

Chemical Analysis Report

WQAP-2023-05-12-01

Florida DEP Laboratory
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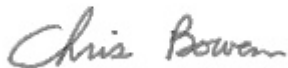
Event Description: **Algal Bloom Response - CEROC**
Request ID: **RQ-2023-04-24-32**
Customer: **WQAP**
Project ID: **BLOOM-RESP**

Send Reports to:
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Certified by: Chris Bowen, Environmental Administrator

Date Certified: 25-MAY-2023 13:11



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 Burkett - Center

Collection Date/Time: 05/11/2023 10:26

Field ID: HABCE0160_LakeBurkett

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409257	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P429731	
		Cylindrospermopsin	0.10	U	ug/L	P429730	
		Desmethyl microcystin LR	0.25	U	ug/L	P429730	
		Microcystin HILR	0.25	U	ug/L	P429730	
		Microcystin HtyR	0.25	U	ug/L	P429730	
		Microcystin LA	0.10	U	ug/L	P429730	
		Microcystin LF	0.10	U	ug/L	P429730	
		Microcystin LR	0.25	U	ug/L	P429730	
		Microcystin LW	0.25	U	ug/L	P429730	
		Microcystin LY	0.10	U	ug/L	P429730	
		Microcystin RR	0.10	U	ug/L	P429730	
		Microcystin WR	0.50	U	ug/L	P429730	
		Neosaxitoxin	0.50	U	ug/L	P429731	
		Microcystin YR	0.25	U	ug/L	P429730	
		Saxitoxin	0.50	U	ug/L	P429731	
		Nodularin-R	0.10	U	ug/L	P429730	
2409263	EPA 350.1 Rev. 2.0	Ammonia-N	0.009		mg N/L	P429971	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.73		mg N/L	P429852	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P430279	
	EPA 365.1 Rev. 2.0	Total-P	0.016		mg P/L	P429862	
2409265	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P429830	

Sample Location: Lake Martha - NE Shore

Collection Date/Time: 05/11/2023 10:40

Field ID: HABCE0161_LakeMartha

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2409258	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P429731	
		Cylindrospermopsin	0.10	U	ug/L	P429730	
		Desmethyl microcystin LR	0.25	U	ug/L	P429730	
		Microcystin HILR	0.25	U	ug/L	P429730	
		Microcystin HtyR	0.25	U	ug/L	P429730	
		Microcystin LA	0.10	U	ug/L	P429730	
		Microcystin LF	0.10	U	ug/L	P429730	
		Microcystin LR	0.25	U	ug/L	P429730	
		Microcystin LW	0.25	U	ug/L	P429730	
		Microcystin LY	0.10	U	ug/L	P429730	
		Microcystin RR	0.10	U	ug/L	P429730	
		Microcystin WR	0.50	U	ug/L	P429730	
		Neosaxitoxin	0.50	U	ug/L	P429731	
		Microcystin YR	0.25	U	ug/L	P429730	
		Saxitoxin	0.50	U	ug/L	P429731	
		Nodularin-R	0.10	U	ug/L	P429730	
2409264	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P429971	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76		mg N/L	P429852	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P430279	
	EPA 365.1 Rev. 2.0	Total-P	0.026		mg P/L	P429863	
2409266	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P429830	

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429971

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429852

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430279

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429862

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429863

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429830

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

Reference Method: EPA 8321B
Batch ID: P429730

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: P429731

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: EPA 350.1 Rev. 2.0
Batch ID: P429971

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429852

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430279

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	103		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429862

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429863

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429830

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.3		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P429730

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cylindrospermopsin	113		P	40 - 150
Desmethyl microcystin LR	95.2		P	40 - 150
Microcystin HILR	98.1		P	40 - 150
Microcystin HtyR	92.0		P	40 - 150
Microcystin LA	106		P	40 - 150
Microcystin LF	95.2		P	40 - 150
Microcystin LR	90.9		P	40 - 150
Microcystin LW	92.9		P	40 - 150
Microcystin LY	108		P	40 - 150
Microcystin RR	99.4		P	40 - 150
Microcystin WR	91.6		P	40 - 150
Microcystin YR	83.5		P	40 - 150
Nodularin-R	94.5		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P429731

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	108		P	40 - 150
Neosaxitoxin	86.8		P	40 - 150
Saxitoxin	91.4		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429971

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409263	Ammonia-N	96.4	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429852

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409239	Kjeldahl Nitrogen	106	96.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430279

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409240	NO2NO3-N	99.2	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429862

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409263	Total-P	104	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429863

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409264	Total-P	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429830

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409243	O-Phosphate-P	99.7	99.6	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P429730

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2408918	Cylindrospermopsin	108	105	P/P	40 - 150
2408918	Desmethyl microcystin LR	98.3	102	P/P	40 - 150
2408918	Microcystin HILR	103	104	P/P	40 - 150
2408918	Microcystin HtyR	100	96.0	P/P	40 - 150
2408918	Microcystin LA	118	115	P/P	40 - 150
2408918	Microcystin LF	105	104	P/P	40 - 150
2408918	Microcystin LR	95.6	98.3	P/P	40 - 150
2408918	Microcystin LW	97.5	96.3	P/P	40 - 150
2408918	Microcystin LY	114	115	P/P	40 - 150
2408918	Microcystin RR	99.8	102	P/P	40 - 150
2408918	Microcystin WR	99.6	99.5	P/P	40 - 150
2408918	Microcystin YR	91.9	88.7	P/P	40 - 150
2408918	Nodularin-R	96.0	93.7	P/P	40 - 150

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P429731

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2409201	Anatoxin-a	102	106	P/P	40 - 150
2409201	Neosaxitoxin	66.9	67.7	P/P	40 - 150
2409201	Saxitoxin	69.7	70.5	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P429971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409263	Ammonia-N	2.43	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P429852

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409239	Kjeldahl Nitrogen	5.83	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P430279

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409240	NO2NO3-N	1.46	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429862

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409263	Total-P	2.24	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P429863

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409264	Total-P	0.878	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P429830

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409243	O-Phosphate-P	0.0749	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P429730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408918	Cylindrospermopsin	2.43	Spike	P	0 - 30
2408918	Desmethyl microcystin LR	3.57	Spike	P	0 - 30
2408918	Microcystin HtIR	1.02	Spike	P	0 - 30
2408918	Microcystin HtyR	4.25	Spike	P	0 - 30
2408918	Microcystin LA	2.82	Spike	P	0 - 30
2408918	Microcystin LF	1.45	Spike	P	0 - 30
2408918	Microcystin LR	2.75	Spike	P	0 - 30
2408918	Microcystin LW	1.23	Spike	P	0 - 30
2408918	Microcystin LY	0.757	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P429730

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2408918	Microcystin RR	1.84	Spike	P	0 - 30
2408918	Microcystin WR	0.126	Spike	P	0 - 30
2408918	Microcystin YR	3.45	Spike	P	0 - 30
2408918	Nodularin-R	2.51	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P429731

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2409201	Anatoxin-a	3.57	Spike	P	0 - 30
2409201	Neosaxitoxin	1.26	Spike	P	0 - 30
2409201	Saxitoxin	1.18	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2409257
Field Sample ID: HABCE0160_LakeBurkett

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	104	P	30 - 160
EPA 8321B	Neosaxitoxin-15N7	75.9	P	30 - 160

Lab Sample ID: 2409258
Field Sample ID: HABCE0161_LakeMartha

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR ethyl-d5	115	P	30 - 160
EPA 8321B	Neosaxitoxin-15N7	76.3	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A119142

Included Lab Sample IDs: 2409265, 2409266

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.9	100	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A119180

Included Lab Sample IDs: 2409257, 2409258

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cylindrospermopsin	105	101	P/P	50 - 160
Desmethyl microcystin LR	92.7	97.7	P/P	50 - 160
Microcystin HiLR	99.1	95.1	P/P	50 - 160
Microcystin HtyR	85.5	89.1	P/P	50 - 160
Microcystin LA	117	108	P/P	50 - 160
Microcystin LF	85.1	81.6	P/P	50 - 160
Microcystin LR	93.0	88.4	P/P	50 - 160
Microcystin LW	97.0	91.4	P/P	50 - 160
Microcystin LY	106	110	P/P	50 - 160
Microcystin RR	90.7	97.2	P/P	50 - 160
Microcystin WR	92.7	91.6	P/P	50 - 160
Microcystin YR	79.8	86.4	P/P	50 - 160
Nodularin-R	94.3	94.5	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A119181

Included Lab Sample IDs: 2409257, 2409258

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	97.9	98.5	P/P	50 - 160
Neosaxitoxin	82.7	80.4	P/P	50 - 160
Saxitoxin	82.4	82.3	P/P	50 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A119193

Included Lab Sample IDs: 2409263, 2409264

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A119214

Included Lab Sample IDs: 2409263, 2409264

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.8	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A119226

Included Lab Sample IDs: 2409263, 2409264

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.3	101	P/P	90 - 110

Quality Assurance Report

Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A119360

Included Lab Sample IDs: 2409263, 2409264

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	104	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		Precision	
					LCS	MS
EPA 350.1 Rev. 2.0	Ammonia-N	99.2	96.4	99.2		2.43
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	106	96.4		5.83
EPA 353.2 Rev. 2.0	NO2NO3-N	103	99.2	101		1.46
EPA 365.1 Rev. 2.0	Total-P	101	104	102		2.24
	Total-P	102	103	102		0.878
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.3	99.7	99.6		0.0749
EPA 8321B	Anatoxin-a	108	102	106		3.57
	Cylindrospermopsin	113	108	105		2.43
	Desmethyl microcystin LR	95.2	98.3	102		3.57
	Microcystin HiLR	98.1	103	104		1.02
	Microcystin HtyR	92.0	100	96.0		4.25
	Microcystin LA	106	118	115		2.82
	Microcystin LF	95.2	105	104		1.45
	Microcystin LR	90.9	95.6	98.3		2.75
	Microcystin LW	92.9	97.5	96.3		1.23
	Microcystin LY	108	114	115		0.757
	Microcystin RR	99.4	99.8	102		1.84
	Microcystin WR	91.6	99.6	99.5		0.126
	Microcystin YR	83.5	91.9	88.7		3.45
	Neosaxitoxin	86.8	66.9	67.7		1.26
	Nodularin-R	94.5	96.0	93.7		2.51
	Saxitoxin	91.4	69.7	70.5		1.18

Reference Method Descriptions

Method	Description	Associated Samples
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2409263, 2409264
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2409263, 2409264
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2409263, 2409264
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2409263, 2409264
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2409265, 2409266
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2409257, 2409258
EPA 8321B	Saxitoxin in water matrices by HPLC/MS/MS	2409257, 2409258

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 350.1 Rev. 2.0	05/12/2023			05/17/2023 11:01	Ping Hua	2409263
	05/12/2023			05/17/2023 11:07	Ping Hua	2409264
EPA 351.2 Rev. 2.0	05/12/2023	05/15/2023 12:40	Simonne.V. Calhoun	05/17/2023 13:37	Samantha L Bates	2409263
	05/12/2023	05/15/2023 12:40	Simonne.V. Calhoun	05/17/2023 13:39	Samantha L Bates	2409264
EPA 353.2 Rev. 2.0	05/12/2023			05/19/2023 10:29	Anna M. Plaviak	2409263
	05/12/2023			05/19/2023 10:31	Anna M. Plaviak	2409264
EPA 365.1 Rev. 2.0	05/12/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 13:36	James L Waggerby	2409263
	05/12/2023	05/15/2023 14:57	Adam P Silver	05/16/2023 13:39	James L Waggerby	2409264
EPA 365.1 Rev. 2.0 dissolved	05/12/2023			05/12/2023 14:24	Elise M. Gillis	2409265
	05/12/2023			05/12/2023 14:25	Elise M. Gillis	2409266
EPA 8321B	05/12/2023	05/15/2023 09:00	Manjita Shrestha	05/15/2023 16:29	Manjita Shrestha	2409257
	05/12/2023	05/15/2023 09:00	Manjita Shrestha	05/15/2023 16:46	Manjita Shrestha	2409258
	05/12/2023	05/15/2023 09:00	Manjita Shrestha	05/16/2023 08:48	Manjita Shrestha	2409257
	05/12/2023	05/15/2023 09:00	Manjita Shrestha	05/16/2023 09:02	Manjita Shrestha	2409258