	8/14/23	932	230131B	2/24	1000	1000	P / F	L / F
ICV			934	230131A	2/24	100	99.6	P / F	L / F
CCV			1349	230131A	2/24	100	99.7	P / F	L / F
CCV								P / F	L / F

Conductivity Acceptance criteria ± 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.	KVillinger	8/14/23	936	M241-15	9/1/24	7.02	20.7	7.02	-20.1	P / F	L / F
Calibr.			938	M221-22	8/10/24	4.00	20.6	4.00	156.2	P / F	L / F
Calibr.			940	M203-05	7/27/24	10.04	20.6	10.04	-188.2	P / F	L / F
ICV			942	M221-22	8/10/24	4.00	20.6	3.98	156.2	P / F	L / F
CCV			1350	M241-15	9/1/24	7.02	20.7	7.09	-21.4	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 ± 50; mV pH 10 Range -180 ± 50;
If mV are recorded: slope from 7 to 10 168.1, slope from 4 to 7 176.3 (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: 5/30/23
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	KVillinger	8/14/23	944	0.000	0.000	P / F	L / F

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

COMMENTS: