Algae Bloom Sampling Kit
RQ: 2018-07-09-44
Location: Lake Henry
Date: 7/26/2018
Samplers: Terry Riordan/ Leif Boman

Appendix A

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET (7-6-06 V2)

WATERBODY	DATE (M/D/YY):	TIME: (AM)	Case ID#:
Lake Henry	7/26/18	1059	

COUNTY:	LOCATION:	NEAREST TOWN/CITY:
Polk	west of US 27	Haines City

Visit Type: Initial ☑ Recon ☐ Sampling ☐ Follow- ☐

Samples collected: ☑ yes ☐ no — Samples submitted to: FDEP Central Lab — 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: ☑ Specify

Estimated size of bloom: ≈ northern ½ of lake — Impounded: ☐ yes ☐ no

Lake/Estuary Typical depth: 3 m deep — Inflows: ☑ yes ☐ no — Outflows: ☑ yes ☐ no

Stream/River/Canal: ____ m wide — Typical Transect: ____ m deep ____ m deep ____ m deep — Water velocity: ____ m/s (Left bank) ____ m/s (Middle) ____ m/s (Right bank)

Canopy Cover: Open: ☑ Lightly Shaded (11-45%): ☐ Moderately Shaded (46-80%): ☐ Heavily Shaded: ☐

Description of Bloom/ Present Weather conditions: ~~High~~ 80's + overcast, windy (toward north)

Latitude: 28 Degrees 05 Minutes 34 Seconds — Longitude: -81 Degrees 39 Minutes 20 Seconds

Print a map from GIS tool or Internet mapping service (e.g., Mapquest, Google Map)

Sketch bloom area on the attached map. Indicate wind direction.

Last rain event: ____

Rainfall amount: ____

WATER QUALITY	Depth (m):	Temp. (°C):	pH (SU):	D.O. (mg/l):	Cond. (umho/cm) or Salinity (ppt):			Secchi (m)
Top	0.3	29.74	6.99	7.09	191			0.6
Mid-depth	1.5	29.64	6.87	6.84	191			
Bottom	2.5	29.42	6.74	6.23	~~191~~ 191			

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: ☐ Globs: ☐ Slick: ☐

Water Clarity (check box): Clear: ☐ Slightly turbid: ☑ Turbid: ☐ Opaque: ☐

Bloom Color (check box): Green: ☑ Red: ☐ Brown: ☐ Other: ☐

Notes: Patch accumulations & distributions throughout northern ½ of lake

Abundance:	Absent	Rare	Common	Abundant
Periphyton	☐	☐	☑	☐
Fish	☐	☐	☑	☐
Aquatic Macrophytes	☐	☐	☐	☑
Iron/sulfur Bacteria	☑	☐	☐	☐

VISIT TEAM: Terry Riordan / Leif Boman — AGENCY: FDEP - CENROC

RQ: 2018-07-09-44

Contains: 1:1 H2SO4
Lot No.: SA8085170
Expires: 03/26/19
See Safety Data Sheet (SDS)

THERMO FISHER SCIENTIFIC 320 NORTH MAIN STREET MIAMI, OK 74354 1-800-556-2711

Contains: 1:1 H2SO4

SULFURIC ACID <61%

DANGER 7664-93-9

May be corrosive to metals. Causes severe skin burns and eye damage. Do not breathe fume/mist/vapours. Wash thoroughly after use. Wear protective gloves/protective clothing/eye protection/face protection. Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Store locked up. Store in corrosive resistant container with a resistant inner liner.

Request Number: RQ-2018-07-09-44

Algal Bloom Response - As needed

Florida Department of Environmental Protection
Central Laboratory Submittal Form

last revised Jan 25, 2018

Customer: WQAP

Project ID: BLOOM-RESP

Requester: Michael Linger

Collected By: Terry Riordan / Leif Boman

Field Report Prepared By: Terry Riordan

Sampling Agency: 21FLCEN

Algae Bloom Sampling Kit
RQ: 2018-07-09-44
Location: Lake Henry
Date: 7/26/2018
Samplers: Terry Riordan/ Leif Boman

Location / Field ID / WIN/STORET #	Comp/Grab	Collection (comp begin or grab)	Eastern/Central	Composite end	Bottle Group(s) (See pg 2)
(label)	☑ Grab	Date 7/26/18 Time 1059	Eastern (circled)	Date / Time	A, B, C, D
Matrix (type, e.g., Salt, Fresh, etc): Fresh (circled)		Diss. Oxygen 7.09 ☑ mg/L ☐ % sat		Total Res. Chlorine (mg/L)	
Temp (C) 29.74	pH 6.99	Sample Depth 0.3 ☐ ft ☑ m		Sp. Conductance (umho/cm) 191	
Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt) —	Comments		

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Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments		

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Latitude ☐ dd ☐ dms	Longitude ☐ dd ☐ dms	Salinity (ppt)	Comments		

Relinquished By:	Date/Time	Shipping Method	Number of Coolers Shipped:	Received By:	Date/Time
Terry Riordan	7/26/18 1400	FedEx	1		

Group: A	Bottle Type: BLOOM-ID	PT-50ML	# of Bottles: 1	Preservative:	ICE	**Enter Number of Bottles Sent to Lab**	1
Group: B	Bottle Type: W-MCYST-AA	BG-500ML-WDMTH	# of Bottles: 1	Preservative:	ICE	**Enter Number of Bottles Sent to Lab**	1
Group: C	Bottle Type: CHLSUITE-W	BP-1L	# of Bottles: 1	Preservative:	ICE	**Enter Number of Bottles Sent to Lab**	1
Group: C	Bottle Type: W-NH3 W-NO2NO3 W-S-A-TP W-TKN	P-500ML	# of Bottles: 1	Preservative:	ICE And H2SO4	**Enter Number of Bottles Sent to Lab**	1
Group: C	Bottle Type: W-PO4-F	P-125ML	# of Bottles: 1	Preservative:	FILTER-ICE	**Enter Number of Bottles Sent to Lab**	1
Group: D	Bottle Type: DTY-QN-C PKD-QN-C	BP-1L	# of Bottles: 1	Preservative:	Lugols	**Enter Number of Bottles Sent to Lab**	1

Lot no.: SA8085170
Exp.: 3/26/19

H2SO4
LOT# SA8085170
EXP: 03/26/19

Cooler Packing Worksheet for Request: RQ-2018-07-09-44
Algal Bloom Response - As needed
Ship Cooler On: 6/29/2018
Customer/Project: WQAP/BLOOM-RESP

Assigned To: GREENWOO_J
Requester: Michael Linger
Priority: 3

407-897-4180
3319 Maguire Blvd
Suite 232
Orlando, FL 32803

Attn: Mike Linger

Please return packing list with sample submittal forms.

Comments:
No preservatives needed.

Analyze toxin upon receipt after consultation with Biology's Taxonomy Manager.

Bottle Groups A/B - separate event, priority 1
Bottle Groups C/D - separate event, C - priority 3, D - priority 12

Bottle Group A - Priority 1
For algal dominant taxon.

Bottle Group B - Priority 1
For toxin testing.

Bottle Group C - Priority 3
Water quality testing

Bottle Group D - Priority 12
For algal full ID.

There are multiple bottles per Group in case multiple sample targets or sample locations are needed. Samplers use best professional judgement to decide which samples are appropriate to collect for a particular response. All sets of bottles do not have to be filled at one time.

Requested Analyses:

Bottle Group: A # of Sites: 1

Container ID: PT-50ML **Qty: 1** **Preservation: ICE** **Lot #** 03775003

Description: Plastic Tube 50 mL

Analysis	Description
BLOOM-ID	Assessment of dominant algal taxa in bloom or mat sample

Bottle Group: B # of Sites: 1

Container ID: BG-500ML-WDMTH **Qty: 1** **Preservation: ICE** **Lot #** 0006764 7

Description: Wide Mouth Amber Glass Bottle 500 ml

Analysis	Description
W-MCYST-AA	Microcystins in water matrices by HPLC/MS/MS

Bottle Group: C # of Sites: 1

Container ID: BP-1L **Qty: 1** **Preservation: ICE** **Lot #** 1228623

Description: Brown Plastic Bottle 1L

Analysis	Description
CHLSUITE-W	Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry

Container ID: P-500ML **Qty: 1** **Preservation: ICE And H2SO4** **Lot #** 0007006 84

Description: Plastic Bottle 500 mL Affix YELLOW sulfuric acid dot to container.

Analysis	Description
W-NH3	Ammonia in aqueous matrices as mg N/L
W-NO2NO3	Nitrite/Nitrate in aqueous matrices as mg N/L
W-S-A-TP	Total Phosphorus in aqueous matrices as mg P/L
W-TKN	Total Kjeldahl Nitrogen in aqueous matrices

Container ID: P-125ML **Qty: 1** **Preservation: FILTER-ICE** **Lot #** 0007008 86

Description: Plastic Bottle 125 mL

Analysis	Description
W-PO4-F	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

Bottle Group: D # of Sites: 1

Container ID: BP-1L **Qty: 1** **Preservation: Lugols** **Lot #** 1223623

Description: Brown Plastic Bottle 1L

Analysis	Description
DTY-QN-C	No. of diatom taxa of quantitative phytoplankton sample.
PKD-QN-C	No. of wet taxa of quantitative phytoplankton sample.

Cooler Packed By: J.Q. Number of Coolers: 1 Date: 6/22/18

Kit must also include:
- ✓ Field Sheets
- ✓ Temperature Control Bottle
- ✓ FedEx Bills, if applicable
- ✓ Plastic Bags/Zip Ties
- ___ Acid Labels (sets of 24)

If Preservation Included:

ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____
ID _____	Exp _____	Lot # _____

PLEASE RETURN ALL COOLERS FOR RQ-2018-07-09-44