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- 2022-08-15-20 Project: Algae R. Loch/Viol

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 8/1/22

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.	Brian Davis	8/15/22	910	22.3	760.1	8.7	/	100	/	1.02	(P) / F	(L) / F
ICV		↓	912	22.3	760.1	8.7	8.69	100	/	1.02	(P) / F	(L) / F
CCV	K. Villinger	↓	~~1715~~ 1715	23.6	~~759.0~~	8.4	8.43	99.8	-	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.	Brian Davis	8/15/22	852	220225A	3/23	1000	1000	(P) F	(L) F
ICV		↓	854	210917A	9/22	100	101.9	(P) F	(L) F
CCV	K. Villinger	↓	1719	211122A	12/22	15000	15029	(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.	Brian Davis	8/15/22	900	4203B87	2/24	7.01	22.2	7.01	-174	(P) / F	(L) / F
Calibr.		↓	903	2205F96	5/24	4.00	22.3	4.00	167.0	(P) / F	(L) / F
Calibr.		↓	906	2202F29	8/23	10.03	22.3	10.03	-182.0	(P) / F	(L) / F
ICV		↓	907	~~420~~ 2205F96	5/24	4.00	22.3	4.00	164.9	(P) / F	(L) / F
CCV	K. Villinger	↓	1721	2202F29	8/23	10.03	22.8	10.01	-163.5	(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 10 167.8, slope from 4 to 7 181.4 (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: 8/1/22
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	Brian Davis	8/15/22	911	0.00	0.00	(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:

Cyanobacteria Bloom Response Field Data Sheet (2022-06-10 v1)

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

RQ - 2022-08-15-20		**Collected By:**	Katrin Villinger, Brian Davis
Customer:	Wqap	**Field Report Prepared By:**	Katrin Villinger
Project ID:	BLOOM_RESP	**Sampling Agency:**	NEROC
Location: Lochloosa Lake NE in veg		**Comments:**	
Field ID: NEHAB0083		**Coordinates:**	29.54482, -82.12243
WIN Secondary Resource Type: Lake		**Collection Equip:**	WaterBottle
WIN ID:		**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)
08/15/2022	13:25	66	5	29.8	6.66	0.3	1.843	0.6	104.9	0.05
	13:30	14.8	1.13	29.3	6.41	1.343			105.4	0.05

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 (BG-WD250)	■ 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	■ Ice ■ H2SO4	■ <2	1	B
	Acid Lot: SA2145160	Exp: 6/2/23			
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
Katrin villinger	08/15/2022 16:30	2		

Cyanobacteria Bloom Response Field Data Sheet (2022-06-10 v1)

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

RQ - 2022-08-15-20		**Collected By:**	Brian Davis, Katrin Villinger
Customer:	WQAP	**Field Report Prepared By:**	Brian Davis
Project ID:	BLOOM_RESP	**Sampling Agency:**	NEROC
Location: Sampson River @ SW CR 225		**Comments:**	
Field ID: NEHAB0088		**Coordinates:**	29.91871, -82.21021
WIN Secondary Resource Type: River/Stream		**Collection Equip:**	WaterBottle
WIN ID:		**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)
08/15/2022	11:45	89.1	6.88	28.8	6.76	0.2	0.4	0.4	115.5	0.05

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 (BG-WD250)	■ 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	■ Ice ■ H2SO4	■ <2	1	B
	Acid Lot: SA2145160	Exp: 06/02/23			
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
Brian Davis	08/15/2022 16:30	2		

Cyanobacteria Bloom Response Field Data Sheet (2022-06-10 v1)

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RQ - 2022-08-15-20		**Collected By:**	Katrin Villinger, Brian Davis
Customer:	Wqap	**Field Report Prepared By:**	K villinger
Project ID:	BLOOM_RESP	**Sampling Agency:**	NEROC
Location: Lochloosa Lake entrance to cross creek		**Comments:**	
Field ID: NEHAB0079		**Coordinates:**	29.50811, -82.14998
WIN Secondary Resource Type: Lake		**Collection Equip:**	WaterBottle
WIN ID:		**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)
08/15/2022	14:00	167.2	11.9	33.6	9.41	0.3	1.743	0.6	108.6	0.05
	14:02	65	4.96	29.4	7.13	1.243			102.8	0.05

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 (BG-WD250)	■ 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	■ Ice ■ H2SO4	■ <2	1	B
	Acid Lot: SA2145160	Exp: 6/2/23			
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	08/15/2022 16:30	2		

Cyanobacteria Bloom Response Field Data Sheet (2022-06-10 v1)

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RQ - 2022-08-15-20		**Collected By:**	Brian Davis, Katrin Villinger
Customer:	Wqap	**Field Report Prepared By:**	K villinger
Project ID:	BLOOM_RESP	**Sampling Agency:**	NEROC
Location: Lochloosa Lake @ Park		**Comments:**	
Field ID: NEHAB0082		**Coordinates:**	29.50569, -82.10408
WIN Secondary Resource Type: Lake		**Collection Equip:**	WaterBottle
WIN ID:		**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)
08/15/2022	14:25	145	10.7	31.5	9.02	0.3	1.73	0.6	104.5	0.05
	14:30	1.8	0.14	28.3	6.27	1.23			281.1	0.13

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 (BG-WD250)	■ 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	■ Ice ■ H2SO4	■ <2	1	B
	Acid Lot: SA2145160	Exp: 6/2/23			
Filtered Nutrients (P125mL)	■ W-PO4-F	☐ Field Filtered 0.45um Filter; Filter Lot #	■ 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	08/15/2022 16:30	2		

Cyanobacteria Bloom Response Field Data Sheet (2022-06-10 v1)

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RQ - 2022-08-15-20		**Collected By:**	Katrin villinger, Brian Davis
Customer:	Wqap	**Field Report Prepared By:**	K villinger
Project ID:	BLOOM_RESP	**Sampling Agency:**	NEROC
Location: Violet Lake @ 130 Violet Cir		**Comments:**	
Field ID: NEHAB0087		**Coordinates:**	29.65262, -81.86130
WIN Secondary Resource Type: Lake		**Collection Equip:**	WaterBottle
WIN ID:		**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)
08/15/2022	15:25	98.5	7.24	31.7	6.73	0.3	1.196	1.196	43.1	0.02
	15:27	98.7	7.28	31.7	6.85	0.696			43.1	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 (BG-WD250)	■ 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	■ Ice ■ H2SO4	■ <2	1	B
	Acid Lot: SA2145160	Exp: 6/2/23			
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	08/15/2022 16:30	2		