

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-

2021-10-11-60

Project:

Algae 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

8/16/21

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.	Brian Davis	11/4/21	828	22.0	763.8	8.8	8.8	100.5	✓	1.03	P/F	L/F
ICV	↓	↓	829	22.0	763.8	8.8	8.77	100.3	✓	1.03	P/F	L/F
CCV	Kim Appleby	↓	1539	20.6	763.1	9.0	9.09	101.3	✓	1.03	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.	Brian Davis	11/4/21	747	210917B	9/2022	1000	1000	P/F	L/F
ICV	↓	↓	746	210426A	5/2022	100	103.9	P/F	L/F
CCV	Kim Appleby	↓	1542	210917B	9/2022	1000	1003	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.	Brian Davis	11/4/21	751	2107FS6	7/2023	7.01	22.1	7.01	-30.5	P/F	L/F
Calibr.	↓	↓	756	2107640	7/2023	4.00	22.1	4.00	147.3	P/F	L/F
Calibr.	↓	↓	800	2012E08	6/2022	10.03	22.1	10.03	-2020	P/F	L/F
ICV	↓	↓	824	2107FS6	7/2023	7.01	22.1	7.03	-30.4	P/F	L/F
CCV	Kim Appleby	↓	1543	2012E08	6/2022	10.04	22.4	10.09	-2070	P/F	L/F
CCV						10.03				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 10 171.5, slope from 4 to 7 177.8 (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: 8/18/21

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	11/4/21	830	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:

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021- 10-11-60		Collected By: Brian D., Katherine H.								
Customer	NE-Dist	Field Report Prepared By: Brian D.								
Project ID:	BLOOM_RESP	Sampling Agency:	FDEP							
Field ID:		Comments:								
WIN ID/Field ID:  NEHAB0058		Collection Equipment: Outbo #3 30.1151, 81.7466								
Doctor's Lake @ White Owl Rd		Coordinates: 30.1164, 81.7207								
Matrix:	Fresh	(Grab)								
Tide:	☒ Rising ☐ Falling ☐ Slack ☐ N/A	High Tide Time:	1230							
		Low Tide Time:	1921							
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)
11/4/21	1230	7.40	82.3	20.4	7.52	0.3	1067	0.53	0.8	1.6
	1235	7.13	79.2	20.3	7.50	1.1	1068	0.53		
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	D			
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C		☐ Ice	☐ Lugols						
Relinquished By:	Date/Time	Number of Coolers Shipped		Received By:		Date/Time				
B-D-	11/4/21 1600	2								

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021- 10-11-60		Collected By: Brian D., Katherine H								
Customer	NE-Dist	Field Report Prepared By: Brian D.								
Project ID:	BLOOM_RESP	Sampling Agency:	FDEP							
Field ID:		Comments:								
WIN ID/Field ID:  NEHAB0055 Pace Island Dock		Collection Equipment: Outflow 30.1364, -81.7207 Coordinates: 30.1151, -81.7466								
Matrix:	Flies	☒ Grab								
Tide:	☒ Rising ☒ Falling ☐ Slack ☐ N/A	High Tide Time:	1230							
		Low Tide Time:	1921							
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)
11/4/21	1400	8.51	95.9	21.1	7.85	0.3	888	0.44	0.6	1.2
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				
B-D-	1600 11/4/21	2								

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021-10-11-60		Collected By: Brian D. Kethenize H.	
Customer	NE-Dist	Field Report Prepared By: Brian D.	
Project ID:	BLOOM_RESP	Sampling Agency:	FDEP
Field ID:		Comments:	
WIN ID/Field ID:  NEHAB0057		The data entry team contacted Brian D. to confirm the sampling depth. Brian D. confirmed that the correct sampling depth is actually 0.3 meters (Mary R.).	
Doctor's Lake @ Mill Cove		Collection Equipment: Out40 #3	
Matrix:	Fresh	Coordinates: 30.1230, 81.7216	
Tide:	☐ Rising ☒ Falling ☐ Slack ☐ N/A	High Tide Time:	1230
		Low Tide Time:	1921
Water Quality			
Date	Time	D.O.	D.O. (%)
	☐ EST ☐ CEN	(mg/L)	Temp °C
			pH (SU)
			Sample Depth (m)
			Cond. (umho/cm)
			Salinity (PPT)
			Secchi Disk (m)
			Total Depth (m)
11/4/21	1300	8.41	94.2
		20.8	7.81
		20.8	988
			0.49
			0.6
			1.1
0.3 meters (Mary R.)			
Bloom Observations			
Algal Bloom Observed? ☐ Yes ☒ No			
Water Surface	☒ Clear	☐ Scum	☐ Globbs
Water Clarity	☒ Clear	☐ Slightly Turbid	☐ Turbid
Bloom Color	☐ Green	☐ Red	☐ Brown
Algae Distribution	☐ Suspended in water column	☐ On surface	☐ Other: _____
Water Odors	☒ Normal	☐ Sewage	☐ Petroleum
			☐ Chemical Other: _____
Parameter Suite	Parameter Methods	Preservation	pH Check
Bloom ID (PT-50ML)	☒ BLOOM-ID	☒ Ice	
Chlorophyll (BP-1L)	☒ CHLSUITE-W	☒ Ice	
Toxins (BG-WD250)	☒ W-MCYST-AA	☒ Ice	
Preserved Nutrients (500mL HDPE)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP	☒ Ice ☒ H2SO4	☒ <2
	Lot	Exp:	☐ <2
Filtered Nutrients (P125mL)	☒ W-PO4-F	☒ Field Filtered 0.45um Filter	☒ Ice
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C	☐ Ice	☐ Lugols
Relinquished By:	Date/Time	Number of Coolers Shipped	Received By:
B-D-	1600 11/4/21	2	

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021- 10-11-60	Collected By: Brian D. Kethelie H.
Customer: NE-DIST	Field Report Prepared By: Brian Davis
Project ID: BLOOM_RESP	Sampling Agency: FDEP

WIN ID/Field ID:



NEHAB0060

LSJR @ Riverside Way

Comments:

Collection Equipment: **29.6033, 81.5989**

Coordinates: **0-150#3**

Matrix: **Flesh**

☒ Grab

Tide: ☐ Rising ☒ Falling ☐ Slack ☐ N/A

High Tide Time: **1555**

Low Tide Time: **1048**

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)
11/4/21	1020	6.53	74.9	22.0	7.43	3.0 0.3	914	0.45	0.7	3.0
	1025	6.50	74.6	22.0	7.43	2.5	914	0.45		

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 SA 1105060	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: B-D.	Date/Time: 1600 11/4/21	Number of Coolers Shipped: 2	Received By:	Date/Time:	

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

Meter ID: DesiRQ: 2021-10-25-41PBD: Agacabooms

Boldly "X" this box if there are qualified data on this page.

- 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 8/16/21

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.	Kim Appleby	11/4/21	847	21.6	763.0	8.9	N/A	100.4	—	1.066	(P) F	(L) F
ICV	↓	↓	849	21.7	763.0	8.8	8.84	100.5	—	1.066	(P) F	(L) F
CCV	Jerry Carr	11/4/21	1425	21.6	763	8.8	8.83	100.0	—	—	(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.	Kim Appleby	11/4/21	852	210917B	9/2022	1000	1000	(P) F	(L) F
ICV			854	210426B	5/2022	100	102.7	(P) F	(L) F
CCV	J. Carr	11/4/21	1428	210426B	5/22	20000	19893	(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.	Kim Appleby	11/4/21	858	2107F56	7/2023	7.01	22.2	7.01	-27.7	(P) F	(L) F
Calibr.	↓	↓	900	2107640	7/2023	4.00	22.2	4.00	154.7	(P) F	(L) F
Calibr.	↓	↓	902	2012E08	6/2022	10.03	22.1	10.03	-192.8	(P) F	(L) F
ICV			905	2107F56	7/2023	7.01	22.2	7.07	-24.9	(P) F	(L) F
CCV	J. Carr	11/4/21	1429	2012E08	6/2022	10.00	22.5	10.01	-194.7	(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 10 165.1, slope from 4 to 7 102.4 (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: 8/19/21

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	Kim Appleby	11/4/21	910	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:

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021-10-11-60

RQ-2021-10-25-41 BD		Collected By: Kim Appleby + Jeremy Parrish								
Customer: ZIFLA	Field Report Prepared By: Kim Appleby									
Project ID: BLOOM_RESP	Sampling Agency: FDEP									
WIN ID/Field ID:  NEHAB0032		Comments: High water level. No algae seen.								
Pottsburg Creek @ River Hills Cr E		Collection Equipment: Ortho Kit #44								
Matrix: Marine	Grab	Coordinates: 30.314680, -81.594360								
Tide: ☒ Rising ☐ Falling ☐ Slack ☐ N/A	High Tide Time: 1015	Low Tide Time: 1650								
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)
11/4/21 10:25 K1	1025	6.86	82.2	21.6	7.68	0.3	15557	9.10	0.9	1.256
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 ☐ <2	1	B				
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: 11/4/21	Number of Coolers Shipped: 1		Received By:	Date/Time:					

Cyanobacteria Bloom Response Field Data Sheet

RQ-2021-10-11-60

RQ-2021-10-25-41 BD		Collected By: Kim Appleby & Jeremy Parrish								
Customer: ZIFLA	Field Report Prepared By: Kim Appleby									
Project ID: BLOOM_RESP	Sampling Agency: FDEP									
Field ID: WIN ID/Field ID:  NEHAB0031		Comments: No algae seen. Windy. High water level at boat ramp								
LSJR @ Arlington Boat Ramp		Collection Equipment: ortho kit #44								
Matrix: Marine	Grab	Coordinates: 30.333800, -81.612460								
Tide: ☒ Rising ☐ Falling ☐ Slack ☐ N/A	High Tide Time: 1010	Low Tide Time: 1645								
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)
11/4/21	955	6.77	83.1	21.8	7.72	0.3	21071	12.66	0.4	1.75
	957	6.64	82.4	22.0	7.74	1.25	22933	13.86		
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: 4/3/22							
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: 11/4/21	Number of Coolers Shipped: 1		Received By:	Date/Time:					