

Chemical Analysis Report

CEN-DIST-2023-09-28-01

Florida DEP Laboratory
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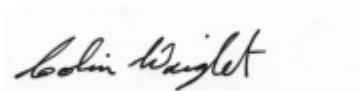
Event Description: **Algal Bloom Response - CEROC**
Request ID: **RQ-2023-07-03-19**
Customer: **CEN-DIST**
Project ID: **BLOOM-RESP**

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

Date Certified: 13-OCT-2023 09:34



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: Palatlakaha River - at marina

Collection Date/Time: 09/27/2023 10:25

Field ID: HABCE0215

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2441120	DEP SOP: NU-094-1	Color (true)	12		PCU	P435700	
2441121	EPA 350.1 Rev. 2.0	Ammonia-N	0.086		mg N/L	P435813	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.58		mg N/L	P436084	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P436298	
	EPA 365.1 Rev. 2.0	Total-P	0.066		mg P/L	P435782	
2441122	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P435669	
2441126	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P435563	
		Cylindrospermopsin	0.10	U	ug/L	P435562	
		Desmethyl microcystin LR	0.25	U	ug/L	P435562	
		Microcystin HiLR	0.25	U	ug/L	P435562	
		Microcystin HtyR	0.25	U	ug/L	P435562	
		Microcystin LA	0.10	U	ug/L	P435562	
		Microcystin LF	0.10	U	ug/L	P435562	
		Microcystin LR	0.25	U	ug/L	P435562	
		Microcystin LW	0.25	U	ug/L	P435562	
		Microcystin LY	0.10	U	ug/L	P435562	
		Microcystin RR	0.10	U	ug/L	P435562	
		Microcystin WR	0.50	U	ug/L	P435562	
		Neosaxitoxin	0.50	U	ug/L	P435563	
		Microcystin YR	0.25	U	ug/L	P435562	
		Saxitoxin	0.50	U	ug/L	P435563	
		Nodularin-R	0.10	U	ug/L	P435562	

Sample Location: Palatlakaha River - at marina

Collection Date/Time: 09/27/2023 10:35

Field ID: FB_09272023

Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2441123	DEP SOP: NU-094-1	Color (true)	2.5	U	PCU	P435700	
2441124	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P435813	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P436084	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P436298	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P435782	
2441125	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P435669	
2441127	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P435563	
		Cylindrospermopsin	0.10	U	ug/L	P435562	
		Desmethyl microcystin LR	0.25	U	ug/L	P435562	
		Microcystin HiLR	0.25	U	ug/L	P435562	
		Microcystin HtyR	0.25	U	ug/L	P435562	
		Microcystin LA	0.10	U	ug/L	P435562	
		Microcystin LF	0.10	U	ug/L	P435562	
		Microcystin LR	0.25	U	ug/L	P435562	
		Microcystin LW	0.25	U	ug/L	P435562	
		Microcystin LY	0.10	U	ug/L	P435562	
		Microcystin RR	0.10	U	ug/L	P435562	
		Microcystin WR	0.50	U	ug/L	P435562	
		Neosaxitoxin	0.50	U	ug/L	P435563	
		Microcystin YR	0.25	U	ug/L	P435562	
		Saxitoxin	0.50	U	ug/L	P435563	
		Nodularin-R	0.10	U	ug/L	P435562	

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P435700

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435813

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436084

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436298

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435782

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P435669

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

Reference Method: EPA 8321B
Batch ID: P435562

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: P435563

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: P435700

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435813

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	105		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436084

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436298

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435782

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P435669

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	101		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P435562

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cylindrospermopsin	107		P	40 - 160
Desmethyl microcystin LR	113		P	40 - 160
Microcystin H1LR	106		P	40 - 160
Microcystin HtyR	105		P	40 - 160
Microcystin LA	106		P	40 - 160
Microcystin LF	101		P	40 - 160
Microcystin LR	96.8		P	40 - 160
Microcystin LW	92.7		P	40 - 160
Microcystin LY	100		P	40 - 160
Microcystin RR	102		P	40 - 160
Microcystin WR	110		P	40 - 160
Microcystin YR	103		P	40 - 160
Nodularin-R	102		P	40 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P435563

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	111		P	40 - 150
Neosaxitoxin	99.2		P	40 - 150
Saxitoxin	97.9		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435813

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441070	Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436084

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441081	Kjeldahl Nitrogen	105	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2438739	NO2NO3-N	100	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435782

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441121	Total-P	109	108	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P435669

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441071	O-Phosphate-P	100	99.8	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P435562

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439968	Cylindrospermopsin	111	114	P/P	40 - 160
2439968	Desmethyl microcystin LR	120	119	P/P	40 - 160
2439968	Microcystin HiLR	113	109	P/P	40 - 160
2439968	Microcystin HtyR	98.9	112	P/P	40 - 160
2439968	Microcystin LA	104	110	P/P	40 - 160
2439968	Microcystin LF	110	114	P/P	40 - 160
2439968	Microcystin LR	104	107	P/P	40 - 160
2439968	Microcystin LW	93.0	103	P/P	40 - 160
2439968	Microcystin LY	105	102	P/P	40 - 160
2439968	Microcystin RR	103	107	P/P	40 - 160
2439968	Microcystin WR	112	113	P/P	40 - 160
2439968	Microcystin YR	99.0	101	P/P	40 - 160
2439968	Nodularin-R	99.5	109	P/P	40 - 160

Reference Method: EPA 8321B
Batch ID: P435563

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2439968	Anatoxin-a	106	114	P/P	40 - 150
2439968	Neosaxitoxin	78.3	90.0	P/P	40 - 150
2439968	Saxitoxin	73.5	78.6	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P435700

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441412	Color (true)	3.13	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P435813

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441070	Ammonia-N	0.922	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436084

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441081	Kjeldahl Nitrogen	3.67	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2438739	NO2NO3-N	1.97	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435782

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441121	Total-P	1.32	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P435669

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441071	O-Phosphate-P	0.191	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P435562

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439968	Cylindrospermopsin	2.60	Spike	P	0 - 30
2439968	Desmethyl microcystin LR	0.890	Spike	P	0 - 30
2439968	Microcystin HtIR	3.56	Spike	P	0 - 30
2439968	Microcystin HtyR	12.0	Spike	P	0 - 30
2439968	Microcystin LA	5.26	Spike	P	0 - 30
2439968	Microcystin LF	3.82	Spike	P	0 - 30
2439968	Microcystin LR	3.55	Spike	P	0 - 30
2439968	Microcystin LW	10.5	Spike	P	0 - 30
2439968	Microcystin LY	2.51	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P435562

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439968	Microcystin RR	4.49	Spike	P	0 - 30
2439968	Microcystin WR	0.281	Spike	P	0 - 30
2439968	Microcystin YR	2.32	Spike	P	0 - 30
2439968	Nodularin-R	8.81	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P435563

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2439968	Anatoxin-a	8.10	Spike	P	0 - 30
2439968	Neosaxitoxin	13.9	Spike	P	0 - 30
2439968	Saxitoxin	6.66	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2441126
Field Sample ID: HABCE0215

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Anatoxin-a 13C4	113	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	88.2	P	30 - 160

Lab Sample ID: 2441127
Field Sample ID: FB_09272023

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Anatoxin-a 13C4	51.7	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	83.1	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A121803

Included Lab Sample IDs: 2441126, 2441127

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cylindrospermopsin	97.3	88.8	P/P	60 - 160
Desmethyl microcystin LR	109	104	P/P	50 - 160
Microcystin HILR	97.6	89.5	P/P	60 - 160
Microcystin HtyR	98.7	96.9	P/P	60 - 160
Microcystin LA	94.4	98.3	P/P	50 - 160
Microcystin LF	87.8	89.3	P/P	60 - 160
Microcystin LR	89.4	84.8	P/P	60 - 160
Microcystin LW	75.8	70.0	P/P	60 - 160
Microcystin LY	91.3	84.2	P/P	60 - 160
Microcystin RR	93.7	94.9	P/P	60 - 160
Microcystin WR	94.7	94.1	P/P	60 - 160
Microcystin YR	88.2	86.2	P/P	60 - 160
Nodularin-R	93.2	93.9	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A121823

Included Lab Sample IDs: 2441122, 2441125

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.9	101	P/P	90 - 110

Reference Method: DEP SOP: NU-094-1

Run ID: A121831

Included Lab Sample IDs: 2441120, 2441123

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.6	99.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A121836

Included Lab Sample IDs: 2441126, 2441127

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	112	112	P/P	50 - 160
Neosaxitoxin	109	115	P/P	50 - 160
Saxitoxin	112	116	P/P	50 - 160

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121885

Included Lab Sample IDs: 2441121, 2441124

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121907

Included Lab Sample IDs: 2441121

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	102	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121943

Included Lab Sample IDs: 2441124

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122030

Included Lab Sample IDs: 2441121, 2441124

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.0	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122051

Included Lab Sample IDs: 2441121, 2441124

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	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)	100				3.13	
EPA 350.1 Rev. 2.0	Ammonia-N	105	103	102			0.922
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	105	100			3.67
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	100	102			1.97
EPA 365.1 Rev. 2.0	Total-P	107	109	108			1.32
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	100	99.8			0.191
EPA 8321B	Anatoxin-a	111	106	114			8.10
	Cylindrospermopsin	107	111	114			2.60
	Desmethyl microcystin LR	113	120	119			0.890
	Microcystin HiLR	106	113	109			3.56
	Microcystin HtyR	105	98.9	112			12.0
	Microcystin LA	106	104	110			5.26
	Microcystin LF	101	110	114			3.82
	Microcystin LR	96.8	104	107			3.55
	Microcystin LW	92.7	93.0	103			10.5
	Microcystin LY	100	105	102			2.51
	Microcystin RR	102	103	107			4.49
	Microcystin WR	110	112	113			0.281
	Microcystin YR	103	99.0	101			2.32
	Neosaxitoxin	99.2	78.3	90.0			13.9
	Nodularin-R	102	99.5	109			8.81
	Saxitoxin	97.9	73.5	78.6			6.66

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2441120, 2441123
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2441121, 2441124
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2441121, 2441124
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2441121, 2441124
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2441121, 2441124
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2441122, 2441125
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2441126, 2441127
EPA 8321B	Saxitoxin in water matrices by HPLC/MS/MS	2441126, 2441127

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	09/28/2023			09/28/2023 14:01	Alexis Price	2441120, 2441123
EPA 350.1 Rev. 2.0	09/28/2023			10/02/2023 14:55	Ping Hua	2441121
	09/28/2023			10/02/2023 14:56	Ping Hua	2441124
EPA 351.2 Rev. 2.0	09/28/2023	10/06/2023 09:23	Samantha L Bates	10/09/2023 15:29	Samantha L Bates	2441121
	09/28/2023	10/06/2023 09:23	Samantha L Bates	10/09/2023 15:30	Samantha L Bates	2441124
EPA 353.2 Rev. 2.0	09/28/2023			10/10/2023 11:35	Anna M. Plaviak	2441121
	09/28/2023			10/10/2023 11:36	Anna M. Plaviak	2441124
EPA 365.1 Rev. 2.0	09/28/2023	10/02/2023 13:21	Adam P Silver	10/03/2023 10:38	James L Waggeberby	2441121
	09/28/2023	10/02/2023 13:21	Adam P Silver	10/04/2023 11:57	Chandler E Cox	2441124
EPA 365.1 Rev. 2.0 dissolved	09/28/2023			09/28/2023 11:29	Elise M. Gillis	2441122
	09/28/2023			09/28/2023 11:30	Elise M. Gillis	2441125
EPA 8321B	09/28/2023	09/28/2023 12:00	Hana Lee	09/28/2023 14:14	Tae K Lee	2441126
	09/28/2023	09/28/2023 12:00	Hana Lee	09/28/2023 14:30	Tae K Lee	2441127
	09/28/2023	09/28/2023 12:00	Hana Lee	09/28/2023 22:40	Tae K Lee	2441126
	09/28/2023	09/28/2023 12:00	Hana Lee	09/28/2023 22:54	Tae K Lee	2441127