

Algal Bloom Response

Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: WQAP

Requester: Michael King

Field Report Prepared By: MIKE KING

Project ID: BLOOM-RESP

Collected By: MIKE KING / MYRAUDA CURE

Sampling Agency: FDEP

Location			☐ Comp	Collection (comp begin or grab)	Eastern	Composite end	Bottle Group(s)
Field ID	Field ID		☐ Grab	Date 12/01/19	Central	Date 12/01/19	(See pg 2)
WIN/S	Location: ELEVENMILE CREEK		Matrix (type, e.g., Salt, Fresh, etc)		Temp (C) 12.3		pH 5.89
Latitude	Elevenmile Creek downstream of Mobile Hwy		Temp (C)		Sample Depth 0.1		Sp. Conductance (umho/cm) 51.2
Longitude	☐ dms		Salinity (ppt)		Comments		
Location			☐ Comp	Collection (comp begin or grab)	Eastern	Composite end	Bottle Group(s)
Field ID			☐ Grab	Date	Central	Date	
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Temp (C)		pH
Latitude	☐ dd ☐ dms		Salinity (ppt)		Sample Depth		Sp. Conductance (umho/cm)
Longitude	☐ dd ☐ dms		Comments				
Location			☐ Comp	Collection (comp begin or grab)	Eastern	Composite end	Bottle Group(s)
Field ID			☐ Grab	Date	Central	Date	
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Temp (C)		pH
Latitude	☐ dd ☐ dms		Salinity (ppt)		Sample Depth		Sp. Conductance (umho/cm)
Longitude	☐ dd ☐ dms		Comments				
Location			☐ Comp	Collection (comp begin or grab)	Eastern	Composite end	Bottle Group(s)
Field ID			☐ Grab	Date	Central	Date	
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Latitude	☐ dd ☐ dms		Salinity (ppt)		Sample Depth		Sp. Conductance (umho/cm)
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Longitude	☐ dd ☐ dms		Comments				
Location			☐ Comp	Collection (comp begin or grab)	Eastern	Composite end	Bottle Group(s)
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Longitude	☐ dd ☐ dms		Comments				
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Field ID			☐ Grab	Date	Central	Date	
WIN/STORET #			Matrix (type, e.g., Salt, Fresh, etc)		Temp (C)		pH
Latitude	☐ dd ☐ dms		Salinity (ppt)		Sample Depth		Sp. Conductance (umho/cm)
Longitude	☐ dd ☐ dms		Comments				

Relinquished By:

Date/Time

Shipping Method

Number of Coolers Shipped:

Received By:

Date/Time

Allison Hogue

10/1

Drop off

7

Group: A	Bottle Type: BLOOM-ID	PT-50ML	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
Group: B	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
Group: B	Bottle Type: W-MCYST-AA	BG-250ML-WDMT H	# of Bottles: 3	Preservative:	ICE	Enter Number of Bottles Sent to Lab	1
Group: B	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN	P-500ML	# of Bottles: 3	Preservative:	ICE And H2SO4	Enter Number of Bottles Sent to Lab	1
H2SO4 LOT# S99018030 EXP: 04/10/2020							
Group: B	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 3	Preservative:	FILTER-ICE	Enter Number of Bottles Sent to Lab	1
Group: C	Bottle Type: DTY-QN-C PKD-QN-C	BP-1L	# of Bottles: 3	Preservative:	Lugols	Enter Number of Bottles Sent to Lab	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: **155077**

RQ: **2019-09-23-57**

Project: **Algal Bloom Resp**

- 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 **4/13/19**

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.											P / F	L / F
ICV											P / F	L / F
CCV	MIKE KIM	10/1/19	0945	25.2	762.7	8.3	8.26	98.2			P	F
CCV	MC	10/1/19	11:05	26.1	762.2	8.3	8.24	99.4			P	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.	MC	10/1	0805	190618C	06/2020	10000	10000	P	F
ICV	MC	10/1	0807	190618A	01/2020	1000	1004	P	F
CCV	MC	10/1	11:07	190618A	6/20	100	104.8	P	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.	MIKE KIM	10/1	0810	2811803	10/2020	7.0	25.2	7.0	-78.4	P	F
Calibr.	↓	↓	0811	2902814	01/2021	4.0	24.9	4.0	-73.4	P	F
Calibr.	↓	↓	0812	4904609	09/2020	10.0	25.3	10.0	-26.3	P	F
ICV	↓	↓	0815	2902814	01/2021	4.0	24.8	4.04		P	F
CCV	MC	10/1	11:55	2811403	10/20	7.00	22.3	7.17		P	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 _____, slope from 4 to 7 _____ (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: **4/13/19**

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	MC	10/1	0820	0.000	0.1000	P	F

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

COMMENTS:

PH probe having issues. Think about replacing.

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: **155077** RQ: **2014-07-29-15** Project: **SMP**

- 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

6/73/19

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.											P / F	L / F
ICV											P / F	L / F
CCV	F Butler	9/19	7:45	24.9	761.5	8.3	8.31	100.2			(P) F	(L) F
CCV	F Butler	9/19	15:30	24.9	761.8	8.4	8.40	100.3			(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.	F Butler	9/19	7:45	190116A	1/2020	1000	1003	(P) F	(L) F
ICV	F Butler	9/19	7:58	190618A	4/2020	100	103.6	(P) F	(L) F
CCV	F Butler	9/19	15:35	190618A	4/2020	100	102.2	(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.	F Butler	9/19	7:53	2811803	10/2022	7.	21.0	7.0	76.9	(P) F	(L) F
Calibr.			7:55	2902818	1/2021	4.	20.9	4.0	102.2	P / F	L / F
Calibr.			7:58	4904009	4/2020	10.	21.4	10.0	-242.9	P / F	L / F
ICV			8:03	2902818	1/2021	4.0	21.7	3.96	98.6	P / F	L / F
CCV			15:39	2811803	10/20	7.0	19.6	7.15		(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 _____, slope from 4 to 7 _____ (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: **6/13/19**

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	F Butler	9/19	8:10	0.00	0.0	(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: Lake Stanley

Effective Date: 11/30/2017
Review/Revision Date: 11/28/2017
Author: C. Swanson and J. Walters
AB-17-1.10

Field ID



ELEVENMILE CREEK

Location:

Elevenmile Creek downstream of Mobile Hwy

Appendix A

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET (7-8-06 V2)

WATERBODY Elevenmile Creek		DATE (M/D/YY): 10/01/2019	TIME: (AM) 10:15	Case ID#: 2599
COUNTY: Escambia	LOCATION: Elevenmile Creek downstream of		NEAREST TOWN/CITY: Pensacola	
Visit Type: Initial ☐ Recon ☐ Sampling ☐ Follow-up ☒	Samples collected: ☒ yes ☐ no	Samples submitted to: MOBILE HWY	Photos Taken: ☒ yes ☐ no	
Sample collection method: Single Grab: ☒ Grab Composite: ☐ Depth integrated composite: ☐				
Sample & Analysis types: Aqueous: ☒ Surface Scum: ☐ Benthic mat: ☐ Tissue: ☐				
Algal ID & enumeration: ☒ Nutrients: ☒ Chl-a: ☒ AGP: ☐ Turbidity: ☒ Toxin: ☒				
Estimated size of bloom: NA		Impounded: ☐ yes ☒ no	Stream/River/Canal: 8 m wide	
Lake/Estuary Typical depth 0.5 m deep	Inflows: ☐ yes ☐ no	Typical Transect 0.5 m deep 0.3 m deep 0.3 m deep	Water velocity 0.25 m/s 0.25 m/s 0.25 m/s	
Canopy Cover: Open: ☐ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐				
Description of Bloom/ Present Weather conditions Sunny		Latitude: 30 Degrees 29 Minutes 31.02 Seconds	Longitude: -87 Degrees 20 Minutes 9.7 Seconds	
Print a map from GIS tool or Internet mapping Service (e.g., Mapquest, Google Map)			Last rain event 9/19	
Sketch bloom area on the attached map. Indicate wind direction.			Rainfall amount 0.01"	

WATER QUALITY	Depth (m): 0.1	Temp. (°C): 22.3	pH (SU): 5.89	D.O. (mg/l): 7.99	Cond. (µmho/cm) or Salinity (ppt): 51.2	Secchi (m): 0.2
Top	0.1					
Mid-depth						
Bottom	0.3					"S"
System Type: Stream: ☒ (1st - 2nd order 3rd - 4th order 5th - 6th order 7th order or greater) Lake: ☐ Wetland: ☐ Estuary: ☐ Other: ☐						
Water Odors (check box): Normal: ☒ Sewage: ☐ Petroleum: ☐ Chemical: ☐ Other: ☐						
Water Surface (check box): Clear: ☒ Scum: ☐ Globbs: ☐ Slick: ☐						
Water Clarity (check box): Clear: ☒ Slightly turbid: ☐ Turbid: ☐ Opaque: ☐						
Bloom Color (check box): Green: ☐ Red: ☐ Brown: ☐ Other: ☒ none observed						
Notes						
Abundance: Periphyton ☐ Absent ☒ Rare ☐ Common ☐ Abundant ☐ Fish ☐ ☐ ☒ ☐ Aquatic Macrophytes ☐ ☐ ☒ ☐ Iron/sulfur Bacteria ☐ ☐ ☒ ☐						

VISIT TEAM:

AGENCY: MIKE KING / MYRAHIA	NW ROC
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