

Chemical Analysis Report

WQAP-2023-08-10-01

Florida DEP Laboratory
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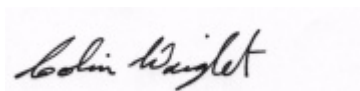
Event Description: **Algal Bloom Response - SWD**
Request ID: **RQ-2023-06-26-51**
Customer: **WQAP**
Project ID: **BLOOM-RESP**

Send Reports to:
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Certified by: Colin Wright, Program Administrator

Date Certified: 29-AUG-2023 09:55

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light pink rectangular background.

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: Lake Seminole - Boat Ramp

Collection Date/Time: 08/09/2023 13:20

Field ID: HAB-SW-0224

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2430106	DEP SOP: NU-094-1	Color (true)	27		PCU	P433709	
2430108	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P434069	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	2.4		mg N/L	P433813	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P434369	
	EPA 365.1 Rev. 2.0	Total-P	0.044		mg P/L	P433770	
2430110	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P433707	
2430115	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P433667	
		Cylindrospermopsin	0.33	I	ug/L	P433663	
		Desmethyl microcystin LR	0.25	U	ug/L	P433663	
		Microcystin HilR	0.25	U	ug/L	P433663	
		Microcystin HtyR	0.25	U	ug/L	P433663	
		Microcystin LA	0.10	U	ug/L	P433663	
		Microcystin LF	0.10	U	ug/L	P433663	
		Microcystin LR	0.25	U	ug/L	P433663	
		Microcystin LW	0.25	U	ug/L	P433663	
		Microcystin LY	0.10	U	ug/L	P433663	
		Microcystin RR	0.10	U	ug/L	P433663	
		Microcystin WR	0.50	U	ug/L	P433663	
		Neosaxitoxin	0.50	U	ug/L	P433667	
		Microcystin YR	0.25	U	ug/L	P433663	
		Saxitoxin	0.50	U	ug/L	P433667	
		Nodularin-R	0.10	U	ug/L	P433663	

Sample Location: Lake Thomas - North

Collection Date/Time: 08/09/2023 12:15

Field ID: HAB-SW-0225

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2430107	DEP SOP: NU-094-1	Color (true)	15		PCU	P433709	
2430109	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P434069	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.45		mg N/L	P433813	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.006	I	mg N/L	P434369	
	EPA 365.1 Rev. 2.0	Total-P	0.014		mg P/L	P433770	
2430111	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P433707	
2430116	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P433667	
		Cylindrospermopsin	0.10	U	ug/L	P433663	
		Desmethyl microcystin LR	0.25	U	ug/L	P433663	
		Microcystin HiLR	0.25	U	ug/L	P433663	
		Microcystin HtyR	0.25	U	ug/L	P433663	
		Microcystin LA	0.10	U	ug/L	P433663	
		Microcystin LF	0.10	U	ug/L	P433663	
		Microcystin LR	0.25	U	ug/L	P433663	
		Microcystin LW	0.25	U	ug/L	P433663	
		Microcystin LY	0.10	U	ug/L	P433663	
		Microcystin RR	0.10	U	ug/L	P433663	
		Microcystin WR	0.50	U	ug/L	P433663	
		Neosaxitoxin	0.50	U	ug/L	P433667	
		Microcystin YR	0.25	U	ug/L	P433663	
		Saxitoxin	0.50	U	ug/L	P433667	
		Nodularin-R	0.10	U	ug/L	P433663	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P433709

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434069

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433813

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434369

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433770

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P433707

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

Reference Method: EPA 8321B
Batch ID: P433663

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: P433667

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: P433709

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434069

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433813

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	106		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434369

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433770

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.7		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P433707

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

Reference Method: EPA 8321B
Batch ID: P433663

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cylindrospermopsin	103		P	40 - 160
Desmethyl microcystin LR	107		P	40 - 160
Microcystin H1LR	109		P	40 - 160
Microcystin HtyR	105		P	40 - 160
Microcystin LA	111		P	40 - 160
Microcystin LF	99.4		P	40 - 160
Microcystin LR	104		P	40 - 160
Microcystin LW	108		P	40 - 160
Microcystin LY	105		P	40 - 160
Microcystin RR	99.9		P	40 - 160
Microcystin WR	117		P	40 - 160
Microcystin YR	100		P	40 - 160
Nodularin-R	97.5		P	40 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P433667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	89.0		P	40 - 150
Neosaxitoxin	79.6		P	40 - 150
Saxitoxin	65.1		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434069

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430090	Ammonia-N	99.2	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430109	Kjeldahl Nitrogen	107	105	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434369

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2429833	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433770

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430090	Total-P	107	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P433707

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430110	O-Phosphate-P	92.4	92.8	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P433663

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430062	Cylindrospermopsin	103	105	P/P	40 - 160
2430062	Desmethyl microcystin LR	116	115	P/P	40 - 160
2430062	Microcystin HiLR	108	110	P/P	40 - 160
2430062	Microcystin HtyR	99.9	101	P/P	40 - 160
2430062	Microcystin LA	106	110	P/P	40 - 160
2430062	Microcystin LF	101	99.7	P/P	40 - 160
2430062	Microcystin LR	70.0	74.4	P/P	40 - 160
2430062	Microcystin LW	105	101	P/P	40 - 160
2430062	Microcystin LY	106	102	P/P	40 - 160
2430062	Microcystin RR	96.8	100	P/P	40 - 160
2430062	Microcystin WR	120	121	P/P	40 - 160
2430062	Microcystin YR	102	97.6	P/P	40 - 160
2430062	Nodularin-R	110	108	P/P	40 - 160

Reference Method: EPA 8321B
Batch ID: P433667

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2430062	Anatoxin-a	80.7	94.8	P/P	40 - 150
2430062	Neosaxitoxin	58.2	67.6	P/P	40 - 150
2430062	Saxitoxin	51.2	60.7	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P433709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430134	Color (true)	3.38	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434069

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430090	Ammonia-N	2.08	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P433813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430109	Kjeldahl Nitrogen	1.13	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434369

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2429833	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433770

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430090	Total-P	0.825	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P433707

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430110	O-Phosphate-P	0.432	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P433663

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430062	Cylindrospermopsin	1.90	Spike	P	0 - 30
2430062	Desmethyl microcystin LR	0.618	Spike	P	0 - 30
2430062	Microcystin HtIR	1.31	Spike	P	0 - 30
2430062	Microcystin HtyR	1.21	Spike	P	0 - 30
2430062	Microcystin LA	3.63	Spike	P	0 - 30
2430062	Microcystin LF	0.800	Spike	P	0 - 30
2430062	Microcystin LR	1.08	Spike	P	0 - 30
2430062	Microcystin LW	3.74	Spike	P	0 - 30
2430062	Microcystin LY	3.88	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P433663

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430062	Microcystin RR	3.54	Spike	P	0 - 30
2430062	Microcystin WR	1.07	Spike	P	0 - 30
2430062	Microcystin YR	4.20	Spike	P	0 - 30
2430062	Nodularin-R	2.05	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P433667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2430062	Anatoxin-a	16.0	Spike	P	0 - 30
2430062	Neosaxitoxin	14.0	Spike	P	0 - 30
2430062	Saxitoxin	17.0	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2430115
Field Sample ID: HAB-SW-0224

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Anatoxin-a 13C4	67.7	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	105	P	30 - 160

Lab Sample ID: 2430116
Field Sample ID: HAB-SW-0225

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Anatoxin-a 13C4	72.3	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	85.4	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A120968

Included Lab Sample IDs: 2430106, 2430107

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.1	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A120972

Included Lab Sample IDs: 2430110, 2430111

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	99.2	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A120973

Included Lab Sample IDs: 2430115, 2430116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cylindrospermopsin	105	102	P/P	60 - 160
Desmethyl microcystin LR	102	105	P/P	50 - 160
Microcystin HiiR	104	100	P/P	60 - 160
Microcystin HtyR	96.7	95.3	P/P	60 - 160
Microcystin LA	112	108	P/P	50 - 160
Microcystin LF	90.8	87.6	P/P	60 - 160
Microcystin LR	102	94.5	P/P	60 - 160
Microcystin LW	92.1	91.2	P/P	60 - 160
Microcystin LY	97.5	96.5	P/P	60 - 160
Microcystin RR	99.1	98.0	P/P	60 - 160
Microcystin WR	109	110	P/P	60 - 160
Microcystin YR	86.7	85.8	P/P	60 - 160
Nodularin-R	97.7	100	P/P	60 - 160

Reference Method: EPA 8321B

Run ID: A120976

Included Lab Sample IDs: 2430115, 2430116

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	96.0	98.7	P/P	50 - 160
Neosaxitoxin	88.1	91.7	P/P	50 - 160
Saxitoxin	73.3	76.4	P/P	50 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121019

Included Lab Sample IDs: 2430108, 2430109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A121046

Included Lab Sample IDs: 2430108, 2430109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	96.1	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121131

Included Lab Sample IDs: 2430108, 2430109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.1	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A121245

Included Lab Sample IDs: 2430108, 2430109

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	98.0	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		LCS	Precision	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	101				3.38	
EPA 350.1 Rev. 2.0	Ammonia-N	96.0	99.2	102			2.08
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	106	107	105			1.13
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.5	100	100			0.0
EPA 365.1 Rev. 2.0	Total-P	99.7	107	106			0.825
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	92.4	92.8			0.432
EPA 8321B	Anatoxin-a	89.0	80.7	94.8			16.0
	Cylindrospermopsin	103	103	105			1.90
	Desmethyl microcystin LR	107	116	115			0.618
	Microcystin H ₁ LR	109	108	110			1.31
	Microcystin H ₂ LR	105	99.9	101			1.21
	Microcystin LA	111	106	110			3.63
	Microcystin LF	99.4	101	99.7			0.800
	Microcystin LR	104	70.0	74.4			1.08
	Microcystin LW	108	105	101			3.74
	Microcystin LY	105	106	102			3.88
	Microcystin RR	99.9	96.8	100			3.54
	Microcystin WR	117	120	121			1.07
	Microcystin YR	100	102	97.6			4.20
	Neosaxitoxin	79.6	58.2	67.6			14.0
	Nodularin-R	97.5	110	108			2.05
	Saxitoxin	65.1	51.2	60.7			17.0

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2430106, 2430107
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2430108, 2430109
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2430108, 2430109
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2430108, 2430109
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2430108, 2430109
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2430110, 2430111
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2430115, 2430116
EPA 8321B	Saxitoxin in water matrices by HPLC/MS/MS	2430115, 2430116

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	08/10/2023			08/10/2023 14:11	Samantha L Bates	2430106
	08/10/2023			08/10/2023 14:12	Samantha L Bates	2430107
EPA 350.1 Rev. 2.0	08/10/2023			08/18/2023 16:07	Khloe J Berg	2430108
	08/10/2023			08/18/2023 16:08	Khloe J Berg	2430109
EPA 351.2 Rev. 2.0	08/10/2023	08/14/2023 12:37	Ping Hua	08/15/2023 14:15	Ping Hua	2430108
	08/10/2023	08/14/2023 12:37	Ping Hua	08/15/2023 14:16	Ping Hua	2430109
EPA 353.2 Rev. 2.0	08/10/2023			08/25/2023 10:08	Beverly Y. Sanders	2430108
	08/10/2023			08/25/2023 10:09	Beverly Y. Sanders	2430109
EPA 365.1 Rev. 2.0	08/10/2023	08/11/2023 14:24	Alexis Price	08/14/2023 13:31	Simonne.V. Calhoun	2430108
	08/10/2023	08/11/2023 14:24	Alexis Price	08/14/2023 13:32	Simonne.V. Calhoun	2430109
EPA 365.1 Rev. 2.0 dissolved	08/10/2023			08/10/2023 16:38	Elise M. Gillis	2430110
	08/10/2023			08/10/2023 16:40	Elise M. Gillis	2430111
EPA 8321B	08/10/2023	08/10/2023 12:00	Hana Lee	08/10/2023 18:05	Tae K Lee	2430115
	08/10/2023	08/10/2023 12:00	Hana Lee	08/10/2023 18:22	Tae K Lee	2430116
	08/10/2023	08/10/2023 12:00	Hana Lee	08/11/2023 01:26	Tae K Lee	2430115
	08/10/2023	08/10/2023 12:00	Hana Lee	08/11/2023 01:40	Tae K Lee	2430116