

From: [Musson, Curtis](#)
To: [Swanson, Cheryl](#)
Cc: [Skaggs, Jordan](#); [Rankin, Amelia](#)
Subject: RE: Cyanotoxins, SE-DIST-2024-04-17-01
Date: Friday, April 19, 2024 10:06:32 AM
Attachments: [image001.png](#)

The LOC_DESC in WN is
St. Lucie River - **at** Four Rivers
with the lower case “at”.

Curtis

From: Swanson, Cheryl <Cheryl.Swanson@FloridaDEP.gov>
Sent: Friday, April 19, 2024 9:21 AM
To: Musson, Curtis <Curtis.Musson@FloridaDEP.gov>
Cc: Skaggs, Jordan <Jordan.Skaggs@FloridaDEP.gov>; Rankin, Amelia <Amelia.Rankin@FloridaDEP.gov>
Subject: FW: Cyanotoxins, SE-DIST-2024-04-17-01

Based on the other 3 collections, I believe this site should be “St. Lucie River - at Four Rivers” with a lower case “at”. Can you confirm?

Thank you.

Cheryl

Site Visit Date/Time	Sample Location
3/26/2024, 12:45 PM	St. Lucie River - at Four Rivers
4/2/2024, 2:40 PM	St. Lucie River - at Four Rivers
4/9/2024, 2:00 PM	St. Lucie River - <u>At</u> Four Rivers
4/16/2024, 11:30 AM	St. Lucie Rivers - <u>at</u> Four Rivers

Login Checklist

RQ-2024 - 03 - 04 - 71

Login Station ID: # 2

Shipping Method: FedEx | UPS | HD | Greyhound

Date/Time of Receipt: 04/17/2027 / 08:58

*Cooler Temperature	Samples Frozen?	* All Samples in Cooler Preserved with		Number of Sample Containers in Cooler	Evidence Tape				Waybill Tracking #
					Present?		*Intact?		
	YES	HNO ₃	Formalin		Yes	No	Yes	No	
2.6C				12		X			7281 6629 2564
3.1C				18		X			7281 6629 2553

COOLER CHECK

*All samples received on ice unless otherwise noted. HNO3 and Formalin preserved samples do NOT have a temperature requirement.

- If the temperature of a cooler exceeds 6.0 oC (above 10.0 oC for W-1-4-DIOX and microbiology) or received without ice, identify affected samples in an NCR. NCR# _____
- DOH coolers can exceed 2.0 °C above the standard temperature (6.0 or 10.0 °C for W-1-4-DIOX) without login confirmation from customer for samples requiring ice preservation; identify affected samples in an NCR. NCR# _____
- If cooler or samples are received with a damaged Evidence Seal; identify the affected samples in an NCR. NCR# _____
- If coolers or samples are received late; identify the affected samples in an NCR. NCR# _____

Chain of Custody/ Field Sheet(s) Included?

Yes X No _____

Micro-Biology Overflow Chain of Custody/ FieldSheet(s) Included?

Yes _____ No X

CONTAINER CHECK

Evidence Tape on Bottles? Yes _____ No _____ NA X Evidence Tape intact? Yes _____ No _____

If Criminal, photographs taken? Yes _____ No _____ Containers intact? Yes X No _____

Caps on tight? Yes X No _____

Sufficient Sample Volume: Yes X No _____

If NO is checked above, generate an NCR listing affected sample IDs in its appropriate category. NCR# _____

CHLORINE CHECK REQUIRED? (Blue dot on container)

Yes _____ No X Init: ABS

Chlorine detected? (One container checked per Field ID)

Yes _____ No _____ Init: ABS

If chlorine is detected, generate an NCR listing affected sample IDs . NCR# _____

PRESERVATION CHECK (EXCLUDING SAMPLES SENT TO OVERFLOW LABS, "OV-")

**Acid Preserved Samples: pH< 2.0? Yes X No _____ NA _____ Init: ABS

**W-1-4-DIOX (Green dot on container) preserved to pH< 4.0? Yes _____ No _____ NA X Init: ABS

If samples were not preserved correctly, generate an NCR listing affected sample IDs . NCR# _____

Coolers Unpacked/Checked by: ABS / Date: 04/17/2024 Event contains NCRs (Y/N)? N

EventID: SE - DIST - 2024 - 04 - 17 - 01

Login Checklist

Login Preservation Equipment

Lot # & Exp: Date

Additional Comments:

Infrared Thermometer ID:	IRTG#2 EXP:10/16/24
pH Test Strips 0 – 6	LOT#223819BVEXP8/15/24
pH Paper 0 – 3	N/A
pH Paper 0 – 13	LOT228323/EXP:10/1/26
Chlorine Test Strips	3180A 2026/04

ENCORE SAMPLES

S-VOC-MS samples in Encores must be frozen within 48 hours of collection.

Were Encore samples received? Yes _____ Init: ABS

Date and time placed in freezer _____

Were all samples placed in freezer within 48 hours of collection? Yes _____ No _____

If no, were samples shipped on dry ice? Yes _____ No _____

If S-VOC-MS samples were not preserved correctly, generate an NCR listing affected sample IDs . NCR# _____



Cyanobacteria Bloom Response Field Data Sheet (2023-06-12 v1)

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

RQ - 2024-03-04-71		Collected By:		Jordan Skaggs, Sarah Meyer						
Customer:	FDEP	Field Report Prepared By:		Jordan Skaggs						
Project ID:	BLOOM_RESP	Sampling Agency:		SEROC						
Location: St. Lucie Canal - 96th Street Bridge			Comments:							
Field ID: SEHAB0111			Coordinates: 27.08805, -80.30251							
WIN Secondary Resource Type: Canal			Collection Equip: WaterBottle							
WIN ID: SEHAB0111			High Tide Time:		Low Tide Time:					
Matrix:	Marine	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 (PPT)
04/16/2024	09:40	92.3	7.62	24.9	7.86	0.3	0.6	0.4	578	0.28
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
Algae (PT-50mL)		☐ ALGAL-ID ☒ BLOOM-ID		☒ Ice				1		A
Chlorophyll (BP-1L)		☒ CHLSUITE-W		☒ Ice				1		C
Toxins (P-125/BG-250)		☒ W-MCYST-AA ☒ W-SAXTN-MS ☐ OV-TOXN		☒ Ice				1		B
Physical/Aggregate		☒ W-COLOR		☒ Ice				1		C
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-S-A-TP		☒ Ice ☒ H2SO4		☒ <2		1		C
		SA3340020		12/11/2024						
		Acid Lot:		Exp:						
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice		1		C
				Filter Lot # 17866251						
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C		☐ Ice		☐ Lugols				
Relinquished By:		Date/Time		Number of Coolers Shipped		Received By:		Date/Time		
JS FDEP		04/16/2024 15:17		2		A.SHAIK		04/17/2024 / 08:58		



Cyanobacteria Bloom Response Field Data Sheet (2023-06-12 v1)

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

RQ - 2024-03-04-71		Collected By:		Jordan Skaggs, Sarah Meyer						
Customer: FDEP		Field Report Prepared By:		Jordan Skaggs						
Project ID: BLOOM_RESP		Sampling Agency:		SEROC						
Location: St. Lucie River - at Palm City Bridge				Comments:						
Field ID: SEHAB0113				Coordinates: 27.17289, -80.26422						
WIN Secondary Resource Type: Estuary				Collection Equip: WaterBottle						
WIN ID: SEHAB0113				High Tide Time: Low Tide Time:						
Matrix: Marine		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)
04/16/2024	10:20	60.2	4.71	23.7	7.55	0.2	0.4	0.4	22430	13.52
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
Algae (PT-50mL)		☐ ALGAL-ID ☒ BLOOM-ID				☒ Ice			1	A
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	C
Toxins (P-125/BG-250)		☒ W-MCYST-AA ☒ W-SAXTN-MS ☐ OV-TOXN				☒ Ice			1	B
Physical/Aggregate		☒ W-COLOR				☒ Ice			1	C
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☒ Ice ☒ H2SO4		☒ <2	1	C
		SA3340020				12/11/2024				
		Acid Lot:		Exp:						
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45µm Filter		☒ Ice			1	C
				Filter Lot # 17866251						
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols				
Relinquished By:		Date/Time		Number of Coolers Shipped		Received By:		Date/Time		
JS FDEP		04/16/2024 15:34		2		A.SHAIK		04/17/2024 / 08:58		



Cyanobacteria Bloom Response Field Data Sheet (2023-06-12 v1)

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

RQ - 2024-03-04-71		Collected By:		Jordan Skaggs, Sarah Meyer						
Customer:	FDEP	Field Report Prepared By:		Jordan Skaggs						
Project ID:	BLOOM_RESP	Sampling Agency:		SEROC						
Location: St. Lucie River - Harborage			Comments:							
Field ID: SEHAB0115			Coordinates: 27.21154, -80.25944							
WIN Secondary Resource Type: Estuary			Collection Equip: WaterBottle							
WIN ID: SEHAB0115			High Tide Time:		Low Tide Time:					
Matrix:	Marine	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 (PPT)
04/16/2024	12:10	97.4	7.28	24.1	7.74	0.2	0.4	0.4	32536	20.32
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		
Algae (PT-50mL)	☐ ALGAL-ID ☒ BLOOM-ID			☒ Ice			1	A		
Chlorophyll (BP-1L)	☒ CHLSUITE-W			☒ Ice			1	C		
Toxins (P-125/BG-250)	☒ W-MCYST-AA ☒ W-SAXTN-MS ☐ OV-TOXN			☒ Ice			1	B		
Physical/Aggregate	☒ W-COLOR			☒ Ice			1	C		
Preserved Nutrients (500mL HDPE)	☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP SA3340020			☒ Ice ☒ H2SO4		☒ <2	1	C		
	Acid Lot:			Exp:						
Filtered Nutrients (P125mL)	☒ W-PO4-F ☒ Field Filtered 0.45um Filter			☒ Ice			1	C		
	Filter Lot # 17866251									
Quantitative Algae	☐ DTY-QN-C / PKD-QN-C			☐ Ice ☐ Lugols						
Relinquished By:	Date/Time	Number of Coolers Shipped		Received By:		Date/Time				
JS FDEP	04/16/2024 15:38	2		A.SHAIK		04/17/2024 / 08:58				



Cyanobacteria Bloom Response Field Data Sheet (2023-06-12 v1)

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

RQ - 2024-03-04-71		Collected By:		Jordan Skaggs, Sarah Meyer						
Customer: FDEP		Field Report Prepared By:		Jordan Skaggs						
Project ID: BLOOM_RESP		Sampling Agency:		SEROC						
Location: St. Lucie Canal - Army Corps Campground		Comments:								
Field ID: SEHAB0116		Coordinates:		27.11021, -80.28579						
WIN Secondary Resource Type: Canal		Collection Equip:		WaterBottle						
WIN ID: SEHAB0116		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)
04/16/2024	11:00	85.8	7.15	24.4	7.96	0.3	1.3	0.4	515	0.25
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
Algae (PT-50mL)		☐ ALGAL-ID ☒ BLOOM-ID		☒ Ice				1		A
Chlorophyll (BP-1L)		☒ CHLSUITE-W		☒ Ice				1		C
Toxins (P-125/BG-250)		☒ W-MCYST-AA ☒ W-SAXTN-MS ☐ OV-TOXN		☒ Ice				1		B
Physical/Aggregate		☒ W-COLOR		☒ Ice				1		C
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-S-A-TP		☒ Ice ☒ H2SO4		☒ <2		1		C
		SA3340020		12/11/2024						
		Acid Lot:		Exp:						
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice		1		C
				Filter Lot # 17866251						
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C		☐ Ice ☐ Lugols						
Relinquished By:		Date/Time		Number of Coolers Shipped		Received By:		Date/Time		
JS FDEP		04/16/2024 15:21		2		A.SHAIK		04/17/2024 / 08:58		



Cyanobacteria Bloom Response Field Data Sheet (2023-06-12 v1)

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

RQ - 2024-03-04-71		Collected By:		Jordan Skaggs, Sarah Meyer						
Customer: FDEP		Field Report Prepared By:		Jordan Skaggs						
Project ID: BLOOM_RESP		Sampling Agency:		SERO						
Location: St. Lucie Rivers - at Four Rivers			Comments:							
Field ID: SEHAB0112			Coordinates: 27.13934, -80.26252							
WIN Secondary Resource Type: Estuary			Collection Equip: WaterBottle							
WIN ID: SEHAB0112			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 (PPT)
04/16/2024	11:30	103.6	8.22	25.7	7.81	0.3	0.6	0.4	8819	4.91
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	
Algae (PT-50mL)		☐ ALGAL-ID ☒ BLOOM-ID			☒ Ice			1	A	
Chlorophyll (BP-1L)		☒ CHLSUITE-W			☒ Ice			1	C	
Toxins (P-125/BG-250)		☒ W-MCYST-AA ☒ W-SAXTN-MS ☐ OV-TOXN			☒ Ice			1	B	
Physical/Aggregate		☒ W-COLOR			☒ Ice			1	C	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / ☒ W-NO2NO3 / ☒ W-TKN / ☒ W-S-A-TP SA3340020			☒ Ice ☒ H2SO4		☒ <2	1	C	
		Acid Lot:			Exp:					
Filtered Nutrients (P125mL)		☒ W-PO4-F			☒ Field Filtered 0.45um Filter Filter Lot # 17866251		☒ Ice		1	C
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C			☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped		Received By:		Date/Time		
JS FDEP		04/16/2024 15:26		2		A.SHAIK		04/17/2024 / 08:58		

Date of Request: 20-FEB-2024
Created By: SKAGGS_J On: 20-FEB-2024
Modified By: AYRES_J On: 11-APR-2024
Customer: SE-DIST
Project: BLOOM-RESP
Division:
District: Southeast District
Event Description: Algal Bloom Response - SE ROC

Send Coolers To:

Phone: (772) 380-5572
FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Jordan Skaggs
Cooler Ship EMail: jordan.skaggs@floridadep.gov

Priority: 1
Event Status: R
Criminal Investigation: NO
Chemistry Request Reviewed By: AYRES_J On: 11-APR-2024
Biology Request Reviewed By: AYRES_J On: 11-APR-2024
Sampling Kit Required: NO Ship on:
Sampling Kit Shipped: YES On: 26-FEB-2024
Sampling Kit Packed By: PENDLETO_C
Preservatives Needed: NO
Date to Receive Samples: 08-MAR-2024
Logged In By: SHAIK_A On: 17-APR-2024

Send Final Report To:

FL Dept. of Environmental Protection
2199 South Rock Road
Fort Pierce, FL 34945
Attn: Andrew Luering
Report Notification EMail:
jordan.skaggs@floridadep.gov;andrew.luering@floridadep.gov

Comments: PACKING NOTES:

Bottle Groups A, B, C - Ship LABELS ONLY for 8 sites.
For the rest (10 sites) ship a normal. (Bottles & labels)

**Please send:
-4 full-size coolers
-4 extra Fedex labels

LOG-IN STAFF: Please print two copies of algal job labels at login.

Bottle Group A - Priority 1 for algal dominant taxon.
Bottle Group B - Priority 1 for toxin testing.
Bottle Group C - Priority 3 (nutrients); Priority 4 (chlorophyll)

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.

Bottle Group A (Biological) With 26 Samples:

Bottle Type: PT-50ML Number of Bottles: 26 Preserved With: ICE
BLOOM-ID Template: DEFAULT (SOP-AB18) Assessment of dominant algal taxa in bloom or mat sample

Bottle Group B (Water) With 26 Samples:

Bottle Type: P-125ML Number of Bottles: 26 Preserved With: ICE
W-MCYST-AA Template: DEFAULT (EPA 8321B) Microcystins in water matrices by HPLC/MS/MS
W-SAXTN-MS Template: DEFAULT (EPA 8321B) Saxitoxin in water matrices by HPLC/MS/MS

Bottle Group C (Water) With 26 Samples:

Bottle Type: BP-1L Number of Bottles: 26 Preserved With: ICE
CHLSUITE-W Template: DEFAULT (SM 10150 B) Phytoplankton chlorophyll-a corrected, uncorrected, and phaeophytin by spectrophotometry
Bottle Type: P-250ML Number of Bottles: 26 Preserved With: ICE
W-COLOR Template: DEFAULT (DEP SOP: NU-094-1) True Color measured at 450 nm (not valid for NPDES monitoring)
Color (true)

Bottle Group C (Water) With 26 Samples:

Bottle Type: P-500ML	Number of Bottles: 26	Preserved With: ICE And H2SO4
W-NH3	Template: DEFAULT	(EPA 350.1 Rev. 2.0) Ammonia in aqueous matrices as mg N/L
W-NO2NO3	Template: DEFAULT	(EPA 353.2 Rev. 2.0) Nitrite/Nitrate in aqueous matrices as mg N/L
W-S-A-TP	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Total Phosphorus in aqueous matrices as mg P/L
W-TKN	Template: DEFAULT	(EPA 351.2 Rev. 2.0) Total Kjeldahl Nitrogen in aqueous matrices
Bottle Type: P-125ML	Number of Bottles: 26	Preserved With: FILTER-ICE
W-PO4-F	Template: DEFAULT	(EPA 365.1 Rev. 2.0) Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L

* - The laboratory is not NELAP certified for this analyte/method, or certification is not applicable.