

Chemical Analysis Report

NW-DIST-2023-09-28-01

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

Event Description: **Eastern Lakes Run**
Request ID: **RQ-2023-09-25-12**
Customer: **NW-DIST**
Project ID: **SMP**

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Certified by: Colin Wright, Program Administrator

Date Certified: 13-OCT-2023 09:03

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light pink 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 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: HOLLY LAKE

Collection Date/Time: 09/27/2023 12:55

Field ID: G4NW0517

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2441323	DEP SOP: NU-094-1	Color (true)	13	A	PCU	P435702	
	EPA 180.1 Rev. 2.0	Turbidity	1.1		NTU	P435706	
	EPA 300.0 Rev. 2.1	Chloride	3.3		mg Cl/L	P436166	
		Sulfate	0.31	I	mg SO4/L	P436169	
	SM 2320 B-2011	Total Alkalinity	2.0	I	mg CaCO3/L	P435930	
	SM 2540 C-2015	TDS	22	I	mg/L	P436284	
	SM 2540 D-2015	TSS	2	I	mg/L	P436016	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P435932	
2441326	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P436053	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.48		mg N/L	P436044	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P436294	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P435915	
	SM 5310 B-2011	Organic Carbon	5.2		mg C/L	P435839	

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: ROBERTS LAKE

Collection Date/Time: 09/27/2023 10:40

Field ID: G3NW0447

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2441324	DEP SOP: NU-094-1	Color (true)	11		PCU	P435702	
	EPA 180.1 Rev. 2.0	Turbidity	0.70	I	NTU	P435706	
	EPA 300.0 Rev. 2.1	Chloride	3.2		mg Cl/L	P436166	
		Sulfate	1.7		mg SO4/L	P436169	
	SM 2320 B-2011	Total Alkalinity	1.5	I	mg CaCO3/L	P435930	
	SM 2540 C-2015	TDS	15	U	mg/L	P436284	
	SM 2540 D-2015	TSS	2	I	mg/L	P436016	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P435932	
2441327	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P436054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.14	I	mg N/L	P436084	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.013		mg N/L	P436295	
	EPA 365.1 Rev. 2.0	Total-P	0.003	I	mg P/L	P435915	
	SM 5310 B-2011	Organic Carbon	2.1		mg C/L	P435839	

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: KINGS LAKE SOUTH LOBE

Collection Date/Time: 09/27/2023 12:25

Field ID: G4NW0050

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2441325	DEP SOP: NU-094-1	Color (true)	11		PCU	P435702	
	EPA 180.1 Rev. 2.0	Turbidity	0.90	I	NTU	P435706	
	EPA 300.0 Rev. 2.1	Chloride	3.6		mg Cl/L	P436166	
		Sulfate	0.81		mg SO4/L	P436169	
	SM 2320 B-2011	Total Alkalinity	1.2	I	mg CaCO3/L	P435930	
	SM 2540 C-2015	TDS	15	U	mg/L	P436284	
	SM 2540 D-2015	TSS	3	I	mg/L	P436016	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P435932	
2441328	EPA 350.1 Rev. 2.0	Ammonia-N	0.006		mg N/L	P436054	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.55		mg N/L	P436044	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P436295	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P435915	
	SM 5310 B-2011	Organic Carbon	4.7		mg C/L	P435839	

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: P435702

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435706

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436166

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436169

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436053

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436054

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436044

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	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: P436294

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436295

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435915

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

Reference Method: SM 2320 B-2011
Batch ID: P435930

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

Reference Method: SM 2540 C-2015
Batch ID: P436284

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2015
Batch ID: P436016

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P435932

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P435839

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: P435702

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

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435706

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436166

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436169

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436053

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436054

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436044

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	107		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: P436294

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436295

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: P435915

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

Reference Method: SM 2320 B-2011
Batch ID: P435930

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	96.7		P	92 - 105

Reference Method: SM 2540 C-2015
Batch ID: P436284

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TDS	92.5		P	90 - 110

Reference Method: SM 2540 D-2015
Batch ID: P436016

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

Reference Method: SM 4500-F- C-2011
Batch ID: P435932

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P435839

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	95.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436166

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441360	Chloride	105		P	90 - 110
2441413	Chloride	106		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436169

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441360	Sulfate	102		P	90 - 110
2441413	Sulfate	103		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436053

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441138	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436054

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441327	Ammonia-N	100	98.6	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436044

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441577	Kjeldahl Nitrogen	102	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: P436294

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441140	NO2NO3-N	102	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436295

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441327	NO2NO3-N	102	104	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435915

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441328	Total-P	107	107	P/P	90 - 110

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P435932

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441657	Fluoride	101	101	P/P	94 - 106

Reference Method: SM 5310 B-2011
Batch ID: P435839

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2441138	Organic Carbon	96.2	97.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P435702

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441323	Color (true)	1.82	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P435706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441360	Turbidity	7.87	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436166

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441360	Chloride	0.274	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P436169

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441360	Sulfate	0.657	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436053

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441138	Ammonia-N	0.379	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P436054

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441327	Ammonia-N	1.35	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P436044

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441577	Kjeldahl Nitrogen	0.214	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

Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436294

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441140	NO2NO3-N	1.39	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P436295

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441327	NO2NO3-N	2.29	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P435915

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441328	Total-P	0.327	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P435930

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441657	Total Alkalinity	0.641	Sample	P	0 - 3.9

Reference Method: SM 2540 C-2015
Batch ID: P436284

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2440924	TDS	9.06	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P435932

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441657	Fluoride	0.0	Spike	P	0 - 1.9

Reference Method: SM 5310 B-2011
Batch ID: P435839

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2441138	Organic Carbon	0.793	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: A121831

Included Lab Sample IDs: 2441323, 2441324, 2441325

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: A121832

Included Lab Sample IDs: 2441323, 2441324, 2441325

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

Reference Method: SM 5310 B-2011

Run ID: A121896

Included Lab Sample IDs: 2441326, 2441327, 2441328

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.0	96.4	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A121941

Included Lab Sample IDs: 2441323, 2441324, 2441325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	94.7	97.8	P/P	90 - 110
Total Alkalinity	97.8	95.5	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A121941

Included Lab Sample IDs: 2441323, 2441324, 2441325

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A121948

Included Lab Sample IDs: 2441323, 2441324, 2441325

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	97.7	101	P/P	90 - 110
Sulfate	98.8	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A121971

Included Lab Sample IDs: 2441326, 2441327, 2441328

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A121980

Included Lab Sample IDs: 2441326, 2441327, 2441328

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.6	98.7	P/P	90 - 110
Ammonia-N	98.7	98.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122007

Included Lab Sample IDs: 2441326, 2441328

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	99.7	94.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122030

Included Lab Sample IDs: 2441327

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122051

Included Lab Sample IDs: 2441326, 2441327, 2441328

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110
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		Precision		
					LCS	SMP	MS
DEP SOP: NU-094-1	Color (true)	101				1.82	
EPA 180.1 Rev. 2.0	Turbidity	105				7.87	
EPA 300.0 Rev. 2.1	Chloride	100	105	106		0.274	
	Sulfate	101	102	103		0.657	
EPA 350.1 Rev. 2.0	Ammonia-N	97.0	101	101			0.379
	Ammonia-N	97.8	100	98.6			1.35
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107	102	102			0.214
	Kjeldahl Nitrogen	104	105	100			3.67
EPA 353.2 Rev. 2.0	NO2NO3-N	102	102	101			1.39
	NO2NO3-N	103	102	104			2.29
EPA 365.1 Rev. 2.0	Total-P	105	107	107			0.327
SM 2320 B-2011	Total Alkalinity	96.7				0.641	
SM 2540 C-2015	TDS	92.5				9.06	
SM 2540 D-2015	TSS	93.1					
SM 4500-F- C-2011	Fluoride	101	101	101			0.0
SM 5310 B-2011	Organic Carbon	95.4	96.2	97.4			0.793

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2441323, 2441324, 2441325
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2441323, 2441324, 2441325
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2441323, 2441324, 2441325
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2441323, 2441324, 2441325
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2441326, 2441327, 2441328
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2441326, 2441327, 2441328
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2441326, 2441327, 2441328
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2441326, 2441327, 2441328
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2441323, 2441324, 2441325
SM 2540 C-2015	Total Dissolved Solids in aqueous matrices	2441323, 2441324, 2441325
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2441323, 2441324, 2441325
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2441323, 2441324, 2441325
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2441326, 2441327, 2441328

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 14:17	Alexis Price	2441323
	09/28/2023			09/28/2023 14:18	Alexis Price	2441324, 2441325
EPA 180.1 Rev. 2.0	09/28/2023			09/28/2023 12:49	Chandler E Cox	2441323
	09/28/2023			09/28/2023 12:50	Chandler E Cox	2441324, 2441325
EPA 300.0 Rev. 2.1	09/28/2023			10/05/2023 16:35	James L Waggeberby	2441323
	09/28/2023			10/05/2023 16:50	James L Waggeberby	2441324
	09/28/2023			10/05/2023 17:05	James L Waggeberby	2441325
EPA 350.1 Rev. 2.0	09/28/2023			10/05/2023 12:26	Ping Hua	2441326
	09/28/2023			10/05/2023 12:38	Ping Hua	2441327
	09/28/2023			10/05/2023 12:42	Ping Hua	2441328
EPA 351.2 Rev. 2.0	09/28/2023	10/05/2023 11:45	Simonne.V. Calhoun	10/06/2023 11:51	Samantha L Bates	2441326
	09/28/2023	10/05/2023 11:45	Simonne.V. Calhoun	10/06/2023 11:52	Samantha L Bates	2441328
	09/28/2023	10/06/2023 09:23	Samantha L Bates	10/09/2023 15:41	Samantha L Bates	2441327
EPA 353.2 Rev. 2.0	09/28/2023			10/10/2023 12:00	Anna M. Plaviak	2441326
	09/28/2023			10/10/2023 12:07	Anna M. Plaviak	2441327
	09/28/2023			10/10/2023 12:13	Anna M. Plaviak	2441328
EPA 365.1 Rev. 2.0	09/28/2023	10/04/2023 10:15	Adam P Silver	10/05/2023 10:00	James L Waggeberby	2441328
	09/28/2023	10/04/2023 10:15	Adam P Silver	10/05/2023 10:03	James L Waggeberby	2441326
	09/28/2023	10/04/2023 10:15	Adam P Silver	10/05/2023 10:04	James L Waggeberby	2441327
SM 2320 B-2011	09/28/2023			10/03/2023 23:30	Dale L. Simmons	2441323
	09/28/2023			10/03/2023 23:40	Dale L. Simmons	2441324
	09/28/2023			10/04/2023 00:23	Dale L. Simmons	2441325
SM 2540 C-2015	09/28/2023			10/02/2023 15:37	Yijie Li	2441323, 2441324, 2441325
SM 2540 D-2015	09/28/2023			10/02/2023 15:27	Yijie Li	2441323, 2441324, 2441325
SM 4500-F- C-2011	09/28/2023			10/03/2023 23:30	Dale L. Simmons	2441323
	09/28/2023			10/03/2023 23:40	Dale L. Simmons	2441324
	09/28/2023			10/04/2023 00:23	Dale L. Simmons	2441325
SM 5310 B-2011	09/28/2023			10/02/2023 22:25	Elise M. Gillis	2441326
	09/28/2023			10/02/2023 22:39	Elise M. Gillis	2441327
	09/28/2023			10/02/2023 22:53	Elise M. Gillis	2441328