Chemical Analysis Report

SO-DIST-2023-08-16-03

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **2022 SMP : Charlotte Harbor**
Request ID: **RQ-2023-08-14-19**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 314
Fort Myers, FL 33901-3381
Attn: Monica Jaeger

For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Colin Wright, Program Administrator

Date Certified: 08-SEP-2023 14:32

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: MYAKKA RIVER WEST **Collection Date/Time: 08/15/2023 09:10**

Field ID: G3SD0219 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2431365	DEP SOP: NU-094-1	Color (true)	72		PCU	P433943	
	EPA 180.1 Rev. 2.0	Turbidity	2.1		NTU	P433949	
	EPA 300.0 Rev. 2.1	Chloride	4.1E+03		mg Cl/L	P434298	
		Sulfate	630		mg SO4/L	P434302	
	SM 2320 B-2011	Total Alkalinity	93	A	mg CaCO3/L	P434025	
	SM 2540 C-2015	TDS	6.42E+03		mg/L	P434488	
	SM 2540 D-2015	TSS	4	I	mg/L	P434268	
	SM 4500-F- C-2011	Fluoride	0.51		mg F/L	P434032	
2431367	EPA 350.1 Rev. 2.0	Ammonia-N	0.10		mg N/L	P434388	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P434035	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P434628	
	EPA 365.1 Rev. 2.0	Total-P	0.21		mg P/L	P433967	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P434148	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: TIPPECANOE BAY NORTH **Collection Date/Time: 08/15/2023 09:45**

Field ID: G3SD0218 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2431366	DEP SOP: NU-094-1	Color (true)	58		PCU	P433943	
	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P433949	
	EPA 300.0 Rev. 2.1	Chloride	1.0E+04		mg Cl/L	P434298	
		Sulfate	1.4E+03		mg SO4/L	P434302	
	SM 2320 B-2011	Total Alkalinity	100		mg CaCO3/L	P434025	
	SM 2540 C-2015	TDS	1.73E+04		mg/L	P434488	
	SM 2540 D-2015	TSS	3	U	mg/L	P434271	
	SM 4500-F- C-2011	Fluoride	0.84		mg F/L	P434032	
2431368	EPA 350.1 Rev. 2.0	Ammonia-N	0.041		mg N/L	P434388	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.99		mg N/L	P434035	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P434556	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P433967	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P434116	

Ref. Method and Comment:
SM 2540 D-2015: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P433943

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433949

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434298

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434302

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434388

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434035

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434556

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434628

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433967

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

Quality Assurance Report
Method Blank Results

Reference Method: SM 2320 B-2011
Batch ID: P434025

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-2015
Batch ID: P434488

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P434268

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P434271

Component	Result	Code	Units
TSS	3	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P434032

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P434116

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Reference Method: SM 5310 B-2011
Batch ID: P434148

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P433943

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.4		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433949

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	99.4		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434298

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434302

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434388

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434035

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.9		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434556

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434628

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: P433967

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P434025

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.6		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P434488

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

Reference Method: SM 2540 D-2015
Batch ID: P434268

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	95.3		P	85 - 106

Reference Method: SM 2540 D-2015
Batch ID: P434271

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	93.1		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P434032

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.6		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P434116

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.4		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P434148

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.0		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434298

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431630	Chloride	102		P	90 - 110
2431880	Chloride	102		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434302

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431630	Sulfate	97.2		P	90 - 110
2431880	Sulfate	97.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434388

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431289	Ammonia-N	99.8	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434035

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431367	Kjeldahl Nitrogen	109	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434556

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431368	NO2NO3-N	99.4	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434628

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431276	NO2NO3-N	99.6	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433967

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431276	Total-P	97.3	95.6	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P434032

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431365	Fluoride	99.3	100	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P434116

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431368	Organic Carbon	90.2	92.8	P/P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P434148

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2431327	Organic Carbon	92.7	95.8	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P433943

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431326	Color (true)	2.83	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P433949

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431113	Turbidity	10.7	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434298

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431630	Chloride	0.840	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P434302

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431630	Sulfate	1.07	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P434388

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431289	Ammonia-N	1.55	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P434035

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431367	Kjeldahl Nitrogen	1.20	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434556

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431368	NO2NO3-N	0.502	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P434628

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431276	NO2NO3-N	0.962	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P433967

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431276	Total-P	1.70	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P434025

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431365	Total Alkalinity	0.779	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P434488

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431220	TDS	2.25	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P434032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431365	Fluoride	0.480	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P434116

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431368	Organic Carbon	2.11	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
Batch ID: P434148

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2431327	Organic Carbon	2.22	Spike	P	0 - 20

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

Quality Assurance Report
Calibration Verification

Reference Method: DEP SOP: NU-094-1
Run ID: A121070
Included Lab Sample IDs: 2431365, 2431366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A121074
Included Lab Sample IDs: 2431365, 2431366

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A121107
Included Lab Sample IDs: 2431367, 2431368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	99.9	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A121114
Included Lab Sample IDs: 2431365, 2431366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.1	94.9	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A121114
Included Lab Sample IDs: 2431365, 2431366

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

Reference Method: SM 5310 B-2011
Run ID: A121148
Included Lab Sample IDs: 2431368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.9	94.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A121149
Included Lab Sample IDs: 2431367, 2431368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.6	99.6	P/P	90 - 110
Kjeldahl Nitrogen	99.6	102	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A121157
Included Lab Sample IDs: 2431367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits

Quality Assurance Report
Calibration Verification

Reference Method: SM 5310 B-2011
Run ID: A121157
Included Lab Sample IDs: 2431367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.7	95.6	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A121182
Included Lab Sample IDs: 2431365, 2431366

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.1	99.8	P/P	90 - 110
Sulfate	98.1	98.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A121257
Included Lab Sample IDs: 2431367, 2431368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	99.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A121351
Included Lab Sample IDs: 2431368

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A121381
Included Lab Sample IDs: 2431367

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	99.0	99.0	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		Precision		
					LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	99.4				2.83	
EPA 180.1 Rev. 2.0	Turbidity	99.4				10.7	
EPA 300.0 Rev. 2.1	Chloride	101	102	102		0.840	
	Sulfate	98.2	97.2	97.2		1.07	
EPA 350.1 Rev. 2.0	Ammonia-N	94.8	99.8	102			1.55
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.9	109	107			1.20
EPA 353.2 Rev. 2.0	NO2NO3-N	100	99.4	99.8			0.502
	NO2NO3-N	99.5	99.6	101			0.962
EPA 365.1 Rev. 2.0	Total-P	102	97.3	95.6			1.70
SM 2320 B-2011	Total Alkalinity	96.6				0.779	
SM 2540 C-2015	TDS	101				2.25	
SM 2540 D-2015	TSS	95.3					
	TSS	93.1					
SM 4500-F- C-2011	Fluoride	98.6	99.3	100			0.480
SM 5310 B-2011	Organic Carbon	97.4	90.2	92.8			2.11
	Organic Carbon	95.0	92.7	95.8			2.22

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2431365, 2431366
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2431365, 2431366
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2431365, 2431366
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2431365, 2431366
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2431367, 2431368
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2431367, 2431368
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2431367, 2431368
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2431367, 2431368
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2431365, 2431366
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2431365, 2431366
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2431365, 2431366
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2431365, 2431366
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2431367, 2431368

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	08/16/2023			08/16/2023 14:54	Alexis Price	2431365
	08/16/2023			08/16/2023 14:55	Alexis Price	2431366
EPA 180.1 Rev. 2.0	08/16/2023			08/16/2023 15:14	Khloe J Berg	2431365
	08/16/2023			08/16/2023 15:15	Khloe J Berg	2431366
EPA 300.0 Rev. 2.1	08/16/2023			08/23/2023 21:37	James L Waggerby	2431365
	08/16/2023			08/23/2023 22:00	James L Waggerby	2431366
EPA 350.1 Rev. 2.0	08/16/2023			08/25/2023 12:53	Khloe J Berg	2431367
	08/16/2023			08/25/2023 12:54	Khloe J Berg	2431368
EPA 351.2 Rev. 2.0	08/16/2023	08/18/2023 12:57	Simonne.V. Calhoun	08/21/2023 12:12	Samantha L Bates	2431368
	08/16/2023	08/18/2023 12:57	Simonne.V. Calhoun	08/21/2023 12:22	Samantha L Bates	2431367
EPA 353.2 Rev. 2.0	08/16/2023			08/29/2023 11:07	Anna M. Plaviak	2431368
	08/16/2023			09/06/2023 12:18	Anna M. Plaviak	2431367
EPA 365.1 Rev. 2.0	08/16/2023	08/17/2023 14:21	Adam P Silver	08/17/2023 17:45	James L Waggerby	2431367
	08/16/2023	08/17/2023 14:21	Adam P Silver	08/17/2023 17:46	James L Waggerby	2431368
SM 2320 B-2011	08/16/2023			08/18/2023 04:32	Dale L. Simmons	2431365
	08/16/2023			08/18/2023 06:10	Dale L. Simmons	2431366
SM 2540 C-2015	08/16/2023			08/18/2023 16:04	Yijie Li	2431365, 2431366
SM 2540 D-2015	08/16/2023			08/18/2023 16:04	Yijie Li	2431365, 2431366
SM 4500-F- C-2011	08/16/2023			08/18/2023 02:32	Dale L. Simmons	2431365
	08/16/2023			08/18/2023 03:52	Dale L. Simmons	2431366
SM 5310 B-2011	08/16/2023			08/19/2023 04:59	Elise M. Gillis	2431368
	08/16/2023			08/21/2023 23:10	Elise M. Gillis	2431367