Chemical Analysis Report

SO-DIST-2022-04-26-01

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

Event Description: **2022 SMP : Sebring Lakes**
Request ID: **RQ-2022-04-25-24**
Customer: **SO-DIST**
Project ID: **SMP**

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FLDEP South District Office
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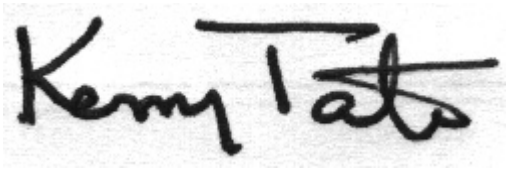
Date Certified: 17-MAY-2022 09:16



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: Lake Denton **Collection Date/Time: 04/25/2022 10:10**

Field ID: G4SD0180 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321990	DEP SOP: NU-094-1	Color (true)**	2.5	U	PCU	P412920	
	EPA 180.1 Rev. 2.0	Turbidity	0.40	I	NTU	P412917	
	EPA 300.0 Rev. 2.1	Chloride	21		mg Cl/L	P413252	
		Sulfate	44		mg SO4/L	P413255	
	SM 2320 B-2011	Total Alkalinity	39	A	mg CaCO3/L	P413551	
	SM 2540 C-2011	TDS	161		mg/L	P413422	
	SM 2540 D-2011	TSS	2	U	mg/L	P413470	
	SM 4500-F- C-2011	Fluoride	0.22		mg F/L	P413554	
2321993	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P413111	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.24		mg N/L	P413270	
	EPA 353.2 Rev. 2.0	NO2NO3-N	2.7		mg N/L	P413216	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P413052	
	SM 5310 B-2011	Organic Carbon	1.7		mg C/L	P413244	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: Lake Glenada **Collection Date/Time: 04/25/2022 10:45**

Field ID: G4SD0179 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321991	DEP SOP: NU-094-1	Color (true)**	29	A	PCU	P412920	
	EPA 180.1 Rev. 2.0	Turbidity	13		NTU	P412917	
	EPA 300.0 Rev. 2.1	Chloride	25		mg Cl/L	P413252	
		Sulfate	17		mg SO4/L	P413255	
	SM 2320 B-2011	Total Alkalinity	38		mg CaCO3/L	P413551	
	SM 2540 C-2011	TDS	131		mg/L	P413422	
	SM 2540 D-2011	TSS	14		mg/L	P413470	
	SM 4500-F- C-2011	Fluoride	0.089	I	mg F/L	P413554	
2321994	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P413111	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.5		mg N/L	P413273	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P413216	
	EPA 365.1 Rev. 2.0	Total-P	0.057		mg P/L	P413052	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P413244	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch relative percent difference is unavailable because of analytical difficulties.

Sample Location: Little Lake Jackson **Collection Date/Time: 04/25/2022 11:30**

Field ID: G4SD0183 Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321992	DEP SOP: NU-094-1	Color (true)**	20		PCU	P412920	
	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P412917	
	EPA 300.0 Rev. 2.1	Chloride	17		mg Cl/L	P413252	
		Sulfate	15		mg SO4/L	P413255	
	SM 2320 B-2011	Total Alkalinity	2.3	I	mg CaCO3/L	P413551	
	SM 2540 C-2011	TDS	73		mg/L	P413422	
	SM 2540 D-2011	TSS	2	I	mg/L	P413470	
	SM 4500-F- C-2011	Fluoride	0.080	I	mg F/L	P413554	
2321995	EPA 350.1 Rev. 2.0	Ammonia-N	0.046		mg N/L	P413112	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.71		mg N/L	P413273	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.019		mg N/L	P413216	
	EPA 365.1 Rev. 2.0	Total-P	0.032		mg P/L	P413052	
	SM 5310 B-2011	Organic Carbon	7.5		mg C/L	P413244	

Ref. Method and Comment:
SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.
EPA 351.2 Rev. 2.0: Batch relative percent difference is unavailable because of analytical difficulties.

Quality Assurance Report
Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P412920

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412917

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413252

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413255

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413111

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413112

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413270

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413273

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P413216

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: P413052

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

Reference Method: SM 2320 B-2011
Batch ID: P413551

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

Reference Method: SM 2540 C-2011
Batch ID: P413422

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P413470

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P413554

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P413244

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: P412920

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	98.3		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412917

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413252

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413255

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413111

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413112

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413270

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413273

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	99.0		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P413216

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	97.5		P	90 - 110

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413052

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

Reference Method: SM 2320 B-2011
Batch ID: P413551

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.3		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P413554

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P413244

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	87.7		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413252

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321936	Chloride	99.6		P	90 - 110
2322001	Chloride	97.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413255

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321936	Sulfate	96.7		P	90 - 110
2322001	Sulfate	93.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413111

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321874	Ammonia-N	100	99.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413112

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321995	Ammonia-N	104	106	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413270

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321888	Kjeldahl Nitrogen	101	110	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413273

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2322020	Kjeldahl Nitrogen	106		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P413216

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321972	NO2NO3-N	96.2	94.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413052

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321972	Total-P	103	103	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P413554

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321990	Fluoride	99.0	99.0	P/P	92 - 107

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P413244

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321994	Organic Carbon	98.1	99.6	P/P	85 - 115

Quality Assurance Report
Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P412920

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321991	Color (true)	0.154	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412917

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321936	Turbidity	2.82	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413252

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321936	Chloride	0.952	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413255

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321936	Sulfate	0.846	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413111

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321874	Ammonia-N	0.379	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413112

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321995	Ammonia-N	0.919	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413270

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321888	Kjeldahl Nitrogen	5.45	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P413216

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321972	NO2NO3-N	1.13	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413052

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321972	Total-P	0.683	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P413551

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321990	Total Alkalinity	1.68	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P413422

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321999	TDS	4.08	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P413554

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321990	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P413244

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321994	Organic Carbon	0.955	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: A111700
Included Lab Sample IDs: 2321990, 2321991, 2321992

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.5	98.5	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1
Run ID: A111702
Included Lab Sample IDs: 2321990, 2321991, 2321992

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.2	100	P/P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Run ID: A111715
Included Lab Sample IDs: 2321990, 2321991, 2321992

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.8	101	P/P	90 - 110
Sulfate	101	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A111801
Included Lab Sample IDs: 2321993, 2321994, 2321995

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.7	98.1	P/P	90 - 110
Ammonia-N	98.9	97.7	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A111841
Included Lab Sample IDs: 2321993, 2321994, 2321995

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	94.0	93.5	P/P	90 - 110
NO2NO3-N	98.5	96.5	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A111856
Included Lab Sample IDs: 2321993, 2321994, 2321995

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	101	P/P	90 - 110
Organic Carbon	91.8	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A111879
Included Lab Sample IDs: 2321994

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.8	101	P/P	90 - 110

Quality Assurance Report
Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A111924
Included Lab Sample IDs: 2321993, 2321995

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

Reference Method: SM 2320 B-2011
Run ID: A111985
Included Lab Sample IDs: 2321990, 2321991, 2321992

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.2	98.1	P/P	90 - 110
Total Alkalinity	98.1	95.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A111985
Included Lab Sample IDs: 2321990, 2321991, 2321992

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

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A112015
Included Lab Sample IDs: 2321994, 2321995

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	98.0	91.1	P/P	90 - 110
Kjeldahl Nitrogen	98.1	98.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A112016
Included Lab Sample IDs: 2321993

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	94.4	106	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)	98.3				0.154	
EPA 180.1 Rev. 2.0	Turbidity	95.9				2.82	
EPA 300.0 Rev. 2.1	Chloride	100	99.6	97.9		0.952	
	Sulfate	99.7	96.7	93.0		0.846	
EPA 350.1 Rev. 2.0	Ammonia-N	97.2	100	99.6			0.379
	Ammonia-N	96.4	104	106			0.919
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	102	101	110			5.45
	Kjeldahl Nitrogen	99.0	106				
EPA 353.2 Rev. 2.0	NO2NO3-N	97.5	96.2	94.6			1.13
EPA 365.1 Rev. 2.0	Total-P	104	103	103			0.683
SM 2320 B-2011	Total Alkalinity	97.3				1.68	
SM 2540 C-2011	TDS					4.08	
SM 4500-F- C-2011	Fluoride	100	99.0	99.0			0.0
SM 5310 B-2011	Organic Carbon	87.7	98.1	99.6			0.955

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2321990, 2321991, 2321992
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2321990, 2321991, 2321992
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2321990, 2321991, 2321992
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2321990, 2321991, 2321992
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2321993, 2321994, 2321995
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2321993, 2321994, 2321995
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2321993, 2321994, 2321995
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2321993, 2321994, 2321995
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2321990, 2321991, 2321992
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2321990, 2321991, 2321992
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2321990, 2321991, 2321992
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2321990, 2321991, 2321992
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2321993, 2321994, 2321995

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	04/26/2022			04/26/2022 16:17	Anna M. Plaviak	2321990
	04/26/2022			04/26/2022 16:19	Anna M. Plaviak	2321991, 2321992
EPA 180.1 Rev. 2.0	04/26/2022			04/26/2022 14:42	Khloe J Berg	2321990
	04/26/2022			04/26/2022 14:44	Khloe J Berg	2321991
	04/26/2022			04/26/2022 14:45	Khloe J Berg	2321992
EPA 300.0 Rev. 2.1	04/26/2022			04/30/2022 00:21	James L Waggerby	2321990
	04/26/2022			04/30/2022 00:33	James L Waggerby	2321991
	04/26/2022			04/30/2022 00:45	James L Waggerby	2321992
EPA 350.1 Rev. 2.0	04/26/2022			04/29/2022 10:01	Judith K. Clark	2321993
	04/26/2022			04/29/2022 10:02	Judith K. Clark	2321994
	04/26/2022			04/29/2022 10:14	Judith K. Clark	2321995
EPA 351.2 Rev. 2.0	04/26/2022	05/04/2022 15:46	Alexandra J Mattheus	05/09/2022 17:28	Samantha L Bates	2321994
	04/26/2022	05/04/2022 15:46	Alexandra J Mattheus	05/09/2022 17:38	Samantha L Bates	2321995
	04/26/2022	05/04/2022 16:20	Alexandra J Mattheus	05/09/2022 14:13	Samantha L Bates	2321993
EPA 353.2 Rev. 2.0	04/26/2022			05/02/2022 09:51	Beverly Y. Sanders	2321995
	04/26/2022			05/02/2022 11:06	Beverly Y. Sanders	2321993
	04/26/2022			05/02/2022 11:07	Beverly Y. Sanders	2321994
EPA 365.1 Rev. 2.0	04/26/2022	04/29/2022 13:00	Simonne.V. Calhoun	05/03/2022 12:25	Sarah A Nixon	2321994
	04/26/2022	04/29/2022 13:00	Simonne.V. Calhoun	05/03/2022 15:07	James L Waggerby	2321993
	04/26/2022	04/29/2022 13:00	Simonne.V. Calhoun	05/03/2022 15:08	James L Waggerby	2321995
SM 2320 B-2011	04/26/2022			05/04/2022 01:46	Dale L. Simmons	2321990
	04/26/2022			05/04/2022 04:04	Dale L. Simmons	2321991
	04/26/2022			05/04/2022 04:13	Dale L. Simmons	2321992
SM 2540 C-2011	04/26/2022			04/29/2022 15:42	Yijie Li	2321990, 2321991, 2321992
SM 2540 D-2011	04/26/2022			04/29/2022 15:42	Yijie Li	2321990, 2321991, 2321992
SM 4500-F- C-2011	04/26/2022			05/04/2022 01:38	Dale L. Simmons	2321990
	04/26/2022			05/04/2022 04:04	Dale L. Simmons	2321991
	04/26/2022			05/04/2022 04:13	Dale L. Simmons	2321992
SM 5310 B-2011	04/26/2022			05/02/2022 14:30	Khloe J Berg	2321994
	04/26/2022			05/02/2022 19:47	Khloe J Berg	2321993
	04/26/2022			05/02/2022 20:05	Khloe J Berg	2321995