

Chemical Analysis Report

WQAP-2022-01-13-01

Florida Department of Environmental Protection
Central Laboratory
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Tallahassee, FL 32399-2400
DOH Accreditation E31780

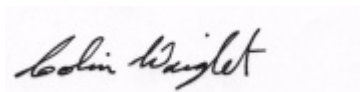
Event Description: **Algal Bloom Response - CEROC**
Request ID: **RQ-2021-12-13-22**
Customer: **WQAP**
Project ID: **BLOOM-RESP**

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

Date Certified: 31-JAN-2022 09:33

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray 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 Chelton - between Forrest Rd and Glencoe Rd

Collection Date/Time: 01/12/2022 14:55

Field ID: HABCE0104_LakeChelton

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2299442	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P408489	
		Cylindrospermopsin	0.10	U	ug/L	P408489	
		Desmethyl microcystin LR	0.25	U	ug/L	P408489	
		Microcystin HilR**	0.25	U	ug/L	P408489	
		Microcystin HtyR**	0.25	U	ug/L	P408489	
		Microcystin LA	0.50		ug/L	P408489	
		Microcystin LF	0.10	U	ug/L	P408489	
		Microcystin LR	0.25	U	ug/L	P408489	
		Microcystin LW	0.25	U	ug/L	P408489	
		Microcystin LY	0.10	U	ug/L	P408489	
		Microcystin RR	0.10	U	ug/L	P408489	
		Microcystin WR	0.50	U	ug/L	P408489	
		Microcystin YR	0.25	U	ug/L	P408489	
		Nodularin-R**	0.10	U	ug/L	P408489	
2299453	EPA 350.1 Rev. 2.0	Ammonia-N	0.043		mg N/L	P409016	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.35		mg N/L	P408850	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.023		mg N/L	P408679	
	EPA 365.1 Rev. 2.0	Total-P	0.015		mg P/L	P408648	
2299455	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P408503	

Sample Location: Tiger Lake - East Shore

Collection Date/Time: 01/12/2022 11:50

Field ID: HABCE0105_TigerLake

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2299443	EPA 8321B	Anatoxin-a	0.25	I	ug/L	P408489	
		Cylindrospermopsin	0.10	U	ug/L	P408489	
		Desmethyl microcystin LR	0.25	U	ug/L	P408489	
		Microcystin HilR**	0.25	U	ug/L	P408489	
		Microcystin HtyR**	0.25	U	ug/L	P408489	
		Microcystin LA	0.17	I	ug/L	P408489	
		Microcystin LF	0.10	U	ug/L	P408489	
		Microcystin LR	1.2		ug/L	P408489	
		Microcystin LW	0.25	U	ug/L	P408489	
		Microcystin LY	0.19	I	ug/L	P408489	
		Microcystin RR	0.14	I	ug/L	P408489	
		Microcystin WR	0.50	U	ug/L	P408489	
		Microcystin YR	0.25	U	ug/L	P408489	
		Nodularin-R**	0.10	U	ug/L	P408489	
2299454	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P409016	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.6		mg N/L	P408849	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P408679	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P408648	
2299456	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P408503	

Quality Assurance Report

Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409016

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408849

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408850

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408679

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408648

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P408503

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

Reference Method: EPA 8321B
Batch ID: P408489

Component	Result	Code	Units
Anatoxin-a	0.25	U	ug/L
Cylindrospermopsin	0.10	U	ug/L
Desmethyl microcystin LR	0.25	U	ug/L
Microcystin H11R	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

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409016

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	100		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408849

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408850

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408679

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	104		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408648

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: P408503

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

Reference Method: EPA 8321B
Batch ID: P408489

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	94.7		P	40 - 150
Cylindrospermopsin	102		P	40 - 150
Desmethyl microcystin LR	81.3		P	40 - 150
Microcystin H1IR	84.4		P	40 - 150
Microcystin HtyR	95.1		P	40 - 150
Microcystin LA	87.6		P	40 - 150
Microcystin LF	95.4		P	40 - 150
Microcystin LR	101		P	40 - 150
Microcystin LW	85.8		P	40 - 150
Microcystin LY	88.7		P	40 - 150
Microcystin RR	104		P	40 - 150
Microcystin WR	92.7		P	40 - 150
Microcystin YR	115		P	40 - 150
Nodularin-R	99.6		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409016

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2299453	Ammonia-N	99.6	99.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408849

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2299446	Kjeldahl Nitrogen	109	107	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408850

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2299453	Kjeldahl Nitrogen	103	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408679

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2299417	NO2NO3-N	99.2	98.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408648

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2299446	Total-P	107	107	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P408503

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2299455	O-Phosphate-P	97.5	98.0	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P408489

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2299408	Anatoxin-a	101	104	P/P	40 - 150
2299408	Cylindrospermopsin	105	103	P/P	40 - 150
2299408	Desmethyl microcystin LR	80.7	85.8	P/P	40 - 150
2299408	Microcystin HilR	95.4	95.0	P/P	40 - 150
2299408	Microcystin HtyR	96.0	98.8	P/P	40 - 150
2299408	Microcystin LA	89.1	88.8	P/P	40 - 150
2299408	Microcystin LF	84.0	85.0	P/P	40 - 150
2299408	Microcystin LR	119	116	P/P	40 - 150
2299408	Microcystin LW	75.6	70.1	P/P	40 - 150
2299408	Microcystin LY	91.3	100	P/P	40 - 150
2299408	Microcystin RR	109	107	P/P	40 - 150
2299408	Microcystin WR	85.6	90.3	P/P	40 - 150
2299408	Microcystin YR	116	117	P/P	40 - 150
2299408	Nodularin-R	103	98.3	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P409016

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2299453	Ammonia-N	0.108	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2299446	Kjeldahl Nitrogen	0.937	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P408850

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2299453	Kjeldahl Nitrogen	1.21	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P408679

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2299417	NO2NO3-N	0.462	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P408648

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2299446	Total-P	0.229	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P408503

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2299455	O-Phosphate-P	0.512	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P408489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2299408	Anatoxin-a	2.78	Spike	P	0 - 30
2299408	Cylindrospermopsin	1.92	Spike	P	0 - 30
2299408	Desmethyl microcystin LR	6.15	Spike	P	0 - 30
2299408	Microcystin HtLR	0.436	Spike	P	0 - 30
2299408	Microcystin HtyR	2.88	Spike	P	0 - 30
2299408	Microcystin LA	0.317	Spike	P	0 - 30
2299408	Microcystin LF	1.19	Spike	P	0 - 30
2299408	Microcystin LR	2.59	Spike	P	0 - 30
2299408	Microcystin LW	7.59	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P408489

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2299408	Microcystin LY	9.24	Spike	P	0 - 30
2299408	Microcystin RR	2.14	Spike	P	0 - 30
2299408	Microcystin WR	5.38	Spike	P	0 - 30
2299408	Microcystin YR	0.833	Spike	P	0 - 30
2299408	Nodularin-R	5.03	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2299442

Field Sample ID: HABCE0104_LakeChelton

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR-d7	105	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	103	P	30 - 160

Lab Sample ID: 2299443

Field Sample ID: HABCE0105_TigerLake

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR-d7	113	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	119	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A109853

Included Lab Sample IDs: 2299455, 2299456

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.0	99.8	P/P	90 - 110
O-Phosphate-P	99.8	99.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A109862

Included Lab Sample IDs: 2299442, 2299443

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	96.6	97.0	P/P	50 - 160
Anatoxin-a	97.0	94.4	P/P	50 - 160
Cylindrospermopsin	102	109	P/P	50 - 160
Cylindrospermopsin	99.8	102	P/P	50 - 160
Desmethyl microcystin LR	77.2	85.1	P/P	50 - 160
Desmethyl microcystin LR	78.9	77.2	P/P	50 - 160
Microcystin HiiR	84.4	90.3	P/P	50 - 160
Microcystin HiiR	90.3	95.9	P/P	50 - 160
Microcystin HtyR	86.4	95.5	P/P	50 - 160
Microcystin HtyR	95.5	96.1	P/P	50 - 160
Microcystin LA	88.4	89.3	P/P	50 - 160
Microcystin LA	89.3	92.0	P/P	50 - 160
Microcystin LF	92.1	96.0	P/P	50 - 160
Microcystin LF	96.0	94.0	P/P	50 - 160
Microcystin LR	106	112	P/P	50 - 160
Microcystin LR	94.9	106	P/P	50 - 160
Microcystin LW	72.7	84.7	P/P	50 - 160
Microcystin LW	84.7	80.5	P/P	50 - 160
Microcystin LY	84.3	94.5	P/P	50 - 160
Microcystin LY	94.5	96.8	P/P	50 - 160
Microcystin RR	108	108	P/P	50 - 160
Microcystin RR	98.6	108	P/P	50 - 160
Microcystin WR	86.7	98.6	P/P	50 - 160
Microcystin WR	98.6	101	P/P	50 - 160
Microcystin YR	102	110	P/P	50 - 160
Microcystin YR	110	108	P/P	50 - 160
Nodularin-R	97.8	98.2	P/P	50 - 160
Nodularin-R	98.2	100	P/P	50 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A109923

Included Lab Sample IDs: 2299453, 2299454

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A110004

Included Lab Sample IDs: 2299454

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A110010

Included Lab Sample IDs: 2299453

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.8	98.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A110025

Included Lab Sample IDs: 2299453, 2299454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.7	98.3	P/P	90 - 110
Kjeldahl Nitrogen	95.4	94.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A110064

Included Lab Sample IDs: 2299453, 2299454

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.3	99.5	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	
EPA 350.1 Rev. 2.0	Ammonia-N	100	99.6	99.8			0.108
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	109	107			0.937
	Kjeldahl Nitrogen	100	103	104			1.21
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	104	99.2	98.6			0.462
EPA 365.1 Rev. 2.0	Total-P	107	107	107			0.229
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.9	97.5	98.0			0.512
EPA 8321B	Anatoxin-a	94.7	101	104			2.78
	Cylindrospermopsin	102	105	103			1.92
	Desmethyl microcystin LR	81.3	80.7	85.8			6.15
	Microcystin HiLR	84.4	95.4	95.0			0.436
	Microcystin HtyR	95.1	96.0	98.8			2.88
	Microcystin LA	87.6	89.1	88.8			0.317
	Microcystin LF	95.4	84.0	85.0			1.19
	Microcystin LR	101	119	116			2.59
	Microcystin LW	85.8	75.6	70.1			7.59
	Microcystin LY	88.7	91.3	100			9.24
	Microcystin RR	104	109	107			2.14
	Microcystin WR	92.7	85.6	90.3			5.38
	Microcystin YR	115	116	117			0.833
	Nodularin-R	99.6	103	98.3			5.03

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2299453, 2299454
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2299453, 2299454
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2299453, 2299454
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2299453, 2299454
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2299455, 2299456
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2299442, 2299443

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	01/13/2022			01/26/2022 13:42	Ping Hua	2299453
	01/13/2022			01/26/2022 13:53	Ping Hua	2299454
EPA 351.2 Rev. 2.0	01/13/2022	01/24/2022 11:42	Samantha L Bates	01/25/2022 11:03	Alexandra J Mattheus	2299454
	01/13/2022	01/24/2022 11:42	Samantha L Bates	01/25/2022 11:21	Alexandra J Mattheus	2299453
EPA 353.2 Rev. 2.0	01/13/2022			01/19/2022 11:07	Beverly Y. Sanders	2299453
	01/13/2022			01/19/2022 11:08	Beverly Y. Sanders	2299454
EPA 365.1 Rev. 2.0	01/13/2022	01/20/2022 17:50	Simonne.V. Calhoun	01/21/2022 12:38	Shengyu Ding	2299454
	01/13/2022	01/20/2022 17:50	Simonne.V. Calhoun	01/24/2022 14:28	Shengyu Ding	2299453
EPA 365.1 Rev. 2.0 dissolved	01/13/2022			01/13/2022 14:55	Ping Hua	2299455
	01/13/2022			01/13/2022 15:03	Ping Hua	2299456
EPA 8321B	01/13/2022	01/13/2022 13:00	Manjita Shrestha	01/13/2022 17:24	Manjita Shrestha	2299442
	01/13/2022	01/13/2022 13:00	Manjita Shrestha	01/13/2022 17:57	Manjita Shrestha	2299443
	01/13/2022	01/13/2022 13:00	Manjita Shrestha	01/13/2022 20:28	Manjita Shrestha	2299443