

CYANOBACTERIA BLOOM RESPONSE FIELD DATA SHEET

(7-6-06 V2)

WATERBODY NAME: <u>Caloosahatchee River</u>	DATE (M/D/YY): <u>7/2/18</u>	TIME: (AM) (PM) <u>1055</u>	Case ID#:
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COUNTY: <u>Lee County</u>	LOCATION: <u>Cape Coral Yacht Club</u>	NEAREST TOWN/CITY: <u>Cape Coral</u>
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Visit Type:	Samples collected:	Samples submitted to: <u>FL DEP LAB TAN.</u>	Photos Taken: ☒ yes ☐ no
Initial ☒	☒ yes ☐ no		
Recon ☒	Sample collection method:		
Sampling ☒	Single Grab: ☒	Grab Composite: ☐	Depth integrated composite: ☐
Follow-up ☐			

Sample & Analysis types:	Aqueous: ☒	Surface Scum: ☐	Benthic mat: ☐	Tissue: ☐
Algal ID & enumeration: ☒	Nutrients: ☒	Chl-a: ☒	AGP: ☒	Turbidity: ☒
				Toxin: ☒ <u>Microcystins</u>

Estimated size of bloom: <u>Shoreline to Shoreline</u>	Impounded: ☒ yes ☐ no	Stream/River/Canal <u>1442m wide</u>
Lake/Estuary Typical depth	Inflows: ☐ yes ☐ no	Tinical Transient
<u> </u> m deep	Outflows: ☐ yes ☐ no	<u>N/A</u> m deep
		<u>N/A</u> m/s
		<u>N/A</u> m/s
		<u>N/A</u> m/s

Canopy Cover:	Open: ☒	Lightly Shaded (11-45%): ☐	Moderately Shaded (46-80%): ☐	Heavily Shaded: ☐
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Description of Bloom/	Latitude	26	32	24.69	Longitude	-81	57	07.76
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Present Weather conditions
Clear and calm winds 0-5 mph

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 7/1/18

Rainfall amount < .25 in

WATER QUALITY	Depth (m):	Temp. (°C) :	pH (SU) :	D.O. (mnl) :	Cond. (µmho/cm) or Salinity (ppt):	TD 2.1	Secchi (m)
Top	<u>0.3</u>	<u>30.15</u>	<u>7.45</u>	<u>5.41</u>	<u>2113</u>		
Mid-depth							
Bottom	<u>1.6</u>	<u>30.55</u>	<u>7.41</u>	<u>4.28</u>	<u>15957</u>		<u>0.7</u>

System Type:	Stream: ☐	1st - 2nd order	3rd - 4th order	5th - 6th order	7th order or greater	Lake: ☐	Wetland: ☐	Estuary: ☐	Other: ☐
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Water Odors (check box) :	Normal: ☒	Sewage: ☐	Petroleum: ☐	Chemical: ☐	Other: ☐
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Water Surface (check box):	Clear: ☐	Scum: ☐	Globs: ☒	Slick: ☒
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Water Clarity (check box):	Clear: ☐	Slightly: ☐	Turbid: ☒	Opaque: ☐
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Bloom Color (check box):	Green: ☒	Red: ☐	Brown: ☐	Other: ☐
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Notes <u>Outgoing tide</u>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;">Abundance:</th> <th style="width:10%;">Absent</th> <th style="width:10%;">Rare</th> <th style="width:10%;">Common</th> <th style="width:10%;">Abundant</th> </tr> <tr> <td>Periphyton</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Fish</td> <td>☐</td> <td>☐</td> <td>☒</td> <td>☐</td> </tr> <tr> <td>Aquatic Macrophytes</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> <tr> <td>Iron/sulfur Bacteria</td> <td>☒</td> <td>☐</td> <td>☐</td> <td>☐</td> </tr> </table>	Abundance:	Absent	Rare	Common	Abundant	Periphyton	☒	☐	☐	☐	Fish	☐	☐	☒	☐	Aquatic Macrophytes	☒	☐	☐	☐	Iron/sulfur Bacteria	☒	☐	☐	☐
Abundance:	Absent	Rare	Common	Abundant																						
Periphyton	☒	☐	☐	☐																						
Fish	☐	☐	☒	☐																						
Aquatic Macrophytes	☒	☐	☐	☐																						
Iron/sulfur Bacteria	☒	☐	☐	☐																						

VISIT TEAM: <u>Chase Corley, Gary Szarek</u>	AGENCY: <u>80ROC</u>
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CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

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

Meter ID: keys

RQ:

Project: Algae

- 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.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 6/19/18

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	<u>Gary Sander</u>	<u>7/2/18</u>	<u>718</u>	<u>25.8</u>	<u>8.14</u>	<u>8.14</u>	<u>100</u>	<u>635</u>	<u>1.15</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>↓</u>	<u>↓</u>	<u>721</u>	<u>25.7</u>	<u>8.15</u>	<u>8.14</u>	<u>99.7</u>	<u>635</u>		<u>P/F</u>	<u>L/F</u>
CCV		<u>7/2/18</u>	<u>1515</u>	<u>28.8</u>	<u>7.70</u>	<u>7.64</u>	<u>99.8</u>	<u>64.5</u>		<u>P/F</u>	<u>L/F</u>
CCV										<u>P/F</u>	<u>L/F</u>

DO Acceptance criteria from Table ± 0.3 mg/L.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	<u>Gary Sander</u>	<u>7/2/18</u>	<u>725</u>	<u>171211A</u>	<u>12/18</u>	<u>10000</u>	<u>10001</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>↓</u>	<u>↓</u>	<u>730</u>	<u>180321B</u>	<u>4/19</u>	<u>50,000</u>	<u>49366</u>	<u>P/F</u>	<u>L/F</u>
CCV		<u>7/2/18</u>	<u>1520</u>	<u>180321A</u>	<u>4/19</u>	<u>500</u>	<u>488</u>	<u>P/F</u>	<u>L/F</u>
CCV								<u>P/F</u>	<u>L/F</u>

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	<u>Gary Sander</u>	<u>7/2/18</u>	<u>732</u>	<u>177435</u>	<u>10/19</u>	<u>7.0</u>	<u>7.0</u>	<u>-171</u>	<u>P/F</u>	<u>L/F</u>
Calibr.	<u>↓</u>	<u>↓</u>	<u>735</u>	<u>180710</u>	<u>2/20</u>	<u>4.0</u>	<u>4.0</u>	<u>158.8</u>	<u>P/F</u>	<u>L/F</u>
Calibr.	<u>↓</u>	<u>↓</u>	<u>740</u>	<u>178540</u>	<u>12/19</u>	<u>10.0</u>	<u>10.0</u>	<u>-195.8</u>	<u>P/F</u>	<u>L/F</u>
ICV			<u>745</u>	<u>180710</u>	<u>2/20</u>	<u>4.0</u>	<u>3.99</u>	<u>160.0</u>	<u>P/F</u>	<u>L/F</u>
CCV		<u>7/2/18</u>	<u>1545</u>	<u>178540</u>	<u>12/19</u>	<u>10.0</u>	<u>9.0</u>	<u>180.5</u>	<u>P/F</u>	<u>L/F</u>
CCV									<u>P/F</u>	<u>L/F</u>

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)

Is meter equipped with depth sensor? Yes / No If yes, list date of last quarterly depth 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						<u>P/F</u>	<u>L/F</u>

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

COMMENTS: