

Chemical Analysis Report

SO-DIST-2024-06-20-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Algal Bloom Response - SOROC**
Request ID: **RQ-2024-04-22-59**
Customer: **SO-DIST**
Project ID: **BLOOM-RESP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
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Certified by: Marek Topolski, Environmental Administrator

Date Certified: 11-JUL-2024 13:40

A handwritten signature in black ink, appearing to read "Marek Topolski", with a stylized, flowing script.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Caloosahatchee - Rivers Condo

Collection Date/Time: 06/19/2024 14:00

Field ID: HAB-SD-0153

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2495338	DEP SOP: NU-094-1	Color (true)	56		PCU	P446830	
2495340	EPA 350.1 Rev. 2.0	Ammonia-N	0.025		mg N/L	P447241	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.99		mg N/L	P447091	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.16		mg N/L	P447047	
	EPA 365.1 Rev. 2.0	Total-P	0.13		mg P/L	P447010	
2495342	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.089		mg P/L	P446822	
2495344	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P446702	
		Cylindrospermopsin	0.10	U	ug/L	P446701	
		Desmethyl microcystin LR	0.25	U	ug/L	P446701	
		Microcystin HiLR	0.25	U	ug/L	P446701	
		Microcystin HtyR	0.25	U	ug/L	P446701	
		Microcystin LA	0.10	U	ug/L	P446701	
		Microcystin LF	0.10	U	ug/L	P446701	
		Microcystin LR	0.25	U	ug/L	P446701	
		Microcystin LW	0.25	U	ug/L	P446701	
		Microcystin LY	0.10	U	ug/L	P446701	
		Microcystin RR	0.10	U	ug/L	P446701	
		Microcystin WR	0.50	U	ug/L	P446701	
		Neosaxitoxin	0.50	U	ug/L	P446702	
		Microcystin YR	0.25	U	ug/L	P446701	
		Saxitoxin	0.50	U	ug/L	P446702	
		Nodularin-R	0.10	U	ug/L	P446701	

Sample Location: Caloosahatchee River - Alacante Canal North Collection Date/Time: 06/19/2024 13:30

Field ID: HAB-SD-0194 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2495339	DEP SOP: NU-094-1	Color (true)	47		PCU	P446830	
2495341	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P447241	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P447091	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P447047	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P447010	
2495343	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.056		mg P/L	P446822	
2495345	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P446702	
		Cylindrospermopsin	0.10	U	ug/L	P446701	
		Desmethyl microcystin LR	0.25	U	ug/L	P446701	
		Microcystin HilR	0.25	U	ug/L	P446701	
		Microcystin HtyR	0.25	U	ug/L	P446701	
		Microcystin LA	0.10	U	ug/L	P446701	
		Microcystin LF	0.10	U	ug/L	P446701	
		Microcystin LR	0.25	U	ug/L	P446701	
		Microcystin LW	0.25	U	ug/L	P446701	
		Microcystin LY	0.10	U	ug/L	P446701	
		Microcystin RR	0.10	U	ug/L	P446701	
		Microcystin WR	0.50	U	ug/L	P446701	
		Neosaxitoxin	0.50	U	ug/L	P446702	
		Microcystin YR	0.25	U	ug/L	P446701	
		Saxitoxin	0.50	U	ug/L	P446702	
		Nodularin-R	0.10	U	ug/L	P446701	

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P446830

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447241

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447091

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447047

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447010

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446822

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: EPA 8321B
Batch ID: P446701

Component	Result	Code	Units
Cylindrospermopsin	0.10	U	ug/L
Desmethyl microcystin LR	0.25	U	ug/L
Microcystin H1LR	0.25	U	ug/L
Microcystin HtyR	0.25	U	ug/L
Microcystin LA	0.10	U	ug/L
Microcystin LF	0.10	U	ug/L
Microcystin LR	0.25	U	ug/L
Microcystin LW	0.25	U	ug/L
Microcystin LY	0.10	U	ug/L
Microcystin RR	0.10	U	ug/L
Microcystin WR	0.50	U	ug/L
Microcystin YR	0.25	U	ug/L
Nodularin-R	0.10	U	ug/L

Quality Assurance Report
Method Blank Results

Reference Method: EPA 8321B
Batch ID: P446702

Component	Result	Code	Units
Anatoxin-a	0.25	U	ug/L
Neosaxitoxin	0.50	U	ug/L
Saxitoxin	0.50	U	ug/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P446830

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447241

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.4		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447091

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	102		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447047

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	95.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447010

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	96.2		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446822

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	104		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P446701

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cylindrospermopsin	114		P	40 - 160
Desmethyl microcystin LR	91.1		P	40 - 160
Microcystin HILR	98.3		P	40 - 160
Microcystin HtyR	92.4		P	40 - 160
Microcystin LA	104		P	40 - 160
Microcystin LF	108		P	40 - 160
Microcystin LR	95.8		P	40 - 160
Microcystin LW	104		P	40 - 160
Microcystin LY	111		P	40 - 160
Microcystin RR	96.2		P	40 - 160
Microcystin WR	94.7		P	40 - 160
Microcystin YR	99.2		P	40 - 160
Nodularin-R	93.4		P	40 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P446702

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	107		P	40 - 150
Neosaxitoxin	108		P	40 - 150
Saxitoxin	107		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447241

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2495340	Ammonia-N	96.6	96.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447091

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2495310	Kjeldahl Nitrogen	108	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447047

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2495340	NO2NO3-N	96.5	97.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447010

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2495472	Total-P	98.8	97.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446822

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2495630	O-Phosphate-P	97.6	97.2	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P446701

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494753	Cylindrospermopsin	107	109	P/P	40 - 160
2494753	Desmethyl microcystin LR	90.4	96.9	P/P	40 - 160
2494753	Microcystin HiLR	94.8	99.1	P/P	40 - 160
2494753	Microcystin HtyR	91.8	94.4	P/P	40 - 160
2494753	Microcystin LA	105	107	P/P	40 - 160
2494753	Microcystin LF	115	120	P/P	40 - 160
2494753	Microcystin LR	92.1	97.9	P/P	40 - 160
2494753	Microcystin LW	100	109	P/P	40 - 160
2494753	Microcystin LY	105	114	P/P	40 - 160
2494753	Microcystin RR	93.6	101	P/P	40 - 160
2494753	Microcystin WR	102	100	P/P	40 - 160
2494753	Microcystin YR	101	106	P/P	40 - 160
2494753	Nodularin-R	98.7	103	P/P	40 - 160

Reference Method: EPA 8321B
Batch ID: P446702

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2494753	Anatoxin-a	107	107	P/P	40 - 150
2494753	Neosaxitoxin	81.1	79.3	P/P	40 - 150
2494753	Saxitoxin	85.5	84.2	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P446830

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2495303	Color (true)	3.59	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P447241

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2495340	Ammonia-N	0.136	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P447091

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2495310	Kjeldahl Nitrogen	3.75	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P447047

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2495340	NO2NO3-N	0.565	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P447010

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2495472	Total-P	1.67	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P446822

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2495630	O-Phosphate-P	0.375	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P446701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494753	Cylindrospermopsin	1.32	Spike	P	0 - 30
2494753	Desmethyl microcystin LR	6.95	Spike	P	0 - 30
2494753	Microcystin HtIR	4.38	Spike	P	0 - 30
2494753	Microcystin HtyR	2.75	Spike	P	0 - 30
2494753	Microcystin LA	2.41	Spike	P	0 - 30
2494753	Microcystin LF	4.38	Spike	P	0 - 30
2494753	Microcystin LR	6.14	Spike	P	0 - 30
2494753	Microcystin LW	8.56	Spike	P	0 - 30
2494753	Microcystin LY	8.57	Spike	P	0 - 30

Quality Assurance Report
Precision

Reference Method: EPA 8321B
Batch ID: P446701

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494753	Microcystin RR	7.61	Spike	P	0 - 30
2494753	Microcystin WR	1.74	Spike	P	0 - 30
2494753	Microcystin YR	5.10	Spike	P	0 - 30
2494753	Nodularin-R	4.12	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P446702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2494753	Anatoxin-a	0.600	Spike	P	0 - 30
2494753	Neosaxitoxin	2.30	Spike	P	0 - 30
2494753	Saxitoxin	1.43	Spike	P	0 - 30

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report
Surrogates

Lab Sample ID: 2495344
Field Sample ID: HAB-SD-0153

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Anatoxin-a 13C4	131	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	88.9	P	30 - 160

Lab Sample ID: 2495345
Field Sample ID: HAB-SD-0194

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Anatoxin-a 13C4	137	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	94.7	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A126221

Included Lab Sample IDs: 2495344, 2495345

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cylindrospermopsin	121	117	P/P	60 - 160
Desmethyl microcystin LR	103	100	P/P	60 - 160
Microcystin HILR	106	107	P/P	60 - 160
Microcystin HtyR	105	107	P/P	60 - 160
Microcystin LA	113	117	P/P	50 - 160
Microcystin LF	123	119	P/P	50 - 160
Microcystin LR	101	98.1	P/P	60 - 160
Microcystin LW	112	109	P/P	60 - 160
Microcystin LY	119	117	P/P	60 - 160
Microcystin RR	100	98.1	P/P	60 - 160
Microcystin WR	107	107	P/P	60 - 160
Microcystin YR	110	111	P/P	60 - 160
Nodularin-R	106	107	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A126249

Included Lab Sample IDs: 2495344, 2495345

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	128	128	P/P	50 - 160
Neosaxitoxin	123	119	P/P	50 - 160
Saxitoxin	130	128	P/P	50 - 160

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A126270

Included Lab Sample IDs: 2495342, 2495343

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.8	98.1	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A126275

Included Lab Sample IDs: 2495338, 2495339

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	100	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A126347

Included Lab Sample IDs: 2495340, 2495341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	96.0	95.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A126349

Included Lab Sample IDs: 2495340, 2495341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	99.2	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A126413
Included Lab Sample IDs: 2495340, 2495341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	100	99.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A126415
Included Lab Sample IDs: 2495340, 2495341

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	96.9	97.7	P/P	90 - 110
Ammonia-N	99.1	98.8	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.
Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.
Where they are different, both control limits are provided.

Quality Assurance Report

Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	MS
					SMP	
DEP SOP: NU-094-1	Color (true)	98.9			3.59	
EPA 350.1 Rev. 2.0	Ammonia-N	94.4	96.6	96.8		0.136
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	108	102		3.75
EPA 353.2 Rev. 2.0	NO2NO3-N	95.5	96.5	97.5		0.565
EPA 365.1 Rev. 2.0	Total-P	96.2	98.8	97.1		1.67
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	104	97.6	97.2		0.375
EPA 8321B	Anatoxin-a	107	107	107		0.600
	Cylindrospermopsin	114	107	109		1.32
	Desmethyl microcystin LR	91.1	90.4	96.9		6.95
	Microcystin HiLR	98.3	94.8	99.1		4.38
	Microcystin HtyR	92.4	91.8	94.4		2.75
	Microcystin LA	104	105	107		2.41
	Microcystin LF	108	115	120		4.38
	Microcystin LR	95.8	92.1	97.9		6.14
	Microcystin LW	104	100	109		8.56
	Microcystin LY	111	105	114		8.57
	Microcystin RR	96.2	93.6	101		7.61
	Microcystin WR	94.7	102	100		1.74
	Microcystin YR	99.2	101	106		5.10
	Neosaxitoxin	108	81.1	79.3		2.30
	Nodularin-R	93.4	98.7	103		4.12
	Saxitoxin	107	85.5	84.2		1.43

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2495338, 2495339
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2495340, 2495341
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2495340, 2495341
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2495340, 2495341
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2495340, 2495341
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2495342, 2495343
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2495344, 2495345
EPA 8321B	Saxitoxin in water matrices by HPLC/MS/MS	2495344, 2495345

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	06/20/2024			06/20/2024 14:09	Chandler E Cox	2495338
	06/20/2024			06/20/2024 14:10	Chandler E Cox	2495339
EPA 350.1 Rev. 2.0	06/20/2024			06/28/2024 12:34	Ping Hua	2495341
	06/20/2024			06/28/2024 13:15	Ping Hua	2495340
EPA 351.2 Rev. 2.0	06/20/2024	06/27/2024 11:30	Ping Hua	06/28/2024 12:32	Robyn Blevins	2495340
	06/20/2024	06/27/2024 11:30	Ping Hua	06/28/2024 12:34	Robyn Blevins	2495341
EPA 353.2 Rev. 2.0	06/20/2024			06/25/2024 14:54	Fadila Guebre	2495340
	06/20/2024			06/25/2024 15:00	Fadila Guebre	2495341
EPA 365.1 Rev. 2.0	06/20/2024	06/25/2024 13:47	Adam P Silver	06/25/2024 17:52	Elise M. Gillis	2495340
	06/20/2024	06/25/2024 13:47	Adam P Silver	06/25/2024 17:53	Elise M. Gillis	2495341
EPA 365.1 Rev. 2.0 dissolved	06/20/2024			06/20/2024 13:00	Elise M. Gillis	2495342
	06/20/2024			06/20/2024 13:01	Elise M. Gillis	2495343
EPA 8321B	06/20/2024	06/20/2024 12:00	Tae K Lee	06/20/2024 14:16	Tae K Lee	2495344
	06/20/2024	06/20/2024 12:00	Tae K Lee	06/20/2024 14:29	Tae K Lee	2495345
	06/20/2024	06/20/2024 12:00	Tae K Lee	06/20/2024 15:07	Tae K Lee	2495344
	06/20/2024	06/20/2024 12:00	Tae K Lee	06/20/2024 15:24	Tae K Lee	2495345