Chemical Analysis Report

SW-DIST-2022-12-06-01

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

Event Description: **McKay Bay**
Request ID: **RQ-2022-12-12-11**
Customer: **SW-DIST**
Project ID: **SMP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
Temple Terrace, FL 33637-0926
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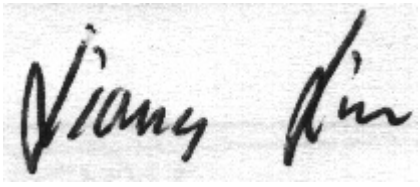
Date Certified: 27-DEC-2022 11:07



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: Homosassa River DownRiver/Stream of Boat Ramp **Collection Date/Time: 12/05/2022 12:45**

Field ID: G5SW0189 Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2373026	EPA 180.1 Rev. 2.0	Turbidity	2.7		NTU	P423177	
	SM 2320 B-2011	Total Alkalinity	127		mg CaCO3/L	P423719	
	SM 2540 D-2015	TSS	6	I	mg/L	P423455	
	SM 4500-F- C-2011	Fluoride	0.16		mg F/L	P423722	
2373028	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P423860	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.25	I	mg N/L	P423347	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.29		mg N/L	P423277	
	EPA 365.1 Rev. 2.0	Total-P	0.023		mg P/L	P423216	
	SM 5310 B-2011	Organic Carbon	2.3		mg C/L	P423478	
2373030	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P423179	

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: FB **Collection Date/Time: 12/05/2022 13:00**

Field ID: FB_12052022 Matrix: W-FIELD-BK

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2373027	EPA 180.1 Rev. 2.0	Turbidity	0.10	U	NTU	P423177	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P423496	
	SM 2540 D-2015	TSS	2	U	mg/L	P423455	
	SM 4500-F- C-2011	Fluoride	0.025	U	mg F/L	P423500	
2373029	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	U	mg N/L	P423681	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.080	U	mg N/L	P423348	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P423207	
	EPA 365.1 Rev. 2.0	Total-P	0.002	U	mg P/L	P423214	
	SM 5310 B-2011	Organic Carbon	0.50	U	mg C/L	P423478	
2373031	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P423179	

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: EPA 180.1 Rev. 2.0
Batch ID: P423177

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423681

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423860

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423347

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423348

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423207

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423277

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423214

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423216

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

Quality Assurance Report
Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423179

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

Reference Method: SM 2320 B-2011
Batch ID: P423496

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

Reference Method: SM 2320 B-2011
Batch ID: P423719

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

Reference Method: SM 2540 D-2015
Batch ID: P423455

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P423500

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 4500-F- C-2011
Batch ID: P423722

Component	Result	Code	Units
Fluoride	0.025	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P423478

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423177

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423681

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.0		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423860

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.8		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423347

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423348

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423207

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423277

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423214

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423216

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

Quality Assurance Report
Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423179

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

Reference Method: SM 2320 B-2011
Batch ID: P423496

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.2		P	94 - 106

Reference Method: SM 2320 B-2011
Batch ID: P423719

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	97.4		P	94 - 106

Reference Method: SM 2540 D-2015
Batch ID: P423455

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
TSS	101		P	85 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P423500

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	100		P	96 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P423722

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	102		P	96 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423478

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.8		P	85 - 115

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423681

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374112	Ammonia-N	101	100	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423860

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372792	Ammonia-N	101	105	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423347

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372946	Kjeldahl Nitrogen	93.0	99.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423348

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373065	Kjeldahl Nitrogen	104	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372983	NO2NO3-N	100	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423277

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372948	NO2NO3-N	106	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423214

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372682	Total-P	106	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423216

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2372791	Total-P	104	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423179

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373030	O-Phosphate-P	100	99.8	P/P	90 - 110

Quality Assurance Report
Matrix Spike Accuracy

Reference Method: SM 4500-F- C-2011
Batch ID: P423500

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373693	Fluoride	101	100	P/P	94 - 104

Reference Method: SM 4500-F- C-2011
Batch ID: P423722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2374317	Fluoride	101	99.7	P/P	94 - 104

Reference Method: SM 5310 B-2011
Batch ID: P423478

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2373371	Organic Carbon	101		P	85 - 115

Quality Assurance Report
Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P423177

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372927	Turbidity	7.65	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423681

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374112	Ammonia-N	1.19	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P423860

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372792	Ammonia-N	3.65	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423347

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372946	Kjeldahl Nitrogen	5.12	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P423348

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373065	Kjeldahl Nitrogen	1.52	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372983	NO2NO3-N	0.541	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P423277

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372948	NO2NO3-N	0.837	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372682	Total-P	3.20	Spike	P	0 - 20

Quality Assurance Report
Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P423216

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2372791	Total-P	1.14	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P423179

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373030	O-Phosphate-P	0.500	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P423496

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373693	Total Alkalinity	0.983	Sample	P	0 - 3.8

Reference Method: SM 2320 B-2011
Batch ID: P423719

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374317	Total Alkalinity	0.0861	Sample	P	0 - 3.8

Reference Method: SM 4500-F- C-2011
Batch ID: P423500

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373693	Fluoride	1.01	Spike	P	0 - 1.6

Reference Method: SM 4500-F- C-2011
Batch ID: P423722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2374317	Fluoride	0.966	Spike	P	0 - 1.6

Reference Method: SM 5310 B-2011
Batch ID: P423478

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2373371	Organic Carbon	0.0729	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: A116285
Included Lab Sample IDs: 2373026, 2373027

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A116286
Included Lab Sample IDs: 2373030, 2373031

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.7	98.3	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A116302
Included Lab Sample IDs: 2373029

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

Reference Method: EPA 353.2 Rev. 2.0
Run ID: A116324
Included Lab Sample IDs: 2373028

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

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A116329
Included Lab Sample IDs: 2373028, 2373029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	102	P/P	90 - 110
Total-P	99.2	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A116403
Included Lab Sample IDs: 2373028, 2373029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	93.3	99.6	P/P	90 - 110
Kjeldahl Nitrogen	99.6	96.6	P/P	90 - 110

Reference Method: SM 5310 B-2011
Run ID: A116413
Included Lab Sample IDs: 2373028, 2373029

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	99.6	99.0	P/P	90 - 110

Reference Method: SM 2320 B-2011
Run ID: A116421
Included Lab Sample IDs: 2373027

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

Quality Assurance Report
Calibration Verification

Reference Method: SM 2320 B-2011
Run ID: A116421
Included Lab Sample IDs: 2373027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.8	95.8	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A116421
Included Lab Sample IDs: 2373027

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A116509
Included Lab Sample IDs: 2373029

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

Reference Method: SM 2320 B-2011
Run ID: A116543
Included Lab Sample IDs: 2373026

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	96.0	93.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Run ID: A116543
Included Lab Sample IDs: 2373026

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

Reference Method: EPA 350.1 Rev. 2.0
Run ID: A116610
Included Lab Sample IDs: 2373028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.3	97.2	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
EPA 180.1 Rev. 2.0	Turbidity	101				7.65	
EPA 350.1 Rev. 2.0	Ammonia-N	96.0	101	100			1.19
	Ammonia-N	95.8	101	105			3.65
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	93.0	99.2			5.12
	Kjeldahl Nitrogen	97.2	104	107			1.52
EPA 353.2 Rev. 2.0	NO2NO3-N	102	100	99.0			0.541
	NO2NO3-N	105	106	105			0.837
EPA 365.1 Rev. 2.0	Total-P	107	106	102			3.20
	Total-P	103	104	103			1.14
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	100	99.8			0.500
SM 2320 B-2011	Total Alkalinity	97.2				0.983	
	Total Alkalinity	97.4				0.0861	
SM 2540 D-2015	TSS	101					
SM 4500-F- C-2011	Fluoride	100	101	100			1.01
	Fluoride	102	101	99.7			0.966
SM 5310 B-2011	Organic Carbon	96.8	101				0.0729

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2373026, 2373027
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2373028, 2373029
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2373028, 2373029
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2373028, 2373029
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2373028, 2373029
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2373030, 2373031
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2373026, 2373027
SM 2540 D-2015	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2373026, 2373027
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2373026, 2373027
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2373028, 2373029

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	12/06/2022			12/06/2022 14:41	Anna M. Plaviak	2373026
	12/06/2022			12/06/2022 14:42	Anna M. Plaviak	2373027
EPA 350.1 Rev. 2.0	12/06/2022			12/16/2022 13:56	Ping Hua	2373029
	12/06/2022			12/21/2022 13:23	Judith K. Clark	2373028
EPA 351.2 Rev. 2.0	12/06/2022	12/12/2022 08:10	Judith K. Clark	12/13/2022 11:35	Judith K. Clark	2373028
	12/06/2022	12/12/2022 08:10	Judith K. Clark	12/13/2022 11:56	Judith K. Clark	2373029
EPA 353.2 Rev. 2.0	12/06/2022			12/07/2022 10:17	Beverly Y. Sanders	2373029
	12/06/2022			12/08/2022 11:26	Beverly Y. Sanders	2373028
EPA 365.1 Rev. 2.0	12/06/2022	12/07/2022 13:30	Adam P Silver	12/08/2022 12:38	Simonne.V. Calhoun	2373029
	12/06/2022	12/07/2022 13:30	Adam P Silver	12/08/2022 12:57	Simonne.V. Calhoun	2373028
EPA 365.1 Rev. 2.0 dissolved	12/06/2022			12/06/2022 16:00	Elise M. Gillis	2373030
	12/06/2022			12/06/2022 16:03	Elise M. Gillis	2373031
SM 2320 B-2011	12/06/2022			12/14/2022 05:23	Dale L. Simmons	2373027
	12/06/2022			12/17/2022 07:12	Dale L. Simmons	2373026
SM 2540 D-2015	12/06/2022			12/08/2022 15:34	Yijie Li	2373026, 2373027
SM 4500-F- C-2011	12/06/2022			12/14/2022 05:23	Dale L. Simmons	2373027
	12/06/2022			12/17/2022 07:12	Dale L. Simmons	2373026
SM 5310 B-2011	12/06/2022			12/13/2022 16:27	Khloe J Berg	2373028
	12/06/2022			12/13/2022 16:43	Khloe J Berg	2373029