

Chemical Analysis Report

SO-DIST-2021-04-14-01

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

Event Description: **2021 SMP : Myakka**
Request ID: **RQ-2021-04-05-64**
Customer: **SO-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 05-MAY-2021 13:49

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first name.

Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Nutrients and Pesticides.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: BRANDY BRANCH @ SR 70

Collection Date/Time: 04/13/2021 09:30

Field ID: G3SD0083

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2239575	EPA 180.1 Rev. 2.0	Turbidity	6.4		NTU	P396561	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P396882	
		Sulfate	880		mg SO4/L	P397041	
		Color (true)	50		PCU	P396549	
	SM 2320 B-2011	Total Alkalinity	48		mg CaCO3/L	P396665	
	SM 2540 C-2011	TDS	1.33E+03		mg/L	P396989	
	SM 2540 D-2011	TSS	2	I	mg/L	P396815	
	SM 4500 F-C-2011	Fluoride	0.71		mg F/L	P396667	
2239576	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P397018	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.92		mg N/L	P396971	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.37		mg N/L	P396841	
	EPA 365.1 Rev. 2.0	Total-P	0.25		mg P/L	P396695	
	SM 5310 B-2011	Organic Carbon	12		mg C/L	P396954	
2239577	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.21		mg P/L	P396535	
2239582	EPA 8276	Chlordane	5.3	U	ng/L	P396574	
		Toxaphene	32	U	ng/L	P396574	

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 MYAKKA (LOWER) @ MIDDLE

Collection Date/Time: 04/13/2021 11:55

Field ID: G3SD0107

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2239572	EPA 180.1 Rev. 2.0	Turbidity	0.70		NTU	P396561	
	EPA 300.0 Rev. 2.1	Chloride	27		mg Cl/L	P396882	
		Sulfate	210		mg SO4/L	P397041	
	SM 2120 B-2011	Color (true)	64		PCU	P396549	
	SM 2320 B-2011	Total Alkalinity	33		mg CaCO3/L	P396665	
	SM 2540 C-2011	TDS	389		mg/L	P396989	
	SM 2540 D-2011	TSS	4	I	mg/L	P396815	
	SM 4500 F-C-2011	Fluoride	0.26		mg F/L	P396667	
2239573	EPA 350.1 Rev. 2.0	Ammonia-N	0.016		mg N/L	P397018	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P396971	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.009	I	mg N/L	P396841	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P396695	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P396953	
2239574	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.11		mg P/L	P396535	

Ref. Method and Comment:

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P396561

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396882

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397041

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397018

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P396971

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396841

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396695

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396535

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

Reference Method: EPA 8276
Batch ID: P396574

Component	Result	Code	Units
Chlordane	5.0	U	ng/L
Toxaphene	30	U	ng/L

Quality Assurance Report Method Blank Results

Reference Method: SM 2120 B-2011
Batch ID: P396549

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P396665

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P396989

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P396815

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-2011
Batch ID: P396667

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P396953

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

Reference Method: SM 5310 B-2011
Batch ID: P396954

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396882

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397041

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397018

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P396971

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396841

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396695

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396535

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

Reference Method: EPA 8276
Batch ID: P396574

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chlordane	85.7	96.3	P/P	56 - 117
Toxaphene	77.3	87.1	P/P	45 - 116

Reference Method: SM 2120 B-2011
Batch ID: P396549

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-2011
Batch ID: P396665

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.9		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P396667

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	99.1		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P396953

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.8		P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P396954

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.2		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239473	Chloride	98.0		P	90 - 110
2239755	Chloride	101		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397041

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2240080	Sulfate	93.9		P	90 - 110
2240210	Sulfate	94.4		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397018

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239599	Ammonia-N	94.8	95.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P396971

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239535	Kjeldahl Nitrogen	106	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396841

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239474	NO2NO3-N	98.1	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396695

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239408	Total-P	103	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396535

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239267	O-Phosphate-P	98.1	96.6	P/P	90 - 110

Reference Method: EPA 8276
Batch ID: P396574

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239467	Chlordane	101	96.0	P/P	47 - 128
2239467	Toxaphene	82.9	83.1	P/P	11 - 163

Reference Method: SM 4500 F-C-2011
Batch ID: P396667

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239754	Fluoride	104	104	P/P	94 - 107

Quality Assurance Report

Matrix Spike Accuracy

Reference Method: SM 5310 B-2011
Batch ID: P396953

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239209	Organic Carbon	99.6	99.8	P/P	85 - 115

Reference Method: SM 5310 B-2011
Batch ID: P396954

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2239623	Organic Carbon	102		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P396561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239312	Turbidity	1.11	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P396882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239473	Chloride	0.691	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P397041

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2240080	Sulfate	0.310	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P397018

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239599	Ammonia-N	0.168	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P396971

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239535	Kjeldahl Nitrogen	0.564	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P396841

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239474	NO2NO3-N	4.68	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P396695

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239408	Total-P	1.15	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P396535

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239267	O-Phosphate-P	1.32	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 8276
 Batch ID: P396574

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239467	Chlordane	5.06	Spike	P	0 - 30
2239467	Toxaphene	0.269	Spike	P	0 - 30
LFB	Chlordane	11.7	LCS	P	0 - 30
LFB	Toxaphene	11.9	LCS	P	0 - 30

Reference Method: SM 2120 B-2011
 Batch ID: P396549

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239312	Color (true)	0.335	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
 Batch ID: P396665

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239754	Total Alkalinity	0.960	Sample	P	0 - 8.1

Reference Method: SM 2540 C-2011
 Batch ID: P396989

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239533	TDS	6.68	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
 Batch ID: P396667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239754	Fluoride	0.0	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
 Batch ID: P396953

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239209	Organic Carbon	0.150	Spike	P	0 - 20

Reference Method: SM 5310 B-2011
 Batch ID: P396954

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2239623	Organic Carbon	0.270	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2239582
Field Sample ID: G3SD0083

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8276	Decachlorobiphenyl	51.2	P	29 - 92.0
EPA 8276	PCNB	77.0	P	43 - 134

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A104725

Included Lab Sample IDs: 2239574, 2239577

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	99.2	P/P	90 - 110

Reference Method: SM 2120 B-2011

Run ID: A104730

Included Lab Sample IDs: 2239572, 2239575

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	102	P/P	90 - 115

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A104732

Included Lab Sample IDs: 2239572, 2239575

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

Reference Method: SM 2320 B-2011

Run ID: A104779

Included Lab Sample IDs: 2239572, 2239575

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	101	98.1	P/P	90 - 110
Total Alkalinity	97.3	101	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A104779

Included Lab Sample IDs: 2239572, 2239575

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A104810

Included Lab Sample IDs: 2239573, 2239576

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	103	100	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A104844

Included Lab Sample IDs: 2239573, 2239576

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	98.0	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A104869

Included Lab Sample IDs: 2239572, 2239575

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A104869

Included Lab Sample IDs: 2239572, 2239575

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	98.9	99.3	P/P	90 - 110
Sulfate	97.9	98.2	P/P	90 - 110

Reference Method: SM 5310 B-2011

Run ID: A104901

Included Lab Sample IDs: 2239573, 2239576

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	98.1	P/P	90 - 110
Organic Carbon	98.1	96.8	P/P	90 - 110

Reference Method: EPA 8276

Run ID: A104906

Included Lab Sample IDs: 2239582

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chlordane	99.0		P	80 - 120
Toxaphene	102		P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A104919

Included Lab Sample IDs: 2239573, 2239576

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.2	98.0	P/P	90 - 110
Ammonia-N	99.1	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A104951

Included Lab Sample IDs: 2239573, 2239576

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	95.4	96.9	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						1.11	
EPA 300.0 Rev. 2.1	Chloride	102		98.0	101		0.691	
	Sulfate	96.3		93.9	94.4		0.310	
EPA 350.1 Rev. 2.0	Ammonia-N	99.4		94.8	95.0			0.168
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.9		106	107			0.564
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	97.5		98.1	105			4.68
EPA 365.1 Rev. 2.0	Total-P	105		103	101			1.15
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101		98.1	96.6			1.32
EPA 8276	Chlordane	85.7	96.3	101	96.0	11.7		5.06
	Toxaphene	77.3	87.1	82.9	83.1	11.9		0.269
SM 2120 B-2011	Color (true)	100					0.335	
SM 2320 B-2011	Total Alkalinity	99.9					0.960	
SM 2540 C-2011	TDS						6.68	
SM 4500 F-C-2011	Fluoride	99.1		104	104			0.0
SM 5310 B-2011	Organic Carbon	97.8		99.6	99.8			0.150
	Organic Carbon	97.2		102				0.270

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2239572, 2239575
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2239572, 2239575
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2239572, 2239575
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2239573, 2239576
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2239573, 2239576
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2239573, 2239576
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2239573, 2239576
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2239574, 2239577
EPA 8276	Organochlorine pesticides in water matrices by GC/MS with Negative Chemical Ionization	2239582
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2239572, 2239575
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2239572, 2239575
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2239572, 2239575
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2239572, 2239575
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2239572, 2239575
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2239573, 2239576

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	04/14/2021			04/14/2021 15:46	Yen Ta	2239572, 2239575
EPA 300.0 Rev. 2.1	04/14/2021			04/19/2021 21:34	Lipi Saha	2239572
	04/14/2021			04/19/2021 21:46	Lipi Saha	2239575
	04/14/2021			04/22/2021 18:21	Lipi Saha	2239575
	04/14/2021			04/22/2021 18:33	Lipi Saha	2239572
EPA 350.1 Rev. 2.0	04/14/2021			04/22/2021 17:07	Ping Hua	2239576
	04/14/2021			04/22/2021 17:50	Ping Hua	2239573
EPA 351.2 Rev. 2.0	04/14/2021	04/22/2021 13:13	Benjamin T. Nordmann	04/23/2021 17:46	Virginia P. Brown	2239573
	04/14/2021	04/22/2021 13:13	Benjamin T. Nordmann	04/23/2021 17:48	Virginia P. Brown	2239576
EPA 353.2 Rev. 2.0	04/14/2021			04/19/2021 14:46	Touraj Touran	2239573
	04/14/2021			04/19/2021 14:48	Touraj Touran	2239576
EPA 365.1 Rev. 2.0	04/14/2021	04/16/2021 13:47	Yen Ta	04/16/2021 17:21	Shengyu Ding	2239573
	04/14/2021	04/16/2021 13:47	Yen Ta	04/16/2021 17:22	Shengyu Ding	2239576
EPA 365.1 Rev. 2.0 dissolved	04/14/2021			04/14/2021 14:05	Lipi Saha	2239574
	04/14/2021			04/14/2021 14:06	Lipi Saha	2239577
EPA 8276	04/14/2021	04/15/2021 08:00	Fe-Val Siddell	04/22/2021 03:16	Chiran X. Ghimire	2239582
SM 2120 B-2011	04/14/2021			04/14/2021 15:47	Benjamin T. Nordmann	2239572
	04/14/2021			04/14/2021 15:48	Benjamin T. Nordmann	2239575
SM 2320 B-2011	04/14/2021			04/15/2021 21:11	Dale L. Simmons	2239572
	04/14/2021			04/15/2021 22:15	Dale L. Simmons	2239575
SM 2540 C-2011	04/14/2021			04/16/2021 15:12	Yijie Li	2239572, 2239575
SM 2540 D-2011	04/14/2021			04/16/2021 15:36	Yijie Li	2239572, 2239575
SM 4500 F-C-2011	04/14/2021			04/15/2021 21:11	Dale L. Simmons	2239572
	04/14/2021			04/15/2021 22:15	Dale L. Simmons	2239575
SM 5310 B-2011	04/14/2021			04/21/2021 20:17	Lauren Lees	2239573
	04/14/2021			04/21/2021 21:52	Lauren Lees	2239576