

Chemical Analysis Report

NW-DIST-2021-12-07-03

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Bayou Chico BMAP**
Request ID: **RQ-2021-12-06-14**
Customer: **NW-DIST**
Project ID: **BMAP**

Send Reports to:
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Date Certified: 28-DEC-2021 12:51



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 group are included in this report: Nutrients.

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: Pensacola Bay at Sanders Beach

Collection Date/Time: 12/06/2021 11:15

Field ID: 3302J10

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2293773	EPA 180.1 Rev. 2.0	Turbidity	1.3		NTU	P407145	
2293774	EPA 350.1 Rev. 2.0	Ammonia-N	0.022		mg N/L	P407751	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.22	I	mg N/L	P407482	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.071		mg N/L	P407311	
	EPA 365.1 Rev. 2.0	Total-P	0.010		mg P/L	P407174	

Sample Location: Pensacola Bay at Sanders Beach

Collection Date/Time: 12/06/2021 11:55

Field ID: EB_12062021

Matrix: W-EQPMT-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2293775	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P407145	
2293776	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P407718	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P407517	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P407182	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P407169	

Sample Location: Jackson Creek at New Warrington Road

Collection Date/Time: 12/06/2021 13:15

Field ID: 33020222

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2293771	EPA 180.1 Rev. 2.0	Turbidity	5.4		NTU	P407145	
2293772	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P407718	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.26		mg N/L	P407517	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.8		mg N/L	P407182	
	EPA 365.1 Rev. 2.0	Total-P	0.035		mg P/L	P407169	

Sample Location: Bayou Chico at Navy Blvd. Bridge

Collection Date/Time: 12/06/2021 14:45

Field ID: 3302JE20

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2293765	EPA 180.1 Rev. 2.0	Turbidity	2.9		NTU	P407145	
2293768	EPA 350.1 Rev. 2.0	Ammonia-N	0.092		mg N/L	P407751	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.34	I	mg N/L	P407746	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.4		mg N/L	P407311	
	EPA 365.1 Rev. 2.0	Total-P	0.018		mg P/L	P407174	

Sample Location: Bayou Chico at W St. Bridge

Collection Date/Time: 12/06/2021 15:10

Field ID: 33020JF1

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2293766	EPA 180.1 Rev. 2.0	Turbidity	4.3		NTU	P407145	
2293769	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P407751	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.33	I	mg N/L	P407482	
	EPA 353.2 Rev. 2.0	NO2NO3-N	1.5		mg N/L	P407532	
	EPA 365.1 Rev. 2.0	Total-P	0.039		mg P/L	P407175	

Sample Location: Bayou Chico at Mandalay Drive

Collection Date/Time: 12/06/2021 12:10

Field ID: 33020JD4

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2293767	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P407145	
2293770	EPA 350.1 Rev. 2.0	Ammonia-N	0.019		mg N/L	P407751	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.39	I	mg N/L	P407482	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.32		mg N/L	P407311	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P407174	

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P407145

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P407718

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P407751

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407482

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407517

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407746

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407182

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407311

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407532

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

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407169

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407174

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407175

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P407718

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P407751

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	98.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407482

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407517

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407746

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407182

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407311

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407532

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: P407169

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407174

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407175

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P407718

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2293369	Ammonia-N	99.8	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P407751

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2293875	Ammonia-N	102	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407482

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2293696	Kjeldahl Nitrogen	106	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407517

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2293480	Kjeldahl Nitrogen	98.5	93.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407746

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2292757	Kjeldahl Nitrogen	98.4	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407182

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2293479	NO2NO3-N	99.5	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407311

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2293877	NO2NO3-N	103	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2294788	NO2NO3-N	99.0	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407169

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2293479	Total-P	108	108	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407174

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2293723	Total-P	98.4	99.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407175

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2293799	Total-P	103	104	P/P	90 - 110

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P407145

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2293493	Turbidity	11.2	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P407718

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2293369	Ammonia-N	0.721	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P407751

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2293875	Ammonia-N	0.355	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407482

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2293696	Kjeldahl Nitrogen	3.49	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407517

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2293480	Kjeldahl Nitrogen	3.44	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P407746

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2292757	Kjeldahl Nitrogen	2.89	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407182

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2293479	NO2NO3-N	1.00	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407311

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2293877	NO2NO3-N	0.0	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P407532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2294788	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407169

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2293479	Total-P	0.433	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407174

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2293723	Total-P	0.545	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P407175

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2293799	Total-P	0.938	Spike	P	0 - 20

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A109254

Included Lab Sample IDs: 2293765, 2293766, 2293767, 2293771, 2293773, 2293775

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.5	P/P	95 - 105

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A109264

Included Lab Sample IDs: 2293772, 2293776

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

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A109319

Included Lab Sample IDs: 2293768, 2293770, 2293774

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	103	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A109370

Included Lab Sample IDs: 2293768, 2293769, 2293770, 2293772, 2293774, 2293776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	102	P/P	90 - 110
Total-P	100	102	P/P	90 - 110
Total-P	101	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A109420

Included Lab Sample IDs: 2293769

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A109450

Included Lab Sample IDs: 2293769, 2293770, 2293774

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.9	95.8	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A109486

Included Lab Sample IDs: 2293772, 2293776

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	103	103	P/P	90 - 110
Kjeldahl Nitrogen	103	99.8	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A109493

Included Lab Sample IDs: 2293772, 2293776

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A109511

Included Lab Sample IDs: 2293768, 2293769, 2293770, 2293774

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.6	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A109554

Included Lab Sample IDs: 2293768

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.6	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 180.1 Rev. 2.0	Turbidity					11.2	
EPA 350.1 Rev. 2.0	Ammonia-N	98.6	99.8	101			0.721
	Ammonia-N	98.2	102	102			0.355
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	104	106	101			3.49
	Kjeldahl Nitrogen	106	98.5	93.1			3.44
	Kjeldahl Nitrogen	103	98.4	102			2.89
EPA 353.2 Rev. 2.0	NO2NO3-N	104	99.5	100			1.00
	NO2NO3-N	102	103	103			0.0
	NO2NO3-N	99.5	99.0	99.0			0.0
EPA 365.1 Rev. 2.0	Total-P	104	108	108			0.433
	Total-P	103	98.4	99.0			0.545
	Total-P	104	103	104			0.938

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2293765, 2293766, 2293767, 2293771, 2293773, 2293775
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2293768, 2293769, 2293770, 2293772, 2293774, 2293776
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2293768, 2293769, 2293770, 2293772, 2293774, 2293776
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2293768, 2293769, 2293770, 2293772, 2293774, 2293776
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2293768, 2293769, 2293770, 2293772, 2293774, 2293776

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	12/07/2021			12/07/2021 17:29	Khloe J Berg	2293765, 2293766, 2293767, 2293771, 2293773, 2293775
EPA 350.1 Rev. 2.0	12/07/2021			12/20/2021 14:43	Roberta Tatti	2293772
	12/07/2021			12/20/2021 14:44	Roberta Tatti	2293776
	12/07/2021			12/21/2021 12:15	Ping Hua	2293769
	12/07/2021			12/21/2021 12:20	Ping Hua	2293770
	12/07/2021			12/21/2021 12:22	Ping Hua	2293774
	12/07/2021			12/21/2021 12:30	Ping Hua	2293768
EPA 351.2 Rev. 2.0	12/07/2021	12/15/2021 10:12	Alexandra J Mattheus	12/16/2021 15:54	Alexandra J Mattheus	2293769
	12/07/2021	12/15/2021 10:12	Alexandra J Mattheus	12/16/2021 15:55	Alexandra J Mattheus	2293770
	12/07/2021	12/15/2021 10:12	Alexandra J Mattheus	12/16/2021 15:57	Alexandra J Mattheus	2293774
	12/07/2021	12/16/2021 10:33	Alexandra J Mattheus	12/17/2021 14:37	Alexandra J Mattheus	2293772
	12/07/2021	12/16/2021 10:33	Alexandra J Mattheus	12/17/2021 14:42	Alexandra J Mattheus	2293776
	12/07/2021	12/21/2021 11:52	Samantha L Bates	12/22/2021 16:38	Alexandra J Mattheus	2293768
EPA 353.2 Rev. 2.0	12/07/2021			12/08/2021 10:20	Beverly Y. Sanders	2293772
	12/07/2021			12/08/2021 10:21	Beverly Y. Sanders	2293776
	12/07/2021			12/10/2021 12:41	Nathaniel J Jones	2293770
	12/07/2021			12/10/2021 12:42	Nathaniel J Jones	2293774
	12/07/2021			12/10/2021 12:48	Nathaniel J Jones	2293768
	12/07/2021			12/16/2021 09:08	Beverly Y. Sanders	2293769
EPA 365.1 Rev. 2.0	12/07/2021	12/09/2021 14:45	Simonne.V. Calhoun	12/14/2021 11:48	Shengyu Ding	2293776
	12/07/2021	12/09/2021 14:45	Simonne.V. Calhoun	12/14/2021 11:51	Shengyu Ding	2293772
	12/07/2021	12/09/2021 14:45	Simonne.V. Calhoun	12/14/2021 12:41	Shengyu Ding	2293768
	12/07/2021	12/09/2021 14:45	Simonne.V. Calhoun	12/14/2021 12:42	Shengyu Ding	2293770
	12/07/2021	12/09/2021 14:45	Simonne.V. Calhoun	12/14/2021 12:50	Shengyu Ding	2293774
	12/07/2021	12/09/2021 14:45	Simonne.V. Calhoun	12/14/2021 12:57	Shengyu Ding	2293769